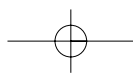
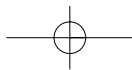


Mastering Skills for the TOEFL® iBT

TRANSCRIPTS

Listening Section / Speaking Section / Writing Section / Practice Test





Listening

Note: Highlighting indicates a repeated listening sample.

Chapter 1

Skill A

01 Campus Life

- W:** Hey, I saw you guys playing softball. Could I join your team?
M: Well, we're full right now actually. Are you signed up in the intramural sports league?
W: No, how does that work?
M: Go to Withurst Hall room 304 and fill out a form to sign up as a free agent. Then, if a team needs a player, they can select you from a list. You just have to sign up and pay the fees.
W: Fees, huh? What are those like?
M: Well, they're 30 dollars per player for a season if you're on a team. I'm not sure about free agents.

02 Sociology

- M:** Could you explain the differences between preindustrial, early industrial, and mature industrial populations again?
W: Of course. A preindustrial population, like say, a tribe, has a high death rate and a high birth rate. Many people die, but many new babies are born, too. So, their population is stable. A mature industrial population, such as the US, has low birth and death rates, so the population is also stable in theory. On the other hand, an early industrial population, like India, can achieve low death rates but still have high birth rates, so it experiences a population explosion. Thus, it differs from the other two.

03 Literature

- M:** I noticed that many of you wrote in your term papers that Shakespeare invented the sonnet. This is a fallacy. Shakespeare did popularize the sonnet in England, but it had been in existence in Italy for two centuries before that. Sonnets were being written in Italian as pastoral love poems. If you recall from earlier lectures, it was Petrarch who refined the form and set the standard for the Italian sonnet, with two parts, the first part being eight lines and the second part six lines. Shakespearean sonnets, on the other hand, have four parts: three quatrains, or four-line parts, and one couplet, or two-line part.

04 Campus Life

- M:** What can I do for you?
W: I really wanted to take Chemistry 221 with you, but the class is full.
M: Is it a required course for you?
W: Yes, it is. I'm majoring in chemistry.
M: I presume you have the prerequisites, then?
W: Prerequisites?
M: Prerequisites are those courses that you need to have completed in order to enroll in any given class. The prerequisite for Chemistry 221 is Chemistry 100.
W: Oh, yes of course.
M: In that case, you can enroll in the class.
W: But the class is full. Don't I have to put my name on a waiting list or anything?
M: No, not for required courses. Anyone who needs to take a class to fulfill their course requirements is permitted to enter.

05 Geology

- W:** The two main types of glacial erosion are plucking and abrasion. Plucking occurs when blocks of rock are pulled away from the bedrock. The glacier works like a backhoe. Water flows into cracks in the rock. It then refreezes and expands, causing the chunk of rock to separate from the bedrock. A glacier can then pick up these loose chunks as it passes over the bedrock. This process creates a lot of loose debris, which causes abrasion. Now, abrasion works like sandpaper with the debris grinding away at the bedrock. If the debris is coarse, it will create long grooves in the bedrock called striations. On the other hand, if the debris is fine, it will create a smooth surface.

06 Health Science

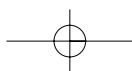
- M:** One commonly pasteurized product is milk. By decreasing the amount of dangerous bacteria present, milk can be made safer to consume. It also lasts longer after it's been pasteurized. The most common pasteurization procedure is high temperature/short time (HTST) pasteurization. The milk is kept at 72° Celsius for at least 15 seconds. That is the high temperature — 72 degrees — for a short time — 15 seconds. This allows the milk to remain fresh for two or three weeks if refrigerated. For longer-lasting milk, the ultra high temperature (UHT) method is used. This milk is heated to 138° Celsius and held there for only two seconds. Milk pasteurized under the UHT method can remain fresh for up to two or three months.

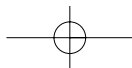
07 Campus Life

- M:** Hey Josie! You assessed Peter's presentation didn't you?
W: Yep. I thought he did pretty well.
M: Me, too. How did you actually fill out the assessment form?
W: Well, I noted down the main ideas, the strengths, and then one thing that could be improved, like how Peter was chewing gum during the presentation.
M: (Laughs) OK. That's it?
W: No, then I graded him on several areas from 1 to 4, 4 being the best. Like, I gave Peter a 4 for eye contact because he didn't look at the floor at all.
M: I see. You know, I asked because I'm assessing you next Thursday.

08 Journalism

- W:** The scholarly method involves careful analysis and interpretation of information. Information must come from somewhere. These are the sources. There are three types of sources: primary, secondary, and tertiary. Primary sources come from documents created by people who witnessed events first hand. A person's diary is an example of a primary source. When information from primary sources is interpreted by others, it is called a secondary source. For example, if someone read that diary, compared it to newspapers from the same period and wrote about it, this would be a secondary source. If someone then read that secondary source and created a new document, that would be a tertiary source.





Skill B

01 Campus Life

- M:** I'd like to audition for the jazz band.
- W:** What is your name and instrument?
- M:** I'm Roger Watkins, and I play the trumpet.
- W:** OK, that's Roger Watkins on trumpet.
- M:** Do you have any pointers for how to prepare for the audition?
- W:** Well, you will be tested on style, tempo, dynamics, scales, tone, range, and sight-reading.
- M:** That's a lot of stuff. What is the most important?
- W:** You'd better have your scales memorized and be ready for sight-reading.
- M:** I know my scales. I've played the trumpet since middle school. So, I'll focus on my sight-reading.
- W:** On the day of the audition, be sure to arrive early and give yourself plenty of time to warm up. That's very important.

02 History

- W:** Alexander that Great began his quest to conquer the world at the age of twenty, when he became the king of Macedonia. That's probably the same age as many of you here. He and his army defeated the then-powerful Persian Empire and continued to acquire vast amounts of territory. At the time of his death, he ruled the largest Western Empire of ancient times. Some remember him as a charismatic leader whose purpose was to foster East-West relations. Others say he was a brutal killer who was only interested in personal glory. Most historians, though, do agree on one point: he was a brilliant military strategist and leader.

03 Paleontology

- M:** Fossils tell us about organisms that lived in the past. Actually, most people don't realize it, but fossil preservation is quite rare. So, we know very little about most of the organisms that came before us. The reason that fossil preservation is rare is that, in order to be fossilized, an organism must meet three specific requirements. First, it must be made of a substance that is preservable. Hard substances like bones or shells are highly preservable. Second, it must be buried in sediment, which protects it from decay. Third, the organism must have lived in a suitable environment, such as a shoreline. That's where dead animals would most likely be covered by sediment before they decay.

04 Campus Life

- W:** Sorry guys, this court is reserved from 3:00 to 4:00.
- M:** Reserved? For what?
- W:** Some other students registered to reserve this court over a week ago.
- M:** How do you do that?
- W:** You go to the gym office during office hours, tell them when you want to reserve the court, and then present your student ID card. Then, they'll authorize the reservation.
- M:** That's not very fair. We were here first, and someone can just reserve the court for whenever they want?
- W:** No, you can only reserve one hour per week and only one week beforehand. Otherwise, the court is on a first come first served basis.
- M:** Well, I appreciate the info. Let's go, guys.

05 Physics

- W:** We are all here to learn physics, but why?
- M:** Because it's a required course?
- W:** (chuckles) That's probably true for most of you. In truth, you can come here and just memorize the formulae and get a decent grade, but I want you to learn physics as an activity, like you would learn to ride a bike. If you have to jump a ravine, I want you to be able to calculate the required momentum to get across. If there is a fire in your house, I want you to know the best course of action based on principles of smoke and heat diffusion. Physics is actually quite useful.

06 Art

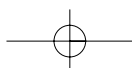
- M:** Masks have a long history in Western civilization, going as far back as the Greeks. They were first used in religious rituals to impersonate the god Dionysus. Obviously, rituals were not meant for entertainment, but these impersonations lead to full theatrical productions. Greek masks were made from painted leather or canvas. And like other masks you may be familiar with, these Greek masks exaggerated facial features. They also helped amplify the actor's voice, and allowed one actor to play multiple roles. Later, masks were important in medieval morality plays. Medieval masks were made from paper mache and represented demons, devils, and the seven deadly sins.

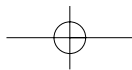
07 Campus Life

- M:** Why do we have to do a pre-lab report?
- W:** Well the reason we do pre-lab reports is to ensure we understand what we are studying and what we are about to do.
- M:** What does it involve?
- W:** Exactly that: we state the purpose and outline the procedure.
- M:** OK, so I start with the purpose.
- W:** That's right. Your purpose states what you are going to do and what you expect to find.
- M:** Should I talk about my — what was it called — my hypothesis?
- W:** Absolutely. Then outline the procedure in a flow chart.
- M:** So, I should write it in this order: purpose, hypothesis, and procedure.
- W:** Yes, and please do it all in your own words. Plagiarism will be punished harshly.

08 Drama

- W:** So, theater is a kind of art, but what kind is it?
- M:** Didn't you say it was a performing art?
- W:** That's right. Remember, we have three kinds of art: literary, visual, and performing. A performing art has two necessary and sufficient conditions. First, it requires a creator, interpreter, and an audience. And second, the audience and interpreter must be in the same place. Some examples of performing arts are dance, music, and opera. Film, as we discussed last time, contains facets of both visual and performing arts. So, in order to make a film, performing artists and visual artists work in collaboration.





Skill C

01 Campus Life

- W:** How do you always pull off such high grades in English, Harry?
- M:** I use a computer flash card program to remember the irregular forms. It makes studying kind of fun.
- W:** Huh? How does that help?
- M:** Well, it displays a verb, like “freeze” for example. Then, I have to type in the simple past and past participle forms.
- W:** That would be “froze” and “frozen,” right?
- M:** Right. If I screw up, then it comes up again at the end of my list.
- W:** Wow, so it reinforces your shortcomings.
- M:** Yeah. It also provides adjectives with synonyms, phrasal verbs with definitions, and it has grammar exercises as well.

02 Sociology

- M:** Who was Mother Teresa, then?
- W:** The Indian nun?
- M:** Actually, she was not Indian, but Albanian. She grew up in modern day Macedonia, when it was encompassed within the Ottoman Empire.
- W:** But she did live in India, right?
- M:** That's right. She went there as a missionary with Irish nuns. She later started her own religious order to work with the poorest and sickest people. She even did special training with an American Medical Mission. She was truly a remarkable lady. She fed and taught abandoned children who lived in abject poverty, and she gave comfort to the dying. In 1979, she received the Nobel Peace Prize for her valuable work.

03 Ecology

- M:** What exactly are the problems with the intertidal pools on the California coast?
- W:** For one thing, intertidal pools were once some of the most bountiful reservoirs of marine life on the planet. It's now difficult to find a single animal in them, mainly due to poaching and a lack of education. People remove buckets of snails from the pools and use them as fishing bait. Or they pour chemicals in the pools to catch baby octopuses. It's shocking. Or they scrape pool rocks bare to collect barnacles. Most people are unaware that these areas are protected by law.

04 History

- M:** History can illuminate the value of tea. In the past, quality tea has been considered more valuable than gold. Tea has even been the impetus for war, like the American Revolution.
- W:** I thought that war happened because Americans didn't want to be ruled by the British. What did it have to do with tea?
- M:** One of the incidents that touched off the Revolutionary War was a shipment of tea being dumped into the ocean by a group of Americans. Haven't you heard about the Boston Tea Party? It wasn't a party at all. It was one of the first aggressive acts of the revolution.

05 Health Science

- M:** Pets actually bestow many benefits upon their owners. For example, studies have shown that with elderly people, having a pet nearby lowers their blood pressure and raises their spirits. So, for all of you with grandmothers or grandfathers living alone, maybe your next gift to them should be a puppy. Another pertinent study from Britain showed that pets seemed to help fight disease. The study found that people cohabiting with pets had a lower risk of heart disease and recovered more quickly from heart attacks than those who didn't live with pets. The study also found that pet owners suffered fewer colds, headaches, and fevers than people who didn't own pets.

06 Campus Life

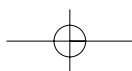
- M:** Did you hear the weather report, Jenny? It looks like the weather will clear up by Friday.
- W:** Awesome! That means we can take our class trip to the mountains after all. I was afraid our prof would have to cancel it.
- M:** I am really looking forward to the hike.
- W:** Yeah. This will be my first time hiking in the mountains.
- M:** Are you kidding? They're so close. I go up there most weekends with my friends.
- W:** I guess I'm just not the outdoors type. Are the trails on the mountain quite arduous?
- M:** Not really. Most of them are no sweat. Hiking on them is just like taking a nice long walk through the woods.

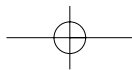
07 Paleontology

- W:** Sixty-five million years ago, dinosaurs were ubiquitous. Then, they all seemed to die very suddenly. So what happened? Many scientists believe that the dinosaurs were wiped out by a colossal meteor. According to this theory, a meteor ten kilometers wide hurtled into the Earth. This collision propelled dust and dirt into the sky. Imagine a really cloudy summer day. It's a lot cooler, right? Well, every day was like that for a long time after the collision. Because it was much darker and cooler, many species of plants began to die. Soon, there was no food source for plant-eating dinosaurs, and when they died, there was no food source for meat-eating dinosaurs. The only animals to survive were small ones able to subsist on many different kinds of food.

08 Campus Life

- W:** I'm having problems logging in to the Spanview system. It alleges my password is invalid.
- M:** Hmm, when was the last time you logged in?
- W:** Beats me — sometime last winter, maybe.
- M:** Well if you haven't logged in for 180 days, you need to procure a new password from the registrar's office. Try that first. If that doesn't help, then maybe someone else has gotten a hold of your username and password.
- W:** Ooh. What do I do if that's the case?
- M:** Use your secret question, probably your mother's maiden name, to regain control of your account. That should solve your problem.





Chapter 1

Skill Review

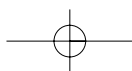
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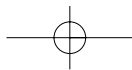
01 Campus Life

- W:** Good morning. I was wondering if you could give me some information about the Credit-by-Exam system.
- M:** Yes, of course. What would you like to know?
- W:** Well, first of all, I'm not really sure what credit-by-exam means.
- M:** OK. It is basically a combination of the tests administered by the departments of this university, the College Level Examination program, and other nationally recognized credit-by-exam programs.
- W:** Right. I know it's some kind of test, but I'm still not quite sure what exactly that means. Can you explain it in a little more detail?
- M:** The Credit-by-Exam system gives students a chance to take exams even if they are not registered in particular courses. For example, you want to take an exam in say, English composition, but you don't want to take an English composition class. You register for credit-by-exam, and if you pass the exam, you get the credit. So, you can demonstrate competence attained by educational experience, rather than university instruction.
- W:** So, I can take various exams, even if I didn't register for that course, or didn't attend any of the classes or lectures, and I can still get credits for taking those tests?
- M:** That pretty much sums it up.
- W:** Now, is it possible to get credits for graduate courses? I'd kind of like to combine my undergraduate degree and a master's degree at the same time, if that's possible. If I could get my BA and an MA at the same time, that would be great.
- M:** It would certainly save a lot of time, but I'm afraid that this is only for certain undergraduate courses.
- W:** Oh, well.
- M:** And of course, I hope you realize that guest matriculants are not eligible for credits.
- W:** I'm sorry? Guest matriculants?
- M:** I mean students who have been admitted to the university through an external program, but are not actually registered as full-time permanent students of this university.
- W:** Exchange students and that kind of thing?
- M:** They would fall under that category, yes, and extended studies students, too.
- W:** I'm a little worried about how the credits would appear on my transcript. Will there be anything on my transcript to indicate that I did not actually attend classes? I'm afraid that might affect my chances of being accepted to a graduate program if I have not actually attended the classes.
- M:** There will be nothing to show the credits were earned under the Credit-by-Exam system, but I don't think you need to worry. Each department has very strict eligibility criteria for students, and everyone taking a test is expected to have quite an extensive knowledge of the area to be tested. The credits you receive through testing are just as valid as credits received in the regular way. In any case, only a select few universities are being allowed to participate in the system, so academic standards are being tightly monitored.
- W:** Do you have a list of the courses for which students can receive credit by exam?
- M:** Yes. Why don't you take this information package, take a look, and give me a call if you have any more questions?
- W:** Great. Thanks.

02 Communications

- W:** You are giving a talk in front of a group of people. You've assembled all the relevant facts. You've planned it well, and your delivery is strong, but your audience doesn't respond or, even worse, they are giving you a negative response. What went wrong? Well, it is probably not what you are saying out loud that matters. The problem stems from what your body says, or in other words, your body language. By body language I mean things as simple as the way you stand, or, say, folding your arms across your chest. Body language includes the gestures and movements people make when they communicate. I can't stress enough how important this is. All too often, people just don't pay attention to their body language. If we go back to our earlier scenario of giving a talk for a moment, you might think you are communicating a clear message when you speak, but if your body is sending a different message, well, then your audience is just not going to react as you had hoped. You think you are a competent speaker, but if they see you slouching, not making eye contact, or pulling your earlobes, the audience will not feel confident that they can trust what you are saying. They may even stop listening.
- You know, we start to read each other's body language from a very young age. Anytime we speak, the other person is checking our gestures and movements to see if they match what we are saying. You may not be aware of doing this, but we all do it. It comes naturally and is something we learn to do very well over time. If you think about your friends or your co-workers for example, after a while, you get to know their moods just by observing their body language or gestures. You know, your boss has a certain facial expression when he or she is upset, or maybe one of the guys in your office taps his fingers on his desk when he is feeling irritable.
- An effective communicator will use what he or she sees in other people and take advantage of it. Even more important, however, is knowing and understanding your own body language. If you can exert a certain degree of control over the messages given by your body, you will be able to manipulate the responses of other people. You need to be aware of what your body is saying if you hope to succeed. Let me ask you a question. When we meet people and talk to them, they receive information from us. What percentage of that information comes from what we say, I mean the words we use when we speak? Any guesses? Yes?
- M:** Umm, maybe 75%?
- W:** Good guess, but I'm afraid not. Anyone else?
- M:** I'd say about 50%.
- W:** Wrong again. Would you believe that just 10% of the information is in the words? That means that 90%, the vast majority of that information, is in our gestures, our expressions, our tone of voice, and — well, all of the other stuff.
- Now, I'd like to give you some examples of body language that you might like to consider in your daily life. We don't have much time, so I'll focus on just a few aspects. Remember, I'm just giving you an introduction here. I'm sure you'll recognize a lot of these as things you often do yourself.
- Eye contact. How do you feel when you are talking to someone, and they make very little or no eye contact? You feel they are disinterested, don't you? Or what if they make too much and they seem to be staring? Either way, you are not going to form a very good impression of that person.
- Most of us do it all the time, but folding your arms across your body is very negative. It says "don't approach me, don't come





any closer.” That is not something you want to say at a job interview. Hold your body upright, keep it open and relaxed, and align yourself to place your body face to face with the other person. Then, they’ll think you are honest and truthful. So, make a mental note to check your body language to make sure your body is saying the same thing as your mouth. With practice, you can send the desired message every time.

Skill D

01 Campus Life

- M:** Are you campaigning for the senate this year?
W: I hadn’t thought about it. What does it involve?
M: Student senators decide what to do with the money we pay in student fees, and they deal with all of the organizations at the university. **Stuff like that.**
W: Who’s eligible to run?
M: You have to be a full-time student and have at least a 2.0 GPA.
W: So, if you are elected, are you in until you graduate?
M: No, it’s just a year. Then, you can be re-elected. You can be kicked out, too, if you don’t attend the meetings.
W: Sounds interesting. I’ll mull it over.

02 Economics

- W:** Money is something that can be exchanged for goods and services. It has several uses. One is that it is a medium of exchange. **It is a lot easier to do business in a money-based economy than a barter-based one.** Currency, or money, gives people a lot more flexibility in spending than trying to buy things with chickens or bags of grain. Money is also a way to measure value. When things are given a monetary value, we can compare their costs and values. Thirdly, money is an asset. We can put aside some money and use it at a later date.

03 Music

- M:** A chord is the sound created when three or more different notes or pitches are played simultaneously or relatively close together. Some combinations of notes are more popular than others, so normally only those three-note groups that are commonly used are called chords. On top of that, different genres of music tend to favor some chords over others. For example, power chords are often used in hard rock. They involve only two pitch classes. This is why power chords are common in this genre. **Rock music involves a lot of distortion, and the power chords can avoid a lot of surplus noise.**

04 Campus Life

- M:** Excuse me, sorry, how do I know which textbooks I need?
W: It’s listed in the course schedule for some classes, but it’s best to go to the first class and get the syllabus to be sure. Textbooks are pretty expensive. **You don’t want to buy one you don’t need.**
M: OK. Are there any used textbooks?
W: Usually. They’re half off and are stacked next to the new ones. Look for the blue label. First come, first served.
M: Uh huh. If I get the wrong book, can I get a refund?

- W:** Yes, within seven days of purchase. However, you must bring back the receipt, and the book must be in the same condition as when you bought it.

05 Ecology

- M:** **Three major biomes will be on the test:** the tundra, the desert, and the grasslands. Let’s go over them. The tundra is a polar desert — little precipitation, long cold winters, no trees, and a full range of daylight hours, from 0 to 24 hours. Grasslands are found inland, have hot summers and cold winters. Grasslands get 15-30 inches of rainfall annually. And remember that there are two types — tallgrass and shortgrass. Tallgrass grasslands have thick fertile soil. Shortgrass grasslands have thinner soil. Deserts are located within 20-30 degrees of the equator. They have hot days, cold nights, and little rainfall — only about 1-10 inches of rain per year.

06 Religious Studies

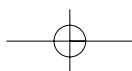
- W:** So, welcome to Religion and Morality. I hope you are all as excited to learn about this topic as I am to teach it! We will be spending a lot of time discussing what, if anything, the connection between religion and morality is. A lot of our moral vocabulary originally came from religious institutions. Religious groups today often make ethical prescriptions for their followers, take public stances, and participate in political activism on several key issues. God, of course, is a huge question. We will begin with the assumption that there is at least one God who is good. Later, we will examine the opposite assumption, that there is no God. The big question is what implications these assumptions have regarding morality.

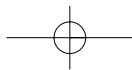
07 Campus Life

- W:** Remember, these swimming drills are not for fitness. They are for recovery.
M: I understand. **I’m not trying to get in shape.**
W: That’s right, and that’s important because you don’t want to overdo it.
M: So, I should swim slowly?
W: Yes. You should be very relaxed and keep your heart rate down.
M: So, what is the goal of these sessions?
W: The most important thing is getting your balance. The goal is to have perfect form throughout the session. Your neck and spine should be aligned at all times.
M: How is that possible?
W: Only your hips and your chin rotate.
M: OK, I’ll try.

08 Botany

- W:** The fruit of a rose is called the hip. Most rosehips are red, but a few species, like *pimpinellifolia*, have dark purple or black hips. Each hip typically contains five to twenty-five seeds enclosed by stiff hairs. The hips of some species, particularly *canina* and *rugosa*, are very high in vitamin C, making them a vital food source for some birds. Now, I’m sure you are all well aware that most rose plants have thorns. They are usually hook-like and have evolved to help these plants hang on to other plants when growing over them. The *rugosa* and *pimpinellifolia* species, however, have tight clusters of straight spines instead — perhaps to inhibit sand erosion.





Skill E

01 Campus Life

- M:** Your English is really progressing, Maria.
- W:** It's all thanks to my language partner.
- M:** What do language partners do?
- W:** Well, they get together with foreign students for one or two hours a week and help them practice casual conversation.
- M:** Is that all?
- W:** No. Most partners explain Canadian culture and go to concerts and parties together. Mine has shown me some tremendous attractions here in Vancouver.
- M:** Isn't it kind of expensive?
- W:** No. The partners are all volunteers. It's a great way to make friends and practice English with a native speaker at the same time. My partner has really helped me adjust to life in Canada.

02 Physics

- W:** What is the truth about light wave theory? For many years, scientists were in disagreement. Newton hypothesized that light traveled faster in a denser medium, like a wave. On the other hand, Christian Huygens, in 1690, postulated that light waves slowed down in a denser medium, like particles. The problem was that it was impossible to measure the speed of light accurately. However, in 1850 Leon Foucault made the first accurate measurement. His result supported the wave theory for light. The theory was accepted until the late 19th century when Einstein discovered that light striking a surface caused particles to change their speed. This marked a return to contradiction and disagreement.

03 Geography

- M:** Did you know that the Mediterranean is part of the Atlantic Ocean? Though attached to the Atlantic, it is also a sea almost completely flanked by land — Europe to the north, Africa to the south, and Asia to the east. That is how it got its name. The name of this body of water comes from the Latin *medi*, which means middle, and *terra*, which means land. So even though it's a huge body of water, its name literally translates as "middle land." It has a long history of civilization and was instrumental in facilitating marine transportation in ancient times.

04 Campus Life

- M:** How do I register for a student union class?
- W:** Just head up to the 3rd floor of the student union building.
- M:** OK. Thanks.
- W:** Oh, wait. Is the course you want to take work related? If it is, you might want to register at the student employment office.
- M:** Actually, it is. I'm an aspiring bartender. I was hoping to get my bar skills certificate so I could apply for a position in a bar.
- W:** Is the bar here on campus?
- M:** Yes.
- W:** In that case, I would recommend registering at the student employment office. That way you can automatically apply for the bartending job when you register for the course.
- M:** That's great! Thanks a lot.

05 Political Science

- M:** After the first World War, the League of Nations was established for the purpose of settling conflicts between countries peacefully. As we know from the outbreak of World War II, they ultimately failed in their objective. The league lacked strength because it didn't have an army. It relied on its most powerful members to enforce its resolutions, but these countries were reluctant to do so. Britain and France, after World War I were largely pacifist and therefore reluctant to use force against Hitler's growing military regime. In the 1930s, the fascist powers left the league, and eventually World War II brought an end to the League of Nations. But the League did have one lasting effect...

06 Art History

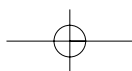
- W:** Impressionism was a movement that began in the visual arts and then extended into music. Does that surprise some of you? Impressionist painters broke away from the tradition of creating life-like depictions. They used light and color to portray the impact or feeling of a subject. And soon after impressionism was established in art, musicians began applying its maxims to their compositions. They aimed to create the feeling of color and light in their music. Some impressionist musicians actually composed music as interpretations of paintings. Impressionism in both painting and music aimed to portray the impact or feeling of a subject rather than a literal depiction. So let's listen to a piece and analyze how a composer can do this.

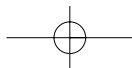
07 Campus Life

- W:** Excuse me, could you tell me where the campus post office is located?
- M:** It's on the first floor of the student union building, next to the information desk.
- W:** Do you know its hours of operation?
- M:** 7:30 to 3:30, but during the summer, it opens later — at 8 a.m.
- W:** So, from next month it will open at 8 a.m. I see. Do they sell envelopes and stuff like a regular post office?
- M:** Yes. They primarily sell stamps and envelopes, but they carry other relevant postal products as well.
- W:** Do they have a post office box service?
- M:** Yes. P.O. boxes can be rented for \$5 a month.
- W:** That's five bucks per month?
- M:** That's right. That's the same price you'll find at off-campus post offices, too.
- W:** Is that right? Then I might as well rent one on campus.

08 Photography

- M:** The process of taking a photograph involves exposing film to light. The amount of light that falls on the film is called the exposure. Hm. This is all something you'll have to do, so let me try to clarify that. Exposure is controlled by the lens aperture (the size of the hole letting in the light), and the shutter speed (the amount of time that the hole is opened for). Now, when planning exposure, a photographer considers reciprocity. This refers to the reciprocal relationship between aperture and shutter speed. For example, a slow shutter speed means that the film is getting more exposure to the light. Therefore, a smaller aperture is required. Similarly, a wide aperture requires a faster shutter speed. So, you must first determine the exposure and then adjust the aperture and shutter speed appropriately. Any guesses about how you can determine this?





Skill F

01 Campus Life

- M:** Umm, I need to apply for a room change. I'm having some problems with my roommate. Is this where I'm supposed to come?
- W:** Yes, it is. However, we don't grant room change requests except under special circumstances. If you have a roommate conflict you have to try to resolve it first using the conflict resolution procedure.
- M:** Oh, all right. What's the procedure?
- W:** Basically, you get all the roommates involved together and each one conveys their perspective. Then, you make a plan on how to resolve the problem, and each roommate commits to making the necessary changes. After one month, there's a formal review.
- M:** OK, thanks. I guess we'll try that then.

02 Communications

- W:** The most important element in communication theory is input. Input includes all of the information we receive from the external world. People have the ability to filter this information if there is too much of it. There are biological and psychological filters. Biological means a person can only process and retain so much information at a time. For instance, a student cannot remember everything said in a lecture, so he or she takes notes on key points. The psychological filter is like selective attention, or "you hear what you want to hear." So, information a person is not interested in doesn't ever get processed.

03 Computers

- M:** A computer communicates with a printer via a parallel port. This means that the 8 bits within the byte are all sent simultaneously, instead of one at a time. We call this serial communication, and it occurs through serial ports. The printer port has 25 pins. Pin 1 tells the printer that data is being sent. Pins 2-9 transmit the 8 bits of information in each byte. Pin 10 relays the confirmation signal to the computer. Pins 11 through 16 are for various functions such as printer error, out of paper, print job ready, etc. Pin 17 takes the printer offline. 18 through 25 are grounding pins. Let's compare that to another port on our computer.

04 Campus Life

- W:** I'd like to get a parking permit for the summer months. I know permits are normally issued through a lottery. Is that the case in the summer as well?
- M:** No, ma'am. There is a lot less demand in the summer. You can simply purchase a ticket.
- W:** Phew. That's just what I wanted to hear! I know it is \$120.00 for the school year. How much for the summer?
- M:** \$12.00 per month.
- W:** Can I buy it here?
- M:** Yes. I just need to see proof that you are enrolled in a summer course.
- W:** I haven't enrolled yet.
- M:** Well, you need to do that first and then come back here to the parking office with the documents. Then, we'll take your payment and give you the permit.

05 Ecology

- W:** Many of you may be surprised to hear that pollution is not necessarily a detrimental thing. In fact, it is perfectly natural. All organisms create waste. This is a basic part of life. It is not even a problem that the wastes are toxic. Many organisms also produce wastes that are toxic to themselves. There are, however, two problems with human pollution. First, it includes materials that the ecosystem cannot break down. For instance, we created CFCs, but nature cannot process them, so they float up and eat away at the ozone layer. Secondly, human pollution occurs in quantities that overload the ecosystem.

06 Campus Life

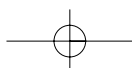
- M:** I just signed up for "Blast."
- W:** "Blast"? What's that?
- M:** It's a volunteering program.
- W:** Really? I've been meaning to do some volunteer work. What does it involve?
- M:** Helping freshmen students, conducting surveys, handing out flyers, making public announcements about events, and stuff like that. It's a good way to develop your public speaking skills.
- W:** It sounds great, but I don't have a lot of free time this year. I'm trying to get into law school.
- M:** Law school? Then it's perfect for you.
- W:** Yeah, I guess it would look good on my CV.
- M:** And it's not a big obligation — just 30 minutes every other week.
- W:** Is that all? I could handle that.

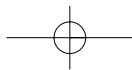
07 History

- W:** Today's topic is the Middle Ages. We've talked at length about the Roman Empire, and you're well-versed in Renaissance life, but what happened during the thousand years in between? The truth is, not much. There was a large migration of people into the former Roman territories, and this had a huge effect on society, law, culture, and trade. Life was arduous, which is perhaps why the one entity to survive the fall of the Roman Empire was the Christian Church. Since the Church promised a utopian afterlife to righteous followers, people had less incentive to fight to change their conditions here on Earth.

08 Biology

- M:** As you know, plants create oxygen. They do this through a process called photosynthesis. It is a chemical change occurring in the leaves of green plants whereby carbon dioxide and water are transformed into oxygen and glucose. Glucose can then be transformed into a starch and stored for later use. Oxygen is the "waste" of this process, but only in the sense that the plant gets rid of it. What is waste for the plant is an invaluable resource for the rest of us living creatures on Earth. In order for photosynthesis to take place, there must be chlorophyll, carbon dioxide, water, and sunlight.





Chapter 1

Skill Review

A-F

01 Sociology

M: Today, class, we're going to be continuing our examination of the nature versus nurture debate regarding human behavior. On the nature side of the argument, we have the belief that genes are more important than the environment in determining human behavior. Proponents of the nature argument believe that all human behavior is inherent and innate. This means that we are born sort of "pre-wired" to behave in a certain manner. Got it? OK, conversely, people on the nurture side believe that instead of being born pre-wired, the mind is a blank slate at birth. This means that we are born without any predispositions, that our genes do not influence our behavior. All of our behaviors are a result of experience and conditioning. What do you guys think?

W: Well, come on. Obviously, it can't all be in the genes. I mean, we have free will.

W: But then again, I don't really see how it could be all environment either. I mean, look at those twins you always hear about — you know — they're separated at birth and grow up in completely different environments, but then they turn out to have a lot in common.

M: I'm glad you brought that up, Ellen. Twins can tell us a lot about our genes. Think about it. Identical twins share 100% of their genes. In the womb, the egg splits in two after it has been fertilized by the father's sperm. Because the split happens after conception, the genes are the same. The twins come from the same egg and the same sperm, so they have the exact same set of genes. That's why they look exactly the same.

Fraternal twins, on the other hand, have a different set of genes. In this case, two eggs are released, before conception. Then, the two eggs are fertilized by two different sperm. Fraternal twins are no more alike, genetically, than any other pair of siblings. Normally, they share about 50% of their genes. So, by comparing the similarities and differences we see in identical twins with those in fraternal twins, we can learn about the influence that genes have on human behavior.

Think about intelligence. Some believe that people are born with a predisposition for intelligence. Others think that environmental factors influence how smart a child will grow up to be. So, researchers conducted a study that compared the intelligence of fraternal twins with that of identical twins. Now, all of these twins were from wealthy families, so we can assume that they had similar environmental advantages — good schools, good educational resources, etc. Now, they found that genetic predispositions accounted for most differences in intelligence. In other words, the studies found that with regards to intelligence, identical twins were more alike than fraternal twins. That means that genes do play a role.

W: So, you're saying that it is more common for identical twins to have similar IQs than it is for fraternal twins to have similar IQs?

M: According to this study, yes.

W: OK, but come on. Intelligence can't all be in the genes. Think about the implications. Surely there are studies that support the nurturists.

M: Indeed there are. Researchers looked at the IQs of both fraternal twins and identical twins who were raised in adequate conditions with those of twins raised in poor conditions. What they found was that when poverty is considered, environment is more important than genes.

W: Wait a minute! How did they figure that?

M: Well, twins raised in adequate conditions have less intellectual variation than those raised in poor conditions. Remember the first study when the environment was controlled, or kept the same? Identical twins were more alike than fraternal twins. All of these twins had the same educational advantages. What the next study found was that identical twins without educational advantages were not as similar as those who had them. Understand?

W: I think so.

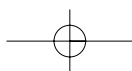
M: So, as you can see, nature and nurture are not mutually exclusive. Human behaviors are a result of an interaction between genetics and the environment. Of course, nobody believes that human behaviors are entirely genetic, but research such as twin studies suggests that there is probably a role for the genes in shaping the people we become.

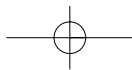
02 Biology

W: Everyone knows that the giant squid is, well, giant. It's extremely large, up to fourteen meters long. If it were swimming next to your boat, you'd definitely notice it. If it were swimming next to you in the ocean, you'd probably want to get out of the water as soon as possible. In any case, if there's a giant squid nearby, someone is going to see it, and obviously, people have reported first-hand accounts of giant squid sightings. The squid appears in all sorts of drawings and stories, dating back hundreds of years. It even appears in Herman Melville's classic, *Moby Dick*, published in 1851. However, even though it's easy to see when it shows up, it just doesn't seem to show up that often. This species has never been scientifically observed alive in nature. It has never been filmed, and there are no pictures of a full-grown specimen. Around fifteen dead ones are found every year, but there is not much we can learn from dead specimens. Several juveniles were caught near New Zealand in 2003, but very little was learned from them, since they all died soon after capture.

So, where are all the squid you may ask? They must be somewhere. After all, other animals eat them. They are common prey for sperm whales. Scientists have often found squid parts in the stomachs of sperm whales. Also, whales have been caught with scars on their bodies, which look like they were made by the suckers of squid tentacles. These suckers have rows of teeth, like oversized needles. If sperm whales often eat giant squid, then the squid must be fairly plentiful. In addition, the whales must know where the squid are. In fact, a recent attempt to find giant squid actually used sperm whales themselves. Scientists placed special video cameras on the whales. The scientists hoped that the whales would go looking for squid to eat, and in the process, would collect some useful video footage of the squid. This may have been a good idea. The whales did dive down to several hundred feet, so maybe this is where the squid live. Unfortunately, they found no squid, and the cameras only recorded black water.

What makes the giant squid so elusive? The most widely accepted theory is that the giant squid simply move around a lot. According to this hypothesis, the squid normally live about two thousand feet below the ocean's surface. This is where they do much of their feeding. We assume that these squid eat mostly fish. Fish





parts, particularly lantern fish, have been found in the bellies of dissected giant squid corpses. Because they are so big, the giant squid must eat a lot of fish. This means they're going to have to spend much of their time looking for sufficient food supplies. They wouldn't stay in any one place for long. The animals are also going to be looking for food at different depths. This explains why squid have been seen on the surface of the ocean at certain times. It may even be that giant squid mate at higher depths. All of this makes finding giant squid very difficult. There are some problems with this theory that the squid are always moving around, though. The most important one is that the squid, as I stated before, are frequently eaten by sperm whales. There are clearly enough giant squid to provide the whales with a lot of food, and the whales know where to find these squid in large numbers. If the squid really moved around so much that even one is difficult to find, how can sperm whales find and eat them so easily? It may be that the squid move to certain places at regular times. Sperm whales may know where these places are, and when the giant squid will be easy to find there. For the time being, there is no clear answer.

Chapter 2

Skill A

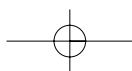
01 Campus Life

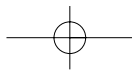
- W:** Hello, I'm one of students who needs to take the first aid certification course in order to go on the winter-break meteorological expedition.
- M:** OK, which course date did you want to sign up for? There are two courses offered every month, except for November, when we have three. The courses are all two weeks long.
- W:** What are the times?
- M:** Well, next month there are two courses. There's a morning and an evening course. The morning course is from 8:00 a.m. to noon, and the evening course from 5:00 to 9:00 p.m.
- W:** Huh, well you see I go to class during the day and work at night... There's no weekend course?
- M:** I'm afraid not. The expedition starts in January, right?
- W:** That's right, we leave January 3rd.
- M:** Well, you could take the course in December after your finals are over.
- W:** Huh, yeah I guess I'll have to. How much is this course?
- M:** It's 300 dollars, which includes all aspects of first aid, including CPR and mouth-to-mouth resuscitation.
- W:** Who's the course instructor?
- M:** Jeff Fulbright. He's a retired paramedic with over 35 years of experience. This is a nationally recognized qualification.
- W:** What is CPR exactly?
- M:** It stands for cardio-pulmonary resuscitation. Basically, it's what you perform on a patient who isn't breathing or whose heart isn't beating. It's like giving a car a jumpstart.
- W:** What do you mean?
- M:** Well, you know when you jumpstart a car, the battery is out of juice. So, you connect it to another car's battery using jumper cables and use the energy from the working car to revive the dead battery. After that, the battery should replenish itself and be OK.
- W:** Right.

- M:** Same principle. With CPR, the heart has stopped beating, so you kind of pump the heart back to life by applying pressure to the chest in rhythmic intervals. You're like the battery giving juice to the battery without juice. Hopefully, by doing CPR, you will get the heart to start beating on its own again.
- W:** That sounds like a handy skill.
- M:** Sure is. The course will also give you some useful procedures for your expedition, like how to treat hypothermia and frostbite.
- W:** That's good, though hopefully I'll never need it.
- M:** Hopefully, you'll never need any of the training, but it's better to have it and not need it than to need it and not have it.
- W:** Well, can I sign up for the morning course in December, then?
- M:** Sure, you can fill out this form and pay the 300 dollars in cash, by check, or debit card. Or, if you want to, you can register online at the website listed at the bottom of the form.
- W:** I see. Is there a registration deadline or anything?
- M:** The cut-off date for registration is one week prior to the start date, but it's best to register as far in advance as possible. It's rare, but sometimes the courses do fill up.
- W:** Well, OK, thanks for all your help!
- M:** No problem. Have a nice day.

02 Geography

- M:** Who can tell me which African country has the strongest economy? Of all the countries on the African continent, which one has the largest and most developed economy?
- W:** Kenya?
- M:** No, I'm sorry. Try again.
- W:** I would guess South Africa. It's probably got the most modern infrastructure of all the African countries.
- M:** And you would be right. Now, let me tell you a little bit about the place. First of all, South Africa is located at the southern tip of the African continent and is home to about 45 million people. One interesting tidbit is that it is one of the few countries in Africa that has never had a coup d'etat. A coup d'etat, of course, is when a group, such as the military, takes over the government. So, the South African government has never been overthrown. Today, it is one of the most stable democracies in that part of the world. Now, that's not to say that there haven't been problems in South Africa. I bet you can guess what I'm referring to.
- W:** Apartheid?
- M:** Very good. Who can explain apartheid?
- W:** Literally it means "apartness" or "separateness." I think it comes from Dutch, because the Dutch were the first European settlers there. Anyway, as I read somewhere, apartheid was the systematic segregation of the races. You know, like for example, non-whites had to use different toilets from white people.
- M:** Yes, under apartheid, the government maintained a policy of separating the white minority and the black majority. Keep in mind that we're talking about minority rule here. Early on, black people were barred from being members of parliament. It was a whites-only government. Now, apartheid was established in 1948 by the Nationalist Party. Effectively, black people in South Africa lived in a different world from that of the whites. They were required, by law, to live in certain areas called reserves and were denied the right to vote. There was a long struggle for democracy over the next fifty-odd years, and it was not just the black majority who wanted to bring an end to apartheid. There were other ethnic groups who suffered under apartheid as well. Just to give you an idea of the demographics, there are four major ethnic groups in South Africa. Under apartheid, they





were classified legally as black, white, Indian, and “colored.” Don’t confuse the term colored with the old derogatory term for black people in the United States. In South Africa, it meant people of mixed race. The term is still used today, but since many don’t like it, and since it has a different historical meaning in the US, I will use the term “mixed race” to avoid confusion. OK? Now, as I was saying, the demographics break down like this: 75% are black, 13.6% are white, 8.6% are mixed race, and then 2.6% are Indian. Now, like I said, the people of mixed race and of Indian descent supported the effort to bring down apartheid, and I should add that a few of the white people did as well. So, after a long and difficult struggle, apartheid was dismantled by F.W. De Klerk in 1990. Yes, do you have a question?

Wz: Does everyone speak English in South Africa?

M: No, not necessarily. Most people do, I think, but there are actually eleven official languages. English is one, and I’m sure you’ve all heard of Afrikaans? That’s the language of the Dutch settlers. It sort of evolved into a new language over the centuries of Dutch settlement. The most commonly spoken language that’s native to the area, I believe, would be Zulu. Then there are others, but I won’t get into them right now... They should be in your book.

Anyway, back to the different ethnic groups for a moment. You should be aware that South Africa has the largest population of people of European descent in Africa, and the largest Indian population outside of Asia. Not only that, it also has the largest mixed race community in Africa. Now, as I was saying earlier, South Africa has the largest economy of all the countries on the African continent. It has a labor force of more than 13 million people. If we look at a breakdown of those 13-million-or-so workers, we can see that 35% of workers are employed in services, 30% work in agriculture, 20% in industry, and 9% work in mining. The remaining 6% are employed in other fields. OK, so that’s some general information about South Africa’s demographics and economy. Now let’s talk about their education system.

03 Chemistry

W: I know you are all very familiar with the periodic table, but do you know the history of it? That’s what we are going to talk about today. OK, so as you know, the function of the periodic table is to organize chemical elements on the basis of their chemical properties. Over time, as we’ve learned more about the different elements, we’ve had to change the table. So, the table we know today has evolved over the years in conjunction with the science of chemistry. Originally, the elements were ordered according to their atomic mass in relation to the mass of a hydrogen atom, which is set at one atomic mass unit. Um, let me put that another way. The mass of a hydrogen atom is set at one. OK? And then using that as the standard weight, all other atomic masses are measured in relation to it. That was how things were done at first... how the table was ordered. Over time, certain recurring patterns were noticed with regards to the atomic mass of elements. For example, in 1817, Johann Dobereiner noticed that some elements could be grouped together in threes, and the grouping had to do with the relationship between the atomic masses. You see, he observed that for some groups of three elements, if you ordered them according to their atomic masses, you would find that the element in the middle would have an atomic mass that was halfway between that of the other two. In other words, the mass of the middle element was an average of the other two. Let’s refer to the periodic table in the book. Look at the elements lithium, which is Li number 3, sodium,

which is Na number 11, and potassium, which is K number 19. If you add up the atomic masses of all three, which we don’t have listed here on this table, then divide by three, your answer is the same as the atomic mass of sodium. That’s the Law of Triads. Another pattern was observed in 1863 by John Newlands. He devised the Law of Octaves. As you might guess from the name, it involves sets of eight. This law states that elements behave similarly to elements whose mass differs from them by a multiple of eight. In other words, every eighth element, when grouped according to atomic mass, has similar properties.

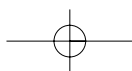
Dmitri Mendeleev is considered the “father” of the modern periodic table. What he did was he wrote out the names, atomic masses, and other properties of each known element on separate cards. Then, he ordered them according to their atomic mass. He noticed, like his predecessors, that certain properties repeated periodically. Not all of the elements fit the pattern neatly, though, so Mendeleev had to move some elements into new positions, despite their atomic mass. Although some nice patterns had been observed, the table was not yet perfect. So Mendeleev didn’t actually make the table we see in our book today, but he did put us on the path toward this table.

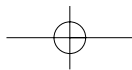
The problems Mendeleev had with his groupings were solved almost fifty years later when Henry Gwyn-Jeffries Moseley developed a system of assigning an atomic number to each element. Notice I said “atomic number” not “atomic mass.” Try not to confuse those two. An element’s atomic number is based on the number of protons within the nucleus of the atom of the element. So, the atomic number of an element is equal to the number of protons in the atomic nucleus. This proved to be a far more functional way to order the elements than by ordering them by atomic mass or by groupings. By ordering the elements according to their atomic number rather than their atomic mass, the problems with Mendeleev’s table disappeared, and hence, a far more comprehensive periodic table was born.

So now, as you can see in your book, the table is organized into rows and columns. Each row is referred to as a period, and each column is referred to as a group. In some groups, all of the members of the group display similar properties. In general, we can say that elements share more similar properties with other elements in the same group than with other elements elsewhere in the table. However, there are a few periods — or rows — in which the elements share significant similarities. Does that make sense? What I mean is that any given element is a member of two things: a period, which is identified by the row it falls in, and a group, which is identified by which column it falls in. Got that? And in some of the periods the member elements have similar properties. Then the columns are the groups, and within the groups many of the elements share physical characteristics and chemical behavior.

04 History

M: We’ve talked about Roman mythology, which was adopted from Greek mythology when the Romans took over Greece. So, the Romans basically worshipped the same deities as the Greeks, but changed their names, right? There were various deities like Jupiter, who was known as Zeus to the Greeks, and the Roman god Mars, who was Ares in Greek mythology. I won’t name them all right now. But basically, you should remember that the gods were typically associated with natural occurrences and other phenomena — kind of as a way to explain things that people saw around them. One example is this — in order to explain the movement of the sun across the sky, Romans believed, as did





the Greeks, that a god rode a chariot across the sky, carrying the sun from east to west each day. This god the Romans named Sol, which is where we get the word sun.

Anyway, that was the state religion of the Roman Empire (before Christianity was established, that is). As the Empire expanded, the Romans came into contact with foreign people with different beliefs. Remember, the Roman Empire was huge. At its peak, it included all of the countries around the Mediterranean Sea, and much of northern Europe as well. So, the Romans encountered a lot of different cultures. Now, the state generally tolerated the people's beliefs in the other regions, so long as they didn't interfere with the power of the state.

Before we begin talking about the Roman cults, I want you to understand that the term cult, as we are using it here, does not have the same negative connotation that it has today. We are simply talking about worship. The foreign cults of Rome were groups that did not worship the deities that were the norm in Rome. The foreign cults worshiped different deities. Over time, some of these gods and goddesses were incorporated into the Roman religion, while others were suppressed. So, what began as tolerance for other religious beliefs led to the gradual incorporation of some aspects of those other belief systems.

Some of the more well known deities of the foreign cults included Isis and Mithras. Isis was the Egyptian goddess of fertility and motherhood. Mithras was the Persian sun god who emphasized strength and courage in the battle of good and evil. These are two examples of deities who were accepted into Roman mythology. Some time around the fourth century, things changed in the Roman Empire. The cults related to all the various gods pretty much disappeared in Rome. Christianity became the new state religion. It had been gaining in popularity up to that time, but it was still in competition with the earlier cults. Christianity became the official religion of Rome under the emperor Theodosius. At this time, all other forms of worship were banned, and as such, the other cults either disappeared or were practiced in secrecy. It is interesting to note, however, that quite a few elements of worship from these earlier faiths were incorporated into Christianity. Perhaps this was done in order to appeal to a wider range of people. For example, the standard day of worship for Jews — I mean those Jews who became known as Christians — their day of worship was the Sabbath, the last day of the week. But this day of worship for Christians shifted from the seventh day of the week to the first day, Sunday, which is named for Sol, the god we were talking about earlier, who, by the way, was the most important deity in the Roman pantheon. Another example of a borrowed tradition is the use of evergreen boughs and trees to decorate the home in winter. This was a long-standing tradition among many cultures to celebrate the winter solstice and the return of the sun's strength. Today's tradition of a decorated Christmas tree is a direct descendant of those earlier practices. And while we're on the topic of Christmas, there is the interesting choice of December 25th as the celebration of Jesus's birth. This was also the traditional day on which the earlier Roman cults celebrated the birthday of Mithras.

To recap, then, the rulers of the ancient Roman Empire allowed foreign religions, including Christianity, to exist as long as they did not interfere with their power. During the first few centuries A.D., Christianity became more and more popular in the empire, and in the fourth century, it became Rome's official religion by decree of then-emperor Theodosius. In order to gain acceptance from a wide base of the Roman population, Christianity adopted many aspects of other predominant religions of the time.

05 Campus Life

M: Come in.

W: Excuse me, Professor Altmann? Am I disturbing you? I have a question about the exam.

M: No, come in, come in. What is it with you students? Always worried about disturbing me. Why is that?

W: Well, I don't know. Aren't professors really busy preparing classes and doing research?

M: Yes, yes, that's true, but you see — forgive me, what was your name?

W: Emily.

M: Ah yes, Emily. You see Emily, these office hours are not my time to be making class preparations or doing my research. This is my time that is available for the students. This is why I am here now. Your tuition fees are paying for my house and car and the hot dog I ate for lunch. In return, I teach you about human behavior, if I can, and I hold office hours for you to converse with me. You see, it's an — economic exchange.

W: Really? So we can just come in anytime to chat?

M: Well, yes. During the office hours, basically, yes, but it's always nice to be a bit prepared of course.

W: What do you mean?

M: Well, as you know, there are many students, and only eight office hours per week, so we want to use this time wisely and efficiently.

W: Oh, like I should prepare a specific question.

