



# HO CHI MINH CITY UNIVERSITY OF TRANSPORT



# English in Electrical Engineering and Electronics

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# GAME 1



# GAME 1



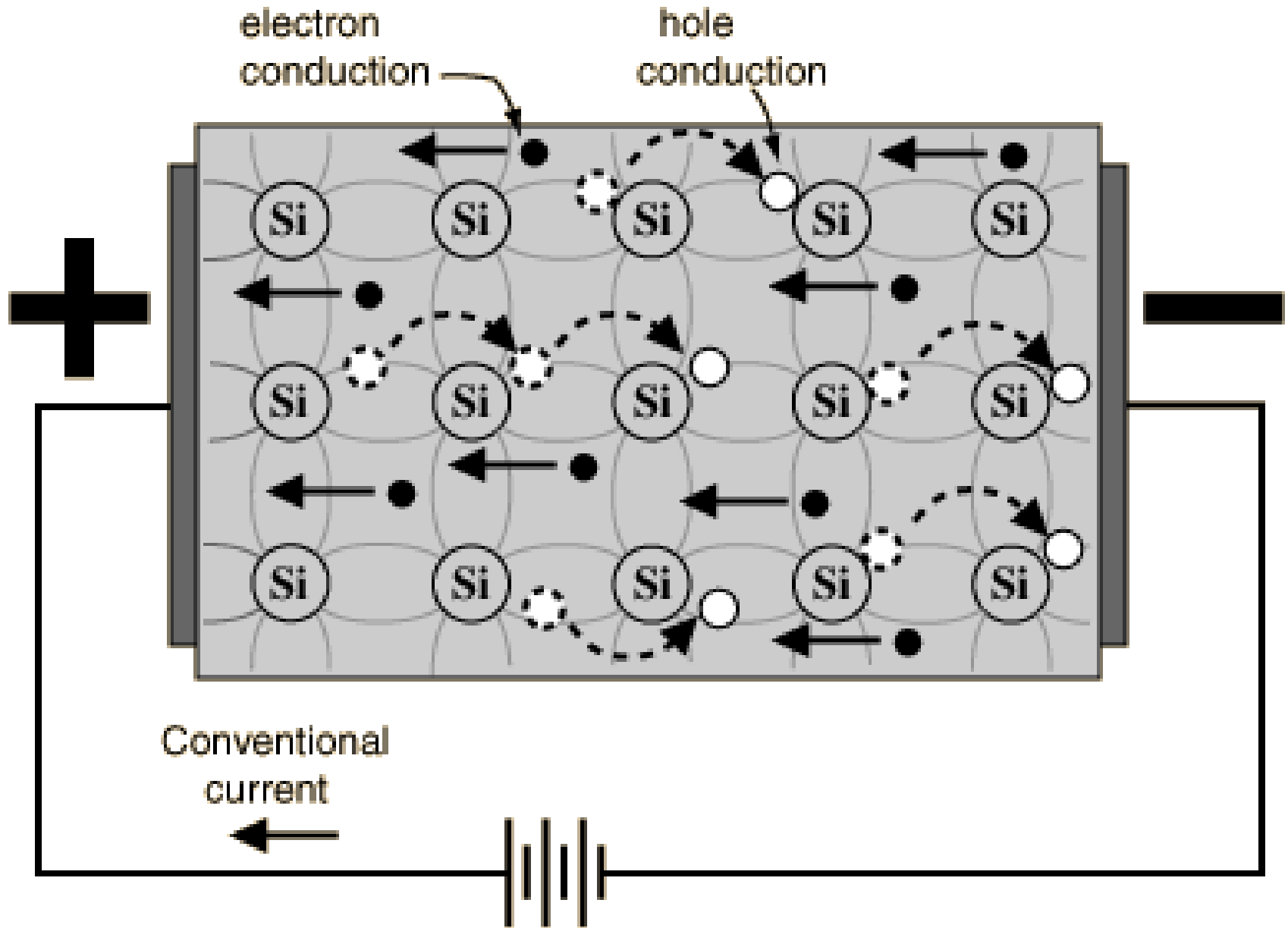
# GAME 1



# GAME 1



# GAME 1



# GAME 1



**CARBON**



**SULPHUR**



**GOLD**



**IRON**

# GAME 1

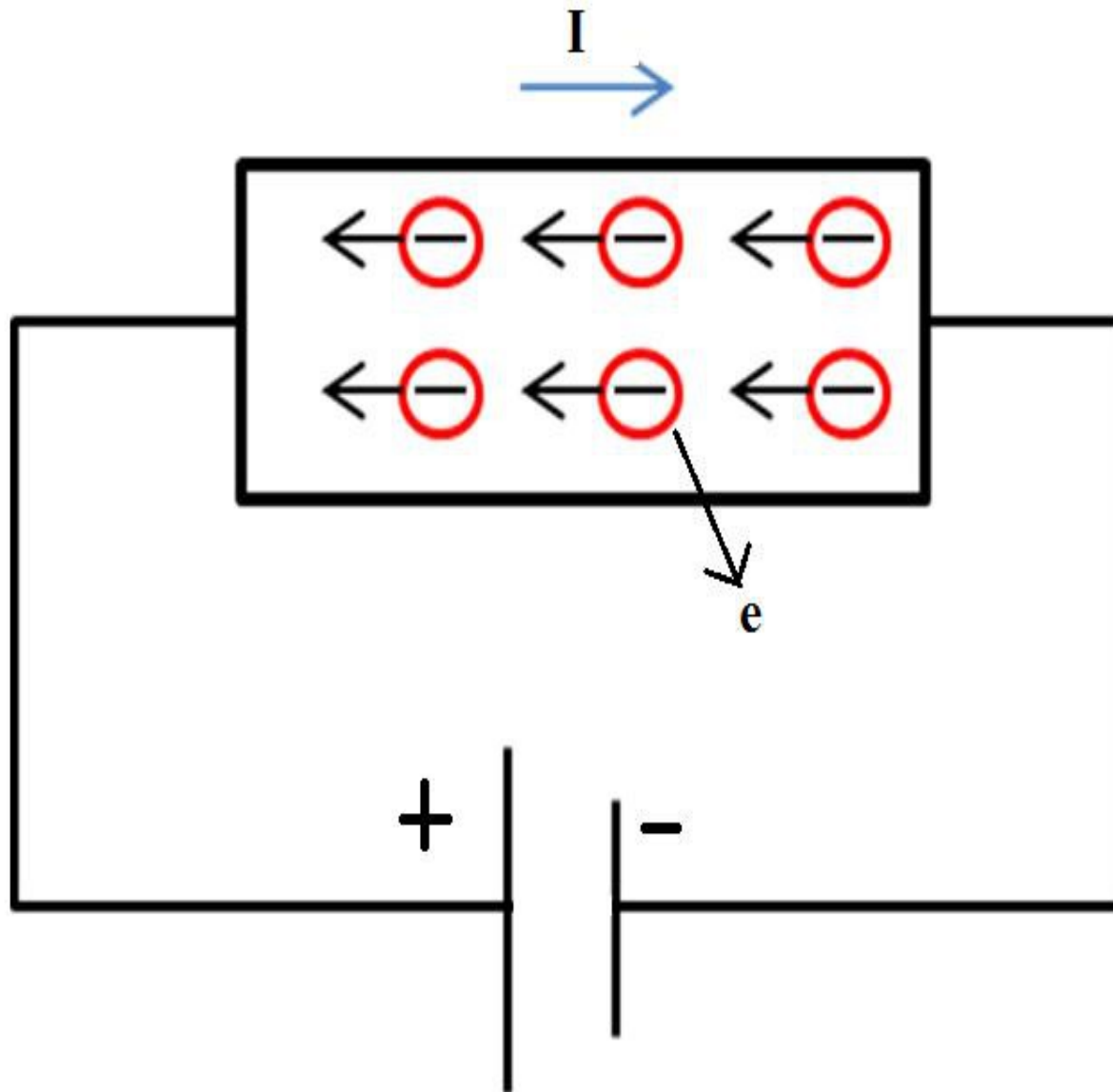