M: Yes, that's always nice of course. Having a specific reason is a great start and can accelerate the process. Some students, you know, they want to get a good reference, so they come by all the time just to chat so that I know them well. Although I certainly want to get to know the students in my classes, that's too much, you know.

W: So, mainly these office hours are just if we're having problems in the course.

M: No, no, also if you would like some, aah, further clarification of some concept as well, but if you do come in for a problem, don't just come in and say, "Oh no! Oh help! I will never pass, it is hopeless, please help me professor." Then, I have to spend an hour asking questions to ascertain the specific problem, and sometimes, students want me to figure out an adequate paper topic for them and get them started on their research. That is OK, but you need to come with some ideas, something to start with.

W: OK, that all makes sense. Wow, thanks for taking the time to explain this to me. I should have been taking advantage of the office hours system a lot more over the past two years. They really should explain this to us when we start at the university.

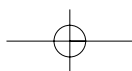
M: Ah, yes, this would make perfect sense, but do they do it? No. It needs doing, though. Then, I have to do it. You don't have to tell me.

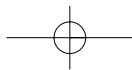
W: I wonder if there is some way to suggest it. Like is there someone in charge of freshman orientation who could be told about this problem?

M: That sounds like an excellent question for your academic advisor.

W: Oh, you're right. I'll have to ask her the next time I go see her.

M: Anyway, Emily, how can I help you today?





06 Business

W: TM. We are all used to seeing the symbol of a tiny T and a tiny M in the top right-hand corner of the name or logo of a company, but what does that TM really mean? Today, I'm going to explain just what a trademark is and what function it serves. Trademarks are an important part of brands and branding. I will start by defining trademarks, and then I will move on to explain different kinds of trademarks. OK. Generally speaking, a trademark can be defined as any word, name, phrase, design, logo, or picture implemented by a company to identify its goods and differentiate themselves and their products from the competition. That was a long definition, so let me repeat it for you. A trademark can be defined as any word, name, phrase, design, logo, or picture implemented by a company to identify its goods and differentiate themselves and their products from the competition. Trademarks are registered. That means companies notify a particular office in the country where they operate about the trademark. We could say that a trademark is a kind of ID badge, so to speak. Can anyone think of any examples of well-known trademarks?

M1: Well, how about Coke?

W: Good example. That particular name can only be used by the Coca-Cola Company precisely because it is a trademark. When a company owns a trademark, it can enforce its use and protect its rights by preventing unauthorized use of the product's name or design. So, for example, no other company can call their drink "Coke" and no one can copy the Coca-Cola logo without permission. So, here we have the basics of trademarks. However, their use is not without problems, which brings me to genericized trademarks. Does anyone know what I mean by that?

M2: I guess it must have something to do with generic products. Like, for example, Q-tips. The real name of the product is a cotton swab, but most people call them Q-tips.

W: You hit it on the nose. That's exactly what a genericized trademark is. Sometimes a trademark becomes synonymous with the generic name of the products or services to which it relates. It then replaces it in everyday speech and makes it difficult for the company to exert its proprietorship. Trademark owners need to be careful not to lose control of how their trademark is used. Like you said, Q-tip is a good example. Another one is the Bikini. I'm sure no one here today identifies "bikini" with any one particular company. To most people, a bikini is any two-piece swimsuit for women. Can you think of any other examples?

M1: Is aspirin a genericized trademark?

W: Yes. Very good. Some other well known examples are kleenex and popsicles. Anyone surprised? I see that a few of you are. Next time you're in the store, you might recognize a few more. OK, so when a trademark becomes genericized, it's a problem. But what can a company really do? The best thing to do is to try to prevent it from happening. One way to prevent it is to avoid using the trademark as a verb or noun. A good example would be Rollerblade. Rollerblade can be used as a noun or as a verb. Someone might say, "I bought some new Rollerblades," referring to any new inline skates, or they might suggest going rollerblading. A good way for a company to prevent this from happening is to discourage generalization of that company's name in their marketing. That reminds me of another example. Do you remember the old Band-Aid commercial? "I am stuck on Band-Aid, cause Band-Aid's stuck on me!"? That's another example, isn't it? Band-Aid. What that company did was change their jingle to "I am stuck on Band-Aid brand, cause Band-Aid's stuck on me." That reinforced the idea that Band-Aid is a brand and not a product name. Another example is Xerox. Because that was the

first brand of photocopiers, people started saying that they were "xeroxing" a document. Xerox then started an extensive marketing campaign to push the word "photocopying."

M2: But, wouldn't it sort of be in the company's interest for generalization to happen?

W: Well, it certainly is a good sign for the company if their brand is genericized. That means it's popular, right? And it's true that many companies overlook the day-to-day use of their brand name to describe a product. However, there is a risk of losing control of your trademark. You see, it is possible to lose the rights and protection of the trademark if the name becomes too common. For example, Sony had registered the "Walkman" as a trademark, but the word became so commonly identified with the product, that they lost their rights to the brand name.

Skill B

01 Campus Life

M: Is there something I can help you with?

W: Yes, I have a few questions about that online tutoring service. I can't remember what it's called.

M: You mean Smartthinking.com? I think I can probably answer any questions you might have. What would you like to know?

W: Well, I'm thinking of enrolling, but there are a couple of things I'd like to know first. Like for one thing, are there any restrictions on log on times? I usually do my work late at night, so it won't be much use to me if it can only be accessed during regular working hours.

M: Not to worry. You are free to log on anytime, anywhere.

W: That's good to hear. I've also heard that there is some kind of writing clinic or something. What can you tell me about that?

M: Ah, you mean the writing lab. Yes, what that is is a tool to help you improve your writing. You can submit your writing to the online writing lab, and you will receive a critique with some constructive criticism to help you develop your writing skills. It's also open twenty-four hours a day, seven days a week.

W: That should be helpful. Will I get an instant reply?

M: It won't be instant, but you will receive a reply within 24 hours. We give priority to distance education students because it is impossible for them to consult their instructors face-to-face, but everyone using Smartthinking will get a fast response. Remember the 24-hour rule, though. If you have a paper due at eight o'clock the following morning, you probably won't get your response in time. Always submit your work at least two days before the paper is due. Be sure to leave yourself enough time to do revisions as well.

W: What about security? Is there any chance somebody could get a hold of my paper and copy it for themselves?

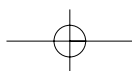
M: Absolutely not. Everyone who has access to submissions in the writing lab is accountable.

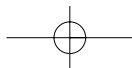
W: Oh! The papers go to a writing lab? So these aren't English professors who are giving feedback?

M: No. Your paper will be evaluated by a graduate student who works in our writing lab. Most of them are English majors. But even if they're not, they all have a strong background in writing.

W: I see. Now, I know that the tutoring program is free, but is there any kind of registration fee for first-time users?

M: No. There are no charges at all. However, only students currently enrolled at Citywide Community College can use Smartthinking. It has been set up to provide academic support for our students,





so unfortunately, we can't offer the service to anyone else. Are you currently enrolled at this community college?

W: Yes.

M: Great. What kind of computer do you have?

W: I have a Mac. That won't be a problem, will it?

M: No, not at all. As long as you have Internet Explorer, you'll be able to log on to the online tutoring system with no difficulties. I assume that you have a modem?

W: Right, I have a 56K modem.

M: That's fine. Then all you need to do now is choose your subjects and sign up.

W: Can I sign up right now?

M: Of course. Those two computers right over there have Internet access. You can use either one to log on and sign up.

W: Great. Thanks.

02 History

W: I hope you'll all recall our lively discussion of Renaissance art from last week. We talked about such artists as Botticelli and DaVinci, who really characterized the Renaissance through their artwork. Art, however, is not created in a vacuum. Art is a reflection of the world, through the eyes of the artist. So, what was going on in the world to inspire such great art? Well, that's the topic of today's lecture. We're going to talk about the intellectual and social movement that underlay the Renaissance. The movement was called humanism. So, what is humanism? Let's go back to the word "Renaissance." As we talked about last time, the word means "re-birth," and that's just what humanism was. It was a revival of antiquity. Antiquity, in this case, refers to the classic civilizations of Greece and Rome. Now, following the fall of the Roman Empire, we had about a thousand odd years in which... well...nothing of note in the art world really happened. These we call the Middle Ages. Now, the dominant school of thought during the late Middle Ages was called scholasticism. That's "scholastic," like school related things, plus "ism" — scholasticism. A large part of humanism, the new idea in the Renaissance, was its rejection of scholasticism. The humanists felt that the scholastics were focusing too much on the Church. So, the humanists were rejecting the predominant, intellectual school in favor of the classics. The humanists studied the classical civilizations of ancient Greece and Rome and applied what they learned to their current society. It's not that the scholastics didn't know about the classics, they just tried to analyze them in such a way that the classics agreed with the Church. That was their whole purpose, to find ways to reconcile Greek and Roman philosophy with Christian theology. In the minds of the humanists, society had been going in the wrong direction since the fall of the Roman Empire. Not that they wanted to return to those times, but they felt that more could be learned from antiquity than from anything that had happened since. It was this revival of old ideas that changed the way that European people in the late Middle Ages thought. Humanist thinkers started to create new kinds of art and literature. They even changed the way societies thought about education, law, and, well, everything. Simply put, humanism was the basis of the Renaissance.

Now, as you may know, Renaissance thought started in Italy and spread to the rest of Europe. Most of the painters that we talked about yesterday, in fact, were Italian, but why Italy? The answer may surprise you. It was because of Latin. Remember, the humanists were looking back to the ancient civilizations. Much of the writings would have been done in Latin, right? Now, Italy was the only place where Latin was still studied outside

of the church. As for the rest of Europe, only the clergy learned Latin because it was considered the language of the Church and didn't really have any other use. So, it seems only natural that these Italian Latin speakers would be the initiators of a review of classic literature. If we want to point to one person who began the humanist movement, it would have to be Petrarch. In case you don't know, Petrarch was an Italian poet who was influenced by Cicero. Cicero, of course, was a famous politician in the final years of the Roman Republic. So, what Petrarch did was translate a lot of Cicero's correspondence — letters to different people — and he also tried to imitate Cicero's style in his own Latin writing. Petrarch's revival of the teachings of Cicero was really what began the humanist movement, which of course, spread from Italy throughout Europe. Now, some of the social factors that existed in Italy at this time are important to note. You see, Italy at this time consisted of two republics: Florence and Venice. However, there were neighboring states that were not republics but instead were under despotic rule. Some of these despotic states were interested in taking over the republics, so the people of Florence and Venice felt threatened. Petrarch was from Florence. Now, it's a common occurrence that when a state feels threatened, its people tend to feel patriotic. It's kind of like a defense mechanism. So, feeling threatened, the intellectuals in Florence followed Petrarch's lead and began to appreciate the past. Florence had a rich history, and people wanted to celebrate it. Those outside pressures were fanning the flames of patriotism.

03 Computers

W: OK, class, let's take a quick survey, shall we? Jake, what is the hard drive capacity of your home computer?

M: 80 gigs.

W: 80 gigabytes! That's 80 billion bytes, or 640 billion ones and zeros. How did I arrive at that answer? Anybody?

M: Well, a gigabyte is a billion bytes. So 80 gigabytes is 80 billion bites. Then, a byte is 8 bits. A bit, of course, is a one or a zero. So, if you've got 80 billion bytes, you multiply by 8 to get the number of bits. 80 times 8 is 640, so 80 billion bytes is 640 billion bits.

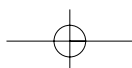
W: Well done. Now, that is no small amount of information on your personal computer, Jake. In fact, though, that is the current standard for home computers. We've come a long way, haven't we? Computer memory, as you probably know, actually had very humble beginnings, and I'm going to tell you about those beginnings today. We're going to look at the history of computer memory, have a look at how fast technology is improving, and consider what the future has in store. OK, does anyone here remember the early Altair and Commodore computers?

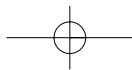
M: I've heard about them. I don't think I've ever seen one, though.

W: Never seen one? Great, well, I hate to give away my age here, but my first computer was actually a Commodore. Anyway, these antiques used paper tapes and cassette tapes, if you can believe that. To load a program, we would put the cassette in and press play! It took forever. That seems really antiquated to us now, but at the time, it seemed pretty high tech. Now we're used to tremendous capacity and high speeds. Anyway, the first big breakthrough was when Steve Wozniak, co-founder of Apple, introduced the floppy disk. These were originally five and a quarter inches across, and they stored a measly 160 kilobytes. Yes, Tom?

M: Why were they called floppy, anyway? I've always wondered that.

W: Because they were floppy. Many of you younger people may not remember these either, but these disks were actually floppy and bendable. You know, I think I may still have one in my attic.





I'll bring it to class next time. Anyway, the direct descendant of the floppy was the hard three-and-a-half inch disks you are probably more familiar with. Even though they were hard, they retained the name "floppy" so as not to be confused with hardware or hard drives. At first, both disks were sold, so people usually distinguished them by their size when they talked about them. So the three-and-a-half inch floppy came out in the mid-80s with a capacity of 1.44 megabytes, which seemed like an awful lot at the time. For a few years, home computers featured drives for both the five-and-a-quarter inch and for the three-and-a-half inch, but by the mid-90s, the older five-and-a-quarter diskette had become obsolete. In our current times, we are witnessing the extinction of the 3.5 inch disk, aren't we? Actually, Jake, could you tell us what kind of external memory interface your computer has?

M: It came with a CD/DVD read/write drive and two USB ports, where I can use my memory stick.

W: It doesn't have any floppy drive at all?

M: Nope. I didn't need it, and I didn't want it. My memory stick holds 512 megabytes. Why would I need to use disks?

W: I don't blame you. Not to mention that CDs have a capacity of 700 megabytes. DVDs can store 4.7 gigabytes, and you say your memory stick holds 512 megs? I just bought the latest model on the market, and it holds 140 gigabytes! So you're right, who needs disks anymore? While it is still possible to find a computer with a floppy disk drive, I predict that in the very near future, you won't be able to find them. Do you know what else is funny? These devices are only going to get better. Anyone reading a transcript of this lecture one year in the future would probably find these figures laughable, just as we were laughing at the five-and-a-quarter inch disks. And when we tell our grandkids about how we lived, they will think it's hilarious. The rate of technological improvement in this day and age is astounding. To demonstrate, have you heard the new buzzword, "terabyte lifestyle"? A terabyte equals 1,024 gigabytes. It is estimated that in five years, the home computer will have a five terabyte hard drive. Amazing, isn't it?

04 Theater

M: Are any of you guys members of a fraternity or a sorority organization? Quite a few of you. Good, uh, Luanne, what is the traditional party during homecoming?

W: You mean like the kind of party? The toga party, I guess. We all get dressed up in bed sheets.

M: Right, the toga, the traditional dress of ancient Rome. That's what we're going to talk about today. Since we're studying Julius Caesar, that would of course be the type of costume we need to design for the actors. So if we want to create authentic costumes, we have to know something about the history of this type of clothing. Now, in the beginning, the toga was a large woolen blanket. The ancient Romans would wrap it around their body for clothing.

W: Wasn't it just the upper class that wore the toga?

M: At first, no. What you may be thinking of is the law that non-citizens were not permitted to wear togas. It was actually forbidden for foreigners to wear togas. But pretty much all Romans wore the toga ubiquitously for all kinds of different occasions. That didn't last too long, though, because as you can imagine, or Luanne, as you probably know, the toga is a little awkward. It's OK to party in a bed sheet, but try farming or going to war in one. So, for activities that involved a lot of movement, the toga fell out of fashion in favor of more practical garb. Instead, the use of

the toga in Rome became more and more restricted to formal occasions. That's good news for us because the characters in Julius Caesar interact in mostly formal settings.

Now let me just tell you a bit about the actual toga itself. Historians believe togas were made from five and a half meter semi-circles of cloth. The cloth was cut in a big half-circle, not a rectangle like bed sheets. This cloth was, of course, wrapped around the body, and a sash was worn over the left shoulder and under the right arm. To keep the thing from falling off — and we certainly don't want the togas on our actors to slip off during a show — the toga was pinned up with pins. These were called *fibulae* in case you're interested. I have some pictures of authentic Roman *fibulae* on display in museums, so we can try to copy some of those designs for our costumes. Another option we have is to make a belt for some characters. Some Romans wore their togas with belts.

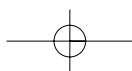
Now, when we think of togas, we picture everyone wearing pretty much identical outfits, right? Basically, white bed sheets for all. Not quite. There were actually many kinds. For example, the *toga virilis*, or men's toga, was worn by adult male citizens. Women, on the other hand, had their own version of the toga called the *stola*. *Toga pulla*, or black togas, had two functions. People of the lower classes wore them regularly, and people of the upper class would wear them after the death of a loved one to show that they were in mourning. That's important for us. We'll have to costume the slaves in our show in black togas. There was also a special kind of toga which featured a purple stripe and was worn by high-ranking officials and upper-class boys, or the painted toga, which was very ornate and worn on festive occasions by upper-class officials. Did anyone actually wear plain white togas? Actually, yes. The pure-white *toga candida* was worn by senatorial candidates. Guess what. That is actually what most of our actors will need! We'll take a look at the character list for our cast a little later, but for the most part, it looks like our costuming will be pretty easy. We'll need mostly plain white togas that are just big half-circles of cloth. That just means cutting and hemming. We'll also need to decide which characters to assign pins and sashes and which ones will get belts. Actually, the hardest job for the costumer in this show may be teaching all of the actors how to correctly put on their togas.

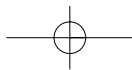
We haven't talked about footwear yet. Of course, our senators in this show aren't going to be running around the stage barefoot. So let's take a look at how authentic Roman sandals looked.

05 Astronomy

M: The invention of the telescope had a huge impact on our understanding of not only the universe, but also of our place in it. It changed the way that people viewed our world, and our world's place in the universe. Before the telescope allowed us to get a closer look at what was up in the sky, people believed that the Earth was the center of the universe, and everything else revolved around it. You can imagine why. The sun rises in the east and sets in the west. Why wouldn't people think that the sun was moving? It wasn't until the early seventeenth century, when Galileo invented the telescope and looked into the sky, that we found out this idea was wrong.

Galileo didn't just point his telescope up at the sky and say "Eureka!" He observed the sky by night and day for many years. The first discovery Galileo made with his telescope was that the moon had mountains and valleys. That may seem like a pretty mundane discovery to us. Even little kids know that today. But back then, it must have sounded pretty shocking. Another important





thing he learned was that the stars are much further away from the Earth than the moon. And I'm sure there were plenty of people at that time who were uncomfortable with this idea. You see, it had been presumed that the stars were simply much smaller than the moon, but they were all part of this same sphere around the Earth. Galileo proved that assumption wrong. He noticed that when looking at the sky through a telescope, the moon seemed much bigger, but the stars were still tiny dots of light. How could that be if they were all part of the same sphere? Galileo concluded that the stars must be much further away. They appear smaller than the moon not because they are smaller, but because they are so far away. They don't look much bigger through a telescope because they're really, really far away! His next major discovery was that Jupiter had four moons orbiting it. This dispelled another common misconception about objects and bodies in space. In Galileo's day, everyone thought that the Earth was the only body that had objects that orbited it. This assumption was based on the fact that everything that could be observed from Earth seemed to revolve around the Earth. They couldn't see anything that revolved around other bodies. So, the telescope not only gave people a better look at those bodies that they were familiar with, but it also allowed them to see things that they previously couldn't see at all. Galileo and other astronomers who were starting to follow his lead soon found more bodies in the solar system than anyone had thought.

Then, Galileo observed that Venus has phases, just like our moon. Through his telescope, sometimes Venus appeared as a crescent, and sometimes it was full. Now, by studying these phases, he deduced that Venus actually orbited the sun. Remember, people didn't know at the time that all of the planets orbited the sun. They firmly believed that everything orbited the Earth, so this was an important discovery leading to our current understanding of the solar system.

Galileo's discoveries and the notion that the Earth is not the center of the universe was a very difficult concept for people to accept. In fact, Galileo faced a great deal of opposition from the Church. During the Inquisition, he was arrested, threatened with torture, and put under house arrest for the last nine years of his life. Today, we consider Galileo one of the most important scientists of all time. We have to remember that people felt very threatened by science in early times. Many people felt that science was in opposition to religion. In fact, some people still feel that way today. But that's another story.

Today, we know that not only is the Earth not the center of the universe, it's not even the center of our own solar system, and our sun is not the center of the universe either. It's just one of millions of stars in an infinite universe. You can see why this kind of information made some people feel a little insecure. Galileo's ideas make the Earth seem pretty insignificant in the grand scheme of things, doesn't it?

06 Campus Life

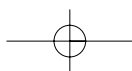
- W:** Hey, what's that you're looking at there? Can I see?
M: What? Oh, hi Mara. Yeah, I'm just reading the campus newspaper.
W: The campus newspaper? Do people really read that? Is there anything interesting in it?
M: Yeah, actually. I was just reading an article in this issue on crime statistics for this university.
W: Campus crime? Surely crime isn't a problem here at our school?
M: If you had asked me ten minutes ago I would have said no...and... well...I guess overall it really isn't, although it would be interesting to compare the situation with a couple of other schools.

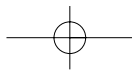
- W:** So, what does the article say about crime here? I didn't realize there was any. You never hear about anything.
M: Well, the article gives the figures for the past three years. Overall, the number of crimes committed has increased, but not in every category.
W: Oh? So, what kinds of crimes were committed? What kinds have increased?
M: Well, as you might expect, nothing too serious. I mean, there weren't any murders or anything like that.
W: Glad to hear it. I guess that's something we would have heard about.
M: But there were a lot of cases of theft.
W: Hmmm, I suppose I did hear of several people who had their laptops ripped off, actually, and wallets tend to disappear, too, don't they?
M: Right. I was shocked to find out that the number of thefts doubled from 34 to 70 during the first two years reported in this article.
W: Wow. That's a massive jump.
M: But then there was a decrease last year.
W: What are the figures for last year?
M: Still high, but only 60 as opposed to 70 for the previous year.
W: Perhaps we can thank the new security cameras.
M: Well, that's what I was thinking, but in fact, the number of burglaries soared from only 1 two years ago to 9 last year. Here's how I see it. Laptops have become more common, so that may explain the increase in theft in recent years. People started carrying valuable things around with them. Then, a lot of people had them stolen, and a lot of people heard about it. Then they started being more careful with their stuff as of last year, and because people were being more careful with their stuff when they were out and about, the thieves had to resort to burglary. That's just my guess.
W: That sounds reasonable. So, any other kinds of crimes?
M: There were two sex offenses in the first year reported in this article, but none in the next two years.
W: Well that's good. I hope it's not a case of them not being reported though.
M: Good point. There were also two cases of weapon possession last year. That's a new crime. There were no prior cases of that.
W: Do you mind if I borrow your newspaper after you finish with it? I'd like to read the rest of that article.

Skill C

01 Campus Life

- W:** What is that weird phone for, anyway?
M: The one with the blue lights?
W: Yeah.
M: That's an emergency phone. You just push the red button, and you get campus security.
W: I guess that's a good idea. It probably works more as a deterrent than a phone though.
M: What do you mean?
W: Well, I was just thinking that if you were going to attack somebody, you wouldn't do it anywhere near a blue light phone.
M: Yeah, I guess I never thought of that. It can also be used for other emergencies though—like, if you hurt yourself.
W: Does anybody ever use it even when they don't have an emergency?
M: I think there's a pretty hefty fine if you do. I mean, if you press that button and don't say anything, they know your location and will get there pretty fast.





- W:** They know your location? That's a good idea. Sometimes, you can't communicate in an emergency.
- M:** Yeah, that's why the prank calls are taken so seriously. They'll still come out here to verify that there isn't a problem, even if you don't utter a word.
- W:** So, what if you're inside, and you need help?
- M:** Same as anywhere else... you call 9-1-1.
- W:** But wouldn't it be better to call campus security? I mean, they're a lot closer.
- M:** Yeah, you can call campus security, and then they'll call 9-1-1. That's probably a better idea, actually.
- W:** Yeah, but then again, you're not going to take the time to look up the number during an emergency.
- M:** Yeah, it'd be a good idea to keep the number by your phone.
- W:** And what about those campus phones? For a normal call you have to dial 9 first. So, do you have to dial 9-9-1-1, or does 9-1-1 work automatically?
- M:** No, I think you do have to dial 9-9-1-1.
- W:** That's good to know.
- M:** Another thing, campus security has two numbers. You have to make sure you're calling the right one.
- W:** What's the other one for?
- M:** Non-emergency situations.
- W:** Non-emergency? Like what?
- M:** Like if you need to report a crime. You call 9-1-1 if there's a fire, or if you have a medical emergency...
- W:** Yeah, or a crime, right?
- M:** A crime in progress, yes. But suppose you're not in any immediate danger. Suppose you are the victim of a crime, then you would report it to campus security by calling the non-emergency number.
- W:** Like if someone stole your history paper?
- M:** Very funny. No, but if someone stole your CD player, you could report that.
- W:** I wouldn't go to the regular police for something like that?
- M:** For a CD player? No. That's something you'd report to the campus police.
- W:** I've been really lucky. I haven't had any emergencies or crimes in the past two years.
- M:** Except for that stolen history paper.

02 History

- M:** Good day students! I'm pretty jazzed about today's lecture topic, and I hope you all will be, too. If you find simply remembering and regurgitating names and dates a little dull, then this topic may be of interest to you. There are names and dates involved, but today I want you to engage, weigh, and analyze the information I present. Sound good? All right, let's continue.
- In your textbooks and other various sources, you will encounter several contradictory theories regarding pre-Columbian discoveries of America. Can any of you clarify what I mean by "pre-Columbian"? Yes?
- W:** That means before Columbus arrived in the Americas, right? Before 1492?
- M:** Very good. That's correct. Most of us have learned that Columbus somehow "discovered" the continents, despite the fact that people were already living there... doesn't really make sense, now does it? The Native American people who had been living in the Americas for thousands of years aside, there are several claims that Europeans, Africans, or Asians had visited the Americas before Columbus. Historians typically either reject or accept these notions outright. A good historian, however, avoids both of these extremes. Since I want all of you to become good historians, then you too

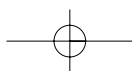
should avoid both of these extremes. As I mentioned, you must engage, weigh, and analyze the available information before coming to a conclusion, and even then, such conclusions can be tentative at best.

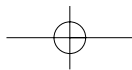
Umm, OK, let's look at some examples. Let's begin with theories of early European contact. There are some sculptures of Peruvian gods that look nearly identical to Greek sculptures of Medusa. This has led to talk of an Ancient Greek presence in the Americas. In addition, people of the Hopi nation located in the southwestern US have stories about "Anasazi," or "ancient ones," who visited them. Some say the Hopi culture shows signs of Greek influence. Furthermore, the Aztec had a god called "Quetzalcoatl" who featured a white beard and was said to have come from the East. Could this god have been an Ancient Greek? Moving from Greece, now, there are also medieval Muslim reports from Moorish Spain. They speak of sailing across "the ocean of darkness and fog" and finding new populated lands there. While it is true that this ocean was the Atlantic, it is not clear if they landed in the Americas or just in some Atlantic islands. OK, so far we have some artistic similarities, some possible physical similarities with the white beard, and some textual clues from Europe. How do you feel about these? Are you convinced?

- W:** Well, not really.
- M:** OK. Why not?
- W:** Well, I've seen the pictures in the textbook of the Peruvian "Medusa" and well, I think the Peruvian people could have just invented their own god with a passing resemblance to the Greek Medusa. I don't think it's really the same deity. Also, like you said, the text could have just been referring to some islands in the Atlantic rather than a new continent.
- M:** Great job. As historians, we must approach evidence with a skeptic's mind. There is, though, one clear-cut case with solid evidence. Norse Vikings did explore and settle present-day Canada at least 500 years before Columbus. Leif Eriksson, son of Erik the Red, the founder of Greenland, discovered a new land that he called Vinland, which is now thought to be in Newfoundland, a Canadian province. There would be at least five additional Viking expeditions to Canada and even some temporary settlements. At first, we found textual evidence for these journeys in Norse sagas. Since then, we have strong physical, archaeological evidence to show this contact did take place. For example, there are the remains of Viking houses and villages, as well as old Viking tools found in the area. In fact, there are now three UNESCO world heritage sites in Canada devoted to Viking archaeological remains. So, to reiterate, this combination of historical texts detailing Viking trips to the New World with actual physical evidence left behind by the Vikings allows us to say with certainty that the Vikings "discovered" the Americas long before Columbus.
- Now, there are numerous other claims relating to explorers from such places as Africa, Japan, and China. These are all very interesting and are fun to imagine, but all must be taken with a grain of salt. Accepting them without hard evidence would be just as irresponsible as dismissing them altogether.

03 Literature

- M:** Excuse me, professor. I have a question about the coursework listed here.
- W:** OK, what's up?
- M:** Well, umm, this course is called Introduction to World Literature, right, but everything on this syllabus list you handed out is European. I thought we'd be reading more international works.





W: Ah ha. Good point. Let's go ahead and address this. Largely, you are right, and this is unfortunate, so I empathize with your concerns. The reason for focusing on European literary works is that there was a big push in the mid-twentieth century to standardize what was called "The Western Canon," a set of great literary works that literature departments in several countries believed that all students should read. Of course, when I use the term "canon," I don't mean the kind you would find on a pirate's ship, I mean a group of books.

Now, this "Western Canon" is comprised of three eras. You see, literature departments wanted their students to gain exposure to literature from a wide variety of times as well as styles. The first of these three eras is the Theocratic Age, from the beginning until 1321. Can anyone tell me or guess at what "theocratic" means?

Mz: Umm... is it similar to "democratic"?

W: Well, in a way it is, they both end with "cratic," don't they? Who controls the power in a democratic system?

Mz: The voters... the people, right?

W: Exactly right, but in a theocratic system, it's a god or a supernatural authority that has the power. The Theocratic Age, then, was a time in which most nations were ruled according to religious laws. Books of the Western Canon from the Theocratic Age include the Sumerian *Epic of Gilgamesh*, Roman and Greek works like *The Odyssey*, and the Old English epic poem, *Beowulf*. I hope you'll notice that all of these works are epic tales with righteous heroes.

Now, umm, the second of the three ages covered in the Western Canon is The Aristocratic Age. The works of this age start with Dante's *Comedia Divina* and run up to Goethe's *Faust, Part Two* penned in 1832. Other works of this age include Cervantes's *Don Quixote*, Shakespeare's oeuvre, *The Canterbury Tales*, and so on. This period saw the emergence of comedy and shorter forms of poetry like sonnets and ballads. Is everyone keeping up? The Theocratic Age featured epics and heroic tales and the Aristocratic Age saw the emergence of other styles, like comedies and short poems.

Now, the third period covered in the Western Canon is the Democratic Age. We mentioned how people have the power in democratic systems. Well, in the Democratic Age, we saw writers from many different backgrounds get published and gain prominence. The works of this period mainly include English, French, and Russian writers, including Flaubert's *Madame Bovary*, Dostoyevski's *Crime and Punishment*, and Mark Twain's *Huckleberry Finn*. Those already familiar with these works will recognize that these works incorporate new and interesting voices that were not represented in past ages. Indeed, the major advances in the Aristocratic Age include the psychological novel, the anthero, and the new voices and perspectives I mentioned.

Now, admittedly, this is a very Eurocentric and, more particularly, very Anglo-centric grouping of literature. There is, of course, a wealth of literature from other areas of the world. East Asian literature, for example, was particularly rich, featuring works such as the *Tao* and *Analects of Confucius* among many others. The *Vedas* and *Bhagavad-Gita* of ancient India certainly deserve attention, as do the *Koran* and the writings of the Arab philosophers who guarded the torch of learning while Europe slept through the Dark Ages. Of course, there is also a wealth of oral tradition from many other places in the world. Hopefully, in the future, this European slant will give way to a more eclectic sampling. I certainly encourage all of you to seek out this literature as much as you can.

It is important to remember, however, that the 21st century world

is, well, held together by the glue of English. Um, I mean that English is the universal language now and Anglo-American culture has the greatest influence throughout the world, for better or for worse. So, my point is, knowledge of this culture is useful for all of us.

04 Campus Life

M: Have you thought about what you're going to do this summer, Gloria?

W: Well, I can work full time at the restaurant if I want to.

M: That's where you worked last summer, right?

W: Yes, and I'm still working there part time.

M: Do they pay pretty well?

W: Yes, with tips the money is pretty good, but I'm graduating next year, so I'd like to get some experience in my field.

M: That's a good idea. Maybe you should try to get an internship.

W: An internship? I'd love to. It would mean a pay cut, but it'd be worth it.

M: Yeah, they don't pay very well, but in the long run, they sure do pay off. Not only do you get experience, you make all kinds of contacts.

W: Yes, it would be good to have some experience and some references under my belt when I start looking for work after graduation. I just have no idea how to go about finding a summer internship.

M: Why don't you go to the Summer Job/Internship fair?

W: I didn't know such a thing existed! When do they hold that?

M: Hang on, I've got the pamphlet in my backpack.

W: Great.

M: Here it is...let's see...it's actually next week, on the 16th. It starts at 9:30 a.m. and goes until 3:00 p.m.

W: Is it here on campus?

M: At the University Center Ballroom.

W: That's great. Is it casual, or should I dress as if I'm going to an interview?

M: It says here that it's business casual.

W: So, should I bring my resumé?

M: Umm...it's not mandatory, but it's a good idea.

W: OK. Does it say there what kinds of internships are available?

M: You're into logistics, right?

W: Yup.

M: They've got something at Office Depot and at Wal-Mart.

W: Fantastic. Are you going, too?

M: Yes, I'm going to try to get hired on at a summer camp.

W: Oh, that sounds like fun.

M: It sure would be. It would be a good experience, too, since I'm studying to be a teacher.

W: Yeah, that would be excellent. Are there many camps listed on there?

M: There are three. One's at Camp Ton-A-Wandah, one's at Wesley Woods, and the other is at Camp Webb.

W: Camp Ton-A-Wandah? I went there when I was a kid! I had a horrible time. The camp counselors were awful.

M: Really? Well, I'll be different.

W: I'm sure you will. I'll give you a few pointers some time.

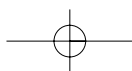
M: Let's just wait and see if I get the job.

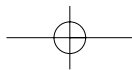
W: You won't have any trouble. You're at the top of your class, and you do all that volunteer work.

M: Thanks for the vote of confidence. And good luck to you.

W: Thanks, I'll need it. Hey, do you want to go together?

M: Sure. We should go early.





W: Good idea. We'll look enthusiastic that way.

M: Let's meet at 9:15.

05 Computers

W: A few years ago, director Steven Spielberg made a movie called *AI*. It told the story of someone who looked and acted like a little boy, but wasn't a little boy. He was a robot, right? I can see some of you remember that one. Not the greatest movie ever made, but it's relevant to today's topic. Who can tell me what AI stands for? Yes.

M: Artificial intelligence, of course.

W: Right you are. I guess we're all familiar with this term these days from playing too many video games! Though video games relate to our topic of artificial intelligence, I do not recommend playing them as a means of studying for the course! Back on topic. We use artificial intelligence to produce not only video games to challenge us, but also useful machines that perform human tasks requiring intelligent behavior. We haven't yet produced the human-like robots seen in Spielberg's *AI*, of course, but we are getting closer. In the meantime, we are using AI for some very important tasks. These include military applications, answering customer questions, and understanding and transcribing speech. AI systems are now routinely used by businesses and hospitals, and they are built into common home computer software such as Microsoft Office and the video games we all know and love.

Now, it's important to note that there are several different branches of AI. With one branch, called Logical AI, a machine uses deductive logic to decide how it should act. Information about the world, the machine's specific situation, and its goals are represented by logical mathematical language. The machine decides what to do by inferring that certain actions are appropriate for achieving its goals.

Another branch is Search AI. This program is able to rapidly examine a large number of possibilities and choose the best option. This is used, for example, in computers that play chess. A third branch of AI is called Pattern Recognition. We can program a machine to compare what it sees with a pattern. If a machine looks into a crowd of people, for example, it will match a pattern of eyes and a nose in order to find a face that it recognizes. Pattern recognition is also useful for understanding and transcribing human speech.

A fourth branch is Inference AI. With Inference AI, a machine is programmed for something called default reasoning. In default reasoning, when we hear of a bird, we infer that it can fly. However, if we learn the bird is a penguin, we have to reverse our conclusion about flight. Default reasoning allows the machine to change its original inference in situations like this. Now... yes, question?

M: Does AI want to make machines that are as intelligent as people?

W: Yes. The ultimate effort is to make computer programs that can solve problems and achieve goals in the world as well as humans.

M: How long before that happens?

W: Quite a while, I suspect. The Spielberg movie, remember, was set many years in the future. One problem is that common-sense reasoning is the area in which AI is furthest from the human level. Another problem is that machines presently cannot be programmed to learn the same way as a child does. Machines can't learn from physical experience like a child does, and they can't understand language well enough to learn much by reading. Furthermore, computers are not social beings as humans are. Where humans pick up on a myriad of tiny, often subconscious signals from the people around them, computers cannot. OK, let's recap a bit. AI, or artificial intelligence, is the attempt

to program computers to have human-like adaptability and intelligence. There are four main branches of artificial intelligence, including Logical AI, Search AI, Pattern Recognition AI, and Inference AI. Each branch focuses on one way in which human minds deal with the stimuli around us. Logic AI focuses on deductive reasoning using mathematical language, Search AI focuses on choosing appropriate actions from a list of possibilities, Pattern Recognition AI focuses on extrapolating a larger pattern from evidence of a smaller part of it. And finally, Inference AI focuses on using input to override default reasoning, like the example that birds fly, yet discovering that a bird is a penguin can override that default reasoning. As you know, computers and machines using artificial intelligence have numerous applications in homes, offices, factories, laboratories, and even in your video games. These applications can only grow in number and importance as our ability to program AI improves.

06 Geography

M: Good day everyone. Today, we're going to be looking at some of the effects the moon has on our lives. Can anyone tell me one such effect?

W: Well, ummm, I've heard that full moons make people do crazy things.

M: Ha ha. Yes, I've heard that, too. Some statistics support that idea, but other studies refute it. In any case, you can debate that more in your psychology classes. But this is geography, so what physical effect does the moon have on our planet?

W: Oh, OK then. Well, how about the tides? The moon's gravitational pull causes the tides, right?

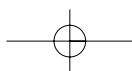
M: Right you are. That's the information I was looking for, thank you. So, we know the moon causes tidal movement in the oceans, but can the moon cause rain? Do the moon and sun create tidal effects in the atmosphere as well as the oceans? In the past century, an air tide, or rather a kind of shifting of the atmosphere has been recognized. That, specifically, is what we're going to discuss today. As always, you are more than welcome to ask any questions you have as we go along.

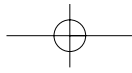
The possibility of gravitational tides in the Earth's atmosphere was first suggested by Sir Isaac Newton. Newton is most famous for what discovery? Anyone?

W: Wasn't he the gravity guy?

M: The gravity guy? Yes, I think you could say that. Newton was the first person to describe the force of gravity. Now, he came up with this theory on atmospheric tides while developing an explanation for ocean tides. Since 1918, scientists have been measuring air tides in the Northern Hemisphere, and although the changes in air pressure are small, their effects are not. Studies have shown that more cloudiness, rainfall, and storms are generated during certain lunar phases, such as the full moon. In fact, even before Newton set down his theories on tides, people were aware that lunar phases corresponded with the rise and fall of the ocean tides. More recently, we have found that the moon is even able to cause deformations in the solid crust of the Earth. So, much in the same way the moon affects tidal movement in certain ways, it also pulls on the Earth's crust as well, causing it to move, too. Yes. Amazing, isn't it? The ground we walk on every day isn't necessarily as solid as it seems! Yes, there in the blue sweater?

W: The textbook mentions that the moon can cause an atmospheric tide, and that it can create changes in air pressure. Is this an air tide, and is it true that these changes in air pressure can cause hurricanes?





M: Ah, as I was saying earlier, studies have shown an increase in storms corresponding to certain lunar phases. While we cannot yet explain this in full, it does appear that the moon has an influence on the weather. Whether they directly cause hurricanes or not, well, we'll have to wait for further research to determine that with any certainty, I'm afraid.

Let's look more at what happens during a full moon, though. Researchers at the University of Arizona discovered that at the time of a full moon, the temperature of the lower four miles of the Earth's atmosphere increases by a few hundredths of a degree. Now, a few hundredths of a degree may not sound like much to you, and you probably couldn't feel the difference yourselves, but it is significant. These researchers suggest that the moon warms our atmosphere in two ways. First, the moon's surface is heated by the sun and radiates thermal energy at the Earth. This energy is much less intense than the energy we get directly from the sun, but it is supplemented by a second phenomenon. The moon of course mirrors, or reflects, sunlight at the dark, or night, side of the Earth. However, the mirror effect is relatively slight because it reflects just 10 percent of the light of the sun. Nonetheless, as you all have experienced, I'm sure, that 10 percent is quite significant when compared to the zero percent reflected during a new moon. The difference is night and day, so to speak, if you'll forgive the pun. Anyhow, what I want you to take away from today's lecture is the fact that the moon can affect our weather. While we still have much to learn, we may well be justified in blaming the moon for a rainy day!

Chapter 2

Skill Review

A-C

01 Campus Life

W: Excuse me, I'm new here. Would you be able to give me some information about the Night Ride?

M: The shuttle bus? I sure can.

W: Great, when does it run?

M: Let's see...I think the schedule has changed since last year, so just let me have a look...okay...here it is. It runs from 8:00 p.m. until 12:15 a.m.

W: Is there a fixed schedule? Does it come at regular intervals?

M: It runs approximately every fifteen minutes.

W: OK. Is that going to change in the winter quarter?

M: No, that's the schedule for the fall, winter, and spring quarters. Since it's only here to cater to student needs, it runs on a less frequent schedule in the summer since there aren't as many students attending classes.

W: I see. So, now it runs Monday through Friday, right?

M: No no, the Night Ride only runs on school nights ...Sunday through Thursday.

W: Sundays, too? That's great.

M: That's right, but not Fridays.

W: I won't need it Fridays. That's when I review my lecture notes. I can do that at home. So, through the week, can I catch the Night Ride at the library? I usually study at the library.

M: Hmm...the bus runs on a circuit through campus and the

surrounding communities. The pick up points on campus are at Parrington Hall, the Communications Building, the HUB, Garfield Lane, and Meany Hall.

W: Isn't Meany Hall that old building adjacent to the library tower?

M: Yes, that's correct.

W: I see. So, I guess I could just catch it at Meany Hall. Where would I get dropped off?

M: There are no specific drop-off points. You just tell the driver where you want to go.

W: Really, he'll take me right to my doorstep?

M: Sure, as long as your doorstep is within a mile of campus.

W: A mile? Hmm...I think my place is probably a little more than a mile.

M: Well, you could go in that direction on the shuttle and walk the rest of the way. Or, you could get let off at one of the local bus stops.

W: Hmm...maybe I'll just take my bike. Can I take my bike on the shuttle?

M: Good question. I'm not sure. But maybe not. They haven't got bike racks. Maybe you could do this: take your bike to the bus stop, lock it up, take the bus to school, and then on your way home you could take the shuttle and get dropped off at the bus stop where you left your bike.

W: Do you think my bike would be safe there?

M: Well, of course, those stops are not affiliated with the university, so I can't really guarantee that. But I know other students haven't had any trouble.

W: I might as well just ride my bike to school and back.

M: That's another option. But then again, you can't really ride your bike in the winter.

W: Why not?

M: Well, the winters here can be pretty harsh.

W: Oh yeah. Well, I guess I can try the bus out and see how well it works for me. Thanks for all of your help. I really appreciate it.

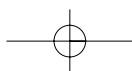
M: My pleasure.

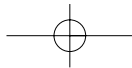
02 Oceanography

M: What exactly are reefs, and why are they so important? I hope this lecture will give you some answers to these two questions. Today, we will consider the history of reefs and the evolutionary changes they have gone through. It is important to understand the changing nature of a reef and how vulnerable it is to environmental influences.

A coral reef is a bank of coral, the top of which can sometimes be seen just above the sea. Reefs are some of the world's most diverse ecosystems. An ecosystem includes all the living things in an area and the way in which they affect each other and the environment. Coral reefs have been around for millions of years and have undergone numerous changes over time. We can utilize coral reef ecosystems as indicators of larger, global changes. This is especially important today in assessing the effects human activity may cause on the environment.

Reefs may be found in both tropical and temperate areas of the world. They are geological features that support a huge diversity of marine life and provide a habitat for sea life. The shape and form of a reef depend on where it is located and what type of forces the ocean subjects it to. Temperate reefs occur in colder waters where the temperature averages below 18°C. They usually form on existing rocky outcrops. Temperate reefs are not as well known as tropical reefs, but they are still home to a diverse range of species. Seaweeds such as coralline algae produce calcium carbonate that helps build up these rocky reefs. Tropical reefs, on





the other hand, occur in warmer waters that average around 18°C and can reach into the high 20s. These reefs are built by the animals that live there, especially algae and corals. Over time, the reef grows by building on top of the calcium carbonate skeletons of polyps.

W: Excuse me sir, what exactly are polyps?

M: Polyps? Polyps are small simple tube-shaped water animals. The polyps divide and grow on top of their old skeletons or houses. Now, as I said earlier, we can use coral reef ecosystems as indicators of larger, global changes. All sorts of information about the past can be obtained from rocks and coral cores. Coral reefs can tell us things such as which times the Earth experienced a rise or fall in sea levels. They can even inform us about events such as ice ages, huge volcanic eruptions, and meteors falling to Earth causing mass extinctions by wiping out whole species. Modern corals grow in warm, clear, well-lighted and shallow water. Since coral reefs grow best from the low tide line to about a 20-meter depth, even relatively small changes in sea level can have very dramatic effects on coral reef growth. Reefs will always grow to the level of low tide. The location of fossils in a reef is very important because by observing fossils in a reef, we can accurately estimate sea level at the time the reef was formed. Therefore, fossils help us chart the various changes in sea level that have occurred over the years. Thanks to research by marine scientists, we know that sea level change has been going on continuously during the evolution of corals and reef organisms. There have been 17 cycles of sea level rise and fall in the last 2 million years.

So, how do marine scientists get their information? One method they use is called coral coring. By drilling a vertical core through the reef, it is possible to see periods of growth and decline in the reef. It is possible to date these periods of growth and decline by looking at fossils in the rock and measuring the types of atoms present in the rock. The type of atoms present in the rock can tell scientists lots about how old the rock is and what the climate was like at the time. Sea level rise and fall may be caused mainly by movements of the Earth's crust and changes in the amount of water locked up in the polar ice caps. As the polar ice caps melt or freeze, sea levels around the world change. So, coral is not just pretty to look at, it is also a great source of information.

03 Psychology

W: We hear a lot of criticism from the baby boomers about the younger generations. The stereotypical idea is that your parents' generation thinks that young people are lazier, less respectful, less goal-oriented, and so on. Now, perhaps this kind of criticism is common to generation pairs, but there's actually been some interesting research in this area. Let's take a look at what it shows. Is the younger generation really so bad, or are the baby boomers looking through distorted glasses, comparing their children to their adult selves instead of themselves at the same age? How is it that we can research such a topic? Well, psychologists have been giving various psychological tests to samples of the adolescent population since the 1960s. By comparing the data from these tests for your generation against the data from your parents' generation, we can get a picture of what, if any, significant differences there are.

One major test was the IQ test. IQ stands for Intelligence Quotient. Intelligence is an idea that scientists use to describe why some people are better at academic tasks than others. The results of looking at IQ test scores from the past and from today show that

the younger generation today is significantly more intelligent than their parents were in their adolescence. How significant? 10 points. This is a fairly large amount considering that IQ is only really measurable within a range of 70 to 130 points. This means that, on average, humans are increasing in intelligence by one IQ point every four years. Interesting, isn't it?

So, why would this be? Well, we have a few theories. First off, nutrition may be a key factor. More different kinds of food are more readily available today than ever before. This has been true for many, many years, so every new generation is privileged with better nutrition when developing in the womb. This is a critical period in the development of the brain. Nutrition makes a big difference during childhood as well. Think about what your parents used to eat for breakfast. Bacon, eggs, sausage, ham, steak...not a lot of vitamins!

Another theory is that as the world becomes more and more complex, our brains have to develop more in order to cope with it. The brain works just like a muscle. The more you use it, generally, the stronger it gets. A good example is computers. My daughter is six years old and has learned how to navigate the Internet, burn a CD, save files to folders, and a number of other tasks that her grandparents certainly can't do! You know, when I was six, all I had to learn how to do was turn on the TV and flip between 3 or 4 channels.

Your improved intelligence might also have something to do with your upbringing. Responsibility and self-reliance are both available and necessary at a much younger age than when I was a child. There are very few stay-at-home parents anymore. Many of you probably knew how to cook, clean, and do laundry by the time you were in high school. Sad to say, I never learned these things until I was in my mid-twenties.

So you're smarter. Is that it? Well, no. You've also scored higher than your parents on tests of extroversion. This means you are more outgoing, more open with yourself, and less shy in social settings. This is a great advantage in networking and getting desirable jobs. If you are socially adept, an employer is more likely to hire you.

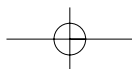
So, why are you more extroverted? Well, once again, necessity is the mother of invention. You spend a lot more time outside of the family unit and with many different kinds of people. Also, you are much more likely to move away from your home town for university or for work, and you will probably move more times in your life than my generation did. This means you have to get out there and meet new people in order to maintain a network of social support.

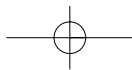
There is one disadvantage though. The young generation today is more anxious and neurotic than their parents were at the same age, meaning that youth today worry more. I suppose this is understandable given the state of the world today, but it is also, of course, a negative factor for health and well-being in general.

04 Paleontology

M: All right, let's get down to living fossils. If you have any questions, please don't hesitate to ask. Uh...make sure you take notes because there's always a question about this on the primary exam. Where was I? Ah, yes living fossils.

Well...certainly, not all species on Earth have followed the usual pattern whereby species last about 2 to 3 million years before they are replaced. This number varies between different phyla, but that's an average figure. Evolution does its work, and older species often die out because of climate changes and natural catastrophes. Species that adapt well survive in the new conditions, and the cycle





continues. Some hardy species, though, have weathered the ages and remain with us today. It's truly amazing to think that these plants and animals have adapted to so many changes. In some cases, perhaps, there has been stability in their environment, too. Nonetheless, these survivors are a scientific wonder because of their success.

First of all, it's important to realize that we have what are deemed "living fossils," but this isn't precisely the same as a "Lazarus taxon." I'll explain that term soon. For now, let's stick with living fossils. A living fossil is a species of plant or animal that has existed since far back in the geological record and has never disappeared. These species haven't changed their form at all over an extensive period of time. What I mean is that they have lasted much longer than the average of 2 to 3 million years that I mentioned a few minutes ago. A great example of this is the tuatara lizard in New Zealand. This wonderful reptile has been around longer than the dinosaur. And we can find consistent evidence of its existence as far back as 200 million years ago.

Tuatara are a single living species with no close living relatives, but which are the survivors of a large and widespread group in the fossil record. Another well-known example of this is the ginkgo tree. Ginkgo trees used to be part of a large group of plants, but, like tuataras, they're now one of a kind. Perhaps this has contributed to humanity's fascination with them, imbuing them with supposed healing properties. Anyway, that's beside the point, I suppose. The key thing is that, as with all true living fossils, at no point have ginkgo trees disappeared from the fossil record.

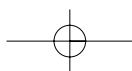
A Lazarus taxon, or Lazarus species, on the other hand, has done just that. Having disappeared from the fossil record for a long stretch, a living specimen is suddenly found. This is the case with the famous coelacanth. That's a tricky one to spell, so I'll write it on the board. Coelacanth: C-O-E-L-A-C-A-N-T-H. This fish was formerly thought to be long extinct. In fact, scientists can find no evidence of the coelacanth in the past 80 million years of the fossil record. Against all expectations, a living one was caught by fishermen near South Africa in 1938. Like the biblical character Lazarus, the species seemed to miraculously come back to life after everyone thought it was dead. It's a mystery why scientists can't fill in that missing fossil information. Of course, species do not just appear out of thin air, so all living Lazarus species are nonetheless considered living fossils. They're merely in a special category. Should a more recent example of a coelacanth fossil be found, the missing link would be filled, and coelacanth would cease to be a Lazarus taxon. They would be reclassified as just a regular living fossil.

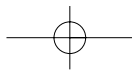
OK, it's time to wrap this up, I'm afraid...in summary, a living fossil is a species that appeared long ago in the fossil record, and it is still around in the same form. It has survived against the odds, whereas most of its relatives have died out. Lazarus taxons share these characteristics, but they form a special class of living fossils because there is a gap in their fossil history. Because of this gap, scientists formerly thought these species had become extinct. Their sudden discovery on Earth today places them in the Lazarus category. Until that fossil record gap is filled, they remain in that special category. I see we're almost out of time. Do any of you have questions?

Skill D

01 Campus Life

- M:** Hey Jill. You're looking down. What's wrong?
- W:** Hey Mike. Man, my whole academic career is in jeopardy. I don't know what to do anymore about my studies.
- M:** What do you mean? I thought you were skating through your classes and enjoying it.
- W:** That's the disheartening part. I was really enjoying my classes. I really thought social work was the vocation for me and that I had an aptitude for it.
- M:** So, what went wrong?
- W:** I just got my statement of grades back from last semester. I got a C- in one of my core classes. That means I can't take the next level. I don't know what to do.
- M:** How did you do in your other classes?
- W:** Fine — mostly A's and B's. I don't know how I ended up with a C-!
- M:** What do you mean? You didn't expect that grade?
- W:** No way! I had been doing quite well up until the final exam and term paper. In fact, it had been my best class.
- M:** Do you know the grade you earned on your exam and paper?
- W:** No, but I must have bombed them to drop my grade down to a C-.
- M:** Well, how did you feel about them? I mean, did you work hard on the paper? Did you find the exam really tough?
- W:** I worked really hard on that paper. Man, I did tons of research on it, but I guess I didn't write it that well. The exam was tough, but I didn't think I'd done so badly afterwards. I don't want to have to take that class again.
- M:** Well, retaking that class is one option if you really want to continue with social work, but there are other options. Have you spoken to your professor about your grade yet?
- W:** No, do you think she'll be willing to change it?
- M:** Well, first you make sure your grade isn't a mistake. I mean if you were doing so well and you felt your paper and exam went well, it could just be a simple mathematical slip by the prof. I mean they do have a ton of work to do with their own research and then grading exams and term papers and adding them up and entering them into the university computer system. I'm sure they make mistakes all the time. In fact, that very thing happened to a friend of mine last year.
- W:** Hmm. I hadn't thought of that. I'd just assumed that I screwed up.
- M:** Another thing you can do is ask the professor to reevaluate your paper, if it did indeed receive a low grade. You said you worked hard on it, and if you really want to continue with your studies, the prof might give you a break on it.
- W:** Good idea. I hadn't thought of that, either.
- M:** As a last resort, you could appeal the grade with the department head, but you have to be really sure the professor has intentionally given you a lower grade than you deserve.
- W:** Wow, I don't think that'll be necessary, but I'm definitely going to see my professor and ask her some questions about my grade. Thanks for the advice.
- M:** No problem. Good luck.





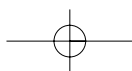
02 Business Administration

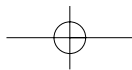
- W:** Good afternoon, class. Today, we'll be discussing an aspect of business that is becoming more and more popular these days. We talked a little bit about this last class, and you should have read about it in your textbook, so you know that there is a lot of hype about franchising. Why do you think that is?
- M:** It's safe.
- W:** Exactly! When businesspeople buy a franchise, they are buying a business model that is tried and tested. People know that it works. When starting a new business from scratch, it takes a long time to learn that business, and it takes a significant amount of capital. What's more, it's potentially quite risky. With a franchise, on the other hand, someone else has done the learning already. A franchisee just has to apply that proven business model to garner success. Another thing, a franchisee is buying a product to sell that people not only recognize, but have an established brand loyalty to. Thus, the demand is already established. The most obvious example would be McDonald's restaurants. Everyone knows McDonald's. A new McDonald's franchisee doesn't have to convince consumers to buy the product because they already do. There is a ready-made, established market. Furthermore, franchises involve less start-up capital. The franchisee doesn't need to invest as much money in a franchise as he or she would to open up an independent business. Sounds pretty good, doesn't it? But what would you say if I told you that new franchisees are actually less likely to survive than new independent businesses? Not only that, but they're less profitable as well.
- M:** If you weren't my business professor, I wouldn't believe you. So, with all of these benefits of franchises you just mentioned — the established brand recognition and demand, and lower start-up costs — why are they less likely to survive or turn a profit?
- W:** Well, like I said, franchising is great for some industries, like fast food. Now, the practice has become so successful that people are trying to apply it to other industries in which it just doesn't work. I'm talking, in particular, about service businesses. An example would be a chain of auto repair shops. Could anyone guess why it might be more difficult to run a repair shop franchise than a fast food restaurant?
- M:** Umm. Well, I used to work in a fast food joint. Flipping burgers is easy; anyone could do it. However, I don't even know how to change the oil in my car, let alone fix anything on it.
- W:** Excellent. Good reasoning there! So, in a service business, the business model itself is not as important as the business owner's knowledge and ability. So what you often have is substandard service providers relying on the expertise of the franchiser. Another problem is that franchisers earn their profits from franchising, while franchisees profit from the actual business. What I mean is that it is in the interest of the franchiser to sell more franchises. What do you suppose this means for the individual franchisees?
- M:** More competition?
- W:** Right on. The market may become diluted. What would happen if they opened ten new McDonald's restaurants here in town? The demand wouldn't increase; people would just have more options of where to go. So, let's say 500 people are going to eat at McDonald's today, here in town. Today, that means that the local McDonald's will have 500 customers. Open 10 more McDonald's, and each restaurant would only have about 50 customers each.
- M:** So you'd be better off opening your own restaurant?
- W:** That may be the case. Franchises do still have all the benefits I mentioned earlier. The potential franchisee has to look closely at the franchiser and analyze the potential demand for that

proven product in the marketplace. He or she would also have to carefully analyze his or her own skills and acumen in business as well as the particular service being offered to the consumer. Of course, there are many factors involved. The nice thing about running your own business is that you have freedom. With a franchise, you are tied down by rules set by the franchiser. When running your own business, on the other hand, you can be creative in the ways you generate profit.

03 Geography

- M:** I'm sure many of you have experienced jetlag. You know, that tired, off feeling you get after traveling across time zones. Today, we're going to look a little more closely at time zones. You all know, from the readings and our previous lectures, about the lines of latitude and longitude, and how they help us locate a given location on a map. Just to review, we've got the equator at 0° latitude. Now, how does the equator divide the Earth again? Is it north-south or east-west?
- W:** The equator? It divides the Earth into northern and southern hemispheres.
- M:** Right you are. So, all of the lines of latitude run parallel to the equator all the way up or down to each of the poles. The equator is at 0°, and the poles are located at 90° north and south. Then, there are the lines of longitude, and the big one is the Prime Meridian. It runs from the North Pole, through Greenwich, England, to the South Pole, and is designated as 0°. On the other side, it goes back up to the North Pole at 180°. Each line of longitude measures the angle from the Prime Meridian going east or west to 180°. So, for example, let's take a point on the map — I don't know, how about New York City? New York City lies at 41°-north latitude and 74°-west longitude, but lines of latitude and longitude have more uses than just finding places on maps. Who can tell me another use?
- W:** Well, they act as borders sometimes, right?
- M:** Good point. Can you give us an example?
- W:** Umm. Well, most of the border between Canada and the US follows the 49th parallel, right? That's the latitude line of 49° north, and isn't the 38th parallel the border between North and South Korea?
- M:** Excellent. Those are some good examples of another way in which people use lines of latitude or longitude. There's another important use, though. Remember, I talked about jetlag and time zones? Let's look more at that.
- Consider this: One day involves one revolution of the Earth on its axis or pole, right? So, one revolution is, naturally, 360°. OK, and a day is 24 hours. So, we can divide 360 by 24 to discover that the Earth spins at a rate of 15° per hour. How is this useful? Time zones, of course. Every 15° of longitude represents a one-hour time zone, more or less. Of course, this isn't exact. If you happened to live in a place with a time zone line running through it, you wouldn't want one side of town being in one time zone while you were in the other. Nonetheless, the lines of latitude give us a pretty good idea of how the time zones break down. This is how it works: When the sun is directly over a line of longitude, it is noon. East of this line, it is afternoon. West, it's morning. So, for example, if the sun is directly over Thailand, it is noon there. Go about 15° east to the Philippines, and it's 1:00 in the afternoon. Go west about 15° from Thailand to Sri Lanka and it's 11:00 a.m. So, let's say we are in Greenwich, England, and we want to call New York. Remember, Greenwich is at 0° longitude and New York is 74° west longitude. So, here in Greenwich it's 7:00 in the morning. So, what time is it in New York? Just divide 74° by 15. We





divide by fifteen, remember, because that's how fast the Earth spins — 15° per hour. OK, so 74 divided by 15 is just about five. So, we are going five time zones west of Greenwich, which means we are going five hours back. Seven minus five is two. So, it's 2:00 in the morning in New York—probably not a good time to call. OK, just to reiterate, time zones are calculated based on the lines of longitude and the spin of the Earth. After doing the math work, we can see that one hour of time is the equivalent of 15° traveled by the Earth. You can use this 15° figure to calculate the time difference between two places, which can help you predict how bad your jetlag is going to be on a long trip!

04 Campus Life

- M:** Hey Nancy. Have you heard about the university's new alcohol policies? Man, it really ticks me off!
- W:** I haven't heard anything. What's going on?
- M:** They've decided to make it a dry campus!
- W:** Wow. That's a big step. I'm not so sure it's a bad idea, though. Why are you so mad about it?
- M:** What! Come on, we're all adults here. At least, the vast majority of students here are old enough to drink legally.
- W:** That's true. But they're not all mature enough to drink responsibly.
- M:** Well, who are you or even the university president to judge that? The law says it's OK for them to drink.
- W:** Yes, but I've seen enough people drink too much and get themselves in trouble. What is their plan to go dry anyway?
- M:** Well, they're not going to serve beer in the Bullpen anymore. They're also forbidding students to bring alcohol into their dorm rooms, and they're even assigning extra security guards to the fraternity houses to stop students from drinking.
- W:** Those are pretty extreme measures. Have they given their rationale for implementing them?
- M:** Yeah. Do you remember last spring? One student died of alcohol poisoning. I think his parents sued the university. These measures must be a reaction to that. They cite statistics on assaults, unruly behavior, and academic performance.
- W:** Those all sound like pretty compelling reasons to me. In fact, a friend of mine had some trouble last year after coming home from the Bullpen one Friday night. Now, she never walks alone on campus at night.
- M:** Well, those are good reasons, but it's still disrespectful to those of us who can drink responsibly. In fact, one of the big reasons I decided to live on campus was for the social life. Now, the school is killing that. I've got a good mind to sue them for my dorm fees back and get an apartment in a more exciting area off campus.
- W:** Hey, Derrick, I sympathize with you and all, but you're not really making any sense now.
- M:** (laughs) Yeah, I guess I was going overboard a little there. OK, I'm not about to sue the school, but I really might move off campus, and I probably won't be the only one.
- W:** All right, that's your choice. I think I'll still stay in the dorms. It'll still be a convenient place for attending classes, consulting with professors, and doing research in the library. I don't want to spend too much time commuting every day when I could be studying instead.
- M:** Yeah, you've got some good points there. Still, if we can't drink on campus, then a lot of students will be going to other areas of the city to drink and have fun. This means we'll likely see an increase in drunk driving charges, maybe even injuries and deaths. In the end, I'm not sure if they're improving the health of the

student body or just sweeping the problem under the carpet so to speak.

W: That's a pretty strong argument. I think you should take it up with the president.

M: I just might write him a letter.

05 Music

W: What comes to mind when you think of "Romantic" music?

M: Love songs? Ballads?

W: Ah-ha, yes the term "romantic" now calls to mind images such as roses, candles, and flowers, but this is not the meaning of romantic music. It was not specifically music to listen to on a date. Remember, there are three periods of pre-20th century European classical music.

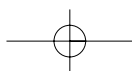
The first is Baroque, which occurred between the years 1600 and 1760. Baroque music is typified by Johan Sebastian Bach. Musical performances became larger and more complex during this period. Also, opera became established in the Baroque period. The second is the Classical period, typified by Mozart. It took place between the years 1730 and 1820. In general terms, Classical period music focused more on clarity and simplicity than Baroque period works.

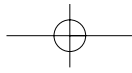
The third period, which we'll be focusing on today, ran from about 1800 to 1900 and is called the Romantic period. The name implies that the expression of feeling or emotion through the music became more important than the structure, rules, or formal systems of the music. This trend actually continued into the 20th century in many respects as well.

So, how did they achieve this greater expressive power in the music? Well, we see many new chord forms appearing in the 19th century. These forms would have been regarded as dissonant, cacophonous, or simply as the incorrect form of a similar chord in previous times. However, as romantic composers proved, a strange chord in an appropriate context can be extremely expressive. Romantic composers also made much greater use of key changes, and they played around with the format of musical pieces. For example, the traditional third movement in a symphony is a sonata, a very soft relaxing piece. Many Romantic composers replaced this with the scherzo, a much more intense piece, in order to gain greater power of expression.

The sheer size of orchestras and the lengths of pieces saw a significant increase in the Romantic period. In fact, Gustav Mahler's 8th Symphony is also known as the "Symphony of a Thousand," because it took so many people to play it. Also, in the Classical period, a symphony lasted about 25 minutes. A Romantic symphony, however, often lasts up to 45 minutes. We also saw new instruments such as the piccolo become popular during this period.

Another major difference between the Romantic period and the Classical period that preceded it was the motivation behind the work. Nearly all Romantic pieces have a program, or theme, often based on a book, painting, myth, or folktale. For instance, Hector Berlioz created the theme of his *Symphonie Fantastique* himself. Through the symphony, Berlioz tells the story of how a young artist falls in love with a woman who doesn't return his love. You can probably guess the tragic end to this story told through music. "Character pieces" also came into being during the Romantic period. These are short pieces dedicated to a particular mood or feeling. They are usually played only on the piano. Composers such as Chopin and Schumann favored this approach. Opera was also affected. Many of the distinct movements began to blend together into a continuous flow of music.





To recap, then, the Romantic period of music had little to do with love, as we now associate with the word “romantic.” It was a period of musical work that followed the Classical period and the Baroque period before that. Romantic period music stressed the importance of expressing emotion over careful attention to form and musical structure. New chords were added, and the arrangements of symphonies were altered. In addition, the length of symphonies and the number of instruments needed to play them both increased dramatically. Finally, Romantic pieces tended to have a theme or story expressed through the music. All in all, Romantic composers opened music up to a wide range of new possibilities, eventually leading to the atonal or serial movements of the 20th century.

06 Literature

- M:** OK, class. Today, we’re going to continue our series of lectures looking at influential British authors. Today’s topic is someone I’m sure you are all familiar with in one way or another. Who can tell me a bit about Robert Louis Stevenson?
- W:** Wasn’t he the guy that wrote *The Ugly Duckling*, and several other short stories?
- M:** No, you’re thinking of the Danish author, Hans Christian Andersen. The names are pretty similar, but Robert Louis Stevenson was from Scotland. He was also a famous author, though.
- W:** That name is really familiar. I’m sure I read one of his books as a kid. Did he write children’s books?
- M:** You’re getting closer. He didn’t specifically write children’s books, but one of his books became a famous tale that many children the world over have read. It’s about pirates.
- W:** Oh! I know. He wrote *Treasure Island*, right?
- M:** Yes, that’s right. You probably know him best for *Treasure Island* and *The Strange Case of Dr. Jekyll and Mr. Hyde*, but these are not his only works. In his time, he was known as a great author of travel books, short stories, and literary articles, in addition to fictional novels. Born in 1850 in Edinburgh, Mr. Stevenson had poor health right from his childhood. He suffered from tuberculosis, a disease affecting the lungs. This sickness would greatly affect the course of Stevenson’s life as he moved from place to place trying to find a climate suitable for his condition. He first went to school to study engineering but later changed to law. He passed the Scottish Bar Exam in 1875 at the age of 25, but he never actually got around to practicing much law. Instead, he spent his time writing essays, short stories, and travel pieces. He published a book called *An Inland Voyage* based on his canoe tour of Belgium and France in 1878. On this trip, he also met his wife, Fanny Osbourne. They got married in 1880 and moved to California for a while. Then, they went back to Scotland but never really permanently settled there. They kept moving around in search of better climates for the rest of Stevenson’s life. Stevenson became famous with his pirate adventure novel, *Treasure Island*, published in 1883 when he was 33 years old. Three years later, he published *Kidnapped* as well as his most famous work, *The Strange Case of Dr. Jekyll and Mr. Hyde*. Who can tell me about this story? I’m sure you’ve all seen it in one form or another. There was even a version featuring Bugs Bunny and Porky Pig, if I recall correctly.
- W:** Sure, I know that one. That’s the story of the scientist who drinks some chemical formula and becomes a big, mean monster... something like the Hulk, right?
- M:** Well, you’re on the right track for sure. The Hulk is somewhat of a derivative of Stevenson’s Hyde character. I find it interesting

to note though, that in the book, the evil Hyde is actually physically smaller than the good Dr. Jekyll. Hyde’s monstrosity was not in his muscular build, but in his selfish character.

In fact, *Jekyll and Hyde* was actually based on a nightmare Stevenson had. His wife woke him up from the dream, and he was angry that she had interrupted the story. He later wrote a draft of it and read it to his wife. She suggested expanding the idea into a novel. Originally, he was reluctant but finally agreed. Stevenson actually burned the first draft. He rewrote it in a mere three days, and after it was published, it soon became a sweeping success. Its main point was to criticize the two-facedness of people in society, especially upper-class Londoners. That is, the emphasis of appearances over substance and character.

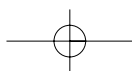
Stevenson was also busy at this time writing a lot of articles for publication in various literary journals. The most famous one, “A Humble Remonstrance,” first appeared in 1884, the year after the publication of *Jekyll and Hyde*. Stevenson’s article was a response to “The Art of Fiction,” an article published by his friend, the American philosopher, Henry James.

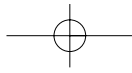
Stevenson spent the latter part of his life living on the South Pacific island of Samoa, where he wrote several works featuring aspects of Polynesian culture and criticizing European colonialism. In fact, his collection of essays on life on various Pacific islands is quite fascinating. It’s called *In the South Seas* in case anyone is interested in it.

Skill E

01 Campus Life

- W:** What’s the matter, John?
- M:** Oh, I’m just really frustrated at the moment. My midterm paper for my philosophy class is due at five o’clock, and I have to type it up, but the computer lab is always packed with people. No matter what time of the day I go there, there is always a waiting list a mile long to get on a computer.
- W:** Which computer lab do you go to?
- M:** What do you mean, which lab? The only computer lab I know of is the one in the basement of the library.
- W:** Actually, there are several computer labs around campus. The one in the basement of the library is the biggest, but that is probably why everyone goes there. That or, like you, they don’t know about the others. Personally, I usually use the computers in Anderson Hall.
- M:** Anderson Hall? Isn’t that the Business Administration building?
- W:** Yeah. They only have about a dozen computers in that lab, but it’s pretty easy to find free ones there. I guess not many people know about it.
- M:** I had a business class there last semester, but I never saw a computer lab in that building.
- W:** It’s kind of hidden away. My roommate’s an accounting major. She spends most of her time in that building, and she told me about it.
- M:** So where is it then?
- W:** Do you know where the student lounge is in Anderson Hall?
- M:** It’s on the second floor, right? The first room you come to at the top of the stairs — the stairs at the front of the building, I mean.
- W:** Right, and a couple of doors down from that is the copy room. Go in there, and you’ll find another door that goes into the business computer lab.





- M:** Oh, I know what you're talking about. I always thought that door went into some kind of storage room. They should put a sign on it or something.
- W:** Maybe, but it's kind of nice that no one knows about it.
- M:** And anybody can use it? I mean, I'm not a business major. If I went in there and tried to use the computers, would anybody kick me out?
- W:** I don't think so. Even if they were reserved for business students, I don't think they'd care. I mean, like I said before, there are usually a couple of free computers. If there were people waiting, they might say something, but that's never happened to me. Any time I go there, no one even asks for my student ID or anything. I just sign in and start working, and I really don't think there's ever been a time when somebody was waiting for a computer to become free.
- M:** I think I'll go over to Anderson after my next class and check it out. Thanks for the tip. I might actually get this paper in on time.

02 History

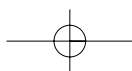
- M:** There certainly seems to be a lot more interest in history these days, especially personal or family history. That's why I wanted to take some time in class to talk about non-academic historical research. You probably know this type of research better as genealogy. Genealogy is the investigation of family histories. Professional genealogists use written records and stories people tell in order to learn about where and when people lived and about their lifestyles. Aside from strictly personal interest, the information they gather can lead to reunions of families who have been disrupted by adoption, foster care, or immigration. This type of research could also lead to family reunions of distant relatives. But professionals as well as people who undertake genealogy as a hobby have to be careful. Genealogical investigations are not always based on reliable data. Well, before we talk about unreliable data, maybe we should list some different kinds of data that someone might look at when they do this kind of research. People might use census returns, birth, death, and marriage records, and even maps to determine when, where, and how relatives lived. But these records are not always accurate, as we shall see. Some types of information tend to be more accurate than others, so wary genealogists start with the most accurate information and then try to fill in whatever blanks they can't fill by using less reliable information.
- Let's start at the top. The most accurate type of information is place names, so genealogists rely most on information containing the names of cities and towns. Place names are long lasting and seldom change. So, information related to the place of an event is often accurate. Are any of you interested in doing genealogy? Here is a rule of thumb for determining where someone was born — actually two rules because it is different for men and women. Historically, a woman would typically get married in the same place where she was born. So, if you find a marriage certificate, there is a good chance that the bride was born in the same place where the wedding took place. Not so for men. With men, actually, you look at where they were buried. Men were usually buried in the area in which they were born. This makes sense when you think about it. In old times, women worked in the home. Men usually took over the family business. So, while weddings traditionally took place in the bride's hometown, she would probably move with her new husband to his hometown after marriage, where he would probably take over the family business. In the old days, they would most likely stay there for the rest of their lives. So, if a man was buried in a town, there's

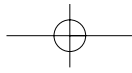
a good chance he was born there, but for women, better to examine her marriage certificate to find out where she was born. Then we have names. Even names are not as reliable as you might think. Surnames, or what most people refer to as last names, are more reliable than first names, but not by much. Surnames have so many differences in spelling, it is difficult to tell whether people were related or not. Now, we wouldn't use first names to determine if people were related, but we still might be misled by first names. For one thing, they are really trendy. You get a lot of the same names recurring within each generation. Nicknames were common, too. In one village, for example, you might have three girls named Elizabeth. One goes by Beth, one by Lizzie, and one by Betty. On the census return, unfortunately, they are all Elizabeth, and they've all got brothers, Jack, John, and Jonathan. Another complication is that sometimes the same name will reappear in the same family...even in the same generation! This is because long ago, many children died in their infancy, and parents would often recycle the name when the next baby of the same gender was born. So, baby Mary died at birth, and then another baby Mary came along who survived. Both go into the record books.

The least reliable information of all is dates. You can't even trust the dates that were reported on census returns. For one thing, people lie about their age. And another problem in the past was that census takers weren't very accurate either. They didn't want to be bothered with lots of different data to manage, so they would round people's ages off to the nearest five!

03 Biology

- W:** Have you ever wondered how we know which plants are good to eat and which ones are poisonous? Well, it was simply a very long and drawn-out process of trial and error. Throughout history, people ate what they could find, kill, or otherwise get a hold of. When there was a lack of a traditional food source, people had to try new things. Over time, they started to figure out which plants made them sick and which didn't.
- Now, I am not just talking about ancient times before farming became established. This trial and error with plants was going on well into the 18th and 19th centuries! In fact, historical records indicate that in the 1800s plant poisoning had become a serious issue. Since food wasn't as readily available then as it is today, people were forced to take more chances with what they ate. Rather than drop by the market at the end of the street, people would have to wander out into the fields or forests and find whatever looked edible. Today, because the food supply is rather ample and stable, we rarely have to go find our lunch or dinner out in the woods.
- Nonetheless, we still need to be careful. Poisonous plants can be found all around us: in our homes as decoration, in our lawns, and in the general landscape. Of course, we don't generally go around putting random plants in our mouths. However, children do. Have any of you ever caught your baby brother or sister chewing on one of the plants in your house? Or maybe you were caught chewing on one! Considering the fact that a baby's body is smaller and less hardy than ours, we have to look out for them. A small amount of poison that might go unnoticed in an adult can cause more serious harm to a child. So, poisonous plants are dangerous to kids, but there are measures that can be taken to ensure safety. You can identify the plants in your surroundings by giving a call to your local garden center. You can describe the plant to them, and hopefully they can tell you whether or not it has poisonous properties. Alternatively, you can take the plant





down to show them. Also, if you buy a new plant, it is wise to ask whether or not it is poisonous.

Now, there are three main categories of toxicity in plants: extremely toxic, moderately toxic, and minimally toxic. These names, however, are very misleading. You see, the severity of the poison depends on a host of other factors, like the particular plant and the metabolism of the person. The term “poisoning” itself is actually also misleading. Poisoning doesn’t only mean a person dies from the poison. Poisoning can result in anything from indigestion and skin irritation to lethal brain damage or death.

Let’s talk about a few categories of poisonous plants now. One category is the alkaloids. These are bitter-tasting plants with nitrogen compounds in them. A good example is hemlock. I mention it as an example because hemlock is famous. History buffs in the class may recall that it was the poison extracted from this plant that Socrates was forced to drink as his death sentence for corrupting the youth of Athens. That’s just an interesting side note. Anyway, the effects of hemlock are similar to nicotine, but, obviously, much more severe as it can cause the nervous system to shut down, resulting in death. Plants with minerals in them form another category of poisonous plants. These plants build up a large amount of some mineral that is toxic in humans, such as lead or copper. The effects of eating these plants can include psychological malfunctioning and, in higher doses, death. Plants containing oxalates are the third category. Oxalates, spelled O-X-A-L-A-T-E-S, occur as small crystals in the plant and irritate the mouth. Not quite as serious as the other two, but poisonous nonetheless. Once again, those three categories of poisonous plants are the alkaloids, plants with minerals, and oxalates.

So, you may be wondering, why did poisonous plants evolve? What purpose does this serve? Well, there are many different sources of poison in different plants as we just heard, but in most cases, the poison is a by-product of one of the plant’s natural life processes, and the poison serves as a defense mechanism for the plant. Animals learn which plants to stay away from because they get sick when they eat them. So, it follows that the plant will survive and reproduce because no one is eating it.

04 Drama

M: Welcome to Theater 351, Stage Management. Some of you may have worked as volunteer stage managers in the past. As such, you have probably developed your own habits, working practices, and manners of relating to the cast and crew, but, you are taking this class for a reason, correct? You want to learn how to do these things properly. If you thought you knew all there is to know about stage management, you wouldn’t be here. So, you’ve got all that amateur experience. Forget it. Clear all of your old habits and techniques from your mind. The truth is, you most likely either didn’t learn much at all, or you learned how to be a typical, amateur stage manager. I’m going to teach you to be an effective, professional stage manager.

OK, now the second thing I need you to do is to appreciate the responsibility of this position. A great deal of the success of the show depends on you. You are foremost responsible for every aspect of the performance of the technical crew and for the preparedness of the stage, set, and props. This includes every cue in the show. You must know exactly where in the script the cue occurs and ensure that the crew and equipment is prepared to make the necessary technical adjustments. This is important, too — keep records of all of the decisions made during rehearsals and meetings. This can prevent a lot of arguments and confusion down the road. For example, let’s say it is decided that a certain

cue will be changed, and then, a while later, an actor says that no one ever told him about the change. If you have a written record, you can get it out and show him the meeting or the rehearsal in which it was decided. I might add, too, that when people know that records are being kept, they tend to make more of an effort to be responsible and remember what’s going on.

Another thing you are responsible for is the safety of the cast and crew. This is, of course, of paramount importance. You must arrive early to every rehearsal, without exception, in order to inspect the stage for safety hazards such as loose nails, weak boards, ramps, and stairs. You should also make sure that all exits are marked with glow tape so that actors and crew will be able to move around safely in the dark. Further, you must be aware of the location of the first aid kit and fire extinguishers, and you should be certified in CPR and first aid. Taking this course won’t give you this certification, but I will be giving you information later in the semester about certification courses you can take. These are offered by paramedics at the fire station.

The third thing I need you to do is get rid of any ideas you may have about the stage manager being a privileged person — someone with lots of assistants and an attitude. If you come in late wearing sunglasses and barking orders at people, you are not doing your job effectively. You’re also letting people know that you are not a professional stage manager. First off, a professional is polite and treats people with respect. Secondly, a professional always remains calm and never yells at others or panics. If people see the stage manager panicking at a performance, this panic can easily spread throughout the rest of the cast and crew. Needless to say, the overall performance will suffer. Thirdly, you have to learn to delegate authority as stage manager. As I’ve said, you have a tremendous responsibility. Don’t think that you can do it all yourself. You have assistants, so use them, but always do so politely, especially if you are working with volunteers. After all, they’re not getting paid. They’re working because they want to have an enjoyable experience. If you treat them badly, they’ll probably leave. At the same time, don’t expect your assistants to do it all, and don’t expect them to do all the menial tasks either, while you do the important ones. Get used to the idea that stage managers do make coffee, go on food runs, make photocopies, etc. It is of utmost importance that you maintain a good rapport with everyone. Part of your responsibility of making sure the performance comes off without a hitch is to make sure that everyone is content and feels like part of the team. The three most important things you’ll learn, then, are preparation of cast and stage, workplace safety, and creating and maintaining a positive rapport with all the people involved in the production.

05 Campus Life

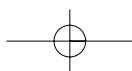
M: I’m kind of nervous about the test tomorrow. Want to sit down over here and go over the notes from class together?

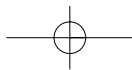
W: OK, but do you mind if we sit somewhere else? People are smoking here.

M: Oh, sorry. I didn’t know it bothered you so much. Let’s go over there.

W: Thanks. Yeah, it really does bother me. Frankly, I think it’s gross. I don’t see why the campus just doesn’t go totally smoke-free. All of the buildings are smoke-free now. Why don’t they just put an end to smoking on campus altogether?

M: I don’t know if they could. I mean, we’re all adults here, and you’re not really hurting anyone else by smoking outside. I guess they don’t want to deny people their right to smoke if they want to.





- W:** Well, they're already denying smokers the right to buy cigarettes.
- M:** What do you mean?
- W:** None of the convenience stores or vending machines on campus sell cigarettes.
- M:** Well, I wouldn't really call that denying people their right to buy cigarettes. It's the university's prerogative whether they want to sell tobacco products or not. People are free to leave campus to buy a pack. Is that true, though? That you can't buy cigarettes on campus? I hadn't noticed that they didn't sell smokes on campus anymore.
- W:** Yeah, it's true. The closest place to buy a pack of cigarettes around here is the Speedy Mart across University Boulevard.
- M:** Yeah, that's where I always go to buy them.
- W:** You smoke? I had no idea. I've never seen you with a cigarette.
- M:** Well, I don't smoke habitually. Sometimes, I have a smoke when I want to take a break from studying. Of course, that means I have to go outside the library or outside my dorm building, but I don't mind so much. It gives me a chance to stretch my legs. The walk helps clear my mind, so I can focus better when I go back to hit the books.
- W:** So, if our campus ever did go completely smoke-free, I guess you'd be pretty upset.
- M:** Well, it would inconvenience me a little, but I wouldn't be that upset. I can quit anytime. I guess I just smoke now because the opportunity exists.
- W:** So, you're saying you would quit if the campus was smoke-free?
- M:** Yeah, I guess I probably would.
- W:** Well in that case, I think that's an excellent argument in favor of a fully smoke-free campus. Maybe there are lots of students like you who would actually give up smoking if there were no places to do it around here.
- M:** Yeah, I guess so, but I think most smokers are more addicted than I am. You sure are anti-smoking, aren't you? Why is that?
- W:** Well, I used to smoke in high school, but then I finally wised up and quit before I graduated. Now, I find the smell of smoke revolting.

06 Business

- W:** Investing money is risky. Naturally, you want to make money, not lose it. So any investment decision has to be carefully thought out. Once you have decided to invest some money, you need to decide how you are going to invest it. This is a big decision, and you need to learn about risk management. There are many factors to be considered in risk management, and I am going to go over three major ones today. They are business risk, valuation risk, and force of sale risk.
- So, first you need to think about business risk. You are investing in a company, and in order for you to earn money, that company has to earn money. So, if its profits suffer due to competition or mismanagement, your earning power is decreased, too. So, how are you, as an investor, to know whether a company will be successful? Well, you need to look at the company's business plan and determine whether or not you think they have a solid plan for making a profit. But it doesn't have to be all guesswork. There are certain indicators that can give you a clue as to good or bad investments. One indicator is franchise value. Franchise value refers to the ability of the company to raise prices. You see, if some other factor contributes to loss of profits, like increased wages or increased costs of materials, the company needs to raise prices, right? Some types of businesses can do this easily. Those are the ones with franchise value. Other businesses, without

franchise value, cannot increase prices because people will stop buying their products. These are called commodity-type businesses. Commodity-type businesses do not have the flexibility to raise prices because their sales are based on low prices, not on a factor like name recognition. So, if the economy is not doing well, a commodity-type business probably won't do well either because their costs will go up.

OK, so, once you have found a business that looks strong, you need to consider valuation risk. This is risk that is based on the relative value of different stocks. Just because a company looks like it is going to do well does not mean that you should invest. You have to consider the price of the stock relative to the price of other stocks. Remember what we talked about last time?

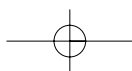
Opportunity cost equals opportunity lost. As I mentioned before, this means that when you choose to invest in one opportunity, you are losing all kinds of other opportunities to invest, so it may come down to this: one company looks strong, but you have to invest a lot of money. Another company might not look quite so attractive, but the stock is not as expensive. In the end, you might make more money on the less attractive company because you can buy significantly more stock of that company. This is valuation risk. You see, a company might have an excellent business plan, and you might reasonably expect the company to grow. However, if their stock is overvalued, that means that they are basing the value on their forecasted growth and not on their current growth. Any number of events could occur that might prevent that projected growth from taking place. So, like I said, you might be better off buying a different stock that is being sold at face value. In essence, when assessing valuation risk, do not just ask, "Is this company a good investment?" but ask, "Is this company a good investment at this price?"

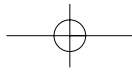
Now, once you find a company with both low business risk and low valuation risk, there is still one more risk to consider, and that is force of sale risk. This has to do with the time period in which you are expecting to see your investment turn into significant gains. If you are planning on making money by a certain date, you are taking a very big risk. Here is a good rule of thumb to follow: in the stock market, you might be able to know WHAT is going to happen, but not WHEN. Did you get that? You may know WHAT, but you don't know WHEN. You should never count on seeing your investment grow in a certain time period. So, ultimately, you are looking to minimize risk by investing in a company that is going to make money in good times and in bad. But you also want to buy stocks at a reasonable price in order to decrease valuation risk, and you want to be flexible about when you wish to cash in your stocks, minimizing your force of sale risk.

Skill F

01 History

- W:** We've looked quite a bit at Napoleonic-era France already. Today, we're going to look at its fiercest and strongest rival, England. There were many factors contributing to the strength of Britain in the early 19th century and its eventual victory over Napoleon. In spite of Britain's small population of only 10 million, it had a very large force of volunteers, conscripts, and reservists. By the time of the Napoleonic Wars, the number of British males serving in the armed forces was a startling 1 in 5.





A major source of Britain's power, oddly, came from its commercial activities. At this time, Britain was exporting its goods by sea across the world and importing goods by sea from other countries far and wide. This high volume of maritime trade ensured that there was a large supply of experienced and highly skilled sailors. This contributed to Britain having the largest and most powerful navy in the world. In 1792, the year Napoleon declared war on Great Britain, the British navy commanded a fleet of over 600 ships and 100,000 seamen, a fact that would prove to be a key factor in its success. Britain also had a highly efficient and developed banking and taxation system that placed a large amount of funds at the disposal of the government.

In this same year, 1792, France had seized control of Belgium and the Netherlands, in addition to various other minor kingdoms, and was just one step away from an invasion of England. The British army, unlike its navy, was weak compared to the French, and the British knew this. To compensate, they used their massive naval and economic advantage. They pulled most of their ships back for the defense of their island and attacked French trading ships on the open seas. They used their wealth to fund various allied armies on the continent, which at different times amounted to basically all of Europe besides France and its occupied nations. Yes? A question?

M: Yes, thanks. I just wanted to clarify — you mean that Britain actually paid soldiers of other countries to fight against France? I mean, they weren't fighting for nationalism or anything, just for the money?

W: Well, they might have been fighting in part for national pride, but essentially these armies were funded by Britain to fight against France in order to help Britain's position. It's an interesting concept, no? It's also an idea that has been used throughout history. Would it surprise you to know the US government did the same thing, funding armies in several Latin American countries in the 70s and 80s? Hmm, you don't look too surprised.

OK, moving on, when Napoleon went to take Egypt in 1798 with 35,000 men, Vice-Admiral Horatio Nelson and his fleet were sent to stop them. Napoleon did, in fact, take Cairo, but Nelson arrived soon thereafter and won a victory in the Battle of the Nile. This victory essentially gave Britain control over the Mediterranean while cutting off the supply lines of Napoleon's army in Egypt. Nevertheless, Napoleon eventually made it back to France, and by 1807, he had subdued Russia, Prussia, and Austria, the three largest continental powers at the time. This resulted in a trade war with Britain, in which Napoleon used his army to block trade between England and Europe, and Britain used its navy to block Napoleon's overseas trade.

Eventually, Napoleon's campaigns spread to Britain's long-time ally, Portugal. The seizure of Portugal, however, was hugely unpopular with France's ally, Spain. When the Spanish king protested, Napoleon replaced him with Joseph Bonaparte, Napoleon's brother. This sparked a rebellion and the opportunity for Britain to enter mainland Europe. The Spanish defeated Napoleon's army, which allowed the British to land their forces in Portugal.

OK, just to recap. France and England have been long-time rivals. This rivalry continued and even intensified during the rule of Napoleon. As Napoleon's forces spread across Europe, they cut off those markets to British trade. This, of course, was a large drain on Britain's economy. Britain, in turn, used its powerful navy to attack French trade ships, thus cutting them off to markets around the world. This, of course, was a large drain on France's economy. Britain also defeated France's foray into Egypt, further cutting them off from the rest of the world. Eventually, Spain

went to war against France with assistance from Britain, which finally allowed British troops to gain a foothold on the continent, which eventually led to the downfall of Napoleon.

02 Ecology

M: So, many of you have sent me emails or visited me during office hours to complain about the material on systems theory. Some of your complaints are partly correct. The theory is vague, and it can be applied to almost anything. Rather than being frustrated by this fact, though, I want you to understand that this universality is the beauty of systems theory. Don't you see? Scientists need a tool that can be easily applied and adapted to describe any group of variables that interact in a predictable and recurring pattern. This tool is systems theory. Let's go over it again, because it will be on the exam. Who can tell me just what a system is? Anyone?

W: Isn't a system like the actual things in a relationship, and, like, what the things do together?

M: OK, that's a pretty accurate description, but let me just tighten up your definition a little. A system is defined as a process that is a result of its parts and their interactions. We call these parts "elements." So, every system has elements. Each element in the system has certain characteristics that are relevant to the functioning of the system. We call these "attributes." So, every element has attributes. Now, these elements and attributes have a cause and effect relationship with respect to one another. So, every system features relationships. Now, we have the three things that make up the system. We have the elements, the attributes, and the relationships. Now, what example did we discuss last time?

W: It was the food chain, right?

M: Right! OK, let's go through the example and apply these terms. The food chain system is the system of energy moving around in the ecosystem. So, the food chain has elements. We can distinguish four major ones: the sun, plants, herbivores, and carnivores. Those are the four elements of our system.

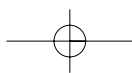
These elements have attributes, right? In this case, the attribute is energy. We start off with the sun, which has, say, 100,000 units of energy. The sun radiates this energy onto the Earth, where the plants are. Plants can then absorb this energy via photosynthesis. Who remembers what photosynthesis is?

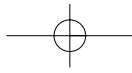
W: That's the process that plants use to make food, I think. They breathe in carbon dioxide and breathe out oxygen, right? The opposite of us.

M: Good, that's right. Oxygen is indeed a waste product of photosynthesis. That, in fact, is another attribute in a larger system, but I don't want us to think about oxygen or carbon dioxide now. Let's stick to energy as our attribute.

OK, so we now have a relationship between the sun and plants on Earth. In photosynthesis, a plant takes light energy, water, and carbon dioxide and converts them into simple sugars and oxygen. These simple sugars are the plants' food and, thus, its source of energy. Plants can capture about one percent of the radiated energy from the sun. That one percent of energy is the plants' attribute. So, one percent of the sun's 100,000 units of energy leaves us with 1,000 units of energy being absorbed by the plants.

The next element in our system is the herbivores. This term means "plant eaters" in Latin, so these are plant-eating animals. The herbivores eat the plants — here we have another relationship — and from this, the herbivores are able to absorb 10 percent of the plants' energy. Remember, we started with 100,000 units of energy from the sun. The plants absorbed one percent, or 1,000





units of this energy. So, now we have the herbivores eating the plants and taking 10 percent of these 1,000 units of energy, which leaves 100 units of energy left at the herbivore level. The final level is the carnivores, which is Latin for “meat eaters.” These animals, in turn, can consume 10 percent of the energy from the herbivores. Remember, the herbivores ended up with 100 units of energy, therefore, we are finally left with 10 units of energy at the level of the carnivores. They make up the level furthest from the sun. So, this is our system, the attribute we followed is the energy starting from nuclear reactions in the sun and passing through the four elements in the system, from the sun, to the plants, and finally ending with the consumption of herbivores by carnivores.

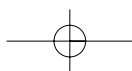
03 Campus Life

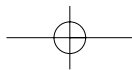
- M:** Hey there, Betty.
W: Hi, John. What’s up?
M: I wanted to talk to you. I’m having trouble with my computer, and you know more about computers than anyone I know.
W: You don’t need to butter me up. I’d be glad to help you out. What seems to be the problem?
M: Well, ever since I got it hooked up to the Internet a month ago or so, it’s been really slow, and sometimes, it just shuts down without warning. I lost half of a term paper the other week!
W: Aha, the Internet! A marvelous thing, don’t you agree? We can now access a wealth of information from our homes, schools, and businesses, but, like any good thing, it has its problems.
M: Right. It’s a great help for researching information for papers... and for downloading music files.
W: Anytime you surf the Web, your computer could get a virus, which might be a minor inconvenience, or it could pick up a virus that does serious damage. Hackers might get into your computer and delete important information, crash your computer, or even steal your credit card information.
M: Wow, do you think I might have a virus, then?
W: Yeah, that could be your problem. I’m sure you’ve heard news reports of computer viruses being spread through email. The two more serious types of viruses are worms and Trojan horses.
M: Worms?
W: Yeah, sounds funny, I know, but worms are a sophisticated type of virus that replicates itself and spreads to other computers without the user knowing what’s going on. A Trojan horse is a type of virus that gets in to your computer by disguising itself as something useful or desirable, like a music file for example.
M: Uh oh.
W: Yeah. You also have to worry about spyware. As the name implies, it is a software program that basically spies on you. It gets into your computer and then gathers information about your activities that can then be sold to advertisers. Spyware can really use up your memory and bandwidth. This is probably what’s slowing down your computer so much. Spyware can also lead to crashes.
M: Oh man! What should I do?
W: Don’t worry, there is protection. One security device is called a “firewall.” It sits between the computer and Internet, allowing the user to access the Internet, while preventing outside users from accessing your computer. So, basically, the firewall allows wanted traffic but stops unwanted traffic. It can be either a piece of hardware or a software program.
M: Great, so a firewall will solve my problems?
W: No. It will prevent you from getting problems in the future. You will also need an anti-virus program to prevent you from getting viruses.

- M:** I see.
W: I also have some programs that will search your computer for viruses and spyware and clean them from your hard drive. That’s what we’ll need to do first.
M: Wow, thanks a million!

04 Biology

- M:** Quick question: how many of you have children? Hmm, nobody yet, eh? All right then: how many of you have parents? (laughs) Right, you all have parents, of course. Today, we’ll be looking at the bond that forms between parents and their children, or offspring. So, why do parents bond with their children?
W: I think they need to bond so parents will protect their children... you know, so the species will survive, right?
M: Very good. It is essential for the survival of the family and the species. But what actually happens when animals procreate? Well, there are a lot of hormones involved, and the bonding starts long before the baby is born. The first phase of parental response is the preparatory phase. The fertilization of an egg signals the beginning of a series of hormonal changes in pregnant mothers. These hormonal changes cause lactation. Who can define “lactation” for me?
W: Isn’t that when the mother starts making milk for the babies to drink?
M: Correct. Lactation is the production of milk in the mother. These hormones that trigger lactation also prepare the uterus for labor. The hormones also initiate changes in the prospective mother’s behavior. Depending on the species, the mother might build a nest or otherwise find or prepare a safe space for the expected offspring. Pregnant mothers also tend to limit their social interactions when they are expecting, thereby limiting chances of trauma to herself and the babies she is carrying. So, the first phase is the preparatory phase, and the second phase is the delivery. When the mother goes into labor, she has contractions. None of you have had your own children yet, but perhaps you know about contractions. What are they?
W: Aren’t contractions when the mother’s muscles start contracting, or flexing I guess, before the baby comes out?
M: Yes, that’s right. When these muscles start contracting, a signal is sent to the brain that induces arousal, lactation, and maternal behavior. They also trigger the release of chemicals to reduce anxiety and mute pain responses. What all this does, hopefully, is cause an intense connection between mother and baby at birth. It is important that this occurs, because if the mother does not instantly bond with the baby, she may not take proper care of it. Now, this brings us to the next phase: the parents’ response following the birth. You might be surprised to discover that most mammals don’t like babies. I see some surprised and skeptical-looking faces. It’s quite a counterintuitive concept, isn’t it? This is, however, another reason why the parent-child bond is so important. When an adult is exposed to a baby, one of two things can happen. More often than not, the adult will care for the baby. However, if the parents can’t handle it, they have another option... it may be unthinkable, but it does happen... that second option is killing the baby. It’s not very common, but sometimes parents will actually eat their young. That’s a rare occurrence, though. Usually, moms will care for their young and prepare them for adulthood. But what about the dads? We’ve seen how the body signals mothers to be nurturing, but what makes fathers help out? Well, the truth is that, among most species, they don’t. In some species, however, fathers do





help, and it turns out that among birds and mammals whose males engage in paternal behavior, the males actually have higher levels of blood prolactin, just like mothers. We also see changes in blood testosterone levels in these fathers.

Animals that have fewer children (for example bears) tend to be more committed to them than are animals that have litters (for example rats). Because mammals with fewer offspring procreate less, the survival of each one of their offspring is that much more important. It is also interesting to note that a species with fewer offspring can more easily influence the behavior of those offspring through reward and punishment to bring about desirable behavior. Of course, it's biologically important for parents and offspring to create a bond. That way, parents will support and protect the young so that they can grow to reproductive age and continue the species into the future. So, there are three basic phases that lead to this bonding. The first phase is the preparatory phase in which the mother's body prepares to nourish the child. The second phase is the delivery phase in which the mother's body prepares itself for the trauma of giving birth and the baby is actually delivered. The third phase is the parental response after birth in which emotional bonds are made between parents and offspring. It's also important to note that the fewer the offspring produced, the stronger the bond.

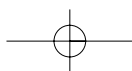
05 Campus Life

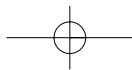
- W:** Yes, how can I assist you?
M: Hi. Ummm... I want to get some information.
W: OK, what kind of information would you like?
M: About the campus counseling. I think I might need some help.
W: I see. Well, that's what we are here for, to help students like you.
M: Good.
W: Now, I just need to ask you a few questions.
M: Sure, like what?
W: Well, first, what is the nature of your problem? Is it mainly academic? Is it a health issue? Is it financial, or is it perhaps related to a relationship problem?
M: Oh, OK. Hmm. Well, it's kind of everything together.
W: OK. Let me ask some more specific questions.
M: All right.
W: Are your grades suffering? I mean, have they recently taken a nose dive?
M: Umm, yeah, in some classes they have.
W: OK, but not all classes?
M: No, not all.
W: OK, well that's a good sign. In how many classes have you noticed the change?
M: Two of the five I'm in now.
W: Well, that's not so bad.
M: Except that I'm now failing those classes miserably.
W: I see. Now, what about health problems? Are you feeling a specific pain or illness in some specific area, or is it more of a general malaise?
M: It's nothing specific really. It just seems that I never have any energy anymore. I never want to do anything. I don't want to talk to anyone or go out, and I sure don't want to hit the books when I should be. I can't even bring myself to go to classes much these days.
W: Aha. Those are actually really common symptoms at this time of year.
M: Really?
W: Oh yeah. The cold weather and short days can affect people that way, especially when combined with end-of-semester stress.

- M:** Wow. That's good to know.
W: Yeah. It's important for you to know that you're not alone in this — not by a long shot. Now, you also mentioned financial problems?
M: Yeah, well that's not the biggest problem, but I did quit my part-time job at the student union.
W: Do you have enough money for your basic necessities, like food, books, tuition?
M: Yeah. I just don't have enough to go out much anymore, which isn't such a big deal because I don't feel like going out much anymore.
W: All right, well hopefully we can turn that around. We can probably help you get your job back, too, if you so choose.
M: OK.
W: And what about your relationship problem?
M: Well, the problem is I don't have any relationships, though that's not a new thing. It's been like that for quite a while.
W: I see. OK, the next thing I need is your name and student number. Then, I can arrange an appointment to see a counselor for you. The counselor will talk more with you about your problems and will try to come up with a plan of action to get you back on track. He or she may even refer you to a medical doctor if they think you need medication. Any questions?
M: Umm, no, I guess not. Here's my student card.