# GAME 1



# GAME 1



**GAME 1**

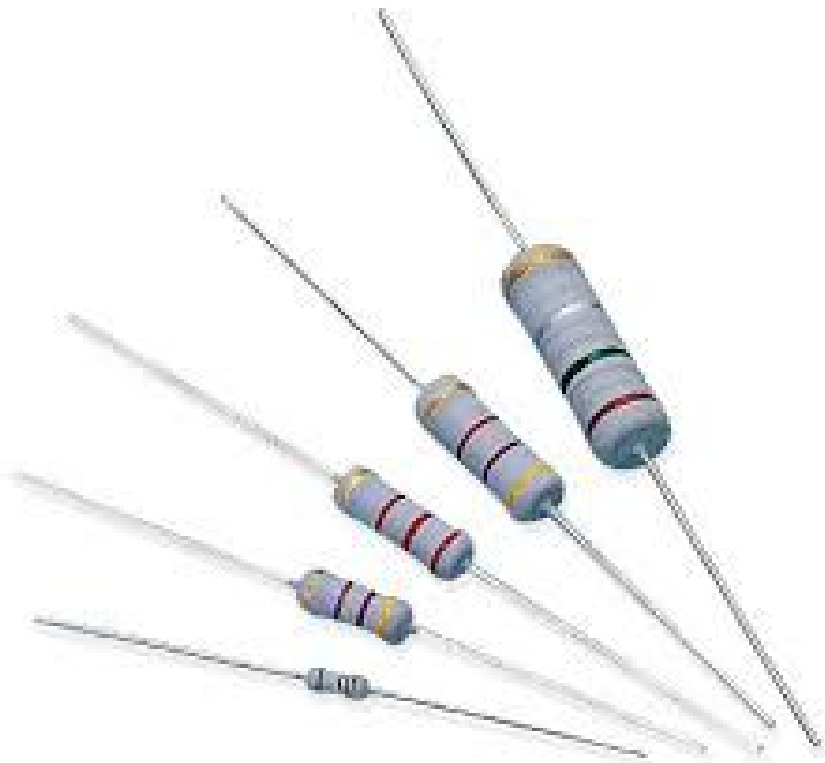
**ANSWER**



**Copper : Đồng**

# GAME 1

# ANSWER



**Resistor : Điện trở**

**Resistance : Điện kháng**

# GAME 1

# ANSWER



**Robber : Cao su hoặc nhựa**

# GAME 1

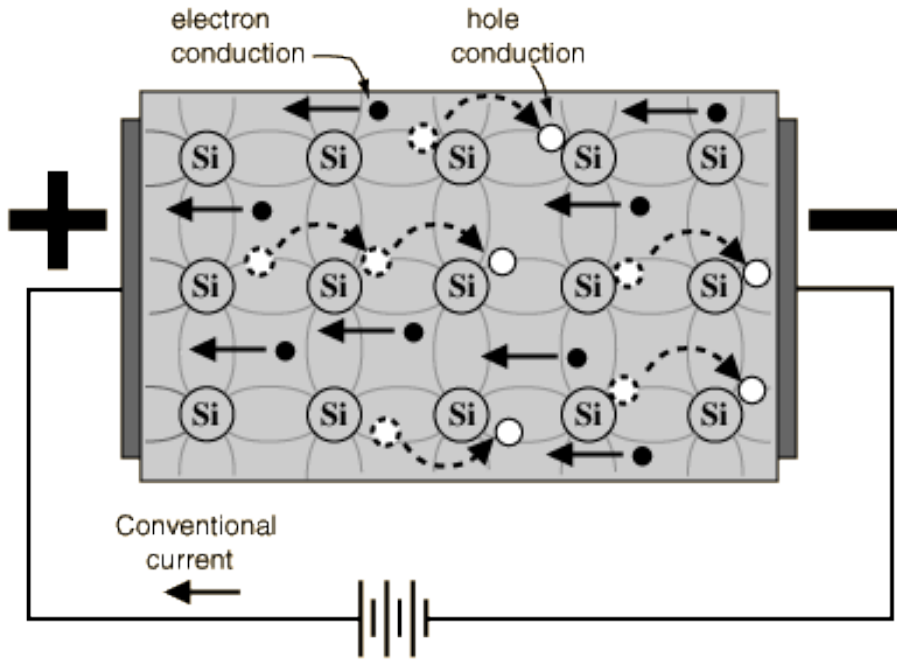
# ANSWER



**Mixture : hỗn hợp**

# GAME 1

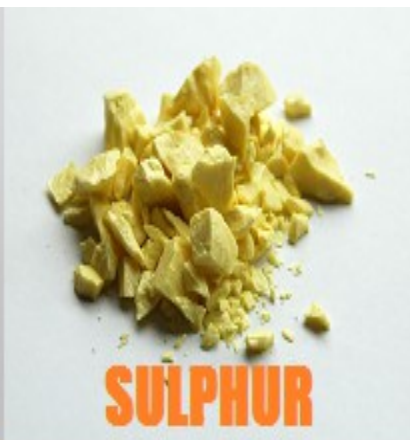