06 Astronomy

- M:** You all know, of course, what astronomy is; this is Astronomy 205 after all, but do you know what "cosmology" is?
W: Hmm. I know the Russians called "astronauts" "cosmonauts." Is cosmology just the Russian word for astronomy?
M: I like your reasoning on that, but no, I'm afraid you're not exactly correct. Cosmology is, in fact, quite similar to astronomy, but more specifically, cosmology is the study of the universe and its components. This includes how the universe was formed, how it has evolved, its future, and, by extension, man's place in it. You can think of cosmology in macro terms. Where astronomy also looks at every little planet and asteroid, cosmology is only concerned with the larger things, the cosmos as we say. Modern cosmology grew from the beliefs of ancient man and his ideas about the origin of the universe. Ever since people could think, they've sought to explain the existence and nature of the world around them. The search continues today for answers to the "big three" questions of life. One, where did we come from? Two, why are we here? Three, where are we going?
 This quest has split cosmology into three main disciplines: religious cosmology, physical cosmology, and metaphysical cosmology. In religious cosmology, beliefs about the creation and destruction of the universe provide a framework for understanding man's role in the universe and his relationship to the creator of that universe — a god or gods, depending on the belief system. This view holds that the universe was consciously created, and that the creator has some purpose or design for everything in it, including man. In many cases, religious cosmologies also foretell the end of the universe. Many religions accept the findings of physical cosmology, arguing that science supports their conceptions. After religious cosmology, we have physical cosmology. Physical cosmology deals with the study of the physical origins of the universe and the nature of the universe on its very largest scale. It seeks to understand the universe through scientific observation and experiment. Modern scientific cosmology uses physics, astronomy, and mathematics to explain how the universe began and how it is growing. For hundreds of years, scientists thought the universe was static and unchanging, but in 1964, they confirmed





that the universe began with an explosion, coined the “Big Bang.” Recent technological advances in telescopes and space observatories have provided a wealth of new information about physical cosmology. We now have a much better understanding of not only what makes up the universe, but also its overall architecture. At the core of modern physical cosmology is an idea developed by the ancient Greeks, called geometric cosmology. Geometric cosmology is the belief that the underlying order of the universe can be expressed in mathematical form... but is mathematics a human invention, or does it have an independent existence?

- W:** Math is pure; it has an independent existence, doesn't it?
- M:** Well, that's what many people believe, but it's hard to prove. It's like the whole “if a tree falls in the forest and nobody is there to hear it, does it make a sound” conundrum. Mathematics may indeed have an existence independent from human invention, but as humans, we can only experience math as humans. This can be a tough concept to grasp, but let's move on now to the third type of cosmology: metaphysical cosmology. Who can tell me what metaphysics is? Any philosophy majors out there?
- W:** Yeah, metaphysics is the study of reality and the ways in which we can perceive it.
- M:** Very good, you must have taken a philosophy class or two. Thank you. So, metaphysical cosmology stands in between religious and physical cosmology. Metaphysical cosmology seeks to draw logical conclusions about the nature of the universe and man's place in it, addressing questions that are beyond the scope of science. Unlike religious cosmology, it approaches these questions using philosophical methods, such as dialectics, that is, examining opposite arguments in coming to a conclusion. For example, metaphysical cosmology might borrow presumed facts from religion or observation and compare it with scientific facts. One example is the cosmological argument, which is an argument for the existence of God based primarily on the point of view that the mere existence of a universe demands a creator. So, just to review, the three types of cosmology are religious, physical, and metaphysical. Religious cosmology relies on religious texts and beliefs, physical cosmology uses science and math, and metaphysical cosmology uses philosophy to bridge the gap between religious and physical cosmology.

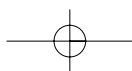
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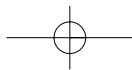
Skill Review

A-F

01 Geology

- W:** Today, I'll begin with the basics about minerals. It's important that you supplement this information by reading chapter 3 in your textbook because I'm sticking only to the bare bones here. All right...it's essential to remember that both chemical composition and crystal structure together define a mineral. Some students find that surprising. They think that crystals are pure — just one element. That may be true for some crystals, but not all. Minerals range in composition from pure elements and simple salts to very complex silicates with thousands of known forms. So to define a mineral, we have to figure its composition. What all is in it? Now, here is a useful tip that may save you a point or two on the next exam. Organic compounds are usually excluded from the category mineral. Got that? If it's organic, don't classify it as a mineral. In fact, there are five main criteria for calling something a mineral. Let's go through those criteria. First of all, it must be in a solid state, not liquid, gas, or plasma. Minerals are solid. Second, it must be naturally occurring. In other words, it can't be man-made. Third, it has to be inorganic. Like I said, if it's organic, it's not a mineral. So third — oh, sorry — we're on number four now. Fourth, for something to be a mineral, it needs to have a fixed composition, which means the chemical composition is the same everywhere it is found and every time it is found. Mineral X found in my backyard is going to have the same composition as Mineral X found in Australia. Finally, our fifth criterion is that a mineral must be either an element or a compound; so it cannot be a mixture of a chemical compound and an element. Don't worry if that last one seems a bit vague at the moment. We'll talk a lot more about that over the next couple of classes.
- Sometimes we get certain cases that satisfy all but one criterion. That's close, but not a mineral. These things are usually classified as mineraloids. Pearls would be a good example. Pearls are solid. They occur naturally. They have a fixed composition, and they're a compound. The only criterion they don't meet is the “inorganic test.” Pearls are actually a mixture of organic and inorganic substances. So, because they have that extra organic stuff mixed in, we can't classify them as minerals. Pearls should be called mineraloids.
- Now, here's another interesting case. Two or more minerals may have the same chemical composition, but differ in crystal structure. These are known as polymorphs. A good example of a polymorph pair is pyrite and marcasite, which are both iron sulfide. Let's create a simple analogy to help you grasp that concept in case you're confused. Let's say Michelangelo has one large piece of marble. He splits it in two. One piece, he carves into the shape of a horse, and the other piece into the shape of a woman. They are exactly the same in chemical composition, but nobody would really claim they're the same after he's finished. Think of pyrite and marcasite as two of nature's sculptures, both made of iron sulfide!
- All right, let's see if you've been listening (laughs). Here's my question. How about frozen H₂O...or ice in layman's terms? Is it a mineral? Anybody? Yes, Sam?
- M:** Well, I'm not positive about this, but...in liquid state, it's just a chemical compound, right? But as ice it becomes a mineral.
- W:** We've got the five criteria for minerals, right? Tell me about each one in terms of ice and we can check.
- M:** OK. Ice is a solid with crystalline structure, and it's not a human-made substance. Ice isn't alive and never has been; it's...how did you put it?...exactly the same everywhere you find it and every time you find it, or whatever; it's a pure compound although it might have other elements suspended in it. Did I cover everything?
- W:** Well done, Sam. I'm glad somebody was listening (laughs). You're absolutely right. Ice is a mineral.
- M:** Kind of strange though. Before this class, I never would have thought of ice as a mineral.
- W:** I agree that it's odd to think of it as a mineral. That's because most of the minerals around us seem like metals or rocks. Most people forget that minerals come in many states of matter and forms. That's why we have those five criteria for determining whether or not a substance is a mineral. Also, we need to keep in mind that both chemical composition and crystal structure together define a mineral. OK, so now we can identify minerals. But what can we do with them?





02 Campus Life

- W:** Excuse me, Dr. Anderson?
- M:** You must be Maria, come in. What seems to be the problem?
- W:** Well, I've decided to change my major. I was majoring in chemistry, but now I've decided to major in psychology.
- M:** That's terrific. What area are you interested in?
- W:** Well, that's the problem. You see, because I was majoring in chemistry, I didn't take any psychology classes in my second year.
- M:** You're in your third year now, I presume.
- W:** That's right, and I'd like to take developmental psychology.
- M:** But it's a third-year course and you don't have the prerequisites.
- W:** Exactly.
- M:** So, just take some second-year courses this year, and next year you can take developmental. Unless you want to specialize in developmental...
- W:** That's just it. I want to go into child psychology.
- M:** Well, I'm sure you know that it's a little late in the game. Tell me, why the sudden change in plans?
- W:** Well, over the summer, I did some volunteer work at the women's shelter and spent a lot of time with the kids there. After working with children from violent homes, I really think I can make a difference in their lives.
- M:** A noble endeavor. Tell me, have you thought about your thesis topic yet?
- W:** No, not yet. I just made this decision a week ago, and I've only taken introductory psych.
- M:** I understand. That's why I think you shouldn't be too hasty in making this decision.
- W:** Why's that?
- M:** Well, like you said, you've only taken introductory psych. You may discover that you don't like developmental. To be honest, it sounds to me like you might be more interested in social work.
- W:** I suppose that's another option.
- M:** I'm not trying to discourage you. I'm just saying you should explore all of your options.
- W:** But this is my third year. I have to decide now.
- M:** OK. What I would suggest is this: first semester, you take a variety of psych courses. Get exposed to everything that the field has to offer.
- W:** That's a good idea.
- M:** Now, I want you to know that we do set down prerequisites for a reason.
- W:** Oh, I understand that, and I'll work extra hard to catch up.
- M:** I'm sure you will. Now, normally students take statistics in the first semester and research methods the next, but I want you to take both during the next semester. I'd like you to consider holding off on developmental until the semester after that, once you've got the methodologies down.
- W:** OK, I'll think about it, but I really would like to get started right away.
- M:** Well, it is nice to see such an enthusiastic student. Take this permission slip when you go to the office to register.
- W:** Oh, I really appreciate this, Dr. Anderson.

03 Phys. Ed.

- W:** Today, let's move on to the final stroke that I want you to practice — the butterfly. I hope you've all been working on freestyle, breast stroke, and back stroke in your scheduled pool time. On your physical exams, you'll have to show us that you can do them all with proficiency, so don't neglect any one of them. Umm...OK, now we come to the notorious butterfly. In my

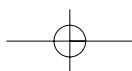
opinion, the difficulty of the butterfly has been blown all out of proportion. We just don't grow up doing it, and that's because it's a racing stroke. All right, I've been observing all of you during swimming practice, and... well... it's clear to me that your arm movement is inefficient. Today, let's review arm movement in the butterfly stroke.

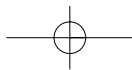
Let's deconstruct it and look at its internal organization. Mastering the arms in the butterfly is all about economy and efficiency of movement. The butterfly stroke's arm movement has three major parts: the pull, the push, and the recovery. During the pull, the hands sink a little bit down with the palms facing outwards and slightly down at shoulder width. This is called catching the water. The pull movement follows a semicircle with the elbow higher than the hand and the hand pointing towards the center of the body and downward. The semicircle ends in front of the chest at the beginning of the ribcage. That constitutes the pull. Any questions about that? Sure, go ahead.

- M:** I get it, basically, but I have a problem. My arms get tired really fast.
- W:** And I'll tell you why, Greg. I was watching you this morning, and it's because your palms are too close together at the start of the pull.
- M:** Oh, I see, but I thought a wide entry was a bad thing.
- W:** Oh, it certainly is! The arms enter the water at shoulder width with the thumbs first. A wider entry loses movement in the next pull phase, and a smaller entry, where the hands touch, wastes energy. You need to find a happy medium. Got it?
- M:** Yes, thanks.
- W:** Next, the push. The swimmer pushes the palm backward through the water. The palm is underneath the body at the beginning of the push and at the side of the body at the end. The movement speeds up throughout the pull-push phase. Many swimmers make the mistake of thinking of the beginning of the pull as the focus. This leads them to neglect the push. In fact, that push should be fast and strong if you're going to make a good recovery. It's the only way to be truly efficient, looking at the arm movement as a whole, repeated process. Yes? Another question?
- M:** Is it the same as you said with freestyle? You said we should keep applying pressure until our hand leaves the water in freestyle.
- W:** It's not exactly the same. For the butterfly, you need to make sure you actually increase the speed throughout the pull-push phase. In freestyle, it's a uniform speed. We're running out of time here, so if anybody else has questions, I'll deal with them by the pool when I see you, but we need to talk about one point regarding recovery. As I said a few minutes ago, the speed at the end of the push is used to help with the recovery. Try not to use too much muscle during the recovery. The recovery swings the arms sideways across the water surface to the front, with the elbows slightly higher than the hands and shoulders. The arms have to be swung forward fast in order not to enter the water too early. If your arms enter the water too early, you lose a lot of momentum, forcing yourself to work a lot harder. A good rule of thumb is this: fly, don't jump. Get used to going in and out using a fluid motion. Don't jump in and out because that slows you down too much and tires you too quickly. Try to just skim the water. When you get used to it, it'll feel like you're just flying on top of the water. Pull, push, recovery, repeat. OK, that's all for now.

04 History

- W:** I would like to discuss some of the historical events that led to the signing of the Magna Carta. The Magna Carta is the most





famous document of British constitutional history and is widely considered to be the first step in what was a long process leading to the establishment of a constitutional monarchy. The Magna Carta required the king to give up a number of rights. As a result, the king had to follow certain legal procedures and to accept that the will of the king was not absolute.

Let's take a look at the background to all this. By the end of the 12th century, that is the late 1100s, the English king had become the most powerful monarch ever seen in Europe. At that time, the king of England even controlled part of northern France, Normandy. All of England's possessions were controlled by barons, and the king ruled over the barons. However, when King John came to the throne in the early 13th century, he made a series of mistakes that led the barons of England to impose limitations on the king's power. The Magna Carta was the result of disagreements between King John and his barons over the rights of the king. We can identify three principal failures of King John. First, King John was not respected. This was due to the way he took power. There had been two candidates to take the place of the previous king, Richard the Lionheart, who died in 1199. One was John, and the other was his nephew, Arthur of Brittany. John captured Arthur and imprisoned him. Although there was no proof, it was believed that John murdered Arthur. This, of course, led people to have a very low opinion of John as someone who would kill members of his own family to be king.

His second failure occurred when he became involved in a dispute with the Church of England. John disagreed with the Church over who should be the next archbishop of Canterbury. The fight continued over several years, and in 1209, John was excommunicated. This meant he was no longer allowed to attend church services or be involved in the Church in any way. He finally had to give in to the Church in 1213.

His third failure was in 1214. Philip Augustus, the King of France, took hold of most of the land in France owned by the English. The English barons demanded that John retake the land. John did make an attempt, but failed. In the process, the English lost a large amount of land, and as a result, King John was given the nickname John "Lackland."

By 1215, the barons were fed up and stormed London. They forced John to agree to a document known as the "Articles of the Barons," and in return, the barons renewed their vows to be loyal to him. A formal document was created to record this agreement on July 15, 1215. This formal document was the original Magna Carta. The Magna Carta was composed of 63 different articles. Most of these were specific to society of the 13th century and thus irrelevant in contemporary times, but I would like to take a look at one of those articles, a very important article of the Magna Carta: Article 61.

Article 61 was the most significant clause for King John. It was known as the "security article" and was the longest portion of the entire document. Article 61 established a committee of 25 barons who could at any time meet, and, if they felt it was necessary, had the power to overrule the king. This could be done through force by seizing his castles and possessions if needed. In addition, the King had to take an oath of loyalty to the committee of barons. However, King John had no intention of honoring the Magna Carta, as he had been forced to sign it, and Article 61 basically took away his powers. In other words, it made him King in name only. John renounced the Magna Carta as soon as the barons left London, which threw the whole country into a civil war, known as the First Barons' War. John died in the middle of this war. His nine-year-old son was crowned King

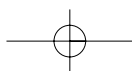
Henry III in late October 1216, and the war then ended. On November 12, 1216, the Magna Carta was reissued with Article 61 omitted.

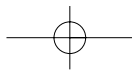
Chapter 3

Focus A 01

01 Campus Life

- M:** Have you thought about what you're going to do this summer, Gloria?
- W:** Well, I can work full time at the restaurant if I want to.
- M:** That's where you worked last summer, right?
- W:** Yes, and I'm still working there part time.
- M:** Do they pay pretty well?
- W:** Yes, with tips the money is pretty good, but I'm graduating next year, so I'd like to get some experience in my field.
- M:** That's a good idea. Maybe you should try to get an internship.
- W:** An internship? I'd love to. It would mean a pay cut, but it'd be worth it.
- M:** Yeah, they don't pay very well, but in the long run, they sure do pay off. Not only do you get experience, you make all kinds of contacts.
- W:** Yes, it would be good to have some experience and some references under my belt when I start looking for work after graduation. I just have no idea how to go about finding a summer internship.
- M:** Why don't you go to the Summer Job/Internship fair?
- W:** I didn't know such a thing existed! When do they hold that?
- M:** Hang on, I've got the pamphlet in my backpack.
- W:** Great.
- M:** Here it is...let's see...it's actually next week, on the 16th. It starts at 9:30 a.m. and goes until 3:00 p.m.
- W:** Is it here on campus?
- M:** At the University Center Ballroom.
- W:** That's great. Is it casual, or should I dress as if I'm going to an interview?
- M:** It says here that it's business casual.
- W:** So, should I bring my resumé?
- M:** Umm...it's not mandatory, but it's a good idea.
- W:** OK. Does it say there what kinds of internships are available?
- M:** You're into logistics, right?
- W:** Yup.
- M:** They've got something at Office Depot and at Wal-Mart.
- W:** Fantastic. Are you going, too?
- M:** Yes, I'm going to try to get hired on at a summer camp.
- W:** Oh, that sounds like fun.
- M:** It sure would be. It would be a good experience, too, since I'm studying to be a teacher.
- W:** Yeah, that would be excellent. Are there many camps listed on there?
- M:** There are three. One's at Camp Ton-A-Wandah, one's at Wesley Woods, and the other is at Camp Webb.
- W:** Camp Ton-A-Wandah? I went there when I was a kid! I had a horrible time. The camp counselors were awful.
- M:** Really? Well, I'll be different.
- W:** I'm sure you will. I'll give you a few pointers some time.
- M:** Let's just wait and see if I get the job.





- W:** You won't have any trouble. You're at the top of your class, and you do all that volunteer work.
- M:** Thanks for the vote of confidence. And good luck to you.
- W:** Thanks, I'll need it. Hey, do you want to go together?
- M:** Sure. We should go early.
- W:** Good idea. We'll look enthusiastic that way.
- M:** Let's meet at 9:15.

02 Campus Life

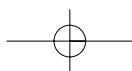
- M:** Is there something I can help you with?
- W:** Yes, I have a few questions about that online tutoring service. I can't remember what it's called.
- M:** You mean Smarthinking.com? I think I can probably answer any questions you might have. What would you like to know?
- W:** Well, I'm thinking of enrolling, but there are a couple of things I'd like to know first. Like for one thing, are there any restrictions on log on times? I usually do my work late at night, so it won't be much use to me if it can only be accessed during regular working hours.
- M:** Not to worry. You are free to log on anytime, anywhere.
- W:** That's good to hear. I've also heard that there is some kind of writing clinic or something. What can you tell me about that?
- M:** Ah, you mean the writing lab. Yes, what that is is a tool to help you improve your writing. You can submit your writing to the online writing lab, and you will receive a critique with some constructive criticism to help you develop your writing skills. It's also open twenty-four hours a day, seven days a week.
- W:** That should be helpful. Will I get an instant reply?
- M:** It won't be instant, but you will receive a reply within 24 hours. We give priority to distance education students because it is impossible for them to consult their instructors face-to-face, but everyone using Smarthinking will get a fast response. Remember the 24 hour rule, though. If you have a paper due at eight o'clock the following morning, you probably won't get your response in time. Always submit your work at least two days before the paper is due. Be sure to leave yourself enough time to do revisions as well.
- W:** What about security? Is there any chance somebody could get a hold of my paper and copy it for themselves?
- M:** Absolutely not. Everyone who has access to submissions in the writing lab is accountable.
- W:** Oh! The papers go to a writing lab? So these aren't English professors who are giving feedback?
- M:** No. Your paper will be evaluated by a graduate student who works in our writing lab. Most of them are English majors, but even if they're not, they all have a strong background in writing.
- W:** I see. Now, I know that the tutoring program is free, but is there any kind of registration fee for first-time users?
- M:** No. There are no charges at all. However, only students currently enrolled at Citywide Community College can use Smarthinking. It has been set up to provide academic support for our students, so unfortunately we can't offer the service to anyone else. Are you currently enrolled at this community college?
- W:** Yes.
- M:** Great. What kind of computer do you have?
- W:** I have a Mac. That won't be a problem, will it?
- M:** No, not at all. As long as you have Internet Explorer, you'll be able to log on to the online tutoring system with no difficulties. I assume that you have a modem?
- W:** Right, I have a 56K modem.
- M:** That's fine. Then all you need to do now is choose your subjects and sign up.

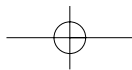
- W:** Can I sign up right now?
- M:** Of course. Those two computers right over there have Internet access. You can use either one to log on and sign up.
- W:** Great. Thanks.

Focus A 02

01 Campus Life

- M:** Excuse me?
- W:** Yes, may I help you?
- M:** I have a question about getting a book.
- W:** Sure, I can help you with that. Did you need help finding the book?
- M:** No, I found it. Or at least I found the listing on the computer, but it says the book is checked out. So, I wanted to ask if there was any way to put my name on a list or something so that I can come get the book once it is checked back in.
- W:** Oh, I see. You want to reserve the book.
- M:** I guess so. Do you have a reserve list or something?
- W:** Actually, you can reserve a book using the library computer. Let me show you. We can use this computer right over here. You can type in the information. I'll just tell you what you need to do at each step.
- M:** Great. Thanks.
- W:** Go ahead and type in the title of the book that you need.
- M:** So, I just do a regular search, like I want to find the book in the library? Like this?
- W:** That's right. Is that the book you were looking for?
- M:** That's it. See, it lists a due date next week.
- W:** OK. There is a button at the top of the screen that will allow you to request the next available copy as soon as it comes in.
- M:** Let me guess: this button that says "request next available copy"?
- W:** Right.
- M:** I feel dumb.
- W:** Not at all. I work with this system every day, so I know all of its features. Most students don't know half of the options available to them with our computer system. It can do a lot more than students use it for.
- M:** Now, it's asking me for my card number and PIN. I guess that means my student ID number since that's what I use as my library card.
- W:** Correct, and your PIN is the same as the PIN number you use when you access the university's online registration or other computer services.
- M:** Then, I just click this log in button down here?
- W:** Uh-huh, and after your log in information is confirmed, the request page should open. There it is. You can see that the box next to the "pick up" option is already checked. Just leave that checked, and when the book comes in, the circulation desk will email you that the book is here. Then, you can come in and pick it up.
- M:** What if I uncheck the "pick up" box. How can I get the book?
- W:** Then, the book will be mailed to the address we have on file with your student ID card, but mailing the book takes longer. If you need the book right away for class or for some research that you're doing, I would suggest just coming in and picking it up.
- M:** Yeah. I want the book as soon as possible, so I'll come pick it up.
- W:** Then you can just click the request button at the bottom of the screen and you're done.
- M:** OK. Request. Done. That was easy. Thanks for your help.





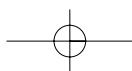
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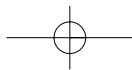
- M:** Donna? What are you doing? The cafeteria has closed for the afternoon. Why are you sitting here?
- W:** Oh. Nothing. I just didn't want to go back to my dorm room yet.
- M:** Uh oh. Roommate problems?
- W:** Kind of. Yes. I don't know, Rob. I just don't think I can live with her for the rest of the semester. I mean, she's not a terrible roommate. It's just the small things that irritate me, and recently there have been more and more small things.
- M:** Well, you can't spend the rest of the semester here in front of the cafeteria. You're going to have to talk to your roommate and let her know what's bothering you.
- W:** I can't do that.
- M:** Why not? I thought you were living with your old high school friend.
- W:** I am. That's why I can't tell her all the things that are bothering me. We've been friends for years. How can I tell her this long list of stuff that she does that drives me up the wall?
- M:** Are you afraid you'll offend her or something? Hey, better to talk about this and get things out in the open. You might offend her, but at least there is chance you can still be friends. If you don't talk to her about how you feel, you could end up going your separate ways at the end of the semester and never speaking to each other again.
- W:** The end of the semester. That seems so far away right now. Can't you think of anything else, Rob? Some other way, like a mutual friend of ours telling her for me? Do you think that would work?
- M:** And drag someone else in the middle of the problem? No, that is definitely not a good idea. But maybe there is something else you can do. You could tell your resident advisor about the problem. Then, she could act as a mediator for the two of you.
- W:** Hey, that's not a bad idea. I could talk to Beth. She's cool. I'm sure she'd understand.
- M:** That's really what resident advisors are there for, you know. When roommates are having problems, they try to solve things from an unbiased perspective.
- W:** Did you ever have to ask your resident advisor to mediate a problem with your roommate?
- M:** No. I never had a problem with my roommate. Actually, I never saw too much of my first roommate. Either I was too busy with stuff, or he was too busy with stuff. We were never in the room hanging out together. It was just the place where we both slept. And my roommate this semester works in a lab, so I never see him either.
- W:** Lucky you. My roommate is always in our room watching TV. That's one of the things that bugs me.
- M:** Hopefully, your resident advisor will help you work things out.
- W:** Yeah. I think I'll go talk to her right now.

Focus B 01

01 Geography

- M:** Good day, everyone. Today, we're going to be looking at some of the effects the moon has on our lives. Can anyone tell me one such effect?
- W:** Well, ummm, I've heard that full moons make people do crazy things.
- M:** Ha ha. Yes, I've heard that, too. Some statistics support that idea, but other studies refute it. In any case, you can debate that more in your psychology classes. But this is geography, so what physical effect does the moon have on our planet?
- W:** Oh, OK then. Well, how about the tides? The moon's gravitational pull causes the tides, right?
- M:** Right you are. That's the information I was looking for, thank you. So, we know the moon causes tidal movement in the oceans, but can the moon cause rain? Do the moon and sun create tidal effects in the atmosphere as well as the oceans? In the past century, an air tide, or rather a kind of shifting of the atmosphere has been recognized. That, specifically, is what we're going to discuss today. As always, you are more than welcome to ask any questions you have as we go along. The possibility of gravitational tides in the Earth's atmosphere was first suggested by Sir Isaac Newton. Newton is most famous for what discovery? Anyone?
- W:** Wasn't he the gravity guy?
- M:** The gravity guy? Yes, I think you could say that. Newton was the first person to describe the force of gravity. Now, he came up with this theory on atmospheric tides while developing an explanation for ocean tides. Since 1918, scientists have been measuring air tides in the Northern Hemisphere, and although the changes in air pressure are small, their effects are not. Studies have shown that more cloudiness, rainfall, and storms are generated during certain lunar phases, such as the full moon. In fact, even before Newton set down his theories on tides, people were aware that lunar phases corresponded with the rise and fall of the ocean tides. More recently, we have found that the moon is even able to cause deformations in the solid crust of the Earth. So, much in the same way the moon affects tidal movement in certain ways, it also pulls on the Earth's crust as well, causing it to move, too. Yes. Amazing, isn't it? The ground we walk on every day isn't necessarily as solid as it seems! Yes, there in the blue sweater?
- W:** The textbook mentions that the moon can cause an atmospheric tide, and that it can create changes in air pressure. Is this an air tide, and is it true that these changes in air pressure can cause hurricanes?
- M:** Ah, as I was saying earlier, studies have shown an increase in storms corresponding to certain lunar phases. While we cannot yet explain this in full, it does appear that the moon has an influence on the weather. Whether they directly cause hurricanes or not, well, we'll have to wait for further research to determine that with any certainty, I'm afraid. Let's look more at what happens during a full moon, though. Researchers at the University of Arizona discovered that at the time of a full moon, the temperature of the lower four miles of the Earth's atmosphere increases by a few hundredths of a degree. Now, a few hundredths of a degree may not sound like much to you, and you probably couldn't feel the difference yourselves, but it is significant. These researchers suggest that the moon warms our atmosphere in two ways. First, the moon's surface is heated by the sun and radiates thermal energy at the Earth. This energy is much less intense than the energy we get directly from the sun, but it is supplemented by a second phenomenon. The moon of course mirrors, or reflects, sunlight at the dark, or night, side of the Earth. However, the mirror effect is relatively slight because it reflects just 10 percent of the light of the sun. Nonetheless, as you all have experienced, I'm sure, that 10 percent is quite significant when compared to the zero percent reflected during a new moon. The difference is night and day, so to speak, if you'll forgive the pun. Anyhow, what I want you to take away from today's lecture is the fact that the moon can affect our weather. While we still have much to learn, we may well be justified in blaming the moon for a rainy day!





02 Geology

W: Today, I'll begin with the basics about minerals. It's important that you supplement this information by reading chapter 3 in your textbook because I'm sticking only to the bare bones here. All right...it's essential to remember that both chemical composition and crystal structure together define a mineral. Some students find that surprising. They think that crystals are pure — are just one element. That may be true for some crystals, but not all. Minerals range in composition from pure elements and simple salts to very complex silicates with thousands of known forms. So to define a mineral, we have to figure its composition. What all is in it? Now, here is a useful tip that may save you a point or two on the next exam. Organic compounds are usually excluded from the category mineral. Got that? If it's organic, don't classify it as a mineral. In fact, there are five main criteria for calling something a mineral. Let's go through those criteria. First of all, it must be in a solid state, not liquid, gas, or plasma. Minerals are solid. Second, it must be naturally occurring. In other words, it can't be man-made. Third, it has to be inorganic. Like I said, if it's organic, it's not a mineral. So, third — oh, sorry — we're on number four now. Fourth, for something to be a mineral, it needs to have a fixed composition, which means the chemical composition is the same everywhere it is found and every time it is found. Mineral X found in my backyard is going to have the same composition as Mineral X found in Australia. Finally, our fifth criterion is that a mineral must be either an element or a compound; so it cannot be a mixture of a chemical compound and an element. Don't worry if that last one seems a bit vague at the moment. We'll talk a lot more about that over the next couple of classes.

Sometimes we get certain cases that satisfy all but one criterion. That's close, but not a mineral. These things are usually classified as mineraloids. Pearls would be a good example. Pearls are solid. They occur naturally. They have a fixed composition, and they're a compound. The only criterion they don't meet is the "inorganic test." Pearls are actually a mixture of organic and inorganic substances. So, because they have that extra organic stuff mixed in, we can't classify them as minerals. Pearls should be called mineraloids.

Now, here's another interesting case. Two or more minerals may have the same chemical composition, but differ in crystal structure. These are known as polymorphs. A good example of a polymorph pair is pyrite and marcasite, which are both iron sulfide. Let's create a simple analogy to help you grasp that concept in case you're confused. Let's say Michelangelo has one large piece of marble. He splits it in two. One piece, he carves into the shape of a horse, and the other piece into the shape of a woman. They are exactly the same in chemical composition, but nobody would really claim they're the same after he's finished. Think of pyrite and marcasite as two of nature's sculptures, both made of iron sulfide!

All right, let's see if you've been listening (laughs). Here's my question. How about frozen H₂O...or ice in layman's terms? Is it a mineral? Anybody? Yes, Sam?

- M:** Well, I'm not positive about this, but...in liquid state, it's just a chemical compound, right? But as ice it becomes a mineral.
- W:** We've got the five criteria for minerals, right? Tell me about each one in terms of ice and we can check.
- M:** OK. Ice is a solid with crystalline structure, and it's not a human-made substance. Ice isn't alive and never has been; it's...how did you put it?...exactly the same everywhere you find it and every time you find it, or whatever; it's a pure compound although it might have other elements suspended in it. Did I cover everything?

W: Well done, Sam. I'm glad somebody was listening (laughs). You're absolutely right. Ice is a mineral.

M: Kind of strange though. Before this class, I never would have thought of ice as a mineral.

W: I agree that it's odd to think of it as a mineral. That's because most of the minerals around us seem like metals or rocks. Most people forget that minerals come in many states of matter and forms. That's why we have those five criteria for determining whether or not a substance is a mineral. Also, we need to keep in mind that both chemical composition and crystal structure together define a mineral.

Focus B 02

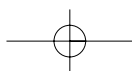
01 Biology

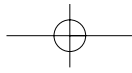
W: Have you ever wondered how we know which plants are good to eat and which ones are poisonous? Well, it was simply a very long and drawn-out process of trial and error. Throughout history, people ate what they could find, kill, or otherwise get a hold of. When there was a lack of a traditional food source, people had to try new things. Over time, they started to figure out which plants made them sick and which didn't.

Now, I am not just talking about ancient times before farming became established. This trial and error with plants was going on well into the 18th and 19th centuries! In fact, historical records indicate that in the 1800s plant poisoning had become a serious issue. Since food wasn't as readily available then as it is today, people were forced to take more chances with what they ate. Rather than drop by the market at the end of the street, people would have to wander out into the fields or forests and find whatever looked edible. Today, because the food supply is rather ample and stable, we rarely have to go find our lunch or dinner out in the woods.

Nonetheless, we still need to be careful. Poisonous plants can be found all around us: in our homes as decoration, in our lawns, and in the general landscape. Of course, we don't generally go around putting random plants in our mouths. However, children do. Have any of you ever caught your baby brother or sister chewing on one of the plants in your house? Or maybe you were caught chewing on one! Considering the fact that a baby's body is smaller and less hardy than ours, we have to look out for them. A small amount of poison that might go unnoticed in an adult can cause more serious harm to a child. So, poisonous plants are dangerous to kids, but there are measures that can be taken to ensure safety. You can identify the plants in your surroundings by giving a call to your local garden center. You can describe the plant to them, and hopefully they can tell you whether or not it has poisonous properties. Alternatively, you can take the plant down to show them. Also, if you buy a new plant, it is wise to ask whether or not it is poisonous.

Now, there are three main categories of toxicity in plants: extremely toxic, moderately toxic, and minimally toxic. These names, however, are very misleading. You see, the severity of the poison depends on a host of other factors, like the particular plant and the metabolism of the person. The term "poisoning" itself is actually also misleading. Poisoning doesn't only mean a person dies from the poison. Poisoning can result in anything from indigestion and skin irritation to lethal brain damage or death. Let's talk about a few categories of poisonous plants now. One category is the alkaloids. These are bitter-tasting plants with





nitrogen compounds in them. A good example is hemlock. I mention it as an example because hemlock is famous. History buffs in the class may recall that it was the poison extracted from this plant that Socrates was forced to drink as his death sentence for corrupting the youth of Athens. That's just an interesting side note. Anyway, the effects of hemlock are similar to nicotine, but, obviously, much more severe as it can cause the nervous system to shut down, resulting in death. Plants with minerals in them form another category of poisonous plants. These plants build up a large amount of some mineral that is toxic in humans, such as lead or copper. The effects of eating these plants can include psychological malfunctioning and, in higher doses, death. Plants containing oxalates are the third category. Oxalates, spelled O-X-A-L-A-T-E-S, occur as small crystals in the plant and irritate the mouth. Not quite as serious as the other two, but poison nonetheless. Once again, those three categories of poisonous plants are the alkaloids, plants with minerals, and oxalates.

So, you may be wondering, why did poisonous plants evolve? What purpose does this serve? Well, there are many different sources of poison in different plants as we just heard, but in most cases, the poison is a by-product of one of the plant's natural life processes, and the poison serves as a defense mechanism for the plant. Animals learn which plants to stay away from because they get sick when they eat them. So, it follows that the plant will survive and reproduce because no one is eating it.

02 Literature

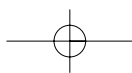
M: OK, let's start with a bit of background on Plutarch before we get to his work. The particular work I mean is Plutarch's *Lives*. Plutarch lived from the year 46 to the year 120 in what had been (and at a later date continued to be) Greece. For many years, Plutarch served as one of the two priests at the temple of Apollo at Delphi (the site of the famous Delphic Oracle) twenty miles from his home. Greece, by the turn of the first millenium, was a sad ruin of its former glory. Mighty Rome had looted its statues and reduced Greece to a mere conquered territory. Despite these circumstances, Mestrius Plutarchus — that is actually Plutarch's given name — lived a long and fruitful life with his wife and family in the little Greek town of Chaeronea. So, that is the man. Now, about his work. Plutarch's plan in his work *Lives* was to pair a philosophical biography of a famous Roman with the biography of a Greek who was comparable in some way. Plutarch's work includes short essays of comparison for each pair of lives, and after each essay, Plutarch pauses to deliver penetrating observations on human nature as illustrated by his subjects. This structure makes it difficult to classify *Lives* under a single genre — I mean to classify it as history, biography, or philosophy. Plutarch's announced intention was NOT to write a chronicle of great historical events, but rather to examine the

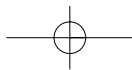
character of great men, as a lesson for the living. I think — and I certainly hope you agree after you've had a chance to read it — that this is a fascinating work with applicable lessons for living for readers even today.

An interesting point about Plutarch's Greek heroes is that his subjects had been dead for at least 300 years by the time he wrote about their lives, around 100 A.D. That means Plutarch had to rely on old manuscripts, many of which no longer exist today. All we have left to rely on is Plutarch's work. But even ancient legends can yield some insight, as Plutarch says at the beginning of his life of Theseus. Plutarch himself had no faith in the accuracy of even the so-called factual materials he had to work with. He actually made a comment to this effect in his essay on the life of Pericles. To quote, he said, "It is so hard to find out the truth of anything by looking at the record of the past. The process of time obscures the truth of former times, and even contemporaneous writers disguise and twist the truth out of malice or flattery." That's something for you to keep in mind the next time you're reading your history textbook. Anyway, in spite of this problem, Plutarch managed to compare Roman and Greek heroes, and do it well enough that his work has survived the ages.

It is interesting that this work was very popular until the 20th century. Then, people pretty much forgot about it. Let's talk a little bit about why that happened. The Romans loved Plutarch's *Lives*, and enough copies were written out over the next centuries that a copy of most parts of *Lives* managed to survive the Dark Ages in different places. It's interesting to note the number of famous figures from history who have appreciated Plutarch's writing and wisdom. Beethoven, as he was growing deaf, wrote in 1801, and I quote: "I have often cursed my Creator and my existence. Plutarch has shown me the path of resignation. If it is at all possible, I will bid defiance to my fate, though I feel that as long as I live there will be moments when I shall be God's most unhappy creature ... Resignation, what a wretched resource! Yet it is all that is left to me." Beethoven read Plutarch's comparisons of the lives of Greek and Roman heroes and found wisdom there. There are many other examples of famous people finding inspiration in Plutarch. The poet Ralph Waldo Emerson was another fan of *Lives*.

So, you may be asking yourself, "If this book is so famous, why haven't I ever heard of it?" Well, despite all of the attention Plutarch's work got through the ages, by the 20th century, Plutarch's popularity began to fade. None of the literary scholars were putting out revitalized new editions of *Lives*. Probably because students were demanding more diversity in the reading curriculum, so a lot of classic works of literature were being pushed aside. Another factor could have been that *Lives* is a difficult book. Plutarch uses a complicated style of writing, so it's not an easy read.





Speaking

Chapter 1

Skill A

Q1 — practice 1

Sample response:

Lance Armstrong is my role model for several reasons. First, he is a cyclist who has won the Tour de France seven times in a row. That, however, is not the only reason I respect this man. He also battled cancer. When I heard his story, it changed my life. Lance Armstrong inspired me to never give up on my dream of going to the Olympics, even though it may seem impossible. His qualities of endurance and perseverance compelled me to become a better athlete and a stronger person.

Q1 — practice 2

Sample response:

One gadget that has helped me with schoolwork is my "reading pen." To begin, I have dyslexia, a learning disability that makes reading very difficult. The reading pen was of great assistance to me. It scans words on a page and reads them out loud to me. I used it every day to help me with my reading assignments. Without it, I would have spent hours reading my assignments and wouldn't have had time to study properly. Because of my reading pen, I was able to excel in school.

Q1 — practice 3

Sample response:

When I was a child, I used to play soccer and baseball. I feel that practicing these sports helped me greatly. The chief benefit was that competing in these sports made my body healthy, instilling me with endurance and strength. Playing baseball developed my upper body strength for hitting and throwing. Soccer, on the other hand, provided me with lower body strength for kicking and stamina and endurance for playing full 90-minute games. Developing a strong, healthy body when I was young has been crucial in maintaining my health later in life.

Q2 — practice 1

Sample response 1:

In my opinion, high school students should be required to follow a certain curriculum. This ensures students are exposed to a wide variety of subjects. If, for example, I had been permitted to select whatever courses I wanted, I would only have taken courses that I found diverting. In the long run, this would have limited my ability to pursue a medical career, which is what I'm doing now. Obviously, if I had been left to my own devices about choosing my courses, I would not be where I am today.

Sample response 2:

In my opinion, educators should let high school students decide which courses they want to study. This ensures that all students are in charge of their own destinies, and they should be permitted to determine their own academic paths. If, for example, a student prefers art to science, why should she waste her time studying science? In the long run, her efforts would be better spent on developing skills in a field that interests her. Obviously, if she has to direct part of her energy toward a course she doesn't like, she will have less time and energy to put toward her real interests.

Q2 — practice 2

Sample response 1:

Some celebrities become rich and famous and then return very little to society, while others attempt to use their influence to raise public awareness of a special cause, such as environmentalism or human rights. In my opinion, we are all better off heeding the expert advice of professionals and officials. After all, how much can a pop star really know about solving problems in Africa? Some people say stars can do a lot if they get behind a particular cause, and there may be some truth to that. However, expecting an erudite opinion from a pop star about health issues in Nigeria is a different matter.

Sample response 2:

Some celebrities become rich and famous and then return very little to society, while others attempt to use their influence to raise public awareness of a special cause, such as environmentalism or human rights. In my opinion, the least the public can do is carefully consider these views. After all, a person living at the top of society probably has a much better view of it and can see problems that normal people cannot. Some cynics contend that people should ignore well-known artists when they express their thoughts on global issues. However, I attribute these views to jealousy.

Q2 — practice 3

Sample response 1:

Some children begin helping out with household chores as soon as they are old enough, while others may never lift a finger. I personally feel that children should pitch in around the house as soon as possible. This teaches them the value of work and gives them a feeling of accomplishment and responsibility. Children who never have to assist around the house often become spoiled and grow up expecting others to do work for them. Parents may think they are helping their kids by doing their work for them, but in the long run, this is not the case.

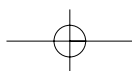
Sample response 2:

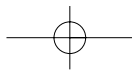
Some children begin helping out with household chores as soon as they are old enough, while others may never lift a finger. I personally feel that childhood is a special time for learning and playing. This helps kids develop imagination, creativity, and social skills through interacting with friends. Children who have little time to enjoy childhood because they are doing work or chores are not given the opportunity to be young. Parents may think that they are teaching their kids responsibility, but in the long run, this lesson costs children more than it's worth.

Skill B

Q3 — practice 1

- W:** I heard they're going to start building that new Science Center soon.
- M:** That's right. They're starting on March 8th.
- W:** I don't know why they don't hold off until summer.
- M:** I think they want to have it finished before September when the new school year starts.
- W:** I know, but I teach a class in Clemens Hall like you. The cacophony from the construction is going to be really distracting.
- M:** Oh, didn't you see the announcement? They're going to relocate all of our classes.





- W:** Oh really? Well that allays my fears a bit. Maybe it's a wise decision after all. Where are we being moved to?
- M:** I don't know yet. We're supposed to get a memo once they figure it all out.
- W:** Well, I hope it's soon. It will take time to move all of our stuff.

Sample response:

The woman thinks that the university ought to wait until summer before they start building the new Science Center. Her concern is that the classes in nearby buildings, specifically, her class at Clemens Hall, will be distracted by the noise from the construction. However, when she talks to the man, he tells her that the university is planning on relocating the classes in Clemens Hall to other buildings on campus. When she learns this, she is relieved, and changes her mind about waiting until summer to commence construction on the new building.

Q3 — practice 2

- M:** Did you hear about this new anti-spam filter they're going to implement?
- W:** Yeah, I think it's tremendous. I abhor receiving spam. It wastes too much of my time.
- M:** My worry would be that it would block important mail, though. I mean, surely it will make mistakes from time to time.
- W:** Yes, of course, that's what your bulk folder is for.
- M:** Bulk folder?
- W:** Yes, according to the announcement, the anti-spam filter is only going to block mail that is obviously spam. If there's any uncertainty, they will send it to your bulk folder.
- M:** Oh, so there's no chance that an email from a friend or from a potential employer will be misidentified as spam?
- W:** No, and it would be rare that something like that would be sent to your bulk folder.
- M:** OK. Well, if there's no risk involved, I think it's great, too.

Sample response:

The man and the woman are discussing a new anti-spam filter that will be installed at their university. The woman, who hates receiving spam, thinks it's a wonderful idea. The man, however, is concerned that the filter will make mistakes and accidentally block important mail. The woman assures him, though, that the filter has a safety feature. It only blocks mail that is obviously spam. If an incoming email looks suspicious, it is sent to the person's bulk folder. In the end, the man agrees that this system is probably safe and agrees with the woman that it is a good idea.

Q3 — practice 3

- M:** Hey June! Do you remember what the extra credit assignment was for our Web Design course?
- W:** Oh, yeah. Dr. Penrose said we could write a review of that guest speaker's presentation for 15 extra credit points.
- M:** Fifteen? Nice! Who's the speaker?
- W:** Oh, you know, James Brentworth, the high school whiz kid from San Diego who made a million dollars from his website.
- M:** Oh wow! THAT guy is gonna speak at our school? When?
- W:** There are announcements about it posted all over campus. It's gonna be Thursday night from seven to eight. I heard it's over in Selwidge Hall, next to the theater.
- M:** This should be a great opportunity. He probably has lots of useful counsel for future web designers. Plus, it's a freebie, right?
- W:** Yeah, and there's a question period afterwards, too.
- M:** Excellent! I'm going to prepare a few questions beforehand.

Sample response:

First, the man asks the woman for information on an extra credit assignment for a Web Design class they are both in. The woman then refers him to an announcement about a guest speaker, reminding him that they can earn credit for attending the talk. The man is excited about the opportunity for two reasons. First, he thinks the guest speaker will provide useful advice for aspiring web designers. In addition, he is pleased that there's no charge for admission to the speech. Therefore, he will prepare some questions to ask the speaker and attend the speech to receive extra credit.

Q4 — practice 1

- W:** You've all read about the Nash Equilibrium. Let's look at a real world situation to which a Nash Equilibrium might apply. Some seemingly insignificant choices in life become significant if people don't agree. For example, it doesn't matter if people drive on the left side of the road or on the right side, provided everyone agrees on one. Because of the risk of collision, it is in everyone's interest to adopt the same policy. Even during rush hour traffic, when drivers all want to get home as quickly as possible, and the left lane of oncoming traffic is empty, people will stay in the slow-moving right-hand lanes. In essence, these commuters are in competition with one another to get home as quickly as possible, yet each driver independently chooses the right side of the road because of the risk of failure or delay driving on the left side would pose.

Sample response:

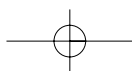
The reading passage describes the Nash Equilibrium, a situation in competitions in which it is not in any competitor's interest to change strategy. The professor expounds on this idea by illustrating a real-life example of the Nash Equilibrium. This example refers to drivers in rush hour traffic. If each driver is considered a competitor, and driving on one side of the road as the strategy, then it fits the Nash Equilibrium. That is to say, it is not in a driver's interest to change strategy, given that a collision could hinder the success of that driver, and coincidentally, the other drivers, too.

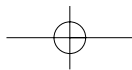
Q4 — practice 2

- M:** The common view that the Black Plague was a strain of bubonic plague spread by fleas living on rats has come under renewed scrutiny in recent years. Several factors have led researchers to propose other microorganisms as the culprits for this pandemic. The first crucial piece of evidence comes from Iceland, where rats were not introduced until the 1800s. Despite this, Iceland was severely affected by the Black Plague long before 1800, but not by subsequent plagues known to have been spread by rats. Furthermore, the incubation period of the Black Plague (up to 30 days) and the rate at which it spread both point away from the bacterium *Yersinia pestis* as a logical cause. Some researchers have proposed pulmonary anthrax or the Ebola virus as more likely agents. Testing for these theories is still in its infancy, but forensic inspection of a 14th-century mass grave has revealed no traces of *Yersinia pestis*.

Sample response:

In the lecture, the professor discusses new theories about the cause of the Black Plague, a disease that killed two-thirds of Europeans in the 14th century. The traditional theory that it was bubonic plague spread to people by fleas carried on rats does not match up with some new evidence. First, Iceland was severely affected despite the fact it had no rats. Second, the incubation period and spreading of





the disease differed from those typical of bubonic plagues. For these reasons, some researchers are now proposing other diseases as the cause, such as pulmonary anthrax or the Ebola virus.

Q4 — practice 3

W: I trust that you've all read in your textbooks that the Great Zimbabwe civilization was founded around the year 450 by ancestors of modern-day Shona speakers. This, however, has not always been the accepted interpretation of the archaeological evidence. After the British "discovery" of the ruins, British Imperialist officials became concerned. You see, the idea of a "black" civilization undermined the justification behind British Imperialism, namely, that whites were superior and that it was their duty to civilize other, "savage" peoples. Government officials commissioned a number of British archaeologists, including Bent and Hall, to investigate the site. Unfortunately, these men destroyed and plundered much of the ruins and officially concluded that the civilization had been built by foreigners from the north. Fortunately, however, archaeologist Randall-Maclver investigated the site in 1905, and her findings contradicted the earlier theories. The British Empire responded by banning archaeologists from the site for nearly 25 years! The racist myth about the ruins was not fully dispelled until Zimbabwe's independence in 1980.

Sample response:

The lecture discusses the rewriting of the history of the Great Zimbabwe civilization during the British Colonial period. The reading details the conclusions based on archaeological evidence. This evidence points to native Shona-speaking Africans as the founders of the civilization that boasted cities, royalty, and a monumental wall. British officials, on the other hand, put forth an official view that the civilization must have been built by foreigners from the north. Their hired archaeologists destroyed evidence and supported racist theories to justify imperialist ventures. Finally, after Zimbabwe gained its independence from Britain in 1980, the myth was dispelled and the truth became accepted.

Skill C

Q5 — practice 1

M: Hey, Jill. You look a bit frazzled.
W: Yeah, well, I loaned my library card to a friend, and she's taken off for the holidays. Now, I have a monumental report due, and I need to borrow some books.
M: Gee, that's a tough one, but I guess there are a couple of things you can do.
W: Well, I thought I could just use the public library. That'd be quick, but they may not have all the books I need.
M: Yeah, that's one option. You could also try to find someone who'd let you use their library card.
W: Huh, I hadn't thought of that. Maybe I could ask around the dorms. There must be someone still around.
M: It might be worth a shot. I'd let you use mine, but I already have too many books checked out for research on my final presentation.
W: That's OK. At least I have a couple of ideas now.
M: Yeah, well, good luck with it. I'll see you around.

Sample response 1:

The woman's problem is that she does not have her university library card, but she needs to check out some books. The man and the woman discuss two options. The first option is that she just use the public library. The second option is that she try to find someone whose card she can borrow. I think the first option is better. She can go to the public library immediately without wasting any time looking for help. Also, there is no guarantee she would find anyone willing to be imposed upon, so the second option may be a waste of time.

Sample response 2:

The woman's problem is that she does not have her university library card, but she needs to check out some books. The man and the woman discuss two options. The first option is that she just use the public library. The second option is that she try to find someone whose card she can borrow. I think the second option is better. Chances are very good that she will find a friend more than happy to help her. Furthermore, the public library may not have the resources she needs, so it may be a waste of time to go there.

Q5 — practice 2

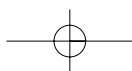
M: How's it going?
W: Not so good. My roommate is driving me crazy. She never cleans up after herself, and she always eats my food.
M: That's no good. You should talk to her about it!
W: The thing is, she's really sensitive, and I don't want to lose her as a friend.
M: You think complaining would put your friendship in jeopardy?
W: She can be really defensive. I wouldn't be surprised if she moved out and never spoke to me again.
M: Well, that sounds really manipulative to me. If you talk to her about it, I think you'll both be happier. Plus, you won't spend all your money feeding her.
W: But if she moves out, I'll have no help with the rent.
M: True. Well, if you can tough it out, graduation isn't that far off.
W: That's what I'm thinking. Then, I won't lose her friendship, and I won't have to spend the next two months bickering with her.