# ANSWER



**Semiconductors :**  
**chất bán dẫn**

# GAME 1

# ANSWER



**Non – metals : Phi kim**



# GAME 1

# ANSWER



**Insulators: chất cách điện**

# GAME 1

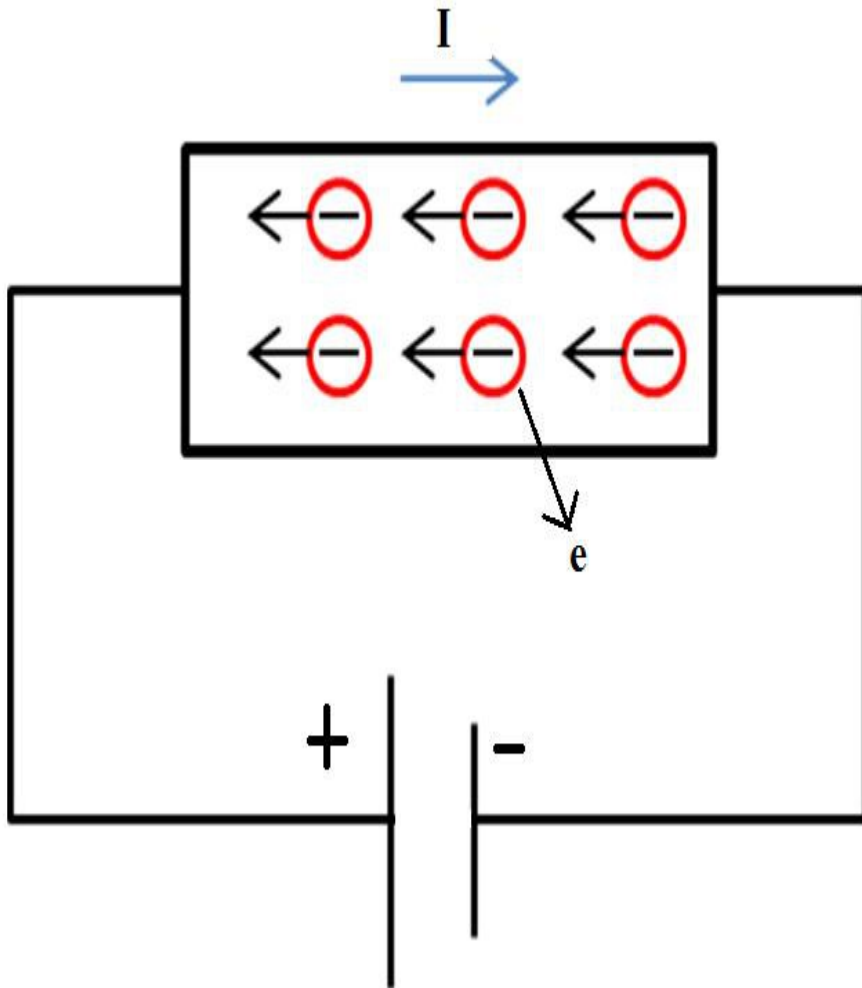
# ANSWER



**Metals: Kim loại**

# GAME 1

# ANSWER



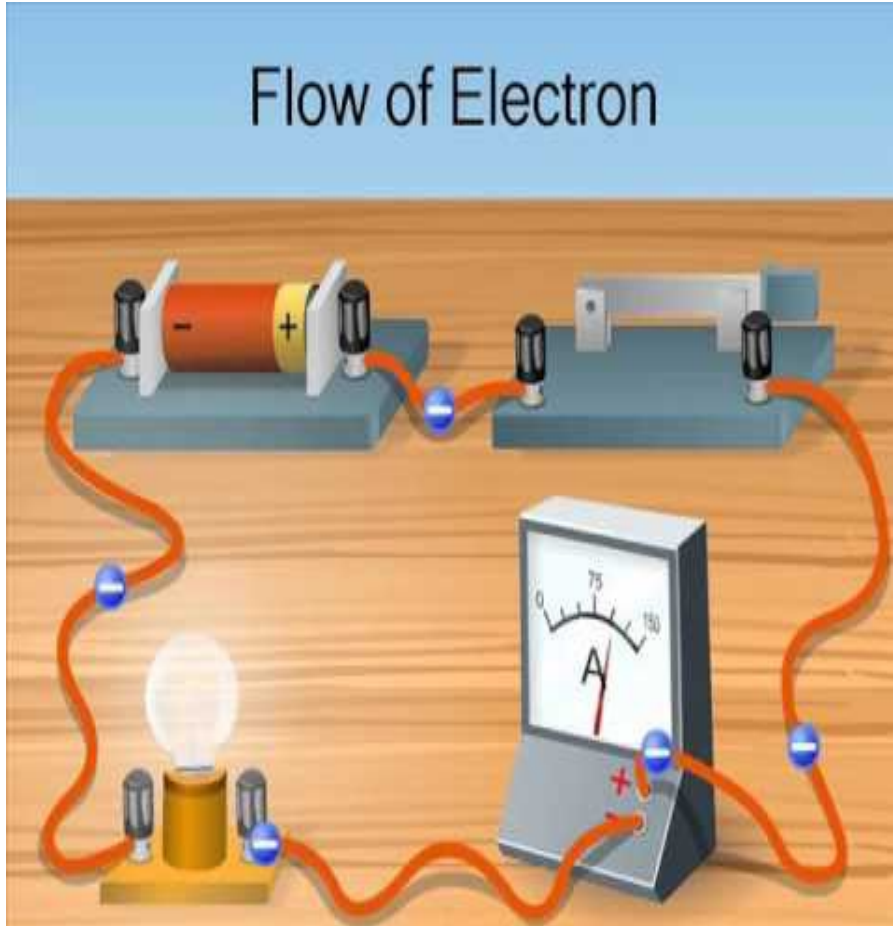
**Electric current: dòng  
điện**

# GAME 2

**Ex: conduct : dẫn điện ( ocntduc )**

1. **Materials**..... = Substance : vật liệu, chất liệu ( triamles)
2. **Conductors**.....: chất dẫn điện ( ocdutorsnc )
3. **Negative end**.....: cực âm ( ganetvie edn )
4. **Positive end**.....: cực dương ( tiveopis end )
5. **Temperature**.....: nhiệt độ ( temrapetuer )

# GAME 3



Battery

Positive end

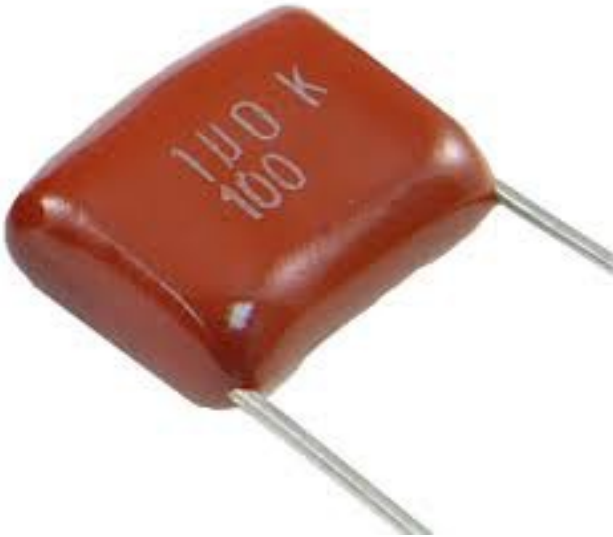
Negative end

Electric current

Lamp

Conductors wire

# VOCABULARY



A ceramic capacitor: **Tụ  
gốm**



A resistor: **điện trở**

# VOCABULARY



An electrolytic capacitor

Tụ điện phân



Transformer laminations

Lá thép kỹ thuật

# VOCABULARY



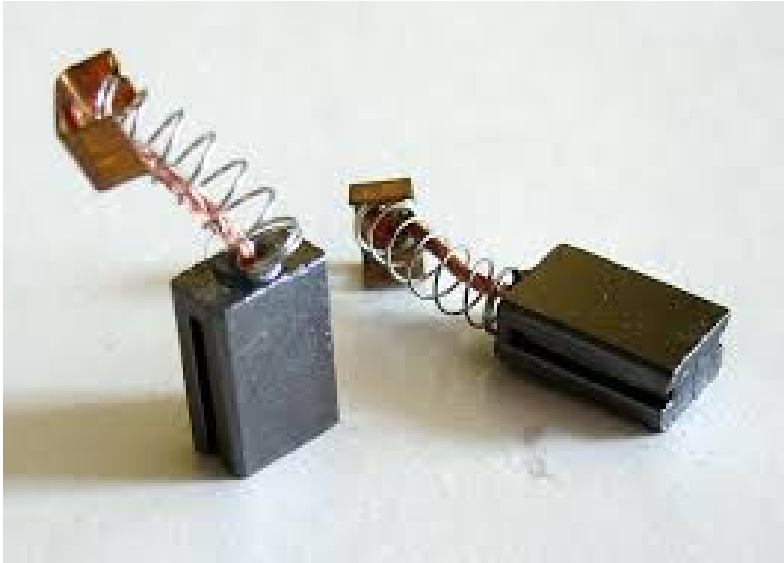
**An antenna: cây anten**



**A magnet: nam châm**



# VOCABULARY

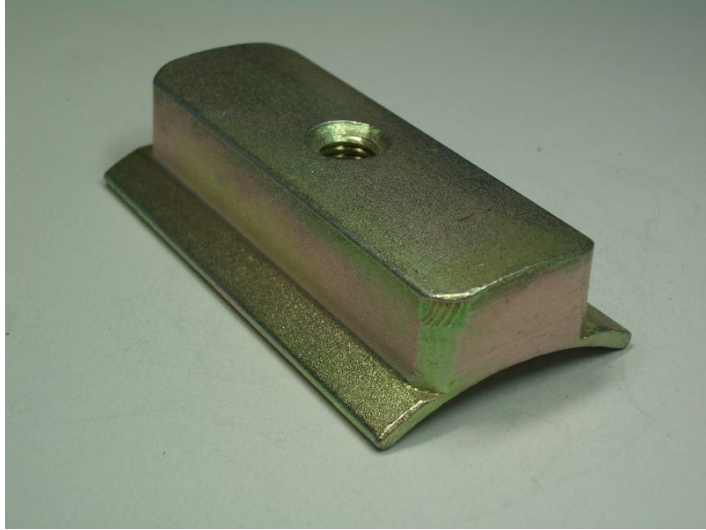


A carbon brush: **chổi than**

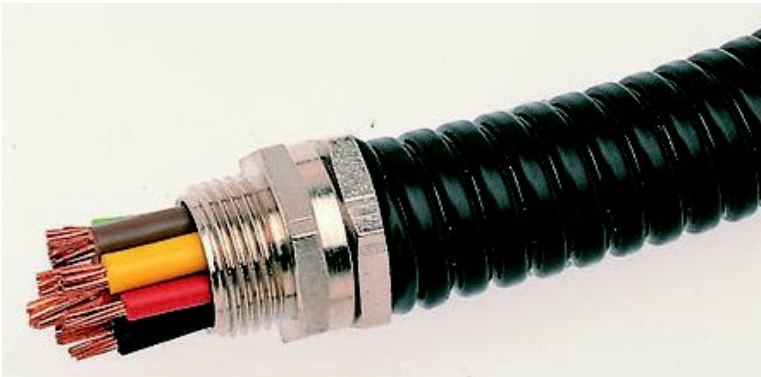


A capacitor: **tụ điện**

# VOCABULARY

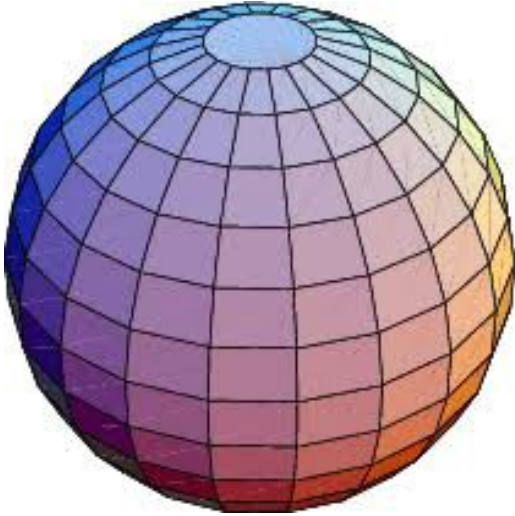


A motor pole shoe: **cực động cơ điện**