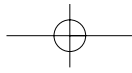
Sample response 1:

The woman is unhappy living with a friend who eats the woman's food and refuses to clean. The man admits the woman could just stick with the situation for a short time longer, but he recommends that she talk to her roommate about the problem. In my opinion, the woman should follow the man's recommendation. For one thing, it is not fair for her to have to do all the cleaning and pay for the food her roommate consumes. Also, if the woman convinces her roommate to start helping out, they will both be happier because there won't be any resentment between them.

Sample response 2:

The woman is unhappy living with a friend who eats the woman's food and refuses to clean. The man admits the woman could just stick with the situation for a short time longer, but he recommends that she talk to her roommate about the problem. In my opinion, the woman should follow her instincts and continue to live with her friend without complaint. For one thing, petty concerns are not worth losing a friend over. Also, if the roommate were to get upset and move out, the woman would be stuck paying all of the rent herself.





Q5 — practice 3

- M:** You took biology last year, right? Did you have to dissect a pig?
W: Yeah, it was gross.
M: I don't care if it's gross, I think it's wrong. I don't want to take part in it.
W: Why don't you explain your position to your teacher? Maybe he would give you an alternative project to do.
M: Yeah, but I'm scared he would hold it against me. You know, some teachers don't like troublemakers.
W: Well, I guess there's a chance that might happen. I guess you have to decide what is more important to you: your grades or your values. You can suck it up and do the dissection to ensure that you get a good grade, or you can stand up for what you believe in.
M: But you know that old saying about knowing when to stand and fight and knowing when to run.
W: You know what? There is power in numbers. If you can get your classmates to join your cause, you might actually bring about change. There's no reason why they can't do virtual dissections in biology class.
M: Hey, you know, you're right.

Sample response 1:

The man's biology class is going to dissect a pig, and he does not want to take part because he believes that dissecting pigs is unethical. The woman suggests that he refuse to take part in the dissection and ask his teacher for an alternative project. The man expresses concern, though, that the teacher might be annoyed with him and lower his grade because of it. I believe the man should stick to his convictions and not take part in activities that contravene his beliefs. He will feel better about himself, and protesting might result in change.

Sample response 2:

The man's biology class is going to dissect a pig, and he does not want to take part because he believes that dissecting pigs is unethical. The woman suggests that he refuse to take part in the dissection and ask his teacher for an alternative project. The man expresses concern, though, that the teacher might be annoyed with him and lower his grade because of it. I believe the man should dissect the pig and not risk getting a poor grade. He will only have to dissect the pig once, but a poor grade will cause him problems in the future.

Q6 — practice 1

- M:** So, today we're going to talk about falconry. This is a hunting method where the hunter, known as the falconer, trains a falcon to find and catch prey for him. Yes?
W: See, to me that's not hunting. It's like the fox hunt... you get another animal to do the hunting for you. Where's the skill in that?
M: OK, well, for one thing, taming a wild bird is no easy task. Indeed, part of that training lies in teaching the bird not to kill the prey. You see, in Arabia, where falconry still takes place, the prey must be killed according to Islamic customs and rituals. Therefore, it's not as if the falconer is passive during the hunt sequence. Now, let's talk about falconry in a historic context. While today it is a sport, when falconry began, it was an important means of survival. For example, nomadic people who traveled the desert needed to eat. The kinds of foods that they could procure for themselves were lacking in variety. Consequently, they enlisted one of the local hunters, the falcon, to help them add the dietary variety needed for subsistence. Some historians assert that falconry may have been the earliest hunting method developed by man. It was in use as far back as 2000 B.C. in China.

Sample response:

Falconry was originally employed as a tool to help people hunt food. Nomadic people in the desert tamed falcons in order to help them hunt for a larger variety of foods than they could acquire by themselves. Today, in contrast, people aren't as desperate to meet subsistence requirements. Nonetheless, falconry is still practiced as a sport. The falconer is highly skilled and must not only tame the falcon, but also teach it to hunt without killing the prey.

Q6 — practice 2

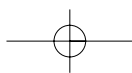
- W:** Any migraine sufferers here today?
M: I am.
W: Do you have auras?
M: Yes, I see flashing lights.
W: For those of you who don't know, "aura" refers to symptoms that precede an actual migraine. Sam says he sees flashing lights before his migraines set in. That's a common type of aura. So, Sam, what happens next?
M: Within about an hour, I'll have an incredible headache, and I'll start vomiting.
W: Does noise bother you?
M: Not as much as light. I have to find a dark room to rest in because I can't stand light.
W: That's common as well. So, that's what a migraine is . . . an intense headache accompanied by other symptoms. Not everyone gets them, but those who do get them episodically. Which leads us to the question "What causes migraines?" Well, medical science is not really sure, but we think it has something to do with blood flow in the brain. Basically, for some reason, some people's blood vessels respond in a weird way to certain stimulants. Arteries that bring blood to the brain contract and limit the blood supply, which means that less oxygen is getting to the brain. This problem is compounded because arteries in the brain will expand to compensate, and that expansion causes pain. So, the trick to preventing migraines is figuring out what triggers the arteries to contract in the first place.

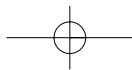
Sample response:

A migraine is a severe headache that may be preceded by an aura, a symptom that signals the sufferer to the onset of a migraine. The migraine itself involves a headache and other symptoms, such as vomiting or intolerance for light or noise. Doctors suspect a possible cause is that restricted blood flow to the brain causes oxygen levels in the brain to decrease. The brain then tries to compensate by expanding the arteries in the brain, which results in pain. Migraine sufferers should try to identify what triggers their migraine to prevent further attacks.

Q6 — practice 3

- M:** You all should be familiar with the standard view of evolution. That is, that species change gradually over time as a result of natural selection until a new species is eventually formed. Who can give me an example?
W: Size?
M: OK, good. A species, like horses for instance, may grow from being the size of cats to the size of a modern horse over tens of thousands of years. The change in each particular generation is imperceptible, perhaps less than a nanometer. However, the fossil record holds evidence of another trend as well. This is the trend for populations to remain relatively unchanged over long periods of time, and then for new species to develop quite suddenly. A new idea in evolutionary theory attempts to account for this. It is called





Punctuated Equilibrium. In Punctuated Equilibrium theory, a large population typically dilutes advantageous mutations. According to this theory, the evolution of new species typically occurs in peripheral subpopulations, in smaller areas in which individuals are competing in novel ecosystems. In these populations, advantageous mutations can quickly take over. After this change, the new species may or may not compete with and exterminate its predecessor. I want to make it clear that this theory is not in conflict with the gradualist view of evolution. In fact, it complements it.

Sample response:

The professor explains two theories of evolution: one related to gradual evolution and the other related to rapid evolution. One example presented is the evolution of horses from cat-sized mammals to their much larger modern stature. This example supports the theory of gradual evolution. However, evidence in the fossil record indicates that species often remain unchanged for long periods, and then new species arise quite suddenly. Punctuated Equilibrium is a new theory that explains this. It holds that large populations dilute new mutations. On the other hand, beneficial mutations spread quickly in peripheral subpopulations. The professor points out that the two theories complement rather than contradict each other.

Chapter 2

Skill A

Q1 — practice 1

Sample response:

Last year, I met a fellow language student on an Internet study forum when I was trying to practice for a Chinese class. As it turned out, he was a Chinese student trying to practice English. Later, we developed a symbiotic relationship by helping each other practice our respective languages. Every week, we chat for 30 minutes in English and 30 minutes in Chinese. By now, we have become good friends, and we have both learned a lot. Of course, among the things I've learned is the fact that Chinese culture is fascinating, and this experience has really broadened my view of the world.

Q1 — practice 2

Sample response:

One technological innovation I witnessed during my university days was the spread of the Internet. Before that, I spent hours in the library doing research. After the Internet came into widespread use, however, I didn't have to go to the library at all. I could do all of my research from a computer in my dorm room, which saved a lot of time. In fact, the Internet saved me a great deal of money, too! For example, I no longer had to make expensive, obligatory phone calls to my parents. Instead, I could send them updates via email for free.

Q1 — practice 3

Sample response:

My life was changed by an unexpected blizzard. One day when I left my house to go to the airport, the weather was cool but clear. As I was driving to the airport, though, it started snowing. Within minutes, there was a raging blizzard. I knew my flight to Jamaica was going

to be canceled, so I was terribly disappointed. Then, I noticed a stranded motorist, so I pulled over to help. I offered the man a lift so he could call a tow truck. Three years later, I married that man. If it weren't for that blizzard, we wouldn't have met.

Q1 — practice 4

Sample response:

The Optimists' Club is an organization that has been very important in my life. They organize fun and enriching activities for kids in the city. For example, I had a great experience and forged lasting friendships while participating in their youth basketball league. In addition, they provide counselors who help troubled youths with problems. One time, I was on edge about my high school course work, and I did not have anyone to turn to for guidance. The Optimists' Club counselor provided me with some very useful advice I needed in order to select the appropriate classes to enroll in.

Q2 — practice 1

Sample response:

I believe that childhood is a critical period in a person's life. First, it is the time in which personality is developed. Second, a person's experiences in childhood affect the remainder of his or her life. For instance, a major trauma experienced at the age of six has a much more devastating effect than one experienced at age thirty. Indeed, negative or traumatic experiences in childhood can lead to psychological problems in adulthood, such as depression and antisocial behavior. Conversely, positive, nurturing experiences in childhood foster mental health and well-being in adulthood. Thus, it is crucial to have positive influences in childhood.

Q2 — practice 2

Sample response:

Most parents are capable of teaching their children to read, write, add, and subtract, as well as many of the other basic skills children are taught at school. However, there are some skills that cannot be taught sufficiently at home. The skills I am referring to are social skills. These, I believe, are the most important skills learned at school. That's why I am of the opinion that children should learn in a social environment. Unfortunately, the home cannot provide an adequate social milieu for children to learn to live with a diverse group of people. Public schools, on the other hand, can and do provide this setting.

Q2 — practice 3

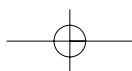
Sample response:

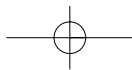
I believe zoos serve a multitude of useful purposes. For one thing, zoos educate visitors. If there were no zoos, children would grow up never witnessing species not indigenous to their area. With zoos, in contrast, children can learn about all kinds of different animal species and observe them up close. That's more captivating and educational than looking at pictures or reading texts. For that matter, zoos provide an entertainment venue for people of all ages. Additionally, they provide a safe home for animals whose survival is threatened in the wild. Animals that are endangered can be kept safe and well fed, as well as be encouraged to breed.

Q2 — practice 4

Sample response:

In some countries, all citizens are required to vote, while in others, individuals are free to decide whether to vote or not. I prefer the system in which voting is optional. First, in this system, public interest is more





important because it affects voter turnout. Therefore, governments and candidates for office must work harder to sway the opinions of voters. Second, people should be free to protest an election by refraining from taking part. Indeed, the very idea of forcing constituents to vote runs counter to the principles upon which free society is based.

Skill B

Q3 — practice 1

- W:** Darn! I really wanted to apply for the Study Abroad Program, but I can't afford it.
- M:** The tuition cost is no different from what you'd pay here.
- W:** Yeah, but I'm here on scholarship, and it can't be used toward tuition abroad.
- M:** I thought the announcement said that it could.
- W:** Only if it's need-based. Mine's academic.
- M:** That's so arbitrary and unfair.
- W:** I know. Technically, my scholarship isn't need-based, but I do need it.
- M:** I could fathom them precluding a person with an athletic scholarship from going, but you earned that scholarship.
- W:** There's not much I can do about it. They have their rules.
- M:** It doesn't make any sense, though. What difference does it make to them if your scholarship is based on academic merit or need? Why should a C student with poor parents have an advantage? I'm all for helping people out with university costs, but it's not fair that they can use their grant money and you can't.
- W:** Funny thing is, I qualified for a need-based scholarship, but I got more money with the academic one.
- M:** Well, there you go. There's no reason why you should be excluded from this program. You're an A student with financial needs.

Sample response:

The man's opinion is that the school's policy of only allowing students with need-based scholarships to use that money toward the Study Abroad Program is unfair. To begin, he contends that the woman earned her scholarship through academic merit rather than athletic skill or financial need. Secondly, the woman did qualify for a need-based scholarship but opted for the academic one, showing that she has the same financial need as students with need-based scholarships. For these two reasons, he feels the woman should be allowed to use her grant money to pay for tuition abroad.

Q3 — practice 2

- M:** I guess we'd better sign up for that lottery.
- W:** I can't believe this. It just doesn't seem fair. Why should people studying sociology get preferential treatment?
- M:** Who knows? I suppose they bring more prestige to the school. Maybe they pull in more research grant dollars. These things are usually all about the money.
- W:** It should be based on need. I'm just barely getting by on my grant as it is. Now, some kids whose parents have two houses are gonna get a dorm room and I'm not?
- M:** You might still get a room. Anyway, they said they'd give us a refund for living costs.
- W:** They said a partial tuition refund. I doubt it'll cover the cost of renting a place in this city, especially near the campus. Then, I'll have transportation costs on top of everything else, and I won't be able to stay at the library too late because I'll have to catch the last bus home.

M: Huh. I never thought about all that.

W: I should go give them a piece of my mind!

M: Yeah, but what can they do about it?

W: They should've done the renovations in the summer. Either that or made some other arrangements for their students.

Sample response:

The woman is angry about the announced plan for a housing lottery for graduate students. First, she thinks it is unfair because students of certain majors are being given priority. Instead, she believes the housing should be assigned based on need. Second, she is upset because living off campus will be expensive and inconvenient. For example, she will pay more in rent and transportation and will not be able to study late on campus. In the end, she complains that they should have done the renovations during the summer or otherwise accommodated the needs of all students.

Q4 — practice 1

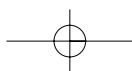
- W:** The giant squid has proven a particularly elusive animal. In fact, marine biologists have tried in vain to conduct detailed studies of giant squid behavior for decades. The majority of what science knows about this species has been gleaned from the examination of dead squid carcasses washed up on shore.
- Giant squid, as the name implies, are huge creatures. The largest specimen ever discovered measured fifteen meters in length. However, most giant squid are smaller, growing to approximately ten meters. They boast two large tentacles in addition to their eight arms. These tentacles have suckers, like that of an octopus, with sharp, claw-like components. They do not possess the stingers or net-like mechanisms for trapping prey commonly found on passive feeders.
- Despite this, their enormous size has led some scientists to propose that giant squid are indeed passive feeders. Some theorists contend that, because of the energy requirements for such a large creature to move quickly enough to capture prey, it must, by necessity, be a passive feeder. Other theorists, needless to say, are not sympathetic to this view. Given the evidence presented by the physical morphology of the animal in conjunction with the feeding paradigm of its smaller cousins, it seems feasible that the giant squid may be an active feeder.

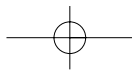
Sample response:

The reading passage describes the morphological differences between marine animals that are active feeders and passive feeders. The lecturer examines the morphology of the giant squid and different theories about its feeding habits. First, the giant squid is a very large creature. Second, it has two tentacles that include sharp, claw-like components. Some scientists have postulated that the enormous size of the giant squid suggests it must be a passive feeder. Other scientists, in contrast, point to its tentacles and the model of smaller squid species as evidence suggesting that the giant squid is an active feeder.

Q4 — practice 2

- M:** In the early 20th century, there was uproar in the musical world. European concert-goers were plugging their ears, walking out on performances, and muttering, "My Lord, what is that horrible, unstructured sound?"
- That unstructured sound was the new, emerging style of European composition. It came to be known as atonal music. Basically, it was the beginning of a rebellion against the way music had always been. All the rules were going out the window, music fans were lambasting the composers, and the composers were replying





that the fans were uncouth or needed more time and education to understand the new musical form.

So, how was their music so different? Well, let's think about the traditional way of arranging music. You use a scale, right? And you build the composition, or song, around that scale. The traditional scales were the major and minor scales. Well, these new composers started using the chromatic scale to structure their music. The chromatic scale means simply all the notes you can play on a piano, without any notes left out. The traditional scales had eight notes in total, and now they were using all 12 notes in the same composition!

Sample response:

The professor begins by describing the negative response many early-20th-century audiences had to the advent of atonal musical forms. Listeners found the new style too unstructured in comparison to the traditional forms they were used to. As the reading passage describes, traditional European music was based on principles of melody. This music utilized the major and minor scales to produce the desired emotions. As the professor points out, atonal compositions utilized the chromatic scale rather than the major or minor scales. The chromatic scale includes 12 notes, all the notes a person can play on the piano.

Skill C

Q5 — practice 1

- M:** Hi, is this the Student Administrative Services Center?
W: Yes, it is. What can I help you with?
M: Well, there seems to be some kind of glitch with my ID card. The scanner at the gym wouldn't read it, and they told me to come here to find out why.
W: Have you got your student ID on you?
M: Yeah, it's right here.
W: OK, let's get your record up on the computer...Bill Hailey, here it is. It seems you haven't paid your tuition yet.
M: Yeah, my loan hasn't come through yet.
W: Unfortunately, until you've paid in full, your status is not active.
M: Oh. Can I just pay the fee?
W: Sorry, you must have active status to use the facilities. If you know someone who does have access, you can go as his or her guest for five dollars.
M: Five dollars? OK, well, I guess I'll have to do that. I'm in training and I need to use the gym.
W: Keep in mind that your host has to be in the facility with you.
M: Gee, that's a pain in the neck.
W: You said you were in training; are you on a varsity team here?
M: Yeah, the basketball team.
W: Why don't you talk to your coach? Maybe you could get a temporary ID until your loan comes through.
M: Hmm...my coach is away right now. Well, thanks for all you're help, anyway.

Sample response:

The man's problem is that he cannot access the gym to work out because his student loans have not come through to pay his tuition. The woman suggests two solutions to his problem. First, he could find a student with access to accompany him to the gym. Second, he could talk to his coach and try to get a temporary ID. In my opinion,

the first choice is preferable. To begin, his coach is away, so the man would have to wait. In addition, having a friend to work out with could help him maintain his exercise regime.

Q5 — practice 2

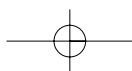
- W:** Richard. Long time no see.
M: Yeah, I've had some personal problems. I'm here to drop the class.
W: You know you've missed the deadline to drop a class without penalty?
M: I know, but I really don't see how I could catch up this late in the game.
W: Let me have a look... no term paper and a D on the midterm.
M: Like I said, I've had some personal problems.
W: Still, there's no advantage to dropping the class now. On the other hand, if you put your nose to the grindstone from here on out, you might pull off a C.
M: Hmm. Would you give me an extension on the paper?
W: Sorry. You'll be docked two points per day like everyone else.
M: Yeah, well, I think I'd rather just drop it.
W: Suit yourself, but dropping a course now is no different from failing it. Why don't you just give it a shot?
M: Well, I'll think about it. The thing is, if I drop this class, I can concentrate on the classes I'm taking for my major.
W: OK, but don't think too long. If you want to pass the class, you should turn in that paper ASAP.

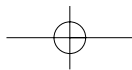
Sample response:

The man's problem is that he wants to drop the professor's class because he is too far behind to earn a high grade. In addition, the deadline for dropping classes without penalty has passed. The professor tries to convince him to remain in the class and work hard to increase his grade. In my opinion, he would be better off dropping the class. Even though he will be penalized for dropping the class the same as if he had failed it, he will benefit by being able to concentrate his efforts on the courses of his major.

Q6 — practice 1

- W:** The most influential development in popular music history was undoubtedly the advent of jazz and its later incarnation, blues. Jazz and blues music originated in New Orleans, Louisiana, when African-American musicians broke free from the musical norms of that period. Jazz and blues artists combined faster, more powerful African rhythms with European melodies. They are also credited with the development of the "blues" scale, which uses the major scale with an extra note, the "blue" note. This music, however, was not widely accepted by mainstream America at the time. The wild, unstructured style of jazz was too much for them, just as later, the intoxicating beat of rock 'n' roll was met with disapproval. However, when white musicians such as Elvis Presley began incorporating these new styles into their music, it became wildly popular with the younger generations. As these generations grew up, rock 'n' roll eventually became universally accepted. Subsequent developments in pop music were generally met with the same disapproval experienced by jazz, blues, and rock 'n' roll in their infancies. One example of this is hip-hop, which appeared on the scene in the early 1980s. It is based on poetic verses spoken over heavy backbeats, which include samples from other songs and repeated noises not produced by traditional instruments, such as police sirens and record scratches.





Pop music today is a fusion of a myriad of styles that did not exist 100 years ago. Many of the most popular bands on the charts today are born from influences of rock, hip-hop, reggae, ska, and techno, all of which met with resistance in their infancies.

Sample response:

According to the lecture, the advent of jazz music had a significant influence on the trajectory of popular music over the past 100 years. To begin, it was developed by African Americans combining African rhythms with European melodies. In addition, jazz influenced the development of blues, which added an extra note to the major scale, thus creating the blues scale. At first, these musical forms were met with resistance. Later, however, they became widely accepted after being incorporated into rock 'n' roll music by white musicians such as Elvis Presley. Furthermore, they have influenced the form of more recent popular music styles, such as hip-hop.

Q6 — practice 2

M: What images are conjured in people's minds when the word "family" is mentioned? It's difficult to pinpoint these days, isn't it? We can regurgitate the ideal family of our parents' generation, though, right? You know: Mom, Dad, and 2.5 children. Dad works nine to five. Mom takes Dad's family name, serves as his companion, and stays at home to cook, clean, and raise the children. They remain married until one of them dies. Sex only occurs inside the confines of marriage. Parents have the ultimate say in the lives of their children. Does that work for you?

In the past, families who did not conform to this paradigm were marginalized. They were considered "troubled," "pathological," or "dysfunctional." In the 1960s, about 70 percent of all families conformed to the ideal, leaving 30 percent in the "problematic" range.

Today, only 11-15 percent of families adhere to the above conditions for the ideal family. It appears this conception of family is disappearing. Some alarmists contend that this is a fundamental societal problem, a breakdown in values that will produce immeasurable negative effects. Is this true?

Well, let's look at it from another angle. There are myriad cultures around the world that have never held this ideal of the family. Even in the American past, the family has been defined differently depending on the time period. So, it seems that what was briefly the ideal family unit was just another phase.

We can cite a few aspects of family that apply universally. Family is the intersection between social reproduction, that is, making a society, and biological reproduction, that is, making new people. The concept of family is what provides a society with its notions of "normal" and "natural."

Sample response:

In this lecture, the professor examines the idea of family. The traditional ideal of the family includes a working father, a domestic mother, and two or three children all living together in one home. Furthermore, families that differed from this ideal were marginalized and considered flawed or unhealthy in the past. These days, however, only a minority of families conform to this ideal. In point of fact, the professor relates that the ideal defined a generation or two ago is only one step on an ever-evolving sequence of ideals. Finally, the professor states that in all societies, the family helps define what is normal and natural.

Chapter 3

Focus A

Step 1 — Sentence stress on content words

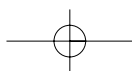
1. Before that, I spent hours in the library doing research.
2. My life was changed by an unexpected blizzard.
3. In addition, they provide counselors who help troubled youths with problems.
4. I believe that childhood is an integral period in a person's life.
5. Public schools, on the other hand, can and do provide this setting.
6. That's more captivating and educational than looking at pictures or reading texts.
7. I prefer the system in which voting is optional.
8. Instead, she believes the housing should be assigned based on need.

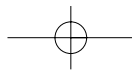
Paragraph:

I believe zoos serve a multitude of useful purposes. For one thing, zoos educate visitors. If there were no zoos, children would grow up never witnessing species not indigenous to their area. With zoos, in contrast, children can learn about all kinds of different animal species and observe them up close. That's more captivating and educational than looking at pictures or reading texts. For that matter, zoos provide an entertainment venue for people of all ages. Additionally, they provide a safe home for animals whose survival is threatened in the wild. Animals that are endangered can be protected, well-fed, and encouraged to breed.

Step 2 — Sentence stress on function words

1. Technically, my scholarship isn't need-based, but I do need it.
 2. If you put your nose to the grindstone from here on out, you might pull off a C.
 3. After the Internet came along, I could do all of my research from a computer in my dorm room.
 4. First, it is the time in which personality is developed.
 5. However, there are some skills that cannot be taught sufficiently at home.
 6. Public schools, on the other hand, can and do provide this setting.
 7. In my opinion, the second choice is preferable.
 8. Although no specimens have been found, there is a lot of evidence for scientists to examine.
1. That isn't his dog, it's her dog.
 2. Most students didn't pass the exam, but John did.
 3. She likes jazz music, and he likes blues music. I like jazz and blues music.
 4. Kim hasn't paid her tuition fees, but Rick has.
 5. The major scale doesn't have 12 notes, but the chromatic scale does.
 6. Off-campus housing isn't just expensive; it's expensive and inconvenient.
 7. He didn't get the need-based scholarship. She did.
 8. You can take English 201 or English 205. You can't take both.





Focus B

Step 1 – Changing pitch for emphasis

1. Children should attend school.
2. This experience helped tremendously with my studies.
3. Subsequent developments in pop music were generally met with the same disapproval.
4. Do you play on the varsity basketball team?

1. I don't abhor jazz music. I don't really enjoy it that much, though.
2. Her behavior is antisocial. He is actually a nice guy.
3. The squid doesn't have eight appendages. It has ten.
4. Jellyfish drift with ocean currents. Squid use their arms to swim.
5. There is a glitch with her computer. Her phone is working fine.
6. The campus renovations will begin in September. The campus celebrations begin in October.

Step 2 – Commas and series with *and* or *or*

1. Many of the most popular bands on the charts today are born from influences of rock, hip-hop, reggae, ska, and techno.
2. They were considered troubled, pathological, or dysfunctional.
3. I doubt it'll cover the cost of renting a place in this city, especially near the campus.
4. Most giant squid are smaller, growing to approximately ten meters.
5. European concert-goers were plugging their ears, walking out on performances, and muttering to themselves.
6. The chromatic scale simply means all the notes you can play on a piano, without any notes left out.

Focus C

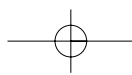
Step 1 – Timing

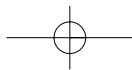
1. The traditional ideal of the family includes a working father, a domestic mother, and two or three children all living happily in one home.
2. As it turned out, he was a Chinese student trying to practice English.
3. After the Internet came into widespread use, however, I didn't have to go to the library at all.
4. Within minutes, there was a raging blizzard.
5. Some alarmists contend that this is a fundamental societal problem, a breakdown in values that will produce immeasurable negative effects.
6. These, I believe, are the most important skills learned at school.

1. The man's opinion is that the school's policy of only allowing students with need-based scholarships to use that money toward the Study Abroad Program is unfair.
2. To begin, he contends that the woman earned her scholarship through academic merit rather than athletic skill or financial need.
3. Secondly, the woman did qualify for a need-based scholarship but opted for the academic one, showing that she has the same financial need as students with need-based scholarships.
4. For these two reasons, he feels the woman should be allowed to use her grant money to pay for tuition abroad.

Step 2 – Pause and pitch

1. The reading passage describes the morphological differences between marine animals that are active feeders and passive feeders.
2. The lecturer examines the morphology of the giant squid and different theories about its feeding habits.
3. First, the giant squid is a very large creature.
4. Second, it has two tentacles that include sharp, claw-like components.
5. Some scientists have postulated that the enormous size of the giant squid suggests it must be a passive feeder.
6. Other scientists, in contrast, point to its tentacles and the model of smaller squid species as evidence suggesting the giant squid is an active feeder.





Writing

Chapter 1

Skill A

Practice 1

01 Statistics

W: I hope you have all read the introduction to Correlation Studies in your textbooks. One component of that reading that I want to stress the importance of is that when assessing the validity of a correlation study it is vital to remember this rule: Correlation does NOT imply causation. It's easy, when you see a correlation, to assume that the changing rate of one variable is causing the changing rate of the other, but how do investigators determine which variable would be the cause and which the effect? Sometimes, it's common sense, but when the investigation itself is not manipulating either variable, it is difficult to know with certainty that one variable is causing the other to occur. Another danger to be wary of is the possibility of a third variable. Consider this example. Ice cream consumption is positively correlated with drowning. Surprised? What might explain this correlation?

M: Well, maybe the ice-cream could give you a cramp while you're swimming.

W: Okay, maybe. But what if I told you that ice cream consumption is also positively correlated with boating accidents.

M: Okay, well, it's got something to do with the beach, or the water...

W: ...and when do people go to the beach or go boating?

M: In the summer.

W: Exactly — when it's hot. And when do people eat ice cream? When it's hot. The third variable here is the weather. So, just because two events are correlated, it doesn't mean that one event is causing the other. It might give us a hint that that might be the case, but further research has to be done to say conclusively that one event causes the other.

For example, smoking is positively correlated with cancer. This evidence alone does not indicate that smoking causes cancer. However, it was the basis for further research that has demonstrated a causal relationship between smoking and cancer.

So, correlation studies are valuable tools that provide a glimpse into how events are related, and they might indicate causal relationships, but alone they in no way determine that one event causes another.

02 History

M: Our topic today is the issue of historiography, specifically revisionist historiography. In many academic circles, the word "revisionism" has come to be used pejoratively. Why do you suppose that is? Well, the reasons are as follows: Whereas some academics still regard historical revisionism as a term simply referring to a re-examination of the past, many historians now believe that revisionism itself has become tinged with a political bias. They argue that many who call themselves "revisionist historians" are in fact hacks and crackpots posing as academics. Due to their own specific ideological leanings, these "revisionist" writers present poorly researched papers or publish controversial books and articles that negate or deny specific events in history. Such writings can be particularly dangerous when non-experts read them. This is because, without fully understanding the context, these readers

are influenced to condone or support a controversial and often completely inaccurate historical perspective.

The best and most recent example of this form of historical revisionism is what has been dubbed, "Holocaust Denial." As most of you are aware, the term "holocaust" has come to refer to the war crimes perpetrated by the Nazi regime in Germany between 1933 and 1945 against, predominantly, the Jewish people. Holocaust deniers are those so-called revisionists who claim either that the holocaust never happened or that statistics surrounding the murders of Jews and other victims of the holocaust have been greatly exaggerated. Holocaust deniers and other revisionists deliberately misrepresent and manipulate historical evidence so as to propagate their political bias or to support an ideological bias. Their writing is usually full of logical fallacies and conspiracy theories and without much supportable documentation or verifiable data.

Such so-called revisionists are not only giving the term "historical revisionism" a bad name; they are coloring the entire field in a negative light through their biased and unscientific approach to the past. However, as long as legitimate students and scholars of history remain aware of this trend and work to combat it, genuine historical research and authentically revisionist enterprises can and should continue.

03 Astronomy

W: In today's astronomy lecture, I wish to discuss the theoretical holes that exist in the Big Bang theory. I also want to discuss alternative views of how the universe might have come into being. You have chosen a very tricky area of science to study, because we are dealing with subject matter that is often difficult to verify.

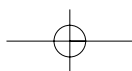
As most of you'll remember if you've read the assigned chapter, the Big Bang theory argues that our universe was created by an explosion that took place around 13.7 billion years ago. Such prestigious figures as Edwin Hubble, for whom the famous Hubble telescope is named, developed and supported this hypothesis. These scientists believed that our universe originated as a small, hot entity that inflated and expanded, then cooled, and now continues to expand.

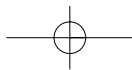
I want to examine this theory more closely. What is the major evidence supporting it?

We know the universe had an origin, and we know galaxies are moving away from each other. Thanks to Wilson and Penzias, we've also discovered the existence of radiation in space as well as an abundance of Hydrogen and Helium gases that supports the idea that a big explosion occurred.

But this evidence is far too general and vague to be limited to the Big Bang theory. This empirical data also supports other models for how the universe came into being. It is important to remember that the Big Bang theory has never been proven beyond a reasonable doubt. It simply remains a popular and widely acknowledged hypothesis.

A new idea has recently emerged called the ekpyrotic scenario, that's E-K-P-Y-R-O-T-I-C. This theory argues, for example, that our universe was created when two parallel "membranes" of space matter collided. While this theory shares some elements with the Big Bang theory, it also has many differences. It is also supported by the same empirical data I have mentioned. All we can really do at this point, as scientists, is to keep investigating the subject with care and precision and wait for new technologies to uncover new information.





04 English Literature

M: Who wrote Shakespeare, students? The question sounds almost illogical, doesn't it?

You all want to shout out: "Duh, well, Shakespeare did of course. Who else could have written Shakespeare?" If only it were that simple. I'm afraid that in literary studies, things are never quite that simple. That is a good lesson for all of you to learn. Consequently, before we start our analysis of the *Hamlet* text you have so diligently brought along with you to class today, we are going to examine the authorship debate.

There are some literary scholars out there who believe an aristocrat called Edward De Vere actually wrote the plays we think of as Shakespeare's, under a pseudonym. The problem is that the arguments to support this claim are actually rather sketchy and poorly researched. Their notion is, in my opinion, a conspiracy theory with little genuine supportable evidence.

For example, it's true that not one single document categorically states that William Shakespeare of Stratford wrote *King Lear* or *Hamlet*, but then no such document exists for any other playwright of the time either. While the so-called "Antistratfordians" find it mysterious that Shakespeare's signature doesn't appear on the early quartos of his plays and that, in fact, no name appears on them at all, this is actually easy to explain. It is because at that time, contemporary plays weren't considered to be literature. Authorship was not considered particularly relevant or important since theater was considered to be popular art, not serious art. It was only after Shakespeare's death that his colleagues decided to collect his plays and publish them in the so-called "First Folio," in 1623.

There are also numerous extant documents referring to William Shakespeare as actor and playwright. These are easily accessible to the serious scholar. Why would Shakespeare's contemporaries, like playwright Ben Jonson, have referred to him so often by name had it really been a pseudonym? An entire group of artists wouldn't all agree to shield someone's identity without motivation. What could they gain from it? What would the purpose of such a deception have been?

Skill B

Practice 1

M: Psychologists are starting to acknowledge sleep deprivation as a vital factor in children's school performance. They tell us that just one or two more hours of sleep each night can make a substantial improvement in kids' grades. All parents have to do is make their children go to bed earlier. Hmm... Easier said than done, don't you think?

Well, as you read in the textbook, sleep no doubt plays an important role in how well a child performs at school. However, we need to remember that sleep is only one variable in the equation. Indeed, an educator would be remiss in merely prescribing more sleep for all students suffering from low grades. Besides being well rested, children need to be well nourished, too. It's tough to concentrate on an empty stomach. They also need to be well clothed, and, most important of all, they need a stable, loving home life.

If a child struggles at school, it may well be true that he or she did not get the recommended nine hours of sleep the previous night. The question we need to ask ourselves is, "Is that the only factor involved?" What about breakfast? Did the child

have pancakes, eggs, toast, and orange juice . . . or just a piece of toast and a glass of water? Did he or she wear a warm coat? Were there holes in his or her shoes? If students have trouble with attention span, could it be because they're still thinking about the knock-down, drag-out fight between Mom and Dad last night? Furthermore, if they have an accident on the playground, were they too tired, too excited, or did they merely slip? What's the impact of lack of sleep vis-à-vis other factors?

The human psyche, especially in children, is fragile, complex, and mysterious. Sleeplessness is a valid concern. However, researchers must consider other variables before jumping to the conclusion that sleep deprivation is the primary cause of academic woes.

Practice 2

M: Today, we'll be talking about non-violent forms of protest. Can anyone give some other terms for this type of action?

W: I think the textbook called it "civil disobedience."

M: Ah, "civil disobedience" very good. Another form is passive resistance. So, you've read that some don't believe civil disobedience to be an effective means of protest, but others, of course, are more supportive.

Let's begin with civil disobedience. You saw that Henry David Thoreau pioneered the modern US theory on this form of non-violence. According to Thoreau, there is no need to physically fight the government as long as you and the government don't support each other in any way. Independence in mind and action is the guiding principle for achieving what is just. In this manner, Thoreau prescribes protesting through justice, rather than physical violence. Civil disobedience derives its power and value because it is "right." This is almost always the principle of peaceful demonstrations in the US today. People, or even nations, can use the principles of civil disobedience to protest companies or nations that they feel are involved in unethical behavior. Rather than using violence, they can boycott, or stop buying, products from that company or country, thus using economics rather than violence to effect change.

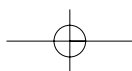
Passive resistance is the other form of non-violence we're looking at. Who's the main figure here?

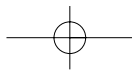
W: Gandhi, right?

M: Good, Gandhi is the non-violent figure par excellence, isn't he? His method involved purposely breaking the law with the expectation of attack by the authorities and then quietly resisting without retaliation. In essence, he attempted to become a martyr. An example is his breaking of the salt tax. Gandhi's followers formed a peaceful blockade around the salt mines and allowed themselves, without resistance, to be brutally beaten by British soldiers. When people around the world, including Britain, got wind of this brutal behavior, they put pressure on the British government to change their ways. Thus, passive resistance was more debilitating than violence to the British colonial infrastructure. Without resorting to violence, Gandhi effectively persuaded the English to end colonial rule in India.

Practice 3

M: Have any of you heard of the term "carbon chauvinism"? Yes, this is science class, and chauvinism has found its way into science. The term, in fact, seeks to discredit views that all life forms are carbon based. But isn't the main question really whether science is being chauvinistic? The answer we'll discuss today is "probably not." In fact, all current scientific evidence indicates that carbon is necessary to life as we know it.





As you all have hopefully read, silicon-based life is one of the pre-eminent contenders to carbon. Yes, the Earth is silicon rich and carbon poor. Yes, tiny diatoms have silicate-based skeletons, but, do we actually have pure silicon life forms to study? We certainly do not. All terrestrial life is carbon based. Rare carbon, rather than the relatively abundant silicon, has proven to be the successful life base on Earth. What about non-terrestrial silicon life? Silicon bonds resist extreme heat better than carbon. This could provide it with the molecular stability for biological evolution on planets closer to the sun. However, the reality is we can't replicate and test such alien environments. Scientifically, we just can't say with certainty.

The other commonly speculated alternative biochemistry base is sulfur. Sulfur is similar to carbon because it's soluble in water. This is an important characteristic on Earth, where water is the medium for all biochemical life. We have, in fact, found some types of bacteria that use sulfur in their metabolism, but these bacteria are still carbon-based life forms, with sulfur playing a secondary metabolic role. Sulfur can form the long molecular chains required for biological evolution, but its high reactivity makes it too unstable to sustain complex, biological evolution here on Earth. We have no pure sulfur life forms on Earth to study! The point is that under conditions for life as we know it, we have no knowledge indicating this is possible.

The key point today is that all conditions for biological life "as we know it" include carbon in their chemistry. We have no empirical data about successful non-carbon biochemistries. So, I'd say the present state of science can't be held guilty of "carbon chauvinism." Alien environments or odd physical conditions are, for the most part, variables we either cannot study or for which there is no real data.

Practice 4

W: How many of you agree with Native American legal rights to archaeological remains? Think of such examples as the Kennewick Man! Wow!... I see the article you read raised some sympathy. Well, I also think scientific communities are taking a hard line with respect to Native American views. In fact, today we'll discuss this subject. Respecting Native American rights to archaeological remains doesn't necessarily mean stopping the progress of science. The problem is that many scientists argue Native American claims spell the end of all research. This is the case with the Kennewick Man, but are Native American claims really so threatening to science? I doubt it. As a matter of fact, I have here a comment from the Union of Confederate Tribes that suggests they are not! "We're not anti-science," they remark. "We just want a say in what happens to our ancestors." To accommodate scientific interests while respecting the dignity and importance of Native American beliefs — shouldn't that be the real goal? Well . . . many Native American groups already show their support of research on archaeological finds, if they are at least consulted or involved! Would you be surprised if I told you that at least 57 Native American groups currently work with scholars on joint archaeological programs? For sure, collaborative work between scientists and Native American leaders is important. It shows the possibility for scientific progress to not only respect Native American communities, but also enlist their participation. Scientists involved in these programs report a lot of advantages to conducting research with the participation of Native Americans. They say deeper understanding of these cultures is obtained by collaborative work. That's right, it enhances their knowledge and can even clarify their scientific results.

It is untrue to say that scientific study would not be possible if Native American beliefs were honored. Attempts to freely pursue science at the cost of Native American beliefs are really the root of the debate. What the Kennewick Man conflict shows is more collaborative work is needed, not efforts to pursue science at all costs.

Chapter 2

Skill A

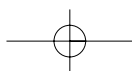
Practice 1

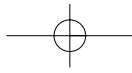
W: We all know that Hernando Cortes conquered Motecuhzoma and the Aztec empire in the early 16th century, but a lesser known part of the conquest is the story of the secret behind Cortes's success. We know that he landed in Tabasco in 1519 and subdued the smaller nations there. According to the tales, the people of those nations told him of the Aztecs further inland, and he negotiated their support in the conquest. But how was this possible? How do you negotiate with a people whose language you have never heard?

The Spaniards had never set foot in that part of Mexico and had no prior contact with any of its peoples. Cortes did have a priest, Gerónimo, who could speak Yucatec Mayan, a language spoken far to the south. Coincidentally, they encountered a local woman who was bilingual in Mayan and Nahuatl, the language of the Aztecs, which also happened to be the lingua franca of central Mexico at that time. It was through Gerónimo and this woman, who the Spaniards called, Doña Marina, or Malinche, and who the Mexicans called Malintzin, that Cortes was able to communicate and negotiate with the various peoples he encountered. Cortes took Malintzin into his entourage as his interpreter-slash-concubine. Now, from this point on, his success strategy is clear. Via Malintzin, he wins the support of the many non-Aztec nations and makes his way toward Tenochtitlan, the Aztec capital. It would be difficult for modern historians to know who the real genius was behind the negotiations. Cortes presumably knew very little of local politics, history, and customs, and never communicated directly with any Mexicans, while on the other hand, Malintzin had knowledge of all these things. On top of this is the fact that she was the one who was actually speaking directly to the national leaders. The extent to which she was just repeating interpreted versions of Cortes's Spanish, or whether she was paraphrasing or speaking her own mind, will likely never be known.

By the time Cortes had reached Tenochtitlan, evidence suggests that Malintzin had begun to interpret directly between Spanish and Nahuatl without using the priest and the unrelated Mayan language as a go-between. Malintzin largely disappears from history after the fall of Tenochtitlan in 1521. We know she bore Cortes a son, who would later gain a high rank before being executed, and that she served as an interpreter again during Cortes's campaign in Honduras.

Some Spanish sources also indicate that she was much more than an interpreter. The soldier Díaz Castillo calls her a "great lady" who was indispensable to the expedition. Another conquistador quotes Cortes as saying that after God, Marina was the main source of his success. Nahuatl sources typically depict Cortes and Malintzin together, or even her alone as an authority in her own right.





Some sources also indicate that the Aztec would refer to Cortes as “Malintzin” as well, casting further doubt on the hierarchical nature of their relationship. So, the question that arises is “Was Malintzin the true conqueror of the Aztec empire and Cortes and his army merely the means she chose to do so?”

Practice 2

M: Most of you know that there is a new mega-dome being built in our city for our new football team, but did you know that you are helping pay for it? That’s right. The federal government allows cities to sell tax-exempt bonds to produce capital to fund stadium construction. This means, on average, that about 70 million dollars in taxes are lost for a 225-million-dollar stadium. That’s 70 million of your tax dollars being spent not on education or infrastructure, but on a sports team that makes millions a year in profit anyway.

Some will say that this 70 million dollars is an investment, from which we see returns in the form of local jobs, increased property value, a boost to the local economy, and national publicity for the city. On the surface, this appears to be true, but let’s take a closer look at each of these points, one by one.

Does a stadium and sports team create jobs? Well, obviously. A better question is “What kind of jobs does it create?” Well, we have construction jobs to build the stadium and staffing jobs to run it. The construction workers would be employed elsewhere if not for the stadium, most likely at building something that serves a clearer public function, like roads, schools, residences, or business facilities. So, there’s no gain here. The low level stadium workers are mostly part-time employees who earn meager wages. What about the players, coaches, and team managers? Well, they no doubt end up with most of the money, but most of these have little involvement in or attachment to the local community, and that money is typically invested elsewhere; or, as you might say, “sucked out of the community.”

OK, then. What about all the visiting fans and tax revenue? Well, in theory that sounds nice, but if we look at the numbers...for instance, Baltimore’s baseball stadium brings in the most outside fans, thanks to nearby D.C., which didn’t have its own team until quite recently. Their annual revenue from that is about 3 million dollars per year. Sounds like a lot, but that’s actually quite low for a 200-million-dollar investment. Also, most tax revenue from the stadium is not additional revenue; rather, it replaces tax revenue that would have gone through movie theaters, restaurants, and so on.

Finally, we have the idea that a sports team boosts a city’s image, attracting businesses, and so on. Well, first off, this is not really feasible to measure. Also, we have to ask ourselves “Could that 70 million dollars be better spent on other projects that might do more to boost the city’s image?” Like what? Well, like top-notch research facilities for the university. Like education and wi-fi infrastructure to attract businesses and families, or even in PR projects for the city. I mean, why not spend 10 million on PR and marketing for the city, rather than 70 million on a sports team that is a profit-seeking business?

Practice 3

W: When scientists in Utah announced they had discovered a way to create cheap energy with little waste, the media grabbed hold of the story. It seemed too good to be true. However, the claim was met with much disdain in the scientific community. The scientists claimed that in their experiment, they observed

the creation of an amount of energy too great to be explained by chemical reaction. To explain this finding, they guessed that nuclear fusion was taking place and called it “cold fusion,” as it was taking place at room temperature.

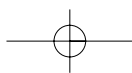
The scientific community was astounded and didn’t readily buy into the “cold fusion” claim. For one thing, it didn’t fit with current theory. Nuclear physicists will tell you that when nuclear fusion takes place, there are protons or neutrons emitted. According to theory, the researchers should have been killed when they did the experiment. However, they weren’t. Further, they were unable to detect any extra neutrons or protons. If nuclear fusion necessarily involves the emission of protons and neutrons, and in this experiment they didn’t see any excess protons and neutrons, then it couldn’t possibly be nuclear fusion . . . unless, of course, the theory is incorrect. You cannot simply dismiss observations because they don’t fit with a theory. That’s how science works, isn’t it? Theories are not facts. When evidence appears to contradict the theory, the theory needs to be reassessed. We cannot throw out observations because they don’t fit with current theories. Science would not have progressed very far if we did. We’d still be wandering around thinking the sun and the planets revolved around the Earth!

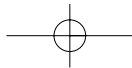
The scientific method demands that findings need to be replicated in order to validate them. After all, human error can lead to some flawed findings. So, when the “cold fusion” scientists made their announcement, many scientists followed suit and tried to replicate their experiment. They failed. They could not, with measured predictability, reproduce the findings of the original scientists. Following this, the whole idea was dismissed. Some accused the scientists of fraud, while others maintained that there must have been errors in their measurements. Indeed, the equipment used to take the measurements was not very accurate. So, the whole idea of “cold fusion” was deemed by some to be a pseudoscience. It did not stand up to the scientific process.

There’s a problem with this stance, though. The scientific process needs time. Just because results weren’t replicated in the months following the initial experiment doesn’t mean the findings are invalid. Fortunately, some have continued to pursue the idea, and many have, indeed, reproduced the original findings. The equipment used for taking measurements has improved greatly in this time, and is more reliable. While some continue to insist that any positive finding must be erroneous, (and indeed, some findings are erroneous,) no skeptic has been able to identify an error that could explain all of the positive results obtained.

Practice 4

M: The debate about whether or not cannibalism took place in Anasazi society is a touchy subject. The Anasazi are the ancestors of the Pueblo peoples, a collective name for various Native American groups in present-day New Mexico and Arizona. When we look at the more recent history of the Pueblo peoples, we revere them for their peaceful ways and their respectful relationship with the Earth. When evidence suggested that cannibalism took place between 900 and 1300 A.D. in these societies, people were naturally horrified and offended. How could such a peaceful and cooperative group of people have done such a thing? Well, the evidence is sound, and it effectively proves that cannibalism took place, but that does not mean that it was a culturally accepted practice. In fact, one of the leading researchers suggests that it was a method used by foreigners to terrorize the Anasazi. Let’s discuss the evidence. First of all, using basic tag markers of cannibalism, archaeologists have shown that certain skeletal

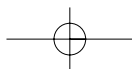


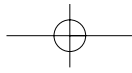


remains of humans were indeed treated like the carcass of an animal. The bones were broken. They also showed signs of having been burned, and indentations from sharp instruments indicate that flesh was intentionally removed. Now, some say that this does not prove that the flesh was eaten and point to a witch slaughter to explain it. However, fossilized fecal matter from the same area shows that human flesh had indeed been digested. Again, this only proves that it happened once, and it doesn't rule out the witch slaughter explanation. Indeed, cannibalism has taken place at some point or another in many other cultures, whether it was due to starvation, criminal activity, or used as a means of social control. It could be that one particularly antisocial person engaged in cannibalism, and we should not condemn an entire group for the act of one person. However, there is one piece of evidence that is not explained by the witch slaughter theory. Resin from cooking pots was found on the bones. This

definitively shows that the flesh was cooked, something that was not part of the witch slaughter ritual. Further, there are so many skeletal remains that have been treated like this, we cannot presume that it was a random criminal act, but that it was a quite significant occurrence.

I'd like to reiterate my point that the suggestion that cannibalism occurred among the Anasazi is not a direct attack on these people. We cannot, at this point, determine who ate whom. While the theory that it was a group of foreigners terrorizing the Anasazi people has not been proven, it is certainly a plausible explanation that does not tarnish our image of the Anasazi. Because cannibalism is so very taboo, even scientists are reluctant to consider evidence that points in that direction. However, science relies on objectivity, and in this case, the evidence is clear. Furthermore, the claim is not a direct implication of evil among the Anasazi.





Practice Test

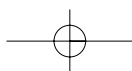
Listening

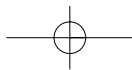
01 Campus Life

- W:** Hey Miguel, how've you been lately?
- M:** Stressed. My global government prof just gave us a monster project. We have to do online research and make a presentation using some kind of computer program. I have no idea about how to use that program. I've never even heard of it before. Say, you don't know anything about how the computer labs work here, do you? I've never really had to do any assignments with computers before, so I've never been to the computer labs on campus.
- W:** Actually, I worked in one of the open labs for two semesters. What do you wanna know?
- M:** Wow, thanks, Jean. Where to begin... Well, first off, where are they?
- W:** Well the open labs are in the basement of the library, in the student union building, and then there are two more on campus. One in the science building and one in that other new building across campus, the building where they do freshman orientation.
- M:** Oh yeah. I know the one you're talking about.
- W:** Anyway, the largest open computer lab is in the science building.
- M:** Oh, OK. Are they open 24 hours?
- W:** Unfortunately, no. They're open from 8 a.m. to 9 p.m. Monday through Thursday, and 9:00 to 5:30 on Friday. The good news is that during the fall and spring semesters, they're open Saturdays and Sundays as well. They're open 9:00 until 5:00 during the weekend.
- M:** Oh huh, and do they offer any kind of training on the computers? Like I said, I don't know much about computers.
- W:** Yes, they do actually. They hold computer training workshops twice a month. You can sign up for one in the library. There are also instructional tutoring sessions for students who need help with their course work in the science computer lab, and of course, individual assistance in all of the labs.
- M:** Can I just walk in and start using a computer, or do I need a password or something?
- W:** You don't need a password to walk in the door, but you will need one to log in and use a computer. You have a student email account, don't you?
- M:** Sure. Doesn't everybody?
- W:** Everybody could have one, but some people don't actually make use of the free service offered by this university. They'd rather pay an online company for some reason.
- M:** That's nutty.
- W:** I think so, too. Anyway, I was asking you about your email account because that's how you can get a password. You have to register with the computer administration office on campus. They're the ones who send you the password.
- M:** This is getting complicated.
- W:** It's not really. It just sounds daunting if you've never done it before. Hey, do you have some time right now? I can go with you and help you register for a password.
- M:** As a matter of fact, my next class doesn't start until 3:30.
- W:** How about going to the computer lab in the student union? That's the closest one.
- M:** Lead the way. I'm right behind you.

02 Ecology

- M:** I'm sure a lot of you in this class have your own car. Think about the dashboard of your car. There are some special indicator lights there, warning indicators. If something is wrong with your car, those indicator lights will come on to warn you. Well, today we're going to talk about a similar kind of indicator in nature. These are bio-indicators. A bio-indicator is an organism that can warn us about harmful changes in our environment. The typical example of a bio-indicator would be a miner's canary. Miners today don't use them, but anyway, it's a good example from history.
- I'm not sure how much you know about mining. You might have heard about recent mining accidents in the news. Obviously, this is a dangerous occupation, but other than mine collapses or explosions, another danger for miners is gas. I mean natural gas in the air, that you can't see. Pockets of natural gas sometimes occur naturally in mine-shafts. These pockets of gas are difficult to detect and can suffocate and kill miners if they do not notice them. You might not realize it, but natural gas doesn't actually have a smell, or at least it doesn't smell like the stuff you put in your car at the gas station. So, when a miner is working in a cave where there is a lot of natural gas in the air — well, you can imagine it's not a good situation to be in. So, miners used to take canaries into the mines with them. A canary is quite small, and these birds will pass out long before a human in a gas pocket. So, if the miner notices that the canary passes out, the miner knows there is danger and that he has to get out of that part of the mine immediately. In this case, the canary is more sensitive to a problem in the environment — the mine in this case — than humans. Likewise, bio-indicators tell us about potential problems in our environment because they are more sensitive to it than we are. OK, quiz time. Can anyone think of another example of a bio-indicator? Yes, Carol?
- W:** Those frogs that were deformed because of the pollution?
- M:** Good example. Frogs breathe through their skin. This means that they directly absorb everything in the water and air they live in, making them much more easily affected by pollution than humans are. When we notice a population of frogs with lots of deformities, such as extra legs, missing body parts, or malformed parts, we know that the area has probably been polluted, that the appropriate testing needs to be performed, and the necessary precautions need to be taken. And, as Carol mentioned, we've seen this happen right here in the United States.
- OK, so we see that pollution hurts frogs, but what about people? Is there any evidence to suggest this kind of pollution causes problems for humans, too? To answer this question, we need to take a look at human bio-indicators.
- Who might be a human bio-indicator? People who are more sensitive to the environment. In particular, children and unborn babies, or fetuses, are more sensitive to pollution than full-grown adults. So, they can also tell us about our environment. We usually ignore bio-indicators like frogs because, well, they're just frogs, aren't they? But when there are health problems in human communities, that sure catches our attention!
- Here's a good example. No doubt you guys are all too young to remember this, but when I was growing up, this was a big deal and everybody knew about it. In 1978, there was a serious





health problem in Love Canal, a suburban neighborhood in upstate New York. There was a high rate of cancer among the children of the area, birth defects were increasing, and pregnant women were losing their babies. Because of the high rate of birth defects and pregnancy problems, people in the area began asking the government to find out why. There was actually a group of activists at the time who were using the slogan, “Our fetuses are our canaries.”

So, what was it about Love Canal that made it different from healthy communities? Well, as it turns out, from 1920 until 1953, the site was used as a chemical dump, a place where a company buries its chemical waste! The dump was later filled in with dirt before it was sold as regular real estate. Of course, chemicals in the ground get washed into ground water supplies when it rains, and the ground water eventually finds its way into local city water systems.

03 Music

W: Let’s think about the traditional way of arranging music. You use a scale, right? And you build the composition, or song, around that scale. The traditional scales are the major and minor scales. The major scale is C-D-E-F-G-A-B-C. I’m sure all of you know it well. The minor scale, again I am sure you all know, is A-B-C-D-E-F-G-A. But, I should point out, these only use the white keys on the piano. What if we played all the keys and don’t skip any? These are C-C#-D-D#-E-F-F#-G-G#-A-A#-B-C. Sounds strange, doesn’t it? This is called the chromatic scale, and it includes all the notes that you can play on traditional European instruments. So, the major and minor scales include the eight notes everyone is familiar with, but the chromatic scale includes everything, a total of twelve notes. And strange as it sounds, this is what composers of the early 20th century were using to write new kinds of compositions.

OK, well, you might say, “Hey, that’s easy, anybody can write a song like that.” But it’s not just a matter of putting together any notes that you want. In order to write compositions using the chromatic scale, composers worked with pretty strict rules. There was a lot more to it than just hitting all the keys.

Who made up the rules? A group of composers, led by Arnold Schoenberg, created the method that composers interested in this kind of writing used when they were working with the chromatic scale. As I mentioned, the method had strict rules. The most important rule was that you could not play any note twice until all the other notes had been played once. To the composers, this meant that the music was truly free of all of the old rules for composition. So, listeners had to hear all twelve notes once before they could hear any one of the notes repeated. This new kind of music got a special name. It was called “atonal” or “12-tone” music, and traditional music was then called “tonal” music.

So, now let’s look at how they did it. Let’s look at how to make a 12-tone composition. First, we take all twelve notes and arrange them in a particular order. Remember, each note is only used once, so writing twelve different notes one time each — we have what is called a tone row. I see some confused looks. OK, let’s keep this really simple to start with. We know there are 12 tones in the chromatic scale, so let’s number them one through twelve. So, one very simple tone row might be just our twelve notes in order from one through twelve. So, now we have a basic tone row for our composition. This will be called the prime row for our composition, but to make the composition interesting, we need to add some variation.

To get this variation, the atonal composers modified the prime row of their piece in particular ways called transformations. The simplest transformation is called the retrograde tone row. As you might guess from the word “retrograde,” this transformation is just the prime row backwards, that is, in our example, from twelve to one. So, now we have two kinds of tone rows: the original, or prime, tone row, and the retrograde tone row.

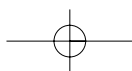
There is also another, more advanced transformation called the inverse row. The inverse is a bit complicated and involves changing the relationships between the notes in a particular way. You take a particular note in your prime row and shift twelve notes backward. You do that for every note in the prime row. It is sometimes called the “upside-down” row. In our example, it’s hard to see how an inverse row changes things because for us, the retrograde row and the inverse row look the same, but say you start your prime row with tone 3 and end with tone 2. So, it goes 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 1, 2. Our retrograde row is then 2, 1, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3. But our inverse row, by doing a little math and saying that each note is equal to 12 minus x — our inverse row becomes 9, 8, 7, 6, 5, 4, 3, 2, 1, 12, 11, 10. You can see all three tone rows are different now.

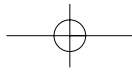
So, now we have three rows: the original, or prime, row, the retrograde, and the inverse. Well, what do you think they did next? They took the inverse of the retrograde row and made the inverse retrograde row. So, that’s three transformations: retrograde (or backwards), inverse (or upside-down), and the retrograde inverse (or upside-down and backwards).

So, a composer could then start putting together a piece with these kinds of transformations. He or she can combine these in any order. If I’m composing an atonal piece, I can play two prime rows, then an inverse retrograde row, then an inverse row. So, now we have an interesting composition!

04 Sociology

M: What exactly is culture? A definition that comes straight out of a textbook would be this: “Culture is the complex whole that includes knowledge, beliefs, arts, morals, laws, customs, and any other habits and capabilities acquired by human beings as members of society. Culture refers to all those ways of thinking, feeling, and behaving that are socially transmitted from one generation to the next.” A bit long-winded, but a definition of culture really has to be. It’s a big idea to cram into just a few words. In case you’re having trouble grasping the idea of what our textbook definition actually means, I’ll give you a paraphrased version. Culture is basically any aspect of human life that is learned and taught and then passed on to younger generations. OK, so culture is learned, and it is passed on. Culture is also typically thought of as existing in the minds of individuals, so people don’t really mean sculptures or ethnic foods when they talk about culture. Those can be culturally understood, but the objects themselves are not “the culture.” Anyway, back to my original point, on the one hand, culture is this collective and all-encompassing entity of knowledge, beliefs, art, and all that other stuff, and on the other hand, it is dependent on people like you and me for its existence. Now, here’s a question that often gets tossed around: Do animals have culture? We generally think of culture as something that only humans have, even though strong arguments can be made that animals, particularly chimpanzees, certainly have some aspects of culture, such as learned use of tools or signals. However, it is only humans that exhibit all the phenomena that we associate with culture. Remember, we said culture was learned, passed on,





and was in the mind. In addition, there were cultural creations such as art, laws, values, and traditions. The interesting thing is that wherever you go in the world and whatever people you come into contact with, you will find that their culture includes those kinds of creations. So, although some animals may exhibit a few traits that resemble culture, humans have culture in its fullest sense. It's not going to surprise anyone when I say that human cultures vary widely from one group of people to the next, and even within cultures, you can find variation. Take, for example, a culture in which marriage partners are selected by the individuals themselves and a culture in which they are selected by an authority figure or parent. When I suggested these cultures, what countries came to mind? Lots of countries could fit in either category, so I'll just choose two. Let's say Canada and India. It's pretty safe to say that the norm in Canadian culture is for individuals to choose their own marriage partners. In India, the norm is for parents to choose. Often, these arrangements are made when the couple are only children. An arrangement will be made for the two to marry at a certain future date. These marriages can be arranged to create a bond or tie between two families or for a number of other reasons. Now, notice that I said "norm" for both of these cultures. There are also plenty of people in both Canada and India who do things differently than the cultural norm dictates. Some Canadians have their marriage partners chosen by authority figures, and some Indians choose their own partners. So, cultures are different when you compare two cultures of different countries or groups, but also within a single group, culture can vary at the personal level.

Of course, it's fun to look at all the differences between cultures — to point out all the "strange" things other people do — but for all their differences, there are also many things that cultures have in common. Like, the vast majority of cultures have ceremonies for marriages, some kind of coming-of-age ceremony, birth and death ceremonies, not to mention taboos, especially taboos regarding nudity and sexual relations. Or smiles. A smile is a universally accepted gesture — or maybe I should say body language — anyway, a smile is universally accepted as meaning something good or friendly.

So far, I've given you a definition of culture, and I've talked a little bit about similarities and differences, but we haven't said anything about how cultures change or evolve. In fact, cultures are constantly in a state of flux in spite of people's tendency to resist change. A good example of this would be something like a culture that tries to resist changes in its language. Face it: if people use it, it's going to change, and people certainly use culture. Some people use it to form bonds within groups or to keep people out of groups. There are lots of ways we use culture, but using your own culture doesn't necessarily change it. Using someone else's culture within your own cultural context — now that can lead to change. In fact, that's one of the most common ways that cultures change — by borrowing from other cultures. Let's take a few minutes and brainstorm some features that American culture has borrowed from other cultures.

05 Campus Life

W: Hi. My name is Emily.

M: Hi, Emily. I'm Todd.

W: What course did you need tutoring for, Todd?

M: Philosophy. Man, that class is kicking my... uh, it's really hard.

W: I understand. The first time students come across some of those theories, it can be kind of confusing. So, what questions do you have about your class?

M: Um, in the last class, we were talking about John Locke and his theory, but I didn't get it.

W: All right, so let's look at John Locke. His big theory related to empiricism, but to start with, how about telling me what you know about Locke and his ideas?

M: OK. Well, he said our minds were a *tabula* uh... the blank slate.

W: OK, yes, a *tabula rasa*, a blank slate. What does that mean?

M: Our minds don't have any knowledge, they just organize our experiences; like by making categories.

W: Good, our minds make categories from our experiences. Can you think of an example of that?

M: In class, my professor talked about colors. The sky and the ocean go into the category of blue things.

W: Good, what else?

M: Could shapes be another category? Like oranges and soccer balls are both round things?

W: Right, so we have categories, like colors and shapes and numbers. So, our minds make categories from information that we get from our senses. Good. So, that's empiricism. Knowledge comes from the senses.

M: Wow. I guess I did learn something in class. What about Berkeley? He was an empiricist, right?

W: That's right. He called his worldview "idealism." What do you know about his theory?

M: That one is tough. I don't get it.

W: You said you didn't get Locke either, but you really did know something about him and his theory.

M: But Berkeley — his ideas are out there. I really didn't get idealism. I mean, I can tell you what I have in my notes, but I just wrote it down. I don't understand what it means.

W: OK. What do your notes say?

M: Here it is. Berkeley said that there are no things, that there is no world, that everything is just an idea. How can that be?

W: Well, Berkeley might ask: What is a chair to you? You can look at it, or touch it, or sit in it, but that's it, basically. He says we don't need to believe in "the real chair" because all we will ever know is "the experienced chair."

M: So what? The chair is just my experience of it?

W: Basically, yes.

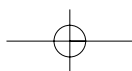
M: That doesn't make any sense to me. It's a chair.

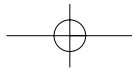
W: OK. Suppose we have two chairs. One is a normal chair, and one is magic.

M: A magic chair?

W: Bear with me. This magic chair disappears whenever you're not looking at it or touching it — when you're not perceiving it, when you're not experiencing it. So, Berkeley's question is, "How can you tell a normal chair from a magical disappearing chair?" You can't, can you? So Berkeley says, the question is irrelevant, and that's idealism. So Locke, the empiricist, believed that knowledge comes from the senses, our experiences, and is merely organized by the mind. Berkeley agreed with Locke, but he went a step further and said that there is no external world at all, and that there are no things underlying our experiences, only our experiences themselves. Are you still with me?

M: It's a little clearer for me.





06 Literature

W: One of the most important things to consider about literature is how the writer tells his or her story. There are numerous methods, aspects, and nuances in writing, and each combination can be used for different effects in the mind of the reader. First off, every story must have at least one narrator of some kind.

I want to start by giving you all an important cautionary note: The narrator and the author are not the same thing. Do not talk about the feelings of the author if you mean the feelings of the narrator. While these may often be one and the same, they may often not be as well. An author may give his or her narrator opinions, characteristics, political orientations, or predilections that are different from his or her own. He or she may be doing this to make a specific point. If you believe the narrator is in fact the author, then look for specific evidence in the text to support this belief. Do NOT start off by simply assuming it.

Moving on, the term “point of view” of the story gets used quite often and can be very vague. Usually, people mean one of two things. The first thing they might mean is the role of the narrator in the story itself. This is the distinction between first-person and third-person narrative. Also, is the narrator an all-knowing voice outside of the story, or is the narrator a character experiencing the story along with us? The second way people use the term “point of view” is to describe the way that the narrator treats the actions, characters, and issues in the story. Is the narrator rooting for the hero? Is the narrator sympathizing with the psychologically disturbed and misunderstood protagonist? Is the narrator making fun of the characters? These devices or methods could also be described as the narrator’s point of view.

I guess I should mention for the sake of those who are unfamiliar with first- and third-person narratives just what these are. A first-person narrative is a story told by one character. So the narrative sections of the text have lots of “I said” or “I saw” or “I did” in them. In third-person narratives — well, since quite a few of the texts that we will read in this course are written as third-person narratives, I want to go into a bit more detail about this particular form of narrative. The basic third-person omniscient narrator is called the “external narrator.” Another term that you might run across is the “non-focalized point of view.” This narrator has access to all of the characters’ minds and all of the events in the story, so there is no single focus or focal point. The reader gets a “god’s-eye-view” of the action. This is often used to give the reader more knowledge than the characters have themselves, so readers can see things developing along a path — a path that they know something about the end of. Technically, this is called a position of irony — knowing and seeing things about a story that certain characters don’t know. So, the external narrator puts the reader in a position of irony.

But the external narrator can also put the reader in a position of suspense. This means the narrator only gives the reader as much knowledge as the characters. This is useful for throwing a few surprises at the reader and also brings up the issue of the “second-reading” of the book. The reader can go back and reread a suspense novel with full knowledge of the story. So, you can see, a writer’s intention for telling a story in a certain way may be short-circuited in some way by readers. It’s an interesting problem. Anyway, since most of you will be reading the stories I’ve assigned for the semester for the first time, we’ll be looking for examples of how writers utilize this position of suspense in their writing.

A third point about external narrators — we can characterize the external narrator with the concepts of drama and reactivity. A dramatized narrator puts in his or her own two cents. I mean, he or she comments on the story as it is happening: giving his or her opinions, hopes, grievances, etc. This, of course, can severely influence the reader and inhibit readers’ abilities to see the story through their own eyes. However, this in itself may be a planned effect by the writer.

There are of course some more complicated techniques available in external narration, such as embedded narratives. A good example of that comes from Mary Shelley’s *Frankenstein*. In *Frankenstein*, the narrator begins the story. Then, Dr. Frankenstein begins telling a story within that story. Later, the monster tells his story within Dr. Frankenstein’s story.

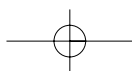
Speaking

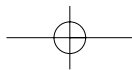
Question 3

- M:** Have you ever used any of the services offered by the Career Services Center?
- W:** I’ve never logged on to any of the e-fairs, but I have used the career mentoring program. It’s great! I’ve been talking to this cool counselor at the Career Center, and he thinks I would be great in statistics or accounting.
- M:** Oh yeah? How does he know that?
- W:** He gave me a couple of tests to measure my interests and abilities. Then, he asked me lots of questions about the type of student I am, and what kind of lifestyle I want to have after I graduate. Then, he ran a computer cross-check that showed my skills and interests were most closely related to students who have majored in stats and accounting.
- M:** But what about finding a job when you graduate?
- W:** The Career Center also has a huge research database. The counselor told me there’ll be lots of jobs in those two fields over the next 10 years.
- M:** It sounds good, but what if you declare one of those majors and then don’t like it?
- W:** Well, the center can help me find an internship next summer. I can do volunteer work for a company in my major and see if I like it. If I don’t, I can change my major. The counselor said the center will be glad to help. It’s a great place. You should check it out!

Question 4

- W:** So, I think we’ve covered all there is to say about the core and the mantle. Those layers are quite familiar to students anyway. I want to take some time today to go into more detail about the Earth’s crust. The description in the textbook is rather superficial. It basically describes the crust as a unified unit — I mean, you might get the impression that the crust is a homogenous layer, but it’s not. The crust is actually better described as consisting of two parts: the continental crust and the oceanic crust. As you might guess from the names of these layers, the oceanic crust is the part under the oceans, and the continental crust is the part under the continents. Now, there are several interesting differences between these two parts of the crust, other than where they are located. One difference is the thickness. The continental





crust is thicker than the oceanic crust. Also, the rocks found in the continental crust are older than the rocks found in the oceanic crust. Let's talk a bit about why this is the case.

Question 5

- W:** Hey, Ryan. What's new?
M: Hi, Jenny. Nothing much.
W: Everything OK? You seem kind of down.
M: I got this notice today. I'm on academic probation.
W: Probation?! Why? Your grades have been great!
M: Most of them are, but I failed geology.
W: Why?
M: Well, first I signed up for too many classes: 18 credit hours. Then, I got sick and fell behind in my economics class. That's my major. I had to write this big term paper. I also had to write another paper for my literature class, so I was concentrating on those. I just didn't have time to study geology.
W: Why didn't you drop it and take it again later?
M: I was going to, but like I said, I was sick for awhile, and I missed the deadline to drop classes. Man, I've never flunked a class in my life!
W: It'll be OK. Here's what you can do. You have two weeks to appeal to the college director. You can write him a letter and explain your circumstances. I'm sure when he hears what happened and looks at all your good grades, he'll take you off probation.
M: I could try, I guess, but I don't know . . . I don't really have a good excuse. It IS my fault. And I was only taking geology to fulfill a stupid science credit!
W: Your second choice is just to take the class again. You have one year. If you pass it, the new grade will replace the "F" on your transcripts.
M: Well, I could try that, but . . . um, the thing is, I don't know if I CAN pass it. It was hard!
W: Sure you can! You're smart, and I'll help you. Next semester, just don't take so many hours so you have more time to study. But Ryan, you've gotta do something — unless you want that "F" on your permanent record!

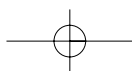
Question 6

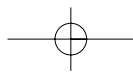
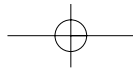
- M:** Herbal treatments are important in traditional Eastern medicine. There are different medical traditions in different Eastern countries, but the most well-known in the West is probably Chinese medicine. It is common to find Chinese herbs at health-food stores in North America, and there are Chinese medical clinics in some cities. However, Chinese medicine has not been completely accepted by most American doctors. This is not because some herbal treatments are ineffective, but because of the basic theory behind Chinese medicine. Traditional Chinese medical theory states that there is a power in the body called "chi." This power moves through the body along specific paths. If these paths are blocked, pain or disease can result. Chi can be hot or cold, active or passive, but there should not be too much of one or the other. The healthiest person has chi that is balanced and flows freely. Chi can be blocked or unbalanced in various ways. Many things can affect chi movement, such as food and body position as well as a person's mental and emotional state. Different herbs have different effects on chi. Ginseng, for example, can stimulate active chi, hence warming the body, while other herbs have a cooling effect. Combinations of various herbs can have complex effects. Traditional Chinese medicine tries to affect chi first, before treating

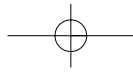
the symptoms of an illness. Western medicine treats the symptoms first. Therefore, traditional Chinese doctors claim that their way is useful for treating continuing problems and preventing disease, while Western medicine is better for problems that need urgent help. While many Western doctors agree that Chinese herbal treatments can be beneficial, few believe in the idea of chi. Since chi is invisible and its effects cannot be measured, there is no direct evidence for it. Until chi can be proved or disproved, there will be no agreement about it.

Writing

- W:** The first and most fundamental step to take when studying an entity or phenomenon is to define it, right? Right. Starting with a definition ensures that there actually is something there to be studied and provides a certainty of what exactly it is being studied and, by extension, what is not being studied. Let's begin, then, by examining some of the aspects involved in the definition of society. A society involves a geographic area, like the United States or the world, for example, though a society can exist on a much smaller scale, like a local community. A society also involves a distinct identity. By this I mean that the individuals within the geographic area view themselves as a society. The people attending this university identify themselves as part of the student body here. Our common place of study gives us a common identity as members of this school. So, place is the first aspect we use to define a group — a social group. A big social group, we'll call a society. A society also involves a common government that sets and monitors rules under which the people in the society abide and coexist. At a national level, this is pretty easy to imagine. The society in any given country is under the rule of the national government. But there are also state governments, city governments, and our university even has a kind of governing body, doesn't it? As you might guess, things that we study in sociology are not always as cut-and-dry as you might think at first. So, going back to our definition of society, next we should talk about language. Members of a particular society share a common language through which they can communicate. It would be kind of hard for a society to function if its members couldn't communicate with each other. It is interesting to note that, in the US, we don't actually have an official national language. Most official business is conducted in English, so even though it's not the official language, it's the accepted common language here. And lastly, a society also shares common traditions, customs, and beliefs, though sociologists are beginning to question the accuracy and relevance of these last few aspects. So, now that we have our definition, we can examine just what this force, society, actually does. For one, it organizes individuals into a system aimed at obtaining the things they need for survival. It does this by giving us guidelines for behavior, as mentioned in the definition. These guidelines serve two chief functions: first, they satisfy certain social needs, and second, they prevent conflict among the members of the society. Thus we have laws, some of which are unwritten taboos, that define and control relationships between women and men, adults and children, teachers and students, etc. In addition, we have laws against theft, violence, and other issues that could potentially create strife. Alright, with all of this in mind, I think we are ready to start thinking about society in a more systematic way.



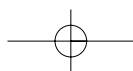


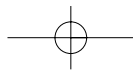


Mastering Skills for the TOEFL® iBT

ANSWER KEY

**Reading Section / Listening Section / Speaking Section /
Writing Section / Practice Test**





Reading Chapter 1

Skill A

01

1. (C) 2. (D) 3. (D)
4. Children's eustachian tubes are smaller and straighter and their adenoids are larger. This means that the tubes do not drain as well, and the adenoids can block the tubes more easily.

02

1. (A) 2. (B) 3. (C)
4. a bridge = humankind's progress, the Titanic = the deadly outcome when man tries to do something too great (the fate of Icarus), the myth of Sisyphus = the futility of humankind's pursuits

03

1. (B) 2. (A) 3. (B)
4. The right to vote and the ability to enter into a legal contract

Skill B

01

1. (C) 2. (C) 3. (A)
4. which deviate from = in addition to, a variety of = other

02

1. (D) 2. (C) 3. (D)
4. (A) Why? Most of the information in the passage is about the rings, moons, and gaps. Also, Galileo did not know that Saturn's disc was really made of separate rings.

03

1. (A) 2. (A) 3. (C)
4. (A) Why? The passage includes information on crops used to make fabric, British control of materials for fabric, and things that colonists did with fabrics.

Skill C

01

1. (D) 2. (B) 3. (D)
4. (A) Why? The paragraph describes the main interest of each man. The answer cannot be (B) because the passage says nothing about how they felt about teaching.

02

1. (D) 2. (D) 3. (B)
4. "careful planning" + "useful" → support of ideas introduced by Sequoia example and provide a lead-in, or reason, for the following sentence on the frequency of planned fires.

03

1. (A) 2. (C) 3. (D)
4. (A) Why? The passage is about how babies communicate without speaking. Sentence (B) implies that the passage should describe why babies don't speak.

Skill D

01

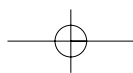
1. (D) 2. (C) 3. (A)
4. First "its" — the water's; Second "its" — the lower Mississippi River's

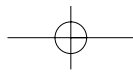
02

1. (D) 2. (A) 3. (B)
4. it — information

03

1. (A) 2. (D) 3. (B)
4. Words in Anglo-Saxon, Old German, and Old Norse





Skill E

01

- (D) 2. (C) 3. (C)
- The passage states that Hemingway is most well-known for his novels, not his non-fiction pieces. Therefore, the answer is (C).

02

- (C) 2. (B) 3. (A)
- The passage states that the former, which refers to nodding, is communicated in Turkey by raising the eyebrows. Thus, someone in Turkey would not understand a nod from a person of another culture, so the answer is (B).

03

- (B) 2. (C) 3. (A)
- One night, a spirit wearing the jingle dress appeared to him in a dream. A spirit is a supernatural being and the Ojibwa man believed in it. Thus, the answer is (C).

Skill F

01

- Native — (C), (D), (G); Non-native — (A), (E)
- (A) 3. (A)
- Neither (B) nor (F) is mentioned in the passage.

02

- (A), (B), (D)
- (B) 3. (A)
- Sentences 2 and 3

03

- Slang — (A), (C), (G);
Mainstream Speech — (D), (E), (H)
- (B) 3. (C)
- Neither (B) nor (F) is mentioned in the passage.

Review A-F

Vocabulary Review

- | | | |
|---------------|-----------------|----------------|
| 1. (D) | 2. (C) | 3. (B) |
| 4. (D) | 5. (D) | 6. (C) |
| 7. (D) | 8. (A) | 9. (D) |
| 10. (A) | 11. (D) | 12. (C) |
| 13. (C) | 14. (A) | 15. (C) |
| 16. inability | 17. distinguish | 18. composing |
| 19. contend | 20. recite | 21. perish |
| 22. access | 23. perish | 24. proficient |
| 25. preclude | | |

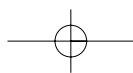
Skill Review

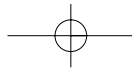
01

- | | | |
|---|---------|--------|
| 1. (C) | 2. (A) | 3. (A) |
| 4. (D) | 5. (A) | 6. (C) |
| 7. (B) | 8. (A) | 9. (C) |
| 10. (A) | 11. (C) | |
| 12. Inflow — (B), (D), (H); Outflow — (A), (E), (F) | | |

02

- | | | |
|-------------------|---------|--------|
| 1. (B) | 2. (D) | 3. (A) |
| 4. (B) | 5. (C) | 6. (A) |
| 7. (D) | 8. (B) | 9. (A) |
| 10. (B) | 11. (A) | |
| 12. (B), (E), (F) | | |





Chapter 2

Skill A

01

1. (A) 2. (C) 3. (A)
4. (A)
5. England — (C), (E), (F), (G); France — (B), (D), (H)

02

1. (C) 2. (B) 3. (A)
4. (D)
5. Bit — (B), (G); Byte — (A), (C), (D)

03

1. (D) 2. (A) 3. (B)
4. (C) 5. (A), (E), (F)

04

1. (D) 2. (D) 3. (B)
4. (D)
5. Fear — (B), (C); Anxiety — (D), (E), (G)

05

1. (D) 2. (D) 3. (D)
4. (B) 5. (B), (C), (D)

Skill B

01

1. (B) 2. (C) 3. (D)
4. (C)
5. Flock in Florida — (D), (E);
Flock in Texas — (B), (C), (G)

02

1. (C) 2. (A) 3. (D)
4. (B) 5. (B), (D), (F)

03

1. (D) 2. (A) 3. (A)
4. (B)
5. Early jazz musicians — (C), (F), (G);
Armstrong's innovations — (B), (D)

04

1. (B) 2. (C) 3. (D)
4. (B) 5. (A), (C), (E)

05

1. (C) 2. (A) 3. (D)
4. (C)
5. Ideas Before 1300 — (C), (G);
Ideas After 1300 — (A), (B), (D)

Skill C

01

1. (D) 2. (C) 3. (B)
4. (B) 5. (A), (B), (C)

02

1. (D) 2. (B) 3. (B)
4. (C)
5. Herbs — (C), (D), (E), (H); Spices — (F), (G), (I)

03

1. (D) 2. (C) 3. (A)
4. (D) 5. (A), (D), (F)

04

1. (B) 2. (D) 3. (C)
4. (A) 5. (A), (B), (E)

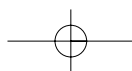
05

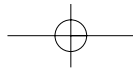
1. (D) 2. (A) 3. (C)
4. (B) 5. (A), (C), (F)

Review A-C

Vocabulary Review

1. (B) 2. (C) 3. (A)
4. (C) 5. (A) 6. (D)
7. (B) 8. (B) 9. (D)
10. (B) 11. (C) 12. (A)
13. (D) 14. (A) 15. (A)
16. (C) 17. (D) 18. (C)
19. (A) 20. (B) 21. (C)





22. (A) 23. (B) 24. (A)
 25. (D) 26. (B) 27. (D)
 28. (B) 29. (C) 30. (C)
 31. immigration 32. likelihood 33. occupation
 34. social security 35. comprised 36. exposed
 37. link 38. enables 39. misery
 40. ensures 41. motivation 42. cite
 43. descend 44. innovative 45. exclusively
 46. (E) 47. (A) 48. (D)
 49. (B) 50. (C)

Skill Review

01

1. (D) 2. (C) 3. (C)
 4. (C) 5. (B) 6. (B)
 7. (D) 8. (C) 9. (C)
 10. Causes of Isolation — (E), (H);
 Effects of Isolation — (C), (D);
 Ways to Prevent Isolation — (A), (F)

02

1. (B) 2. (B) 3. (D)
 4. (B) 5. (A) 6. (C)
 7. (D) 8. (A) 9. (A)
 10. (B), (D), (F)

Skill D

01

1. (D) 2. (B) 3. (D)
 4. (A) 5. (A), (D), (E)

02

1. (D) 2. (D) 3. (A)
 4. (C) 5. (A), (C), (F)

03

1. (A) 2. (D) 3. (C)
 4. (B)
 5. Traditional — (B), (E), (F); Non-traditional — (A), (C)

04

1. (B) 2. (C) 3. (C)
 4. (A) 5. (A), (C), (E)

05

1. (C) 2. (C) 3. (D)
 4. (B)
 5. Classical Realism — (A), (D), (F);
 Romantic Realism — (B), (C)

Skill E

01

1. (C) 2. (D) 3. (B)
 4. (C) 5. (A), (C), (F)

02

1. (B) 2. (A) 3. (D)
 4. (B) 5. (A), (D), (E)

03

1. (B) 2. (C) 3. (C)
 4. (B)
 5. Imports — (B), (C), (G) Exports — (A), (D)

04

1. (A) 2. (C) 3. (C)
 4. (B) 5. (A), (D), (E)

05

1. (A) 2. (B) 3. (B)
 4. (D) 5. (B), (D), (F)

Skill F

01

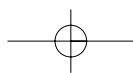
1. (D) 2. (D) 3. (A)
 4. (C) 5. (A), (C), (F)

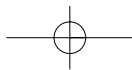
02

1. (C) 2. (C) 3. (A)
 4. (B)
 5. Agents of Socialization — (A), (F), (H)
 Types of Socialization — (B), (C), (G)

03

1. (B) 2. (B) 3. (B)
 4. (C) 5. (B), (C), (E)



**04**

- | | | |
|----------------------------------|--------|--------|
| 1. (B) | 2. (A) | 3. (D) |
| 4. (A) | | |
| 5. Moving Plates — (B), (C), (E) | | |
| Forming Mountains — (A), (G) | | |

05

- | | | |
|--------|------------------|--------|
| 1. (A) | 2. (B) | 3. (C) |
| 4. (C) | 5. (B), (C), (E) | |

Review A-F**Vocabulary Review**

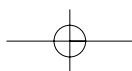
- | | | |
|---------------|----------------|----------------|
| 1. (B) | 2. (C) | 3. (D) |
| 4. (B) | 5. (A) | 6. (C) |
| 7. (A) | 8. (A) | 9. (D) |
| 10. (B) | 11. (B) | 12. (D) |
| 13. (A) | 14. (B) | 15. (A) |
| 16. (C) | 17. (C) | 18. (D) |
| 19. (A) | 20. (B) | 21. (A) |
| 22. (D) | 23. (B) | 24. (C) |
| 25. (A) | 26. (D) | 27. (B) |
| 28. (A) | 29. (C) | 30. (A) |
| 31. advent | 32. evolution | 33. discredit |
| 34. essence | 35. Inevitably | 36. interpret |
| 37. diverse | 38. adaptation | 39. diverge |
| 40. retain | 41. obscurity | 42. mechanical |
| 43. prophetic | 44. reverence | 45. uniformity |
| 46. (C) | 47. (E) | 48. (A) |
| 49. (D) | 50. (B) | |

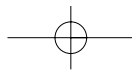
Skill Review**01**

- | | | |
|---|---------|--------|
| 1. (B) | 2. (D) | 3. (B) |
| 4. (B) | 5. (D) | 6. (D) |
| 7. (C) | 8. (D) | 9. (A) |
| 10. (B) | 11. (D) | |
| 12. Intensity — (A), (E), (G); Spread — (C), (D), (H) | | |

02

- | | | |
|-------------------|---------|--------|
| 1. (B) | 2. (D) | 3. (C) |
| 4. (B) | 5. (A) | 6. (A) |
| 7. (C) | 8. (B) | 9. (D) |
| 10. (C) | 11. (C) | |
| 12. (B), (C), (F) | | |





Chapter 3

Focus A

Guided Practice

01 Acupuncture

Suggested underlined sentences:

In China, the practice of acupuncture has been traced back to approximately the 1st millennium B.C.

Acupuncture is understood to be a procedure for regulating the circulation of gi (vital energy) and blood.

Traditional Chinese medicine is not based on knowledge of modern physiology, biochemistry, nutrition, anatomy, or any of the known mechanisms of healing.

Though it has continued to be regarded with some level of skepticism and mistrust, acupuncture is gradually becoming accepted in the Western world as a form of medicine.

Summary

Suggested answer:

The technique of acupuncture has been used in China to help people recover from illness for at least 2,000 years. Acupuncture was originally used to control the flow of vital energy, called gi, and blood through the body. Because it is not founded in knowledge gained from modern health sciences, many medical experts in the western world do not accept the benefits of acupuncture. Despite this skepticism, more and more people are turning to acupuncture as a form of medicine.

02 Capitalism

Suggested underlined sentences:

Social stratification is the hierarchical arrangement of a society into social classes and strata that are very difficult for individuals to rise through.

By and large, individuals are locked into a socio-economic class from birth and are kept there by social limitations.

A key tenet of social stratification is that status is inherited.

The group can be defined by wealth and social status, but it is often also related to such factors as race, ethnicity, gender, age, and religion.

Summary

Suggested answer:

Social stratification is the hierarchical arrangement of a society into social classes and strata that are very difficult for individuals to rise through. One critical factor related to social class is that children can inherit this class from their parents. Additionally, those born into the higher strata of society use their power to maintain their wealth and position in society. Other birth factors that may determine a person's social class include the person's race, ethnicity, and gender.

Self Practice

01 Parts of Plot

Suggested underlined sentences:

Aristotle, in his *Poetics*, looks at the form of tragedy in drama.

By this, Aristotle indicates that the medium of tragedy is not narrative, but drama.

To be whole, the tragedy must have a beginning, middle, and an end.

The aim of the play is to bring out this catharsis within the audience.

Summary

Suggested answer:

In *Poetics*, Aristotle outlines the critical features of a tragedy. First, Aristotle claimed that tragedy should be shown rather than told. A tragedy must also have a logically connected beginning, middle, and end. Additionally, Aristotle believed that a tragedy should lead the audience to a catharsis.

02 Management

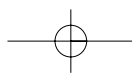
Suggested underlined sentences:

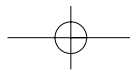
Several studies have identified key mistakes that can impede a talented manager's career.

The first key mistake is insensitivity.

Another somewhat related common flaw is arrogance.

Betrayal of trust is cited in the studies as a third common mistake.





The next mistake commonly linked to derailers is over-ambition.

The fifth key mistake identified in the research is that derailers do not effectively delegate.

Summary

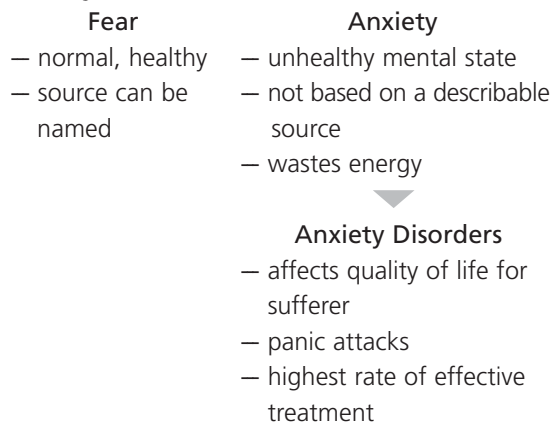
Suggested answer:

Research indicates that potentially successful managers can derail their careers by making at least two of the following mistakes. They may be insensitive to their subordinates. They may be too arrogant and not listen to others who seem to have less skill or experience than they do. Another common problem is that derailers refuse to admit an inability to meet deadlines, thus betraying the trust of others they work with.

Focus B

Guided Practice

01 Anxiety



Summary

Suggested answer:

Although many people think they are the same, psychologists differentiate between fear and anxiety. Fear is a normal, healthy reaction to a definable cause. Anxiety, in contrast, is an unhealthy mental state caused by an indescribable source. In severe cases, people may develop anxiety disorders which can negatively affect the quality of life of the sufferer.

02 Plea bargaining

Plea Bargaining: Disadvantages

- makes legal system bartering
- people may plead guilty to crimes they didn't commit
- criminals may not be punished for crimes they do commit

Plea bargaining: Advantages

- can save resources by avoiding trial
- can help convict high-level criminals
- can help convict criminals with insufficient evidence

Summary

Suggested answer:

Plea bargaining is a powerful tool for prosecutors, but there are both pros and cons related to this type of legal strategy. Critics contend that plea bargaining reduces the justice system to bartering and that dangerous criminals sometimes are not punished in exchange for testimony against others. On the other hand, plea bargaining allows the justice system to function fluidly by saving both the time and money that going to trial consumes. Finally, though some low-level criminals may not be punished for their crimes, their testimony helps keep more dangerous criminals in prison, thus protecting society on the whole.

Self Practice

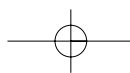
01 Bits vs. Bytes

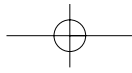
Bit: binary digit

- consists of 0s and 1s, on and off
- used by programmers to direct computer functions
- Kbps=kilobits per second

Byte: 8 bits

- single character of data on computer
- example: a letter in ASCII
- KBps=kilobytes per second
- kilo=1,024, NOT 1,000





Summary

Suggested answer:

Computers respond to data organized in two states, on and off, which are represented by 1s and 0s. Each of these 1s and 0s is called a bit and is used by computer programmers to direct the functions of a computer. These bits are arranged in groups of eight, which are referred to as bytes. A byte represents a single character of data on a computer, such as the letter A.

02 Technology in the Classroom

Use of technology in the classroom

- multimedia should provide framework, not too much detail
- teacher can become superfluous
- interaction can be reduced

Stages of lecture

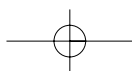
- lecture should have beginning, middle, end
- beginning sparks student attention, provides overview of topic

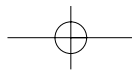
- middle presents details
- should have breaks every 12-15 minutes to engage students
- end reviews key information, helps students assimilate info with own experience

Summary

Suggested answer:

A strong lecturer should use technology wisely and plan the stages of the lecture effectively. If technology presents too much information to students during a lecture, interaction will be reduced and the instructor may become unnecessary. The lecture should be divided into a beginning, middle, and end with appropriate content for each stage. Finally, the lecturer should plan a change of pace every 12-15 minutes in order to keep the students' attention and re-engage them with the material.





Listening Chapter 1

Skill A

01

- (D) 2. (B) 3. (C)
- Go to room 304 in Withurst Hall / Fill out a FORM and pay a FEE. / The fee is THIRTY dollars for team players.

02

- (B) 2. (B), (C) 3. (C)
- Stage of Industrialization-Death Rate-BIRTH Rate-Population / Preindustrial-High-High-STABLE / Early Industrial-LOW-High-Explosion / Mature Industrial-Low-LOW-Stable

03

- (A) 2. (D) 3. (C)
- Petrarch's sonnets / 2 parts / 8 lines / 6 lines / Shakespeare's sonnets / 4 parts / 3 4-line parts / 1 couplet

04

- (B) 2. (A), (C) 3. (C)
- Enrolling in a class that is full / You may be able to enroll if it is a REQUIRED course. / You may be able to enroll if you have the PREREQUISITES. / You can be put on a WAITING list if the previous two conditions do not apply.

05

- (C) 2. (D) 3. (A)
- How glaciers erode bedrock / PLUCKING causes large chunks to be detached. / Abrasion / COURSE debris creates long grooves in the bedrock. / FINE debris creates a smooth surface.

06

- (D) 2. (B) 3. (B), (C)
- Pasteurization / HTST / — kept at 72°C for 15 seconds / — can last for two or three WEEKS / UHT / — kept at 138°C for 2 seconds / — can last for two or three MONTHS

07

- (B) 2. (C) 3. (B)
- Notes: MAIN ideas, strengths, one thing to IMPROVE / Grading: from 1 to 4; best score = 4

08

- (D) 2. (C) 3. (D)
- Where information comes from / PRIMARY / Ex: a diary / SECONDARY / Ex: a scholars interpretation of a PRIMARY source / TERTIARY / created from a SECONDARY source

Skill B

01

- (C) 2. (C) 3. (B)
- Jazz Band AUDITIONS / Memorize SCALES / Practice SIGHT-READING / Allow plenty of time to WARM UP

02

- (B) 2. (B) 3. (A), (B), (D)
- Alexander the Great / charismatic LEADER / a brutal KILLER / brilliant military STRATEGIST

03

- (C) 2. (D) 3. (A), (D)
- Needed for preservation / PRESERVABLE substance / BONE / SHELL / Buried in SEDIMENT / Suitable ENVIRONMENT / SHORELINE

04

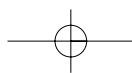
- (D) 2. (A) 3. (C)
- Court policy: / The maximum limit is one HOUR, ONE time(s) per week. / RESERVATIONS are made one WEEK beforehand.

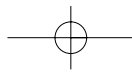
05

- (A) 2. (A) 3. (C), (D)
- Example: JUMPING over a ravine / FIRE in your house / Use of Physics: calculate necessary MOMENTUM / Use principles of (SMOKE AND) HEAT diffusion

06

- (B) 2. (D) 3. (A)
- MASKS / Greek / first used in (RELIGIOUS) RITUALS / theater masks made of painted LEATHER or canvas / MEDIEVAL / used in morality plays / made of paper mache



**07**

- (A) 2. (A), (B) 3. (B)
- The PRE-LAB report / Order of writing / PURPOSE / HYPOTHESIS / procedure

08

- (C) 2. (A) 3. (B), (C)
- ART / PERFORMING / Visual / Literary / THEATER, dance, opera, music / FILM / Painting, sculpture, illustration / Fiction, poetry

Skill C**01**

- (A) 2. (B) 3. (C)
- Computer program / Shows a VERB (or WORD) / User TYPES in past form / Mistakes are REPEATED at the end

02

- (D) 2. (D) 3. (A)
- MOTHER TERESA / Albanian, not INDIAN / worked as a MISSIONARY / received NOBEL PEACE PRIZE in 1979

03

- (B), (C) 2. (B) 3. (C)
- Problem: Hard to find ANIMALS in intertidal pools / Cause 1: POACHING = taking animals from pools / SNAILS / octopuses / barnacles / Cause 2: People don't know LAW

04

- (A) 2. (D) 3. (B)
- AMERICAN Revolution / fought between US and BRITAIN / started over tea in Boston / Boston TEA Party : FIRST aggressive act of war

05

- (A), (D) 2. (A) 3. (D)
- Elderly people → pets → LOWERS blood pressure / RAISES spirits / Anybody → pets → LOWERS of heart disease / RAISES speed of recovery from heart attacks / LOWERS cases of colds, headaches, fever

06

- (C) 2. (D) 3. (A)
- The day of the trip: FRIDAY / The weather forecast: CLEAR / The location: MOUNTAINS / The student who went before: MAN

07

- (B) 2. (D) 3. (A)
- Meteor Theory / 1. 10 km meteor hit the Earth / 2. Earth became DARK and cold / 3. PLANTS died / 4. PLANT-eating dinosaurs died / 5. MEAT-eating dinosaurs died

08

- (A) 2. (B) 3. (D)
- Problem: PASSWORD isn't working / Possible cause: Hasn't logged in for 180 days / Another student is using her USERNAME and password / Solution: Go to REGISTRAR'S OFFICE and request a new one / Use SECRET QUESTION, probably mother's maiden name

Review A-C**Vocabulary Review**

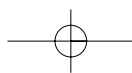
- | | | |
|-------------------|------------|-------------|
| 1. (D) | 2. (B) | 3. (A) |
| 4. (A) | 5. (D) | 6. (B) |
| 7. (D) | 8. (B) | 9. (D) |
| 10. (C) | 11. (A) | 12. (C) |
| 13. (C) | 14. (A) | 15. (D) |
| 16. sufficient | 17. facets | 18. contend |
| 19. collaboration | 20. foster | 21. (D) |
| 22. (A) | 23. (E) | 24. (B) |
| 25. (C) | | |

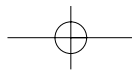
Skill Review**01**

- (B) 2. (A), (C) 3. (D)
- (A) 5. (B) 6. (B)

02

- (C) 2. (D) 3. (D)
- (C) 5. (C) 6. (A)





Skill D

01

- (B), (E) 2. (B)
- Yes — (A), (C), (D); No — (B)
- Student Senators / Eligibility: — FULL-TIME student / — 2.0 GPA / Responsibility: — decide what to do with STUDENT FEES (MONEY) / — deal with (UNIVERSITY) ORGANIZATIONS

02

- (A), (B), (D) 2. (B)
- Yes — (A), (B), (C); No — (D)
- Uses of MONEY / 1. medium of EXCHANGE / 2. way to measure VALUE / 3. an ASSET that can be saved

03

- (D) 2. (C)
- Chord — (A), (D); Non-chord — (B), (C)
- Chords / — combination of 3 or more different NOTES (PITCHES) played at same time / — only COMMONLY USED note groups called chords / — power chords involve only TWO pitch classes

04

- (B), (C), (D) 2. (B)
- Yes — (A); No — (B), (C), (D)
- Required books: / — refer to SYLLABUS to be sure about titles / — used books are HALF OFF and have a BLUE label / — can be returned within 7 DAYS of purchase

05

- (C), (D) 2. (C)
- Yes — (B), (D); No — (A), (C)
- Three Major Biomes / Tundra / — little RAINFALL / — cold WINTERS / — from 0 to 24 hours of daylight / Grasslands / — located INLAND / — receive 15-30 inches of rainfall / — two types: SHORTGRASS and TALLGRASS / Deserts / — located within 20 to 30 DEGREES of equator / — HOT days and COLD nights / — less than TEN inches of rainfall

06

- (A) 2. (A)
- First Part of Course — (C);
Second Part of Course — (B); Entire Course — (A)
- Class: RELIGION and MORALITY / — discuss CONNECTION between religion and MORALITY / assume EXISTENCE of God / later, examine OPPOSITE assumption

07

- (D) 2. (A)
- Fitness/Heart Rate — (C); Fitness/Swim Speed — (A);
Recovery/Heart Rate — (D);
Recover/Swim Speed — (B)
- Goal of session: GET BALANCE / Form: neck and spine should be ALIGNED / Technique: rotate HIPS and CHIN

08

- (A) 2. (C)
- Rose hips — (B), (D); Rose thorns — (A), (C)
- Rose Species / *Pimpinellifolia* / — dark PURPLE or black hips / — tight cluster of SPINES instead of thorns / *Canina* / — HIPS high in vitamin C / — RED colored hips / *Rugosa* / — HIPS high in vitamin C / — tight cluster of SPINES instead of thorns

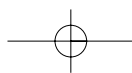
Skill E

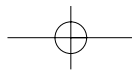
01

- Yes — (A), (C); No — (B), (D)
- (B) 3. (C)
- Language Partners / — help foreign STUDENTS practice English / — are VOLUNTEERS, not paid / — explain language and CULTURE

02

- Wave Theory of Light — (A), (C);
Particle Theory of Light — (B), (D)
- (A) 3. (C)
- Light Theory / Wave: / — Newton: light travels FASTER in a dense medium / — FOUCAULT: measured speed of light / Particle: / — Huygens: light travels SLOWER in a dense medium / — EINSTEIN: light causes particles to change speed



**03**

1. Yes — (A), (B); No — (C), (D)
2. (D) 3. (C)
4. Location: bordered by Europe, AFRICA, and Asia.
/ Origin of name: from LATIN words / medi =
MIDDLE, terra = LAND

04

1. Yes — (A), (D); No — (B), (C)
2. (B) 3. (D)
4. To register for student union class: / — go to
THIRD floor of STUDENT UNION building / If
course is WORK related: / — REGISTER at student
EMPLOYMENT office

05

1. Yes — (B), (D); No — (A), (C)
2. (B) 3. (A)
4. League of Nations / when established: after
WORLD WAR I / why established: to settle
INTERNATIONAL CONFLICTS peacefully / why
lacked strength: no ARMY / powerful member
countries: BRITAIN and FRANCE

06

1. Impressionist — (B), (C); Pre-impressionist — (A)
2. (A) 3. (C)
4. Impressionist Movement / — first in VISUAL art,
then MUSIC / — focused on FEELING of subject,
not REALISTIC depictions / — used LIGHT and
COLOR to express impact of feelings

07

1. Yes — (B), (C), (D); No — (A)
2. (A) 3. (D)
4. Student Union Post Office / Opening hours: /
Regular months: 7:30 a.m. to 3:30 p.m. /
Summer months: 8:00 a.m. to 3:30 p.m. / P.O.
Boxes: /rent FIVE DOLLARS a month

08

1. Aperture — (B); Exposure — (A);
Shutter Speed — (C)
2. (C) 3. (A)
4. Exposure: amount of LIGHT that falls on FILM /
— controlled by: / — lens APERTURE (size of HOLE)
/ — shutter SPEED (amount of TIME hole is open)

Skill F**01**

1. (C), (B), (D), (A)
2. (C) 3. (A)
4. Conflict resolution / 1. ROOMMATES get together
/ 2. discuss and plan / 3. commit to a PLAN / 4.
hold review 1 MONTH later / 5. if not resolved →
apply for a ROOM CHANGE

02

1. (C), (A), (D), (B)
2. (D) 3. (A)
4. Types of FILTERS / Biological / Ability to PROCESS
large amounts of information / PSYCHOLOGICAL
/ Take in only information of INTEREST to us.