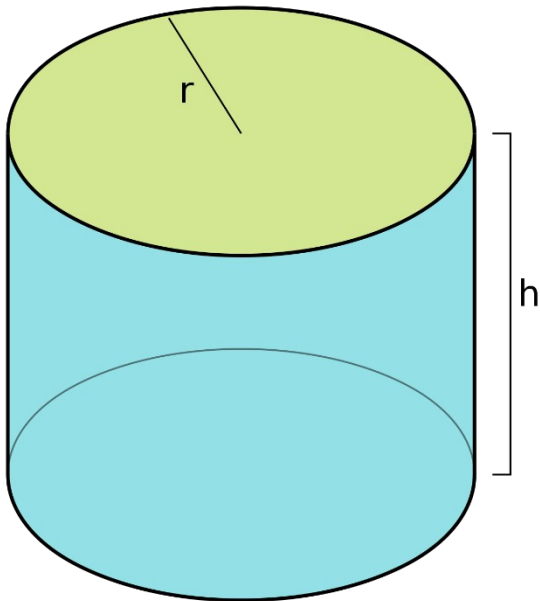
A cable conduit: **cáp dẫn điện**

# VOCABULARY



**Sphere (n) / Spherical (adj)**

**hình cầu**



**cylinder (n) / cylindrical (adj)**

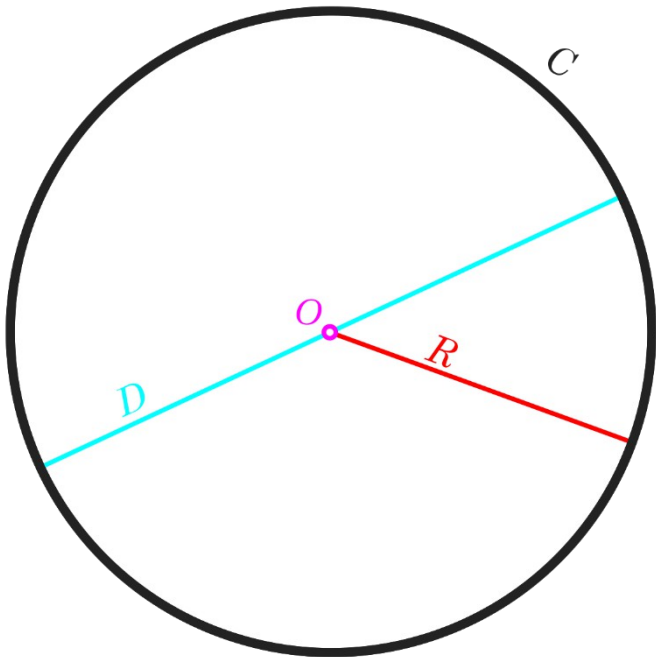
**hình trụ**

# VOCABULARY



**Tube (n) / tubular (adj)**

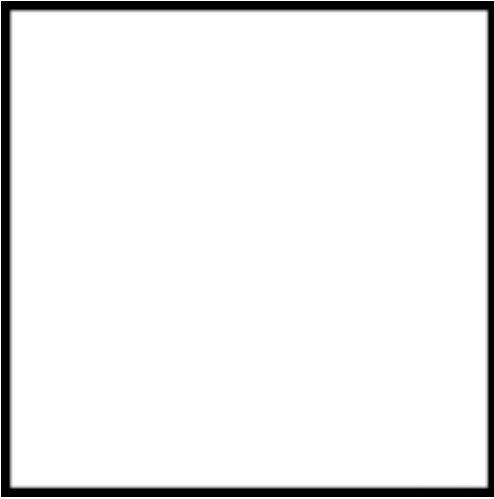
**hình dạng ống**



**Circle (n) / circular (adj)**

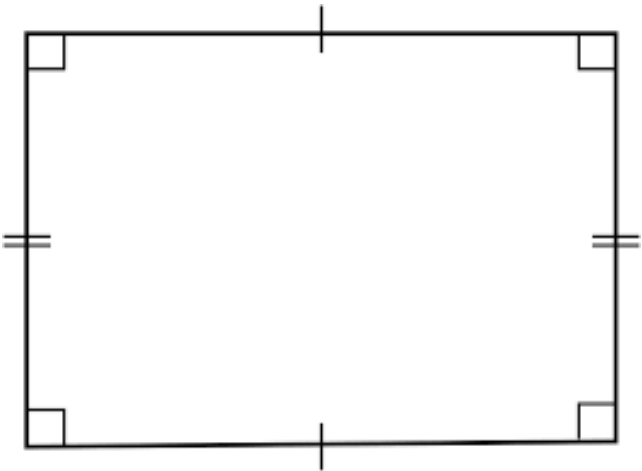
**hình tròn**

# VOCABULARY



**square (n) / square (adj)**

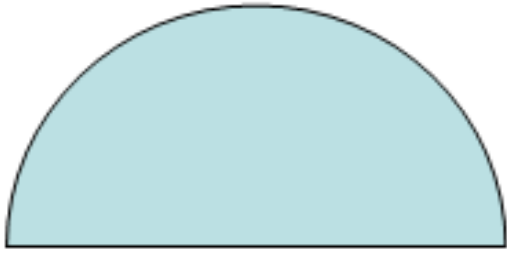
**hình vuông**



**rectangle (n) / rectangular (adj)**

**hình chữ nhật**

# VOCABULARY



**Semi-circle (n) / semi-circular (adj)**

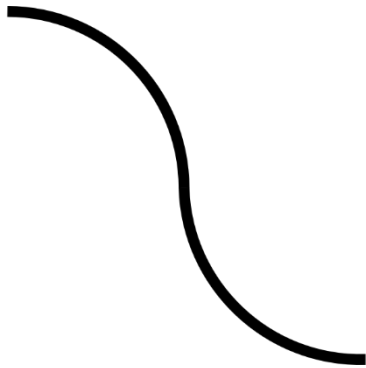