03

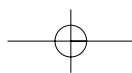
1. Yes — (B), (C); No — (A), (D)
2. (A) 3. (B)
4. SERIAL ports: One bit at a time / PARALLEL ports:
simultaneous transmission / Example: PRINTER
port of computer / Pin 1: Tells printer DATA is
being sent / Pins 2-9: Transmission of the BYTE /
Pin 10: Sends CONFIRMATION signal to computer
/ Pins 11-17: Various functions / Pins 18-25:
ground

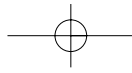
04

1. (D), (B), (A), (C)
2. (D) 3. (A)
4. PARKING on campus / Determined by LOTTERY
during regular school year. / \$120 per year /
Restricted to students enrolled in summer
COURSES during the summer months. / \$12 per
month

05

1. Yes — (B), (C); No — (A), (D)
2. (B) 3. (A), (B)
4. POLLUTION is bad only when: / The QUANTITIES
are too great. / The ECOSYSTEM can't break it
down. / Example: CFCs are damaging the OZONE
LAYER (ATMOSPHERE) because they can't be broken
down.



**06**

1. (C), (B), (A), (D)
2. (C) 3. (D)
4. Blast: An opportunity to VOLUNTEER your time / Activities: Conducting SURVEYS, handing out flyers, making announcements. / Benefits: Develop PUBLIC speaking skills, build confidence, and meet new people. / Commitment: 30 MINUTES every other week

07

1. (B), (D), (A), (C)
2. (A) 3. (D)
4. Events of the MIDDLE AGES / Fall of the ROMAN EMPIRE / Large MIGRATION of people causing cultural changes / CHRISTIAN CHURCH is unifying entity

08

1. Yes — (B), (C); No — (A), (D)
2. (A) 3. (A), (C), (D)
4. Photosynthesis: Occurs in (GREEN) LEAVES of plants. / Turns carbon dioxide and WATER into / OXYGEN and GLUCOSE

Review A-F**Vocabulary Review**

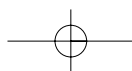
- | | | |
|--------------|-----------------|--------------|
| 1. (A) | 2. (D) | 3. (D) |
| 4. (A) | 5. (C) | 6. (A) |
| 7. (A) | 8. (B) | 9. (D) |
| 10. (B) | 11. (B) | 12. (A) |
| 13. (D) | 14. (C) | 15. (D) |
| 16. Input | 17. external | 18. process |
| 19. retain | 20. selective | 21. external |
| 22. purchase | 23. detrimental | 24. enforce |
| 25. enclose | | |

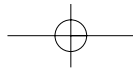
Skill Review**01**

1. (B)
2. (A)
3. (D)
4. Fraternal Twins — (C), (D), (F);
Identical Twins — (A), (B), (E)
5. (A)
6. Yes — (A), (C), (D); No — (B)

02

1. (C)
2. (A), (B)
3. (B)
4. Squid Constantly Move Around — (B), (C);
Squid Don't Constantly Move Around — (A), (D)
5. (D)
6. (D), (A), (C), (B)





Chapter 2

Skill A

01

1. (B) 2. (D) 3. (A), (C) 4. (B)

02

1. (C) 2. (A) 3. (B) 4. (C)

03

1. (C) 2. (C) 3. (B), (E) 4. (A)

04

1. (D) 2. (C) 3. (C) 4. (B)

05

1. (D) 2. (B) 3. (A) 4. (B)

06

1. (C) 2. (A) 3. (A), (B) 4. (B)

Skill B

01

1. (A) 2. (B) 3. (D) 4. (C)

02

1. (B) 2. (A) 3. (B), (C) 4. (A)

03

1. (C) 2. (A) 3. (C) 4. (D)

04

1. (D) 2. (A) 3. (A) 4. (C)

05

1. (B) 2. (C) 3. (C) 4. (A)

06

1. (C) 2. (B) 3. (C) 4. (B)

Skill C

01

1. (B) 2. (A) 3. (B) 4. (C)

02

1. (B) 2. (B) 3. (D) 4. (D)

03

1. (C) 2. (C) 3. (D) 4. (B)

04

1. (A) 2. (B) 3. (C) 4. (B)

05

1. (B) 2. (A)
3. (B), (D), (E), (F) 4. (D)

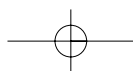
06

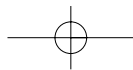
1. (B) 2. (A) 3. (C) 4. (B)

Review A-C

Vocabulary Review

- | | | |
|-------------------|---------------|-----------------|
| 1. (B) | 2. (C) | 3. (A) |
| 4. (D) | 5. (A) | 6. (B) |
| 7. (D) | 8. (B) | 9. (C) |
| 10. (B) | 11. (B) | 12. (A) |
| 13. (C) | 14. (B) | 15. (D) |
| 16. (B) | 17. (D) | 18. (B) |
| 19. (A) | 20. (D) | 21. (A) |
| 22. (C) | 23. (D) | 24. (A) |
| 25. (A) | 26. (B) | 27. (D) |
| 28. (B) | 29. (A) | 30. (C) |
| 31. myriad | 32. garb | 33. categories |
| 34. corresponding | 35. breakdown | 36. version |
| 37. prominence | 38. mourning | 39. ornate |
| 40. ubiquitous | 41. republic | 42. authentic |
| 43. bizarre | 44. interface | 45. predecessor |
| 46. (S) | 47. (O) | 48. (S) |
| 49. (O) | 50. (S) | |





Skill Review

01

1. (B) 2. (A) 3. (C)
4. (D) 5. (B) 6. (D)

02

1. (B) 2. (B), (E) 3. (B)
4. (A) 5. (B) 6. (C)

03

1. (A) 2. (A) 3. (D)
4. (B) 5. (C) 6. (A)

04

1. (A) 2. (C) 3. (C)
4. (B) 5. (D) 6. (C)

Skill D

01

1. Yes — (A), (C), (D); No — (B)
2. (A) 3. (C) 4. (C)

02

1. Franchise: Pro — (A), Con — (C);
Independent Business: Pro — (B), Con — (D)
2. (A) 3. (B), (C) 4. (B)

03

1. Latitude — (B), (D), (E); Longitude — (A), (C), (F)
2. (B) 3. (B) 4. (D)

04

1. Yes — (C); No — (A), (B), (D)
2. (A)
3. (B), (C), (E) 4. (D)

05

1. Baroque — (C); Classical — (A), (B);
Romantic — (D), (E)
2. (A) 3. (A) 4. (B)

06

1. Novels — (C), (E); Other works — (A), (B), (D)
2. (D) 3. (D) 4. (D)

Skill E

01

1. (B) 2. (D) 3. (D) 4. (B)

02

1. (D) 2. (A) 3. (A) 4. (D)

03

1. (B) 2. (D) 3. (C) 4. (D)

04

1. (A) 2. (C) 3. (D) 4. (A)

05

1. (A) 2. (D) 3. (C) 4. (B)

06

1. (B) 2. (A) 3. (B) 4. (D)

Skill F

01

1. (D), (B), (C), (A) 2. (B)
3. (B), (C) 4. (B)

02

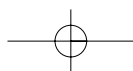
1. (B), (D), (A), (C) 2. (C), (D)
3. (A) 4. (B)

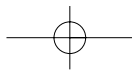
03

1. (B), (D), (A), (C) 2. (C)
3. (B), (E) 4. (C)

04

1. (B), (D), (C), (A) 2. (C)
3. (A) 4. (A)



**05**

1. (B), (A), (D), (C) 2. (B)
3. (A), (D), (G) 4. (C)

06

1. (B), (C), (A) 2. (A)
3. (D) 4. (D)

Review A-F

Vocabulary Review

- | | | |
|-----------------|-----------------|---------------|
| 1. (B) | 2. (B) | 3. (A) |
| 4. (C) | 5. (A) | 6. (D) |
| 7. (B) | 8. (B) | 9. (A) |
| 10. (D) | 11. (B) | 12. (A) |
| 13. (D) | 14. (A) | 15. (D) |
| 16. (D) | 17. (B) | 18. (A) |
| 19. (B) | 20. (A) | 21. (A) |
| 22. (D) | 23. (C) | 24. (C) |
| 25. (C) | 26. (B) | 27. (D) |
| 28. (A) | 29. (C) | 30. (C) |
| 31. toxicity | 32. metabolism | 33. lethal |
| 34. indigestion | 35. malfunction | 36. hazard |
| 37. revolting | 38. wise up | 39. procreate |
| 40. species | 41. down | 42. overboard |
| 43. on | 44. out | 45. up |
| 46. (C) | 47. (E) | 48. (A) |
| 49. (B) | 50. (D) | |

Skill Review

01

1. (B), (C) 2. (D) 3. (A)
4. Mineral — (C); Non-mineral — (A), (B), (D)
5. (A) 6. (D), (C), (A), (B)

02

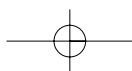
1. (B) 2. (B), (C) 3. (B)
4. Yes — (B), (C), (D); No — (A)
5. (A) 6. (A), (C), (B)

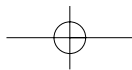
03

1. (C), (D) 2. (B) 3. (B)
4. Push — (C); Recovery — (B); Pull — (A)
5. (C) 6. (B), (C), (D), (A)

04

1. (A), (E) 2. (C) 3. (A)
4. 12th Century — (A), (B); 13th Century — (C), (D)
5. (A) 6. (C), (D), (A), (B), (E)





Chapter 3

Focus A

Guided Practice

01

<p>Woman situation: wants summer job</p>	<p>Man suggestion: look for internship at internship fair benefits: can submit resumé to lots of different companies ask questions to reps from companies</p>
---	--

Summary

Suggested answer:

The woman and the man talk about summer jobs. The man suggests that the woman look for an internship at the internship fair. One benefit of attending the fair is that the woman can submit her resumé to lots of different companies. Another benefit is that she can ask questions to reps from different companies. The woman says that she will go to the fair with the man.

02

<p>Woman wants to: get information about the online tutoring service</p>	<p>Man how: sign up online can use: 24 hours a day submit papers: to writing lab receive feedback: in 24 hours submit: 2 days early security: paper won't be stolen</p>
---	--

Summary

Suggested answer:

The woman and the man talk about the college's online tutoring service. One thing the man mentions is the writing lab. For this service, students can submit papers and receive feedback in 24 hours. Students should submit their papers 2 days early in order to have time to get the paper back and make revisions. The woman plans to sign up for the service right away.

Self Practice

01

<p>Man wants to: reserve a book</p>	<p>Woman steps: 1) look up book on computer 2) click "request next available copy" button 3) type in student ID number and PIN 4) leave "pick up" box checked 5) click "request" button</p>
--	--

Summary

Suggested answer:

The woman and the man talk about how to reserve a book at the library. The first thing that the man should do is look up the book on the computer. Next, he should request the next available copy by clicking a special button. Then, he needs to type in his student ID number and PIN. The man should leave the "pick up" box checked in order to get the book as soon as possible. The last step is to click the "request" button.

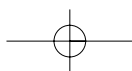
02

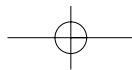
<p>Man solution 1: talk to roommate → solution 2: talk to resident advisor →</p>	<p>Woman problem: roommate irritates her bad idea — old friend, so hard to talk to good idea — resident advisor is "cool"</p>
--	--

Summary

Suggested answer:

The woman's problem is that her roommate bothers her. The man suggests two things to the woman. First, he says she should talk to her roommate. The woman thinks that this is not a good suggestion. Next, he suggests that the woman tell her resident advisor about the problem. The woman thinks that this is a good suggestion. She plans to talk to her resident advisor right away.





Focus B

Guided Practice

01

Topic: Effect of the moon on the atmosphere

- I. Newton
 - A. theory of gravity
 - B. theory of atmospheric tides
- II. air tides
 - A. measured since 1918 in N. hemisphere
 - B. more clouds, rain, storms
 - C. hurricanes? — not sure
- III. full moon
 - A. temp of lower atmosphere higher (few hundredths degree)
 - B. moon radiates thermal energy
 - C. moon reflects light (10%)

Summary

This lecture is about the effect of the moon on the atmosphere. This idea was first suggested by Newton, who also came up with the general theory of gravity. The professor talks about air tides. These have been measured since 1918. They seem to cause more clouds, rain, and storms. They might be related to hurricanes, but scientist are not sure yet. The professor also talks about the effect that the full moon has on the atmosphere. He says a full moon causes the temperature of the atmosphere to rise. This is because the moon radiates thermal heat and reflects light toward the Earth.

02

The Five Criteria for Minerals

1. solid
 - can't be gas or liquid
 2. occur naturally
 - can't be man-made
 3. inorganic
 - can't be organic
 4. fixed composition
 - the same found anywhere at any time
 5. element or compound
 - can't be mixture of chemical compound and element
- Ex: ice!

Summary

In this lecture, the professor gives five criteria for minerals. The first criterion is that it must be a solid. The second criterion is that it must occur naturally. The third criterion is that it must be inorganic. The fourth criterion is that it must have a fixed composition. The fifth criterion is that it must be an element or a compound. The example of a mineral discussed in class is ice!

Self Practice

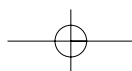
01

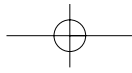
Poisonous Plants

- I. Which plants are edible?
 - A. trial and error
 - B. people in 1800s poisoned by plants
 - C. not as big a problem today
 - but houseplants could poison children
- II. Categories of toxicity
 - A. extremely
 - B. moderately
 - C. minimally
 - categories misleading, poisoning can be fatal or just indigestion
- III. Alkaloids
 - A. bitter, nitrogen compounds
 - B. hemlock
 - C. affects nervous system → death
- IV. Plants with minerals
 - A. build up lead or copper
 - B. affects mind → death
- V. Oxalates
 - A. crystals in plants
 - B. irritate mouth

Summary

In this lecture, the professor talks about poisonous plants. She says that lots of people were poisoned by plants even into the 1800s, but it is not such a big problem today. The professor gives three categories of toxicity for plants, but she also says that the categories can be misleading. Three particular types of poisonous plants mentioned in the lecture are alkaloids, plants with minerals, and oxalates. The professor explains something about the poison in each type of plant and how the poison affects people.

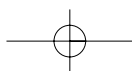


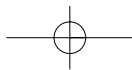
**02**Plutarch's *Lives*

- I. the man
 - A. lived 46 to 120 A.D.
 - B. from Greece
- II. *Lives*
 - A. paired biography of famous Greeks and Romans
 - B. essay + observation about human nature
 - C. history, biography, philosophy
 - D. written from old manuscripts, Plutarch didn't really trust sources
- III. popularity
 - A. Romans loved it, copied the manuscript many times
 - B. Beethoven found wisdom in the book
 - C. Ralph Waldo Emerson liked it
- IV. why not popular in 20th century?
 - A. no new editions
 - B. classic works pushed aside for diversity
 - C. not easy to read

Summary

This lecture is about Plutarch's *Lives*. The professor begins by talking about when and where Plutarch lived. Next, he explains that this book presents paired biographies of famous Greeks and Romans. Each essay in the book is followed by Plutarch's observations about human nature. In order to write the book, Plutarch relied on old manuscripts, but he didn't really trust them. Throughout history, people have loved the book, including people like Beethoven and Emerson. However, in the 20th century, the book lost popularity because nobody wrote a new edition of the book, students wanted more diversity in books, and *Lives* is hard to read.





Speaking Chapter 1

Skill B

Q3 – practice 1

Step 1

Suggested keywords:
construction, Science Center, Clemens Hall, relocated, location

Sample restatement:

Construction on the new Science Center will begin soon. Classes in Clemens Hall will be relocated. Professors will find out where the new class locations will be, and they should advise their students of the change.

Step 2

Suggested keywords:
Science Center, distracting, announcement, relocate, memo

Sample restatement:

The woman complains that the noise from the construction of the new Science Center will be distracting. The man tells her about an announcement saying the classes in their building will be relocated. She asks him where the classes will be relocated to, and he tells her that they will be informed through a memo.

Step 3

- Original Opinion: The woman thinks the university should wait until summer to begin construction on the new Science Center.
- Reason: The noise will be distracting to classes in Clemens Hall.
- Why she changes her mind: The man informs her that the classes in Clemens Hall will be relocated.

Q3 – practice 2

Step 1

Suggested keywords:
anti-spam filter, spam, inbox, potential spam, bulk folder

Sample restatement:

The university will install an anti-spam filter that will reject spam and send potential spam to bulk folders instead of inboxes, where non-spam emails will be sent.

Step 2

Suggested keywords:
Anti-spam filter, block important mail, mistakes, bulk folder, obviously spam

Sample restatement:

The man is concerned about the new anti-spam filter. He is worried that it will occasionally make mistakes and block important mail. The woman assures him that only mail that is obviously spam will be blocked. If there is any doubt, it will be sent to the man's bulk folder.

Step 3

- Woman's opinion: The anti-spam filter is great.
- Reason: She hates spam because it wastes her time.
- Man's concern: Important email will be blocked. The man changes his mind.
- Reason: The anti-spam filter doesn't block mail unless it is obviously spam. Suspicious mail gets directed to a bulk folder.

Q3 – practice 3

Step 1

Suggested keywords:
guest speaker, Internet business, telecommerce, all students welcome, question-and-answer period

Sample restatement:

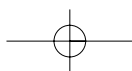
A successful young Internet businessperson will speak from 7 p.m. to 8 p.m. Thursday night in Selwidge Hall. All students are welcome. There will be a question-and-answer period after the speech.

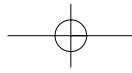
Step 2

Suggested keywords:
15 extra credit points, review of speech, Thursday night from 7 to 8, Selwidge hall, open to all students

Sample restatement:

The man asks the woman about their extra credit assignment. She tells him he can write a review of James's speech for 15 extra credit points. The speech is Thursday night from seven to eight in Selwidge Hall. The man is enthusiastic about learning from the guest speaker.





Step 3

- The man wants information on: the extra credit assignment.
- The woman tells him he can: write a review of the speech.
- The man's opinion of the assignment is that: it is a great opportunity.
- Reason 1: The speaker will have lots of useful advice.
- Reason 2: It's completely free.
- The man will: prepare some questions in advance.

Q4 – practice 1

Step 1

Suggested keywords:

the Nash Equilibrium, maintain static strategies, rational conception, no collusion, benefits competing parties

Sample restatement:

The Nash Equilibrium describes a competitive situation in which all competitors benefit from not changing their strategies. Also, each competitor decides to maintain his or her strategy independently of the others.

Step 2

Suggested keywords:

real world, agree, side of the road, risk of collision, rush hour traffic

Sample restatement:

The professor illustrates the Nash Equilibrium by giving the example of which side of the road cars drive on. The drivers only want to get home as quickly as possible. They don't communicate with one another to decide which side to drive on; nevertheless, everyone drives on the same side.

Step 3

- Nash Equilibrium: Each competitor cannot improve his or her odds by changing strategies.
- Professor's example: People wanting to get home quickly all drive on one side of the road.
- How they relate: Each driver is a competitor. They will not improve their chances of arriving more quickly by driving on the other side of the road and risking collision.

Q4 – practice 2

Step 1

Suggested keywords:

Black Plague, two thirds, germ theory, parasitic fleas, public sanitation

Sample restatement:

The passage is about the Black Plague, a disease that killed two-thirds of the population of Europe in the 1300s. Germ theory later discovered that it was caused by a bacterium spread to humans by parasitic fleas. Public sanitation and new medicine helped destroy the disease.

Step 2

Suggested keywords:

Yersinia pestis, Iceland, incubation period, pulmonary anthrax, Ebola virus

Sample restatement:

The professor talks about new theories that the Black Plague was not caused by *Yersinia pestis*. Some researchers now think it was pulmonary anthrax or the Ebola virus. Iceland was affected by the first plague, even though there were no rats. The incubation period of the disease also makes some people think this disease was NOT spread by fleas on rats.

Step 3

- Common understanding: The Black Plague was a bubonic plague caused by the bacterium *Yersinia pestis*, which was spread by fleas on rats.
- New evidence 1: There were no rats in Iceland, yet it was affected by the Black Plague.
- New evidence 2: The Black Plague had a longer incubation period and spread more quickly than *Yersinia pestis*.
- New theories: 1: Pulmonary anthrax
2: Ebola virus

Q4 – practice 3

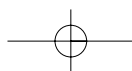
Step 1

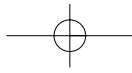
Suggested keywords:

450 A.D., Shona-speaking herders, Zimbabwe plateau, 1100-1450, great civilization

Sample restatement:

The passage discusses the Great Zimbabwe civilization. It was founded by Shona-speakers in 450 and reached its peak between 1100 and 1450, when it had a king and a monumental wall.





Step 2

Suggested keywords:

British Imperialism, foreigners from the north, archaeologists, destroyed and plundered, racist myth

Sample restatement:

British officials felt threatened by the idea of a civilization founded by Black Africans. It undermined their justifications for imperialism. They hired archaeologists who destroyed and plundered the ruins and then concluded that foreigners from the north had founded the civilization. After another archaeologist contradicted the official theory, the site was closed off. Eventually, people recognized the reality behind the racist myth.

Step 3

- First British investigation: archaeologists destroyed and plundered site
- Conclusion and result: foreigners from the north built the ruins
- Further investigation: archaeologists studied site again in 1905
- Conclusion and result: contradicted earlier findings, archaeologists banned from site
- Accepted idea today: ruins built by local Shona-speakers

Skill C

Q5 – practice 1

Step 1

Suggested answers:

Problem: The woman needs to get some books but does not have her university library card.

Solution 1: Use the public library

Solution 2: Try to borrow someone else's card

Step 2

Problem: She needs to get some books but does not have her university library card.

Best solution: Use the public library

Reason 1: This is the quickest solution.

Reason 2: The other solution will impose on someone.

Problem: She needs to get some books but does not have her university library card.

Best solution: Try to borrow someone else's card

Reason 1: She will probably find someone to help her.

Reason 2: The public library may not have adequate resources.

Q5 – practice 2

Step 1

Suggested answers:

Problem: The woman's roommate is untidy, and she eats her food.

Solution 1: Talk to her about it.

Solution 2: Say nothing and wait until the school year is over. Then, she won't have to live with her anymore.

Step 2

Problem: The woman's roommate is untidy, and she eats her food.

Best solution: Talk to the roommate and ask her to be more considerate.

Reason 1: She will be happier if they resolve the problem.

Reason 2: The woman will save money on food.

Problem: The woman's roommate is untidy, and she eats her food.

Best solution: Tolerate the roommate's behavior for two more months.

Reason 1: Don't risk having her roommate move out.

Reason 2: Keep her roommate as a friend.

Q5 – practice 3

Step 1

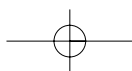
Problem: The man doesn't want to dissect a pig in biology class.

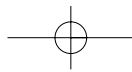
Solution 1: Refuse to take part

Solution 2: Dissect the pig

Step 2

Problem: The man doesn't want to dissect a pig in biology class.





Best Solution: Refuse to take part

Reason 1: Won't have to do something that he is morally opposed to

Reason 2: May bring about change in the school's practice

Problem: The man doesn't want to dissect a pig in biology class.

Best Solution: Dissect the pig

Reason 1: Stay on the teacher's good side

Reason 2: Won't risk getting a bad grade

Q6 – practice 1

Step 1

Falconry is: a way to hunt prey using a trained falcon

Falconers must:

a) tame the falcon

b) train the falcon not to kill the prey

Today falconry is: a sport

Historically, falconry was: a means of survival

Nomadic people in the desert: used falconry to add variety to their diets

Falconry dates back to: China in 2000 B.C.

Q6 – practice 2

Step 1

An aura is a symptom or set of symptoms that precede a migraine.

example: perception of flashing lights

Common characteristics of migraines:

– bad headache

– vomiting

– bothered by noise

– bothered by light

Process of migraine: Arteries bringing blood to the brain constrict → Less oxygen getting to the brain → Arteries in brain expand causing pain

Possible way to prevent migraines from occurring: Identify the triggers that cause the arteries to constrict and avoid them.

Q6 – practice 3

Step 1

Standard view of evolution: Species arise gradually over time due to natural selection.

Example: Horses used to be the size of small cats.

Counter-evidence: Source: Fossil record

Trend: Species remain unchanged for long periods of time.

New species arise quickly.

New theory: Punctuated Equilibrium

– Large populations typically dilute advantageous mutations.

– Speciation occurs in peripheral subpopulations because they are smaller and are located in novel ecosystems.

– After the change, the new species might compete with and exterminate the old species.

The new theory is not in conflict with the standard view.

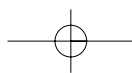
Vocabulary Review

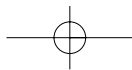
Review 1

- | | | |
|------------------|----------------|---------------|
| 1. (C) | 2. (A) | 3. (D) |
| 4. (D) | 5. (B) | 6. (A) |
| 7. (B) | 8. (D) | 9. (B) |
| 10. (A) | 11. (D) | 12. (A) |
| 13. (B) | 14. (D) | 15. (D) |
| 16. gadget | 17. dyslexia | 18. diverting |
| 19. perseverance | 20. better off | 21. (C) |
| 22. (A) | 23. (E) | 24. (D) |
| 25. (B) | | |

Review 2

- | | | |
|----------------|-------------------|--------------|
| 1. (B) | 2. (D) | 3. (A) |
| 4. (C) | 5. (A) | 6. (D) |
| 7. (C) | 8. (A) | 9. (A) |
| 10. (D) | 11. (B) | 12. (C) |
| 13. (B) | 14. (A) | 15. (D) |
| 16. asserts | 17. imperceptible | 18. dilute |
| 19. peripheral | 20. exterminate | 21. pandemic |
| 22. thrive | 23. enlist | |
| 24. complement | 25. surrender | |





Chapter 2

Skill A

Q1 – practice 1

Step 1

Transitions: by now, every week, last year, later, of course, as it turned out

Sentence Order: C, F, D, B, A, E

Step 2

Suggested answers:

1. They met on an Internet site for students studying languages.
2. They practice Chinese and English together.
3. It helped him appreciate Chinese culture and broadened his view of the world.

Step 3

Sample response:

Last year, I met a fellow language student on an Internet study forum when I was trying to practice for a Chinese class. As it turned out, he was a Chinese student trying to practice English. Later, we developed a symbiotic relationship by helping each other practice our respective languages. Every week, we chat for 30 minutes in English and 30 minutes in Chinese. By now, we have become good friends, and we have both learned a lot. Of course, among the things I've learned is the fact that Chinese culture is fascinating, and this experience has really broadened my view of the world.

Q1 – practice 2

Step 1

Transitions: after, however, for example, instead, before that, in fact

Sentence Order: C, F, A, D, G, B, E

Step 2

Suggested answers:

1. The speaker was studying at university when the Internet became commonly used.
2. The Internet allowed the speaker to do research from her dorm room.
3. The Internet allowed the speaker to communicate with her parents for free.

Step 3

Sample response:

One technological innovation I witnessed during my university days was the spread of the Internet. Before that, I spent hours in the library doing research. After the Internet came into widespread use, however, I didn't have to go to the library at all. I could do all of my research from a computer in my dorm room, which saved a lot of time. In fact, the Internet saved me a great deal of money, too! For example, I no longer had to make expensive, obligatory phone calls to my parents. Instead, I could send them updates via email for free.

Q1 – practice 3

Step 2

Sample response:

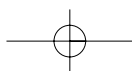
My life was changed by an unexpected blizzard. One day when I left my house to go to the airport, the weather was cool but clear. As I was driving to the airport, though, it started snowing. Within minutes, there was a raging blizzard. I knew my flight to Jamaica was going to be canceled, so I was terribly disappointed. Then, I noticed a stranded motorist, so I pulled over to help. I offered the man a lift so he could call a tow truck. Three years later, I married that man. If it weren't for that blizzard, we wouldn't have met.

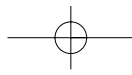
Q1 – practice 4

Step 2

Sample response:

The Optimists' Club is an organization that has been very important in my life. They organize fun and enriching activities for kids in the city. For example, I had a great experience and forged lasting friendships while participating in their youth basketball league. In addition, they provide counselors who help troubled youths with problems. One time, I was on edge about my high school course work, and I did not have anyone to turn to for guidance. The Optimists' Club counselor provided me with some very useful advice I needed in order to select the appropriate classes to enroll in.





Q2 – practice 1

Step 1

Transitions: thus, conversely, for instance, first, second, indeed

Sentence Order: D, E, F, C, G, B, A

Step 2

Suggested answers:

1. The speaker's view is that childhood is the most important time of a person's life.
2. One reason is that childhood is when basic personality develops.
3. Another reason is that experiences in childhood affect the rest of a person's life.

Step 3

Sample response:

I believe that childhood is a critical period in a person's life. First, it is the time in which personality is developed. Second, a person's experiences in childhood affect the remainder of his or her life. For instance, a major trauma experienced at the age of six has a much more devastating effect than one experienced at age thirty. Indeed, negative or traumatic experiences in childhood can lead to psychological problems in adulthood, such as depression and antisocial behavior. Conversely, positive, nurturing experiences in childhood foster mental health and well-being in adulthood. Thus, it is crucial to have positive influences in childhood.

Q2 – practice 2

Step 1

Transitions: on the other hand, that's why, however, unfortunately

Sentence Order: D, F, B, A, E, G, C

Step 2

Suggested answers:

1. The speaker thinks parents can teach their kids academic skills, like reading, writing, and math.
2. The speaker thinks that parents cannot adequately teach their children social skills.
3. The speaker thinks children should be educated in a social setting, i.e. in schools.

Step 3

Sample response:

Most parents are capable of teaching their children to read, write, add, and subtract, as well as many of the other basic skills children are taught at school. However, there are some skills that cannot be taught sufficiently at home. The skills I am referring to are social skills. These, I believe, are the most important skills learned at school. That's why I am of the opinion that children should learn in a social environment. Unfortunately, the home cannot provide an adequate social milieu for children to learn to live with a diverse group of people. Public schools, on the other hand, can and do provide this setting.

Q2 – practice 3

Step 2

Sample response:

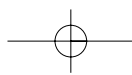
I believe zoos serve a multitude of useful purposes. For one thing, zoos educate visitors. If there were no zoos, children would grow up never witnessing species not indigenous to their area. With zoos, in contrast, children can learn about all kinds of different animal species and observe them up close. That's more captivating and educational than looking at pictures or reading texts. For that matter, zoos provide an entertainment venue for people of all ages. Additionally, they provide a safe home for animals whose survival is threatened in the wild. Animals that are endangered can be kept safe and well fed, as well as be encouraged to breed.

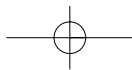
Q2 – practice 4

Step 2

Sample response:

In some countries, all citizens are required to vote, while in others, individuals are free to decide whether to vote or not. I prefer the system in which voting is optional. First, in this system, public interest is more important because it affects voter turnout. Therefore, governments and candidates for office must work harder to sway the opinions of voters. Second, people should be free to protest an election by refraining from taking part. Indeed, the very idea of forcing constituents to vote runs counter to the principles upon which free society is based.





Skill B

Q3 – practice 1

Step 1

Suggested answers:

The problem: woman can't use scholarship to study abroad

Man's opinion of policy: arbitrary and unfair

- Reason 1: woman earned her scholarship (not athletic or need-based)
- Reason 2: woman qualified for need-based, but chose academic scholarship instead

Step 3

Sample response:

The man's opinion is that the school's policy of only allowing students with need-based scholarships to use that money toward the Study Abroad Program is unfair. To begin, he contends that the woman earned her scholarship through academic merit rather than athletic skill or financial need. Secondly, the woman did qualify for a need-based scholarship but opted for the academic one, showing that she has the same financial need as students with need-based scholarships. For these two reasons, he feels the woman should be allowed to use her grant money to pay for tuition abroad.

Q3 – practice 2

Step 1

Suggested answers:

Woman's opinion:

- lottery system is unfair

Why:

- gives preferential treatment but should be based on need
- will cost her a lot of money for rent and transportation
- she won't be able to study late at the library

What university should have done:

- done construction in summer or made arrangements for students

Step 3

Sample response:

The woman is angry about the announced plan for a housing lottery for graduate students. First, she thinks it is unfair because students of certain majors are being given priority. Instead, she believes the housing should be assigned based on need. Second, she is upset because living off campus will be expensive and inconvenient. For example, she will pay more in rent and transportation and will not be able to study late on campus. In the end, she complains that they should have done the renovations during the summer or otherwise accommodated the needs of all students.

Q4 – practice 1

Step 1

Suggested answers:

Morphology of giant squid:

- length: 10-15 meters
- appendages: 8 arms, 2 tentacles
- suckers: have sharp, claw-like components

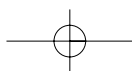
Theories on feeding behavior:

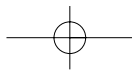
- passive reason: large body requires too much energy to move quickly
- active reasons: i) tentacles have claw-like parts suggesting capture of prey
ii) smaller squid species are active feeders

Step 3

Sample response:

The reading passage describes the morphological differences between marine animals that are active feeders and passive feeders. The lecturer examines the morphology of the giant squid and different theories about its feeding habits. First, the giant squid is a very large creature. Second, it has two tentacles that include sharp, claw-like components. Some scientists have postulated that the enormous size of the giant squid suggests it must be a passive feeder. Other scientists, in contrast, point to its tentacles and the model of smaller squid species as evidence suggesting that the giant squid is an active feeder.





Q4 – practice 2

Step 1

Suggested answers:

Early 20th Century: uproar in music world

- reaction to new style of music
- music fans criticized composers
- composers called fans uncouth

Atonal music

- used chromatic scale
- contained 12 notes

Step 3

Sample response:

The professor begins by describing the negative response many early-20th-century audiences had to the advent of atonal musical forms. Listeners found the new style too unstructured in comparison to the traditional forms they were used to. As the reading passage describes, traditional European music was based on principles of melody. This music utilized the major and minor scales to produce the desired emotions. As the professor points out, atonal compositions utilized the chromatic scale rather than the major or minor scales. The chromatic scale includes 12 notes, all the notes a person can play on the piano.

Skill C

Q5 – practice 1

Step 1

Suggested answers:

Problem: The man needs to use the gym, but won't have access until his student loan arrives.

Solution 1: use the gym as a guest of a friend

Advantages: can continue training

Disadvantages: costs money each time; is inconvenient

Solution 2: talk to coach and arrange a temporary card

Advantages: save money and don't need a host

Disadvantages: the coach is away

Step 2

Suggested answers:

1. The man cannot access the gym to work out because his student loan has not come through yet.
2. He should find a friend with access to the gym to act as a host.
3. His friend can give him access to the gym, and they can work out together.

Step 3

Sample response:

The man's problem is that he cannot access the gym to work out because his student loans have not come through to pay his tuition. The woman suggests two solutions to his problem. First, he could find a student with access to accompany him to the gym. Second, he could talk to his coach and try to get a temporary ID. In my opinion, the first choice is preferable. To begin, his coach is away, so the man would have to wait. In addition, having a friend to work out with could help him maintain his exercise regime.

Q5 – practice 2

Step 1

Suggested answers:

Problem: The man wants to drop a class, but he has missed the deadline.

Solution 1: drop the class

Advantages: can concentrate on other subjects

Disadvantages: dropping is same as failing

Solution 2: don't drop the class

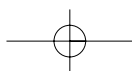
Advantages: with hard study, could earn an OK grade

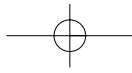
Disadvantages: will be difficult and distract from other classes

Step 2

Suggested answers:

1. The man is behind in a class and wants to drop it, but dropping now would be the same as failing the class.
2. He should drop the class.
3. It would be better to concentrate on getting strong grades in the courses of his major.





Step 3

Sample response:

The man's problem is that he wants to drop the professor's class because he is too far behind to earn a high grade. In addition, the deadline for dropping classes without penalty has passed. The professor tries to convince him to remain in the class and work hard to increase his grade. In my opinion, he would be better off dropping the class. Even though he will be penalized for dropping the class the same as if he had failed it, he will benefit by being able to concentrate his efforts on the courses of his major.

Q6 – practice 1

Step 1

Suggested answers:

Main topic of lecture: changing music of the 20th century

- Origins of jazz and blues: in New Orleans; African Americans mixed African rhythms with European melodies
- Initial reactions: not accepted by most Americans; too wild, unstructured
- When became accepted: after white musicians used it in rock 'n' roll
- New forms today: still meet resistance; ex. hip-hop

Step 2

Suggested answers:

1. The advent of jazz had the most influence on modern popular music.
2. It brought new rhythms and scales to popular music.
3. It became accepted when white musicians used these forms in rock 'n' roll music.

Step 3

Sample response:

According to the lecture, the advent of jazz music had a significant influence on the trajectory of popular music over the past 100 years. To begin, it was developed by African Americans combining African rhythms with European melodies. In addition, jazz influenced the development of blues, which added an extra note to the major scale, thus creating the blues scale. At first, these musical forms were met with resistance. Later, however, they became widely accepted after being incorporated

into rock 'n' roll music by white musicians such as Elvis Presley. Furthermore, they have influenced the form of more recent popular music styles, such as hip-hop.

Q6 – practice 2

Step 1

Suggested answers:

Main topic of lecture: the changing definition of the family

- Traditional conception of family: included man, woman, and 2.5 children, with man working outside the house and woman inside
- Those outside this conception: were marginalized and considered sick or unstable in some way
- Today's families: only 11-15 percent conform to traditional definition
- Universal aspects of family: intersection between making a society and making new people; it provides ideas of normal and natural

Step 2

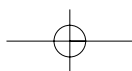
Suggested answers:

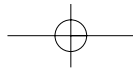
1. The traditional conception of the family includes a working father, a domestic mother, and two or three children all living together in one home.
2. In the past, families that differed from this ideal were marginalized and considered flawed or unhealthy.
3. In all societies, the family helps define what is normal and natural.

Step 3

Sample response:

In this lecture, the professor examines the idea of family. The traditional ideal of the family includes a working father, a domestic mother, and two or three children all living together in one home. Furthermore, families that differed from this ideal were marginalized and considered flawed or unhealthy in the past. These days, however, only a minority of families conform to this ideal. In point of fact, the professor relates that the ideal defined a generation or two ago is only one step on an ever-evolving sequence of ideals. Finally, the professor states that in all societies, the family helps define what is normal and natural.





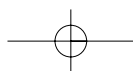
Vocabulary Review

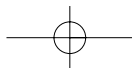
Review 1

- | | | |
|------------------|----------------|----------------|
| 1. (B) | 2. (D) | 3. (A) |
| 4. (A) | 5. (B) | 6. (D) |
| 7. (A) | 8. (B) | 9. (A) |
| 10. (D) | 11. (B) | 12. (A) |
| 13. (D) | 14. (A) | 15. (C) |
| 16. (C) | 17. (B) | 18. (A) |
| 19. (D) | 20. (B) | 21. (D) |
| 22. (D) | 23. (B) | 24. (A) |
| 25. (C) | 26. (A) | 27. (B) |
| 28. (D) | 29. (C) | 30. (A) |
| 31. fellow | 32. symbiotic | 33. fostered |
| 34. unparalleled | 35. forged | 36. diverse |
| 37. indigenous | 38. invaluable | 39. swayed |
| 40. milieu | 41. innovation | 42. endangered |
| 43. diverse | 44. afford | 45. obligatory |
| 46. (O) | 47. (S) | 48. (O) |
| 49. (S) | 50. (O) | |

Review 2

- | | | |
|----------------|---------------|---------------|
| 1. (C) | 2. (A) | 3. (D) |
| 4. (B) | 5. (A) | 6. (C) |
| 7. (B) | 8. (B) | 9. (A) |
| 10. (A) | 11. (B) | 12. (C) |
| 13. (D) | 14. (D) | 15. (A) |
| 16. (B) | 17. (A) | 18. (D) |
| 19. (C) | 20. (D) | 21. (A) |
| 22. (B) | 23. (D) | 24. (A) |
| 25. (A) | 26. (B) | 27. (B) |
| 28. (D) | 29. (B) | 30. (D) |
| 31. indigenous | 32. elusive | 33. myriad |
| 34. in vain | 35. specimens | 36. lambaste |
| 37. glean | 38. convey | 39. Optimists |
| 40. mainstream | 41. over | 42. in |
| 43. by | 44. in | 45. off |
| 46. (D) | 47. (B) | 48. (E) |
| 49. (A) | 50. (C) | |





Chapter 3

Focus A

Step 1 Sentence stress on content words

Suggested answers:

1. Before that, I spent hours in the library doing research.
2. My life was changed by an unexpected blizzard.
3. In addition, they provide counselors who help troubled youths with problems.
4. I believe that childhood is an integral period in a person's life.
5. Public schools, on the other hand, can and do provide this setting.
6. That's more captivating and educational than looking at pictures or reading texts.
7. I prefer the system in which voting is optional.
8. Instead, she believes the housing should be assigned based on need.

Suggested clear words in **bold**:

I believe zoos serve a **multitude** of **useful** **purposes**. For one thing, zoos **educate** visitors. If there were no zoos, children would grow up **never witnessing** species **not indigenous** to their area. With zoos, in contrast, **children** can **learn** about **all kinds** of **different** animal species and **observe** them up close. That's more **captivating** and **educational** than looking at **pictures** or **reading** **texts**. For that matter, zoos provide an **entertainment** venue for people of **all ages**. Additionally, they provide a **safe home** for animals whose survival is **threatened in the wild**. Animals that are endangered can be **protected**, **well-fed**, and **encouraged** to breed.

Step 2 Sentence stress on function words

1. (S)
2. (S)
3. (R)
4. (R)
5. (S)
6. (S), (S)
7. (R)
8. (S)

1. That **isn't his** dog, **it's her** dog.
2. Most students **didn't** pass **the** exam, but John **did**.
3. She **likes** jazz music, **and** he likes blues music. I like jazz **and** blues music.
4. Kim **hasn't** paid **her** tuition fees, but Rick **has**.

5. The major scale **doesn't** have 12 notes, **but** the chromatic scale **does**.
6. Off-campus housing **isn't** just expensive; **it's** expensive **and** inconvenient.
7. **He** **didn't** get the need-based scholarship. **She** did.
8. You **can** take English 201 **or** English 205. You can't take both.

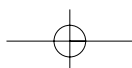
Focus B

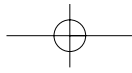
Step 1 Changing pitch for emphasis

1. Children should attend school.
 - a. Adults should work.
2. This experience helped tremendously with my studies.
 - b. Unfortunately, it didn't help with her studies.
3. Subsequent developments in pop music were generally met with the same disapproval.
 - b. Developments in classical music, on the other hand, were embraced in a short time.
4. Do you play on the varsity basketball team?
 - a. No, I play on the hockey team.
1. I don't abhor jazz music. I don't really enjoy it that much, though.
2. Her behavior is antisocial. He is actually a nice guy.
3. The squid doesn't have eight appendages. It has ten.
4. Jellyfish drift with ocean currents. Squid use their arms to swim.
5. There is a glitch with her computer. Her phone is working fine.
6. The campus renovations will begin in September. The campus celebrations begin in October.

Step 2 Commas and series with *and* or *or*

1. Many of the most popular bands on the charts today are born from influences of rock, \nearrow hip-hop, \nearrow reggae, \nearrow ska, \nearrow and techno. \searrow
2. They were considered troubled, \nearrow pathological, \nearrow or dysfunctional. \searrow



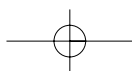


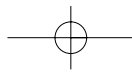
-
- I doubt it'll cover the cost of renting a place in this city, / (↗) especially near the campus. (↘)
 - Most giant squid are smaller, / (↗) growing to approximately ten meters. (↘)
 - European concert-goers were plugging their ears, / (↗) walking out on performances, / (↗) and muttering to themselves. (↘)
 - The chromatic scale simply means all the notes you can play on a piano, / (↗) without any notes left out. (↘)
 - Within minutes, / there was a raging blizzard.
 - Some alarmists contend that this is a fundamental societal problem, / a breakdown in values that will produce immeasurable negative effects.
 - These, / I believe, / are the most important skills learned at school.
 - The man's opinion is that the school's policy / of only allowing students with need-based scholarships to use that money toward the Study Abroad Program / is unfair.
 - To begin, / he contends that the woman earned her scholarship through academic merit / rather than athletic skill or financial need.
 - Secondly, / the woman did qualify for a need-based scholarship / but opted for the academic one, / showing that she has the same financial need as students with need-based scholarships.
 - For these two reasons, / he feels the woman should be allowed to use her grant money to pay for tuition abroad.

Focus C

Step 1 Timing

- The traditional ideal of the family includes a working father, / a domestic mother, / and two or three children all living happily in one home.
- As it turned out, / he was a Chinese student trying to practice English.
- After the Internet came into widespread use, / however, / I didn't have to go to the library at all.





Writing Chapter 1

Skill A

Practice 1

01

Step 1

Correlation Studies: determine RELATIONSHIP BETWEEN two variables

- researcher doesn't MANIPULATE variables
- researchers MEASURE RATE at which variables change naturally

Relationship types:

- Y increases when X increases: POSITIVE CORRELATION
- Y decreases when X increases: NEGATIVE CORRELATION
- sometimes, a CAUSAL RELATIONSHIP can be inferred

Step 2

Main point: Correlation does NOT IMPLY causation

- cannot be certain because investigators don't MANIPULATE VARIABLES
- also, a THIRD VARIABLE may be affecting the correlation

ex. Eating ice cream and drowning have a POSITIVE CORRELATION

- but a third variable is HOT WEATHER
- Correlations can SUGGEST causal relationships, but more RESEARCH is needed to prove it
- ex. A positive correlation between smoking and CANCER led to further research that proved a CAUSAL RELATIONSHIP

Step 3

Reading:

- Main Idea: Correlation studies can determine a connection between two variables.
- Supporting Idea: If the rate of one event increases when the rate of another event increases, they have a positive correlation.
- Supporting Idea: If the rate of one event decreases when the rate of another event increases, they have a negative correlation.

Lecture:

- Main Idea: Correlations found from correlation studies do not necessarily mean a causal relationship exists.

- Supporting Idea: Other, "third" variables may be affecting the relationship between the two variables in a correlation study.

- Supporting Idea: Correlations found from correlation studies can suggest the need for further study to discover if a causal relationship truly exists.

Step 4

CORRELATION STUDIES are useful tools because they describe relationships between different PHENOMENA as they occur in the natural world. It is important, though, that researchers be careful not to make the common erroneous assumption that a CORRELATION IMPLIES CAUSATION.

Correlations indicate when two VARIABLES are related naturally. This implies that researchers do not MANIPULATE either variable; they simply OBSERVE events as they occur. For this reason, it is IMPOSSIBLE to determine if one variable causes the other to change.

Furthermore, there is always the possibility of a THIRD VARIABLE causing both to change. To demonstrate, the lecturer states that there is a positive correlation between ice cream consumption and DROWNING. A POSITIVE correlation means that as one variable increases, so does the other. So, in this example, as ice cream consumption increases, the rate of drowning INCREASES as well. It is a FALLACY, though, to interpret these findings as indicating that ice cream consumption causes drowning. In this case, there is a third variable that is affecting both – the WEATHER.

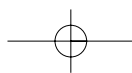
Sometimes, it is ACCEPTABLE to infer from a correlation study that one variable affects the other, such as in the example in the reading of increased study time being correlated to HIGHER GRADES. It is very important, nonetheless, that one is careful to consider which VARIABLE affects which, and that there is not a THIRD VARIABLE affecting changes in both variables.

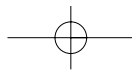
Practice 2

02 History

Step 1

Issue: - Historical REVISIONISM: A re-EXAMINATION of historical facts





- Purpose:
- Corrects historical IMBALANCES
 - Includes new INFORMATION
- Motivation:
- Despite scientific METHODOLOGY, historiography is BIASED
 - History is a NARRATIVE that favors the ELITE in society
- Example / Argument:
- Did Columbus DISCOVER America?
 - No. This is a EUROCENTRIC bias

Step 2

- Key Issue:
- Historical Revisionism has come to be used PEJORATIVELY
- Why?
- Many HACKS and crackpots pose as revisionist HISTORIANS
 - They present badly RESEARCHED papers, books, and ARTICLES as fact
 - Their writing NEGATES specific events in history
 - They propagate a POLITICAL bias
- This is dangerous. Why?
- Non- EXPERTS are INFLUENCED to support an inaccurate perspective
- Example:
- Denial of the HOLOCAUST
- Solution:
- Legitimate researchers must COMBAT this trend by producing GENUINE research using verifiable DATA

Step 3

Reading:

- Main Idea: Historical Revisionism attempts to re-examine the past.
- Supporting Idea: Revisionism combats historical bias that favors the powerful.
- Supporting Idea: This helps correct existing imbalances in historical narratives.

Lecture:

- Main Idea: Revisionism is now often regarded in a negative light.
- Supporting Idea: Non-experts often present badly researched work as fact.
- Supporting Idea: Such work often reveals a political or ideological bias.

Step 4

In the reading, historical revisionism is presented in a POSITIVE light. The writer explains that revisionism is an attempt to correct IMBALANCES in biased versions of the past that EXCLUDE certain groups. The writer gives the example of the INDIGENOUS Americans that are ignored when historical texts refer to Columbus as having "discovered" America. The writer believes that REVISIONISM is necessary because as societies change, so do the power structures that govern them. Revisionism allows historians to include NEW information and re-examine the way history is written, so that it is told not exclusively from the perspective of the elite, POWERFUL ruling groups in a society.

The speaker warns us that there is a particular kind of historical revisionism that is very dangerous and negative. This form of revisionism is often practiced by individuals with no real SCIENTIFIC training or expertise. These self-proclaimed revisionists make use of CONSPIRACY theories and logical FALLACIES in their ill-researched writing on historical subjects. Such revision also often negates or DENIES that particular historical events, such as the HOLOCAUST, even took place. Their work influences non-experts negatively and gives legitimate historians a BAD name. Such revisionism must be COMBATED by authentic historians who use VERIFIABLE data and supportable documentation.

Practice 3

03 Astronomy

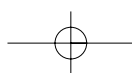
Step 1

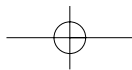
Subject: How UNIVERSE was created.

Most DOMINANT theory: BIG BANG

Argument:

- Primeval ATOM exploded, flung MATTER in all DIRECTIONS
- All matter, LIGHT, and energy came from this
- HUBBLE found evidence to show universe is still EXPANDING
- "Cosmic background RADIATION" discovered — 1964





Step 2

Topic: 1. THEORETICAL holes in the Big Bang theory
2. ALTERNATIVE theories for how the universe originated

Argument:

- Big Bang evidence is too general and VAGUE
- Evidence also supports other MODELS
- Big Bang never proved beyond REASONABLE doubt
- Theory, therefore, remains HYPOTHESIS

EKPYROTIC scenario argues two parallel MEMBRANES of matter COLLIDED

- Supported by same EMPIRICAL data as Big Bang

Conclusion:

- Await new INFORMATION via technological advances

Step 3

Reading:

- Main Idea: The Big Bang theory states that the Universe was created when an atom exploded.
- Supporting Idea: Evidence of expanding universe supports this.
- Supporting Idea: Discovery of cosmic radiation supports this.

Lecture:

- Main Idea: There are theoretical holes in the Big Bang theory.
- Supporting Idea: The evidence is vague and also supports other theories.
- Supporting Idea: The Big Bang theory has never been proven.

Step 4

The reading explains that there is a POPULAR and dominant theory about how the UNIVERSE came into existence. It is called the Big BANG theory. This theory argues that the explosion of a primeval ATOM, BILLIONS of years ago, caused all light, matter, and ENERGY to form. The reading informs us that the Big Bang theory is SUPPORTED by Hubble's evidence indicating that the universe is EXPANDING. The theory is also supported by the discovery made by two scientists in 1964 of cosmic RADIATION existing in space.

The lecturer believes that there are many theoretical HOLES in the Big Bang theory. Actually, the theory has never been proven true beyond a REASONABLE doubt, and the evidence supporting it also supports other theories of how the universe may have been created. As an example, the lecturer mentions the EKPYROTIC scenario. This theory argues that the universe was created when two parallel MEMBRANES of space matter COLLIDED. This theory shares many elements of the Big Bang theory but also has some DIFFERENCES.

Practice 4

04 English Literature

Step 1

Issue: - Did SHAKESPEARE write the plays he is ACCREDITED with?

Answer:

- No. Some believe the Earl of OXFORD did
- Shakespeare is a PSEUDONYM

Argument:

- No CLASSICAL education
- UNFAMILIAR with aristocratic MANNERS/sports
- Oxford was nobleman and was WRITER
- Little documentation Shakespeare worked as ACTOR
- Extant SIGNATURES all DIFFERENT-looking, none on plays/poems

Step 2

Key Issue:

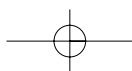
- Shakespeare AUTHORSHIP debate: Some SCHOLARS believe Edward De Vere wrote Shakespeare

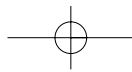
Argument for Shakespeare:

- Little genuine SUPPORTABLE evidence for Earl of OXFORD
- It is SKETCHY, poorly-RESEARCHED conspiracy theory
- Plays not considered SERIOUS literature: reason for no name on play texts
- Numerous EXTANT documents refer to Shakespeare as actor and playwright
- Why would his contemporaries help nobleman? No MOTIVATION

Conclusion:

- SHAKESPEARE wrote the plays





Step 3

Reading:

- Main Idea: Oxford wrote Shakespeare's plays under a pseudonym.
- Supporting Idea: Shakespeare had no classical education and was unfamiliar with aristocratic manners and sports.
- Supporting Idea: Little documentation proves Shakespeare worked as an actor.

Lecture:

- Main Idea: Shakespeare wrote Shakespeare.
- Supporting Idea: The evidence supporting Oxford is sketchy and poorly researched.
- Supporting Idea: There is no motivation for Shakespeare's contemporaries to hide Oxford's identity.

Step 4

The reading claims that a NOBLEMAN called Edward De Vere, 17th Earl of OXFORD, actually wrote plays we credit to William Shakespeare. He wrote them under a PSEUDONYM to protect his IDENTITY. The plays DISPLAY knowledge and information about aristocratic habits that Shakespeare wouldn't have been familiar with as a COMMONER. Oxford was a nobleman with such experiences, and he was also a WRITER. According to the reading, there is also little documentary proof that Shakespeare worked as an actor, and his extant signatures all look DIFFERENT, and none appear on his plays or poems. All this evidence indicates that Oxford wrote Shakespeare's plays.

The speaker argues that Shakespeare did write Shakespeare. He believes that arguments favoring the Earl of Oxford are poorly RESEARCHED and states that there is a lot of EXTANT documentation referring to Shakespeare as an ACTOR and playwright. The speaker also argues that Shakespeare's name does not appear on his plays and poems because plays weren't considered important or serious LITERATURE at that time. He believes Shakespeare's CONTEMPORARIES had no reason to help an aristocrat like Oxford hide his true identity and that, therefore, Shakespeare did write his own plays. He thinks the theory about Oxford is a CONSPIRACY theory.

Skill B

Practice 1

Step 1

Main idea: One serious problem facing modern children is a lack of sleep.

Step 2

- A. 1 B. 1
- C. Sample answer: Receiving an inadequate amount of sleep is a serious problem for children today.

Step 3

Main idea: - sleep deprivation is ONE FACTOR in poor academic performance, but not the ONLY FACTOR

Other important factors:

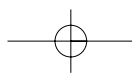
- NOURISHMENT (ex. breakfast) important factor
- CLOTHING such as warm coats and shoes
- home life; ex. FIGHTING between parents

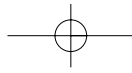
Recommendation:

- Educators must CONSIDER other variables before PRESCRIBING more sleep to students with LOW GRADES

Step 4

- A. Sleep deprivation is one factor.
synonyms: - deprivation — neglect, lack of
- factor — variable, aspect
paraphrase: - Lack of sleep is one variable.
- B. Educators must consider other variables.
synonyms: - educators — teachers, instructors, professors
- consider — contemplate, take into account
paraphrase: - Teachers must take other factors into account.





Step 5

- A. 1. A child's DEVELOPMENT in school is LARGELY dependent on THE AMOUNT OF sleep he or she gets.
2. What is the SIGNIFICANCE of a DEFICIENCY of sleep IN RELATION TO other factors?
- B. 1. The amount of sleep a child gets HAS A GREAT SIGNIFICANCE ON HIS OR HER PERFORMANCE IN SCHOOL.
2. With regard to other factors, WHAT EFFECT DOES A DEFICIT OF SLEEP HAVE?

Step 6

1. One problem that children face today is getting less than the recommended nine hours of sleep each night.
2. In addition to getting enough sleep, children need a healthy diet, suitable clothing, and a happy life at home.

Practice 2

Step 1

Main idea: An examination of history shows that non-violent means have not been as effective as violent means.

Step 2

- A. 1 B. 1
C. Sample answer: It can be seen from history that violence is an effective tool of social change.

Step 3

Key forms of non-violence are:

Civil Disobedience:

- INDIVIDUAL and government DON'T SUPPORT each other
- principle of "INDEPENDENCE" is the driving idea
- provides the MORAL advantage of being RIGHT

Passive Resistance:

- PEACEFULLY break the law
- must expect to be ATTACKED by AUTHORITIES
- should quietly RESIST without RETALIATION

Step 4

- A. Principle of independence is the driving idea.
synonyms: - principle — concept, rule
- independence — self-reliance, self-sufficiency
paraphrase: - The concept of self-reliance is the main point.
- B. Should quietly resist without retaliation.
synonyms: - resist — endure, defend
- retaliation — fight back
paraphrase: - Should quietly endure and not fight back.

Step 5

- A. 1. INDEPENDENCE in mind and action is the guiding PRINCIPLE for ACHIEVING what is JUST.
2. Without RESORTING to HOSTILITY, Gandhi SUCCESSFULLY CONVINCED the English to ELIMINATE colonial GOVERNMENT in India.
- B. 1. The guiding principle for ACHIEVING WHAT IS JUST IS INDEPENDENCE OF MIND AND ACTION.
2. Gandhi effectively persuaded the BRITISH, WITHOUT USING VIOLENCE, TO END COLONIAL GOVERNMENT IN INDIA.

Step 6

1. Although violent forms of protest are considered ineffective, Gandhi successfully achieved the independence of India without resorting to violence.
2. Achieving what is right and just can be possible through independence of mind and action, rather than carrying out revolution through violence.

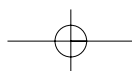
Practice 3

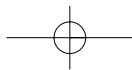
Step 1

Main idea: Theories on alternative biochemistry suggest that non-carbon-based forms of life could be possible in unusual environments.

Step 2

- A. 1 B. 2
C. Sample answer: Some theories on alternative biochemistry contend that abnormal conditions could be home to non-carbon-based life forms.





Step 3

The argument against “carbon chauvinism”

- term DISCREDITS views that all life is CARBON BASED
- all current DATA indicate carbon is NECESSARY to life
- TERRESTRIAL LIFE is all carbon based
- we aren't able to test ALIEN ENVIRONMENTS
- we have no EMPIRICAL data about non-carbon BIOCHEMISTRIES
- PRESENT state of science not GUILTY of carbon chauvinism

Step 4

- A. All current data indicate carbon is necessary to life.
 synonyms: - data — information
 - necessary — essential
 paraphrase: - Carbon is essential to life according to current information.
- B. Present state of science not guilty of carbon-chauvinism
 synonyms: - state — circumstance
 - guilty — blame
 paraphrase: - Carbon chauvinism can't be blamed upon present scientific circumstances.

Step 5

- A. 1. In fact, all ACTUAL scientific PROOF indicates that carbon is ESSENTIAL TO life as we UNDERSTAND it.
 2. The FUNDAMENTAL point today is that all CIRCUMSTANCES for biological life “as we know it” HAVE carbon in their MAKE-UP.
- B. 1. That carbon is essential to LIFE AS WE KNOW IT IS A FACT SHOWN BY ALL ACTUAL SCIENTIFIC PROOF.
 2. That all circumstances for BIOLOGICAL LIFE HAVE CARBON IN THEIR MAKE-UP IS THE FUNDAMENTAL POINT BEING MADE TODAY.

Step 6

1. Although alternative biochemistry theories suggest non-carbon forms of life could be possible in unusual environments, in reality, such alien environments cannot be replicated or tested.

2. Despite the fact that the Earth is exceptionally silicon rich and carbon poor, it is carbon, not silicon, that has proven to be the successful life base on Earth.

Practice 4

Step 1

Main idea: Native American legal claims to the remains of Kennewick Man stand in the way of science.

Step 2

- A. 2
 B. 1
 C. Sample answer: Native American groups are interfering with the progress of science by attempting to claim the Kennewick Man.

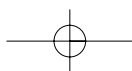
Step 3

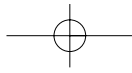
Native American claims don't mean stopping the progress of science:

- Some SCIENTISTS take a HARD LINE
- Scientists argue Native American claims mean end of RESEARCH
- Native American groups not ANTI-SCIENCE, just want to be consulted or involved
- Science can PROCEED while RESPECTING Native American claims
- Many Native American groups involved in COLLABORATIVE projects
- Collaborative projects ENHANCE and clarify scientific RESULTS

Step 4

- A. Scientists argue Native American claims mean end of research
 synonyms: - argue — claim, believe
 - mean — represent, signify
 paraphrase: - Native American claims are believed by scientists to signify the end of research.
- B. Science can proceed while respecting Native American claims
 synonyms: - proceed — continue, go on
 - respecting — regarding, honoring
 paraphrase: - Native American claims can be honored while scientific study continues.





Step 5

- A. 1. Respecting Native American CLAIMS to archaeological REMNANTS doesn't mean ENDING the ENDEAVORS of science.
2. EFFORTS to freely CONTINUE science at the DETRIMENT of Native American BELIEFS are really the ROOT of the debate.
- B. 1. Preventing the advancement OF SCIENCE DOESN'T RESULT FROM HONORING NATIVE AMERICAN CLAIMS TO ARCHAEOLOGICAL FINDINGS.
2. The core of the conflict IS ENDEAVORS TO UNDERTAKE SCIENCE AT THE DETRIMENT OF NATIVE AMERICAN VALUES.

Step 6

1. The belief held by many scientists that scientific progress will be halted by honoring Native American beliefs and respecting their claims to the Kennewick Man is unfounded.
2. The raging debate surrounding the remains of the Kennewick Man shows that more collaborative efforts on both sides are required.

Skill C

Practice 1

Step 2

If I were so fortunate as to receive a piece of land, I would want to use it to do something positive that would not harm the land. Because I love plants and animals, and because I love nature, I would create a wildlife reserve. The survival of many woodland creatures is threatened because their natural habitats are being destroyed. I would want to create a place where these wild animals could live safely in a natural environment that is protected from development.

Not only would this reserve create a home for animals; it would also create an opportunity for people to see the animals in their natural habitats. I think that is much more enjoyable than seeing animals in zoos. While I would charge a small admission fee, the money would go toward the care of the animals. I would not wish to make a profit off of the wildlife reserve. It would make

me happy to see the land put to good use.

Many land owners are selfish and see their land as a means of making money. They don't really care about the land; they only care about their investment. Some might sell the natural resources of the land, such as lumber. Others might build houses and develop the land in order to sell it later at a profit. Personally, if I had land handed to me for free, profit would be the last thing on my mind. I would take the opportunity to protect the land and all of the plants and animals on that land.

Step 3

1. If I were so fortunate as to receive a piece of land, I would want to use it to do something positive that would not harm the land.
2. Not only would this reserve create a home for animals; it would also create an opportunity for people to see the animals in their natural habitats.

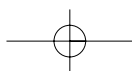
Step 4

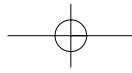
1. The writer of the essay prefers to use the land as a nature preserve rather than using it to earn a profit.
2. The writer states that he or she would use the land to create a wildlife reserve, which is an example of something positive that would not harm the land.
3. Yes, the writer points out that many people prefer to use land to make a profit by either selling natural resources or developing the land to sell for more money.
4. The main idea that the writer concludes with is that he or she would prefer to protect wildlife than earn a profit on his or her land.

Practice 2

Step 2

There are some types of decisions that require careful thought and other types that don't. For example, when I am at the supermarket trying to decide whether to buy orange juice or apple juice, I don't have to think very hard about it because it is not important. However, sometimes I make rash decisions about important things. When I make important decisions without thinking them through, I typically make the wrong choice. In





my experience, it is always best to carefully consider my options when I make major life decisions.

Major life decisions include career choices, relationship choices, and money choices. When I was offered a job overseas, for example, I considered many factors before accepting it. I thought about the location, the salary, and the possibilities for career advancement as well as being in a new culture and being away from my friends and family. In contrast, I have left a job without thinking about my decision. I once worked for an insurance firm, and I became angry with my boss. Without thinking, I quit my job. A day later, I realized that I should have thought that decision through. As you can see, in my experience, major decisions that are made on the spur of the moment tend to be mistakes.

I know people who prefer to go with their instincts when they make decisions. When I was considering buying a certain house, a friend of mine asked me, "how did you feel in the house? Would you be happy there?" The truth was, I loved the house, but I would have been foolish to buy it, because it probably wouldn't increase in value as much as some of my other options. Personally, I don't trust my instincts. I have to think about all of my important choices for a long time before I can make a final decision.

Step 3

1. In my experience, it is always best to carefully consider my options when I make major life decisions.
2. Major life decisions include career choices, relationship choices, and money choices.

Step 4

1. The writer takes the stance that it is better to think about important decisions carefully.
2. The writer tells about his or her experience of quitting his or her job without thinking carefully about the decision and later realizing that it was a mistake.
3. Yes, the writer gives an example of a friend who thought he or she should choose a house based on how he or she felt inside it.
4. The writer concludes that he or she prefers to think carefully before making important decisions.

Practice 3

Step 3

Suggested answers:

Keywords / key phrases:

engrossing, active, intimate, source of learning, interpretation

Keywords / key phrases:

exciting, stimuli, intense, convenient, social skills

Practice 4

Step 3

Suggested answers:

Keywords / key phrases:

information technology, relevance, practical, outdated, workforce

Keywords / key phrases:

creativity, anchor, indispensable, imagination, flexibility

Skill D

Thesis Statements

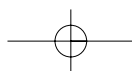
Step 1

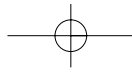
Question 1: If my school received a gift of money, I believe the money would be best spent in hiring more teachers.

Question 2: Because of the multitude of interesting artifacts on display, I personally found my visit to the Museum of History and Anthropology while traveling through Mexico City to be a thoroughly enjoyable experience.

Question 3: I disagree with the contention that television has destroyed communication among friends and family; in fact, I believe the opposite to be true.

Question 4: Because of its many uses, including shelter and food, the maple tree is an important plant to the people of my country.





Step 2

Question 1: opinion

Sample thesis statement: I believe that the construction of a large shopping center would cause several serious problems for my neighborhood; therefore, I oppose this plan.

Question 2: experience

Sample thesis statement: From my experience, I have found that carefully planning my free-time activities provides me with the opportunity to get the most enjoyment out of life.

Question 3: experience

Sample thesis statement: There were numerous positive and negative aspects to my childhood in a big city.

Question 4: opinion

Sample thesis statement: Because communication is a larger part of daily life today than in the past, I believe that the ability to read and write is more important in our times than in past times.

Topic Sentences

Step 1

Question 1

- (2) Having the Internet in my home allows me to communicate with people around the globe.
- (1) The advent of the Internet is one twentieth-century change that has strongly affected my life.
- (3) For instance, I send emails to friends, family, and work colleagues on a daily basis.

Question 2

- (2) Many people radically change their lives after high school, so their means of future success should not be limited by what they achieved during those years.
- (3) Many high school students, for example, may have difficulty because of health or relationship issues.
- (1) In my opinion, some form of post-secondary education should be available to all students, not just top students.

Question 3

- (1) In general, the Internet has not damaged my friends' and family's ability to communicate; however, it has negatively affected the social skills of one of my cousins.
- (3) When I was visiting his house during the holidays, he spent all of New Year's Eve alone in his room playing *Doom*.
- (2) He spends several hours each day playing online games and never comes out of his room to talk to others.

Question 4

- (3) For instance, employees are more likely to work harder and take fewer breaks if they worry about their job status.
- (1) I disagree with the argument that businesses should hire employees for their entire lives.
- (2) Having workers who know that their employment can be terminated can help increase the company's productivity.

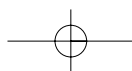
Vocabulary Review

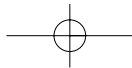
Review 1

- | | | |
|----------------|---------------|---------------|
| 1. (B) | 2. (D) | 3. (A) |
| 4. (A) | 5. (D) | 6. (C) |
| 7. (C) | 8. (D) | 9. (A) |
| 10. (A) | 11. (C) | 12. (A) |
| 13. (B) | 14. (D) | 15. (C) |
| 16. postulated | 17. membranes | 18. empirical |
| 19. verify | 20. precision | 21. (D) |
| 22. (C) | 23. (A) | 24. (E) |
| 25. (B) | | |

Review 2

- | | | |
|-----------------|-------------------|---------------|
| 1. (D) | 2. (A) | 3. (D) |
| 4. (D) | 5. (A) | 6. (C) |
| 7. (B) | 8. (A) | 9. (B) |
| 10. (D) | 11. (C) | 12. (A) |
| 13. (A) | 14. (C) | 15. (B) |
| 16. interacting | 17. collaborative | 18. foster |
| 19. invariably | 20. contend | 21. initial |
| 22. endow | 23. require | 24. technique |
| 25. caution | | |





Chapter 2

Skill A

Practice 1

Step 1

When most people think of great military strategists, the names Alexander the Great, Julius Caesar, or Napoleon Bonaparte come to mind. Spanish Conquistador Hernando Cortes, however, accomplished a feat that, arguably, outshines them all. Around 1520, Cortes conquered the 5-million-strong Aztec empire with only 600 men, twenty horses, and ten small cannons.

In 1519, Cortes sailed from Spain to Mexico with 11 ships and landed at various points along the Mexican coast. He easily subdued the small coastal tribes at what are now Tabasco and Veracruz. These people told him of the vast wealth of the Aztecs who lived inland. Cortes began to enlist the support of the smaller tribes he conquered as he made his way inland, a strategy that would serve him well. Since many of the tribes had no love for the Aztecs due to the Aztec policy of demanding costly tribute from them, they were often willing to join forces with Cortes.

Another circumstance that Cortes exploited was the fact that the Aztecs had a legend of a pale-skinned, bearded god, Quetzalcoatl, who they believed had once taught them agriculture and who would one day return to end their civilization. Cortes was believed to be this god by some Aztec citizens, most notably, the emperor Motecuhzoma. Additionally, the native Mexicans had never before seen horses, firearms, or the giant attack mastiffs the Spanish brought with them. Cortes exploited these two psychological advantages, the legend of the light-skinned god and the spectacle of his horses, dogs, and cannons, to conquer the entire Aztec empire largely through fear and negotiation. The brilliance of his approach leaves its mark, for better or worse, on the history of an entire nation today.

Step 2

MALINTZIN was the secret to CORTES's success

- Spaniards discover she can SPEAK BOTH NAHUA AND MAYAN and use her TO INTERPRET
- Cortes uses her to win SUPPORT from the NON-AZTEC NATIONS

- Unclear whether she was just an INTERPRETER or A LEADER as well
- Independent SPANISH and MEXICAN sources attest to HER IMPORTANCE

Step 3

Reading

- Cortes was a brilliant military strategist
- Cortes was a great negotiator
- Cortes's brilliance changed Mexican history

Lecture

- Malintzin was the main source of Cortes's success
- It is not certain who the real negotiator was
- Sources lend equal importance to Malintzin

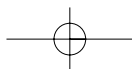
Step 4

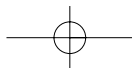
The reading passage depicts Cortes as one of the greatest military strategists of all time and credits him with toppling an empire of millions with only 600 men and a few horses and cannons. (1) Further/In addition to this, it proposes he was a genius who exploited local politics, legends, and the spectacle of his small but advanced military to accomplish a nearly impossible feat. (2) In contrast, the speaker casts doubt on this version of history and credits Cortes's interpreter and concubine, Malintzin, as being the mastermind behind a significant part of his campaign. (3) More specifically, she asks us to ponder who was more likely the mastermind: the foreigner who had little to no knowledge of the politics, customs, or language, or the native who had knowledge of all of these and who was the one directly speaking with the leaders of the Aztecs and other nations. (4) In addition to this/Further, the speaker cites various sources, including accounts from Spanish soldiers and other conquistadors, as well as depictions in Nahua art, which support the case that Malintzin was much more than an interpreter and perhaps just as significant as Cortes himself.

Practice 2

Step 1

The value of a professional sports team for a city's local economy is undeniable. The benefits begin with the





construction of the stadium itself, providing thousands of local construction jobs. Once regular season play begins, an army of local workers is required to man the stadium facilities, for everything from concessions and ticket sales, to security and administration. The economic benefits expand throughout the district of the stadium as fans pour into the area from far and wide. These fans support local parking decks, restaurants, bars, shops, and often hotel facilities. This contributes to the prosperity of local businesses and provides a general boost to the overall property value.

All of this revenue is of course taxed by the municipal authorities. Combine this with the millions of dollars in tax revenue that ticket sales can generate over the life of a sports team, and we have a clear benefit for all members of the community.

These benefits are easy to see, but the intangible benefits may be greater still. A professional sports team with regularly televised broadcasts is often the hallmark of what people generally perceive as a “major” city. Thus, the sports team becomes a kind of advertisement for the significance and prosperity of the city itself, attracting new business from the outside.

Some may say that the costs of new sports stadiums are an undue burden on cities, but all of the long-term benefits must be taken into account before passing hasty judgment on the economic effects of professional sports franchises.

Step 2

Sports stadium not A GOOD INVESTMENT

1. Jobs created REPLACE other jobs or PAY LOW wages
2. Most money goes to MANAGERS AND PLAYERS
3. Tax revenue VERY SMALL compared to THE INVESTMENT
4. Team’s BENEFIT to the city’s IMAGE difficult to measure

Step 3

Reading

- Stadiums create jobs
- Stadiums produce tax revenue
- Boosts city’s image

Lecture

- Does not create new jobs, takes money out of city
- Revenue gains are small compared to investment
- PR benefit is vague claim, funds better spent elsewhere

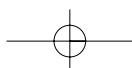
Step 4

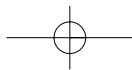
The reading states that a sports team greatly benefits a city in a number of ways, **(1) while** the lecture says the benefits do not justify the initial investment, and that the sports team actually ends up taking money out of the community. The speaker implies that taxpayer money should not go to the stadium **(2) since** the sports team is a profit-seeking business, and they should not expect free money from the public. Further, the speaker argues that benefits such as jobs and tax revenues are not actually benefits if all relevant factors are taken into account, such as the kinds of jobs, and the comparison of the situation without the sports team. **(3) However**, the reading proposes that the benefit to the city’s image is invaluable, ultimately attracting new residents and businesses and contributing to the city’s long-term growth. **(4) In spite of** this fact, the speaker maintains that the city would benefit more from investing this money elsewhere, such as in education and infrastructure.

Practice 3

Step 1

In 1989, scientists in Utah made a controversial announcement. They claimed that they had carried out an experiment in which the results could only be explained by nuclear fusion. In their experiment, they filled a glass container with heavy water which had a small amount of salt dissolved in it. Into the container, they inserted two electrodes: one was platinum and one was palladium. The platinum electrode was connected to the positive charge of a car battery, while the platinum electrode was attached to the negative charge. This process created an excess amount of heat—more than could be explained by chemical reactions. Because it could not be explained by chemical reactions, the researchers jumped to the conclusion that nuclear fusion was the cause. This phenomenon is referred to as “cold fusion”. It is not accepted by the scientific community, and it serves as an example of pseudo science.





The scientific method demands that a claim be subject to peer review. The validity of any claim is based on reproducibility. Because no one has ever been able to reproduce the results of the first claim of cold fusion, it has been rejected. More importantly, the data does not coincide with current theories of nuclear fusion. It is well accepted that, when nuclear fusion takes place, neutrons are emitted. For one thing, no extra neutrons were detected. Secondly, if the number of neutrons had have been emitted to support their claim, the researchers would have been killed. The only explanation for the experimenters' findings is that errors in measurement took place. This is supported by the fact that the methods they used to measure heat were highly specious.

Step 2

Cold fusion refers to a debatable claim that nuclear fusion can take place at room temperature.

- scientists must not dismiss observations that don't concur with current theory
- in time, scientists have reproduced the original findings
- measurement equipment has become more reliable

Step 3

Reading

- "Cold fusion" claims do not fit current nuclear fusion theories
- Scientists were unable to reproduce the results of the original experiment
- Positive results can only be explained as error

Lecture

- Science relies on reexamination of theories when evidence is presented to contradict them
- While results weren't reproduced immediately after the announcement, in time, scientists have reproduced the same results
- No skeptic has been able to identify an error that explains all positive results

Step 4

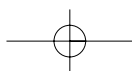
The debate surrounding the possibility of cold fusion, (1) that is, nuclear fusion occurring at room temperature, is centered on the scientific process. The reading attacks

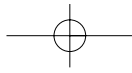
the scientists' interpretation of their results. When they found that excess heat was generated in an amount that could not be explained by chemical reactions, the scientists concluded that nuclear fusion was taking place. The reading states that because such an interpretation does not concur with current theory, it should not be accepted. The speaker points out, however, that science relies on continual review of theories. Observations should not be ignored (2) just because they are not explained by current theories. (3) With regards to the statement in the reading that scientists have never been able to replicate the original experimenters' results, the speaker states that in the years that have passed, some indeed have found similar results. In sum, the reading states that cold fusion claims have not stood up to the scientific process, (4) whereas the speaker asserts that the scientific community was hasty in dismissing the notion before sufficient time was allowed to complete an analysis using the scientific process.

Practice 4

Step 1

Recent claims that the ancient Anasazi peoples engaged in cannibalism are unfounded. The practice of cannibalism does not coincide with the culture of the Native Americans who are descended from these people, that is, the Pueblo peoples of the American Southwest. Cannibalism is considered by Native Americans to be one of the most evil acts a person can engage in. It seems improbable, then, that their ancestors ate human flesh ritualistically. The speculation that the Anasazi people were human flesh eaters is based on skeletal remains that were found to have been broken and burned. It can be demonstrated from these findings that flesh was removed from the bones, but that does not prove that the meat was actually ingested. A more plausible explanation, and one that coincides with the beliefs of the Pueblo peoples, is that these are the remains of suspected witches who were put to death. The custom was to kill the suspected witch by burning the body and tearing apart the remains in order to remove and destroy the witch's "evil" heart. This explains the broken bones and burn marks. It also explains why the corpse was ripped apart. While the





practice was brutal, it does not imply cannibalism. Any claim that the Anasazi people were cannibalistic is based not on fact, but on inference. The refusal of some to consider other plausible explanations is unscientific and irrational.

Step 2

Evidence supports the claim that cannibalism took place in Anasazi society.

- Evidence does not implicate anyone in particular
- Fossilized fecal matter proves ingestion took place
- Pot resin on bones rules out witch slaughter explanation

Step 3

Reading

- Evidence may be explained by witch slaughter
- It cannot be proven that human flesh was eaten
- Native American culture denounces cannibalism

Lecture

- Human carcasses were torn apart and cooked
- Fossilized feces and pot resin on bones prove that human flesh was cooked and eaten
- Evidence does not indicate who engaged in cannibalism

Step 4

The dispute concerning whether or not the Anasazi people engaged in cannibalism is based on evidence obtained from the examination of human remains. These remains show that human skeletons were torn apart, cooked, and had the flesh removed from them. The reading states that this does not necessarily imply that cannibalism took place. (1) Instead, they explain that these are the remains of suspected witches who were burned and had their bodies torn apart. The speaker, however, maintains that the evidence does suggest that ingestion took place. (2) For example, pot resin was found on the bones suggesting they were cooked. (3) Furthermore, fossilized fecal matter shows traces of human flesh. While the reading states that Native American culture would not condone such activities, the speaker maintains that the evidence does

not implicate anyone in particular in the act. She goes on to offer a plausible explanation that has been presented: that a group of foreigners engaged in cannibalism in order to terrorize the Anasazi. (4) Thus, the peaceful reputation of this culture need not be tarnished by the evidence of cannibalism.

Skill B

Practice 1

Step 2

Introduction: (C), (B), (D), (A)

Transitions: thus, finally

Body: (F), (C), (D), (A), (E), (B)

Transitions: by, also, in fact, as a result, furthermore

Conclusion: (E), (D), (B), (C), (A)

Transitions: because, consequently, clearly, instead of

Practice 2

Step 2

Introduction: (B), (A), (C)

Transitions: for this reason, in short

Body: (D), (B), (A), (E), (C)

Transitions: that is, while, however

Conclusion: (B), (D), (A), (C)

Transitions: further, in effect, therefore

Practice 3

Step 3

Introduction: (C), (A), (D), (B)

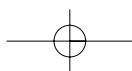
Transitions: for example, let us, in addition

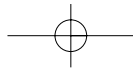
Body: (E), (C), (B), (D), (A), (G), (F)

Transitions: to continue, in fact, in other words, to begin, second, first

Conclusion: (C), (D), (B), (A)

Transitions: thus, furthermore





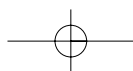
Vocabulary Review

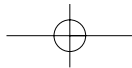
Review 1

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| 1. (D) | 2. (B) | 3. (A) |
| 4. (D) | 5. (B) | 6. (A) |
| 7. (A) | 8. (D) | 9. (B) |
| 10. (C) | 11. (C) | 12. (D) |
| 13. (A) | 14. (C) | 15. (B) |
| 16. (B) | 17. (D) | 18. (D) |
| 19. (B) | 20. (D) | 21. (D) |
| 22. (C) | 23. (A) | 24. (B) |
| 25. (C) | 26. (B) | 27. (B) |
| 28. (D) | 29. (C) | 30. (B) |
| 31. strategist | 32. campaigns | 33. concubine |
| 34. entourage | 35. lingua franca | 36. engaged in |
| 37. ancestors | 38. hierarchical | 39. validate |
| 40. plausible | 41. undue | 42. ingest |
| 43. tarnish | 44. condemn | 45. welfare |
| 46. (S) | 47. (O) | 48. (O) |
| 49. (S) | 50. (O) | |

Review 2

- | | | |
|---------------|------------------|---------------|
| 1. (C) | 2. (B) | 3. (A) |
| 4. (D) | 5. (B) | 6. (D) |
| 7. (A) | 8. (C) | 9. (D) |
| 10. (D) | 11. (B) | 12. (A) |
| 13. (B) | 14. (C) | 15. (A) |
| 16. (A) | 17. (C) | 18. (D) |
| 19. (D) | 20. (A) | 21. (C) |
| 22. (C) | 23. (B) | 24. (A) |
| 25. (C) | 26. (A) | 27. (D) |
| 28. (A) | 29. (A) | 30. (B) |
| 31. tarnish | 32. dynamic | 33. pecuniary |
| 34. welfare | 35. remuneration | 36. undertake |
| 37. discourse | 38. exempt | 39. touchy |
| 40. burden | 41. up | 42. in |
| 43. into | 44. on | 45. top |
| 46. (B) | 47. (D) | 48. (E) |
| 49. (A) | 50. (C) | |





Chapter 3

Focus A - Verb Forms

Exercise 1

The reading introduces the idea of supply and demand. In particular, the passage explains that a person's salary depends on public demand for his or her talent. In other words, a person with a rare talent should earn more according to this model because supply is limited while demand is high. The professor gives several specific examples of this theory in action. First, she talks about ordinary people who make small salaries, such as bus drivers and fast-food workers. Then, she talks about people with special skills, and she points out that they earn significantly more per hour because of their skills. As extreme examples, the professor talks about movie stars and athletes. These people earn thousands or even hundreds of thousands of dollars per hour based on public demand for their rare talents.

I know a lot of people who treat their pets as family members. In fact, one of my close friends has had a cat since she was in elementary school. The cat is rather old now, but my friend takes good care of her. Actually, I think my friend spends too much time and money on her cat. Sometimes, I feel that she neglects her friends because she has to do something for her cat, such as feed it or take it to the veterinarian. In my opinion, it is unhealthy for people to focus so much attention on animals. If they focused this same energy and attention on people around them, it would make a world of difference. They could spend the money wasted on pet food and toys on more useful pursuits like treating their friends or donating to charities!

Exercise 2

The reading passage describes important space achievements in the 20th century, including NASA's lunar missions. In the lecture, the professor emphasizes the point that US astronauts are the only humans who have walked on the moon. He gives several interesting statistics related to lunar programs developed by other countries. In particular, the professor discusses Russia's lunar program. He points out that although Russia has

sent rockets to the moon, no Russian cosmonauts were ever sent to land on the moon. He also mentions that China is developing plans to send humans to the moon, though those plans will not materialize for a long time.

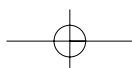
In order to stay healthy, I walk whenever I can. This often means that I have to plan my day carefully so that I can leave enough time to get where I need to go. For example, if I take the subway to my university, it takes about thirty minutes to get from my apartment to my classroom. However, if I get off the subway one stop early in order to walk for exercise, it takes forty-five minutes to get to my classroom. Therefore, I have to leave my apartment fifteen minutes earlier than normal so that I can exercise for fifteen minutes by walking to class. By walking to class, I can also enjoy the added benefit of relaxing in the fresh air rather than being cramped and pushed around on the crowded subway.

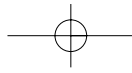
Exercise 3

- | | | |
|---------|---------|---------|
| 1. (B) | 2. (A) | 3. (A) |
| 4. (B) | 5. (C) | 6. (A) |
| 7. (A) | 8. (B) | 9. (C) |
| 10. (A) | 11. (B) | 12. (A) |
| 13. (B) | 14. (C) | 15. (A) |
| 16. (B) | | |

Exercise 4

Both the reading and the lecture focus on the connection between poverty and single-parent families, in particular, families headed by women. The reading describes a government study that looked at all families headed by women across the US. This study concluded that the number of families headed by women below the poverty line decreased from 1960 until the present. The lecture discusses a similar study that found very different results. In the lecture, the professor says that researchers looked at only poor families headed by women. Between 1960 and the present, the number of poor families headed by women rose from 25 percent to over 50 percent. Thus, the professor correlates poverty to gender of household heads. In her words, the "feminization of poverty" is a reality in modern society.





It is often said that the childhood years are the most important years of one's life. However, I think a person's young adulthood years are more important than the childhood years. As a child, a person spends time either in school or simply playing with friends. School may teach the child information or even certain skills necessary for life, but I think these are generic experiences for just about everyone. When a person becomes a young adult, on the other hand, he or she can truly individualize himself or herself. In university, one has the opportunity to make decisions without direction from parents or teachers. Of course, the actions each person decides to take can have a significant impact on the course of the rest of his or her life, unlike decisions typically open to children.

FOCUS B - Sentence Formation

Exercise 1

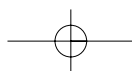
1. The designation of an individual's class, which can be based on a number of different factors, has been of key interest to sociologists for decades.
2. A child who is only a few weeks old is capable of imitating a limited range of facial expressions that he or she observes from a care-giver. OR A child only a few weeks old is capable of imitating a limited range of facial expressions that he or she observes from a care-giver.
3. Children who grow up in single-parent households typically do worse in school than children who are from two-parent households.
4. Diana Pearce, who was an economist by profession, suggested a theory that proved popular among sociologists.
5. The female lion, which is distinguished from the male by the lack of a mane, does the hunting. OR The female lion, distinguished from the male by the lack of a mane, does the hunting.
6. A critical aspect of learning to read involves the integration of skills that develop at different stages of childhood, namely the ability to decipher sounds of a language and the ability to write.
7. One of the most influential theories related to cognitive development comes from Piaget, who

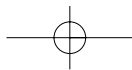
based his theory on observations of elementary-age children.

8. Paper products that are made with at least 60% recycled fibers consume 45% fewer raw materials than products made without recycled fibers.
9. The professor describes the Industrial Revolution as a time when great strides were made in science and technology.
10. A utopian society is one in which citizens live in perfect fairness and harmony with each other.
11. Polaris, which can be located easily on a clear night, is a reliable point in the sky to navigate by because it is located over the point of true north.
12. The claim that "laughter is the best medicine" is supported by research that shows laughter reduces stress, which contributes to a person's overall health and well-being.

Exercise 2

1. The bowl (that was) found in the cave was over 1,000 years old.
2. A child who knows he did something wrong will not look an adult in the eye.
3. Cats were important in ancient Egyptian culture, which flourished in the Nile River Valley for thousands of years.
4. The desk that was broken was removed from the classroom.
5. Columbus grew up in a large port city (that was) located on the coast of Italy.
6. The fossil was obviously a species of horse (that is) now extinct.
7. People who grow up near the border usually learn to speak two languages.
8. The legal age of adulthood, at which/when a person can purchase alcohol, is 21.
9. Snoopy, (who is) a famous cartoon dog, is a beagle.
10. Two critics who reviewed the book did not agree.
11. The university has recently changed its admission policy, which used to prohibit women from studying there.
12. By definition, sunrise is the time in the morning at which/when the sun first appears over the horizon.





Exercise 3

- IC 1. Musicians are only able to develop their technical skills through practice. Therefore, they must devote long hours to exercises that develop particular techniques.
- C 2.
- C 3.
- IC 4. Confucius did not begin teaching until very late in his life, but he had a lasting impact on generations long after his death.
- C 5.
- IC 6. In 1963, Martin Luther King, Jr. was put in jail for a short time, and that same year, his house was bombed.
- IC 7. Because young children are being exposed to violence and sexually explicit material on television, politicians are now debating a new law to censor some shows.
- C 8.
- IC 9. Most people recall that Narcissus turned into a flower; however, few remember what happened to his spurned lover, Echo.
- C 10.
- IC 11. The researcher studied groups of men from various cultures. Interestingly, he found that men's opinions were very similar across cultures.
- C 12.

Exercise 4

1.
 - a. In the past, you would have to pay for a stamp to send a message to a friend, but today, you can send messages for free using email.
 - b. In the past, you would have to pay for a stamp to send a message to a friend, whereas today, you can send messages for free using email.
2.
 - a. Many airlines are offering discount tickets for flights, so more people are flying for weekend trips to scenic cities.
 - b. Because many airlines are offering discount tickets for flights, more people are flying for weekend trips to scenic cities.

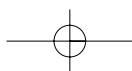
3.
 - a. The architect built many famous structures, and he established a school of architecture in Arizona.
 - b. The architect built many famous structures. Also, he established a school of architecture in Arizona.
4.
 - a. Although my father did not hold a well-paying job, he enjoyed his job a lot.
 - b. My father did not hold a well-paying job, but he enjoyed his job a lot.
5.
 - a. The epic work follows the lives of forty characters through the revolution. Thus, readers often have trouble keeping track of who is who in the novel.
 - b. The epic work follows the lives of forty characters through the revolution, so readers often have trouble keeping track of who is who in the novel.
6.
 - a. A driver caught operating a vehicle while intoxicated will be issued a ticket. Additionally, the owner of the vehicle will receive a ticket as well.
 - b. A driver caught operating a vehicle while intoxicated will be issued a ticket, and the owner of the vehicle will receive a ticket as well.

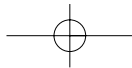
Exercise 5

1. Having been severely damaged by the storm, the building has to be torn down.
2. Having been left in the car on a hot day, the plastic melted and warped.
3. We are only able to objectively view the core of the problem after cutting through all of the media hype.
4. Wanting to attract more companies, the town will offer tax incentives to new businesses.
5. In the past, women were confined to the home by social pressure, being primarily expected to bear and raise children.

Exercise 6

- P 1. A student who waits until the last minute to study for an exam and completes assignments in a careless manner will do poorly in the class.
- P 2. Both by the way the couple dressed and by their interaction with each other, it was obvious they were on their honeymoon.





- NP 3. Job opportunities are increasing in fields related to Internet technology but have decreased in many traditional fields of engineering. (are decreasing)
- P 4. Learning how to write Chinese was harder for me than learning how to speak it.
- P 5. My father taught me how to drive in reverse and how to parallel park.
- NP 6. Shakespeare wrote comedies, romances, tragedies, and plays based on real people from history. (historical dramas)
- P 7. She spent hours wandering around different floors of the library, enjoying her solitude, and discovering old, interesting books.
- NP 8. Learning to write well is important for business majors because employees at all levels may be required to write reports that are accurate and including important details. (include)

Exercise 7

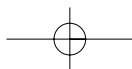
1. A child's voice is higher than an adult. (adult's)
2. Either a family learns to live within its budget or will risk sinking into debt. (risks sinking into debt)
3. I found most of the books required by the course interesting, informative, and they entertained me. (entertaining)
4. The violinist played with grace, incredible dexterity, and speed. (dexterity)
5. A shocking number of freshmen waste their first year of college not studying enough, doing things harmful to their health, and not utilizing the campus facilities available to them. (not taking care of their health)
6. In the art appreciation course, students will learn to analyze important elements of art and recognizing styles of various art movements. (to recognize styles of various art movements)

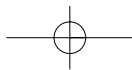
7. Most students expect three things out of university: to learn life skills, meeting new friends, and to prepare for their future careers. (to meet new friends)
8. The Hopi, the Navajo, and Zuni are three well-known Native American peoples of the southwest United States. (the Zuni)

Exercise 8

The reading and the lecture both describe Chomolunga, which is the mountain better known as Mt. Everest. The reading introduces just the basic facts about the mountain, such as its location, height, and climate/weather conditions. The professor adds to this information by talking about all of the people who have tried to climb Mt. Everest. In particular, he explains that although thousands of people have tried to climb the mountain, only about 650 have succeeded. On top of that, 142 of those successful climbers died before they made it back down the mountain. Obviously, Mt. Everest is an incredible and dangerous mountain.

In my opinion, teamwork is a more valuable asset in a new employee than independence. Most jobs cannot be done alone. Therefore, it is necessary for employees to be able to work both with colleagues who work within the same company as well as with individuals or teams from other companies. Employees must have the necessary skills to communicate effectively with others as well as cooperate in forming strategies or solutions for workplace tasks and problems. Although an independent employee might be able to do certain tasks without help or input from others, these are not the most efficient workers because the tasks he or she undertakes are smaller or more limited in nature than the tasks which can be undertaken by teams.





Practice Test

Reading

Herbs and Drugs

1. (B) 2. (D) 3. (B)
 4. (C) 5. (C) 6. (D)
 7. (D) 8. (A) 9. (B)
 10. (A) 11. (C)
 12. Drugs — (B), (E), (H); Herbs — (A), (C), (F)

Pollination

25. (A) 26. (C) 27. (B)
 28. (A) 29. (D) 30. (B)
 31. (B) 32. (A) 33. (A)
 34. (C) 35. (C)
 36. (A), (D), (E)

William Shakespeare

13. (B) 14. (C) 15. (B)
 16. (D) 17. (C) 18. (D)
 19. (A) 20. (C) 21. (A)
 22. (B) 23. (A)
 24. (A), (C), (E)

Listening

Campus Life

1. (D)
 2. YES — (B), (C), (D), (E); NO — (A)
 3. (B) 4. (D) 5. (B) 6. (A)

Ecology

7. (D) 8. (A), (C), (F)
 9. YES — (C), (E); NO — (A), (B), (D)
 10. (D) 11. (D) 12. (B)

Music

13. (B)
 14. YES — (D), (E), (F); NO — (A), (B), (C)
 15. (A) 16. (A) 17. (C) 18. (A)

Sociology

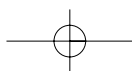
19. (C) 20. (C), (D) 21. (D) 22. (C)
 23. (C) 24. (B)

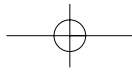
Campus Life

25. (C) 26. (B) 27. (A) 28. (D)
 29. (B) 30. (C)

Literature

31. (B) 32. (A), (C), (D)
 33. (D) 34. (A) 35. (B)
 36. First person — (C), (E); Third person — (A), (B), (D)





Speaking

Question 1

Some people trust first impressions, while others prefer to get to know someone before making judgments. I used to trust first impressions, but now I do not. When I was working as a waiter at a cafe, I saw a man with worn-out clothes and really messy hair. He looked like a beggar, but then he sat down at a table. I told him I was sorry but he couldn't rest in the restaurant. It turned out that the man was a famous artist waiting for the director of a local museum. I was very embarrassed, and now I do not trust first impressions.

Question 2

Sample response 1:

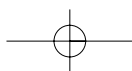
I agree with the statement that people should only read books about real events, real people, and established facts. First, reading about legends or unproven claims only creates confusion and argument between people. Second, reading works of fiction only uses up time that could be spent learning about the world or real things. After all, there is more than enough to learn about the real world to keep people busy. Finally, getting too involved in works of fiction can damage a person's social skills and interest in interacting with others.

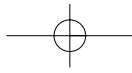
Sample response 2:

I disagree with the statement that people should only read books about real events, real people, and established facts. For one thing, it is not always clear which books are about real events and which are not. For instance, a religion may consider its holy book to be objective fact, or a country might consider its history books to be objective fact, while others, of course, do not. In addition, works of fiction spark the imagination and help people develop and grow in a way that non-fiction simply cannot.

Question 3

In the woman's opinion, the Career Services Center is a great place. She describes several ways that the center has helped her. First, she details how a counselor there helped her choose her major area of study. By using a series of tests of interests and abilities, he advised her to major in statistics or accounting. Second, she tells how the center can help students find jobs after graduation. They maintain a database of job and internship listings that students can read in order to find career opportunities. In the end, she recommends the man visit the center.





Question 4

Both the reading and the lecture are about the Earth's layers. The reading says that there are four layers. Those are the core, the mantle, the crust — uh, the core actually has two parts: the inner core and outer core. But the woman says that there are extra parts of the crust. I mean, the crust should really be thought of as having two parts, not just one. Those two parts are the continental crust and the oceanic crust. Then, she also goes on to explain some of the differences between the two parts of the crust. She mentions things like where they are located, how thick they are, and what they are made of. Anyway, the key point that she adds to the information in the reading is that the crust really has two parts.

Question 5

Sample response 1:

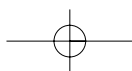
The two students discuss the man being put on academic probation. Because he chose to take too many courses and then became sick, he failed a geology class. Two possible solutions to his problem are discussed. The first option is to appeal the probation. The second option is to take the class again. In my opinion, the first option is the better of the two. Since the man does have extenuating circumstances surrounding his low grade, I think there is a good chance he could have the probation revoked. Thus, his failure would not appear on his records.

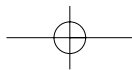
Sample response 2:

The two students discuss the man being put on academic probation. Because he chose to take too many courses and then became sick, he failed geology class. Two possible solutions to his problem are discussed. The first option is to appeal the probation. The second option is to take the class again. In my opinion, the second option is the better of the two. Since the man doesn't have a good excuse for his failure, he should retake the course within a year and work hard to earn a high grade. Thus, his failure would not appear on his records.

Question 6

In the lecture, the professor explains traditional Chinese medicine. First, he describes the theory of "chi," a form of energy that flows through paths in the body. In addition, he states that chi can be hot or cold. Chinese medicine contends that a healthy body maintains clear paths for the flow of chi as well as a balance between hot and cold forms. Unhealthy blockages or imbalances can arise through diet, body position, and mental stress. The professor also explains how Chinese medicine seeks to treat the cause of the problem rather than the symptoms. One form of treatment is the use of different herbs to manipulate chi.





Writing

Sample Responses

Task 1

The reading and the lecture define society in different ways. They both talk about groups of people, but the way each talks about groups is very different. In the reading passage, groups are categorized by size and type. For example, there are small social groups and large social groups, and both these small groups and large groups interact with each other. All of the small groups and large groups together make a supergroup, society.

In the lecture, the speaker does not define society in this way. Instead, she gives several common aspects that can be used to define society. Among these aspects, she lists a common place, a common government, a common language, and common traditions. According to the speaker, society is not necessarily a large supergroup. In her view, a relatively small group of individuals within a relatively small area can be defined as a society. She points to the student body of a university as an example. As long as the group of individuals has the aspects she lists, it can be considered a society.

Task 2

In life, a number of sources contribute to one's learning and development: parents, teachers, friends, television, books, and movies. Each source is essential to human development in some way. It is my belief, however, that parents are the best and most important teachers for a number of reasons.

First, parents are the first teachers that each individual encounters. Even before birth, mothers and fathers "teach" babies by talking and singing to them. After

birth, parents teach by talking, reading, and introducing their children to the world around them. Scientists contend that children's brains grow rapidly between ages one and five — the period spent almost exclusively with Mom and Dad.

Second, parents teach children not only how to talk, read, and write, but also how to behave correctly. Infants, of course, do not know anything about other people. Parents instruct them how to be polite, how to show respect, how to handle emotions, whom to trust, and whom not to trust. In other words, they teach their children how to survive and thrive in society.

Third, and most important, parents teach by example. Because children spend so much time with their parents when they are young, they learn by observation and imitation. This can be both positive and negative. For example, children can learn harmful behaviors, like violence or smoking, if their parents exhibit such actions. Children, therefore, learn what they live. If their parents are kind, the children will be, too. If the parents are selfish, so will be the children.

The final aspect is the longevity of the relationship. Since parents act as teachers for 18 or more years before the child leaves home, they have a much stronger impact than a school teacher whom students may know for as little as one year. Indeed, even after graduating from university and starting a family of their own, children often turn to their parents for guidance.

Though there are numerous people and media through which children can learn, the lessons and examples received from parents shape personalities and influence lives the most. For these reasons, I think parents are the most important teachers in a person's life.