**Nửa hình tròn**



**rectangular (adj)**

**hình hộp chữ nhật**

Lines: đường

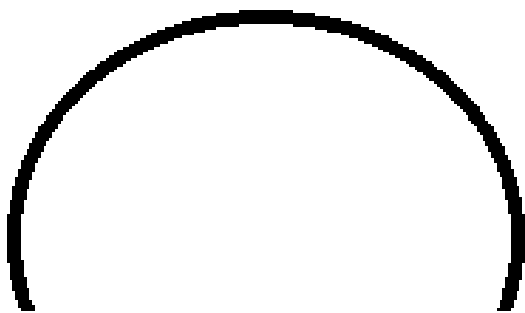


**Curved:** cong



**straight:** thẳng

Edges: cạnh



rounded: tròn



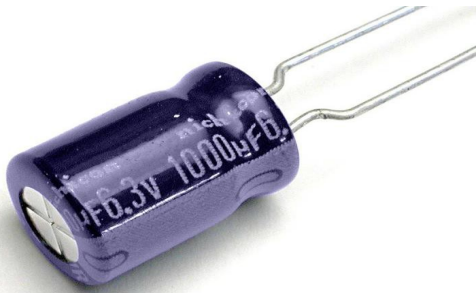
pointed: nhọn



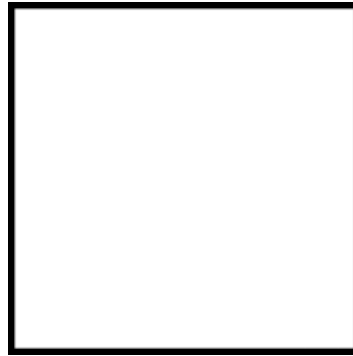
# VOCABULARY

1. **A circle** is a simple closed shape in Euclidean geometry.
2. **A sphere** is a perfectly round geometrical object in three-dimensional space.
3. **A square** is a regular quadrilateral , which means that it has four equal sides and four equal angles.
4. **A cylinder** is the surface formed by the points at a fixed distance from a given straight line called the axis of the cylinder.
5. **A magnet** is a material or object that produces a magnetic field
6. **A carbon brush** is a device which conducts current between stationary wires and moving parts, most commonly in a rotating shaft.

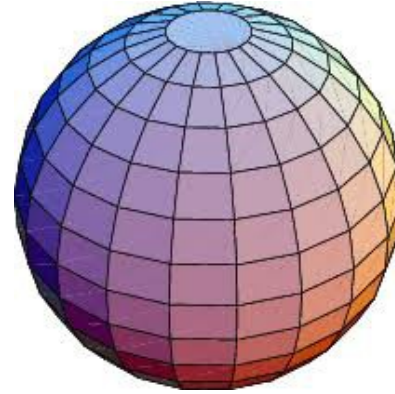
# VOCABULARY



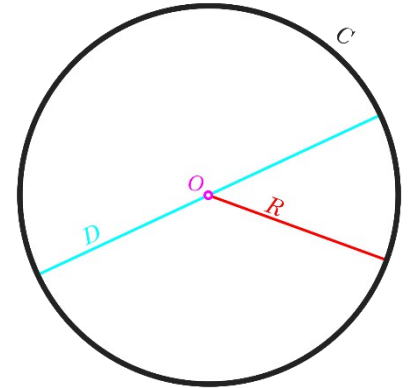
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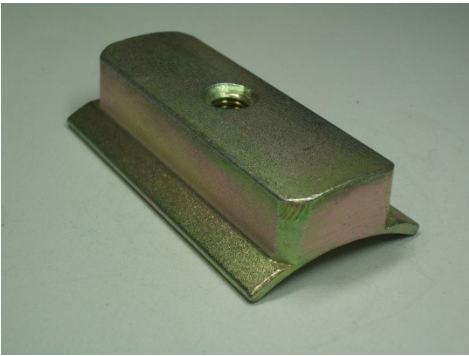
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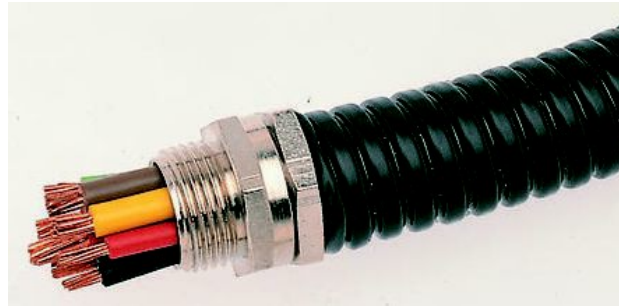
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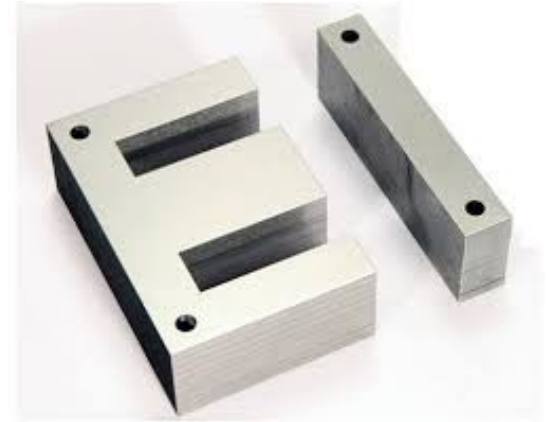
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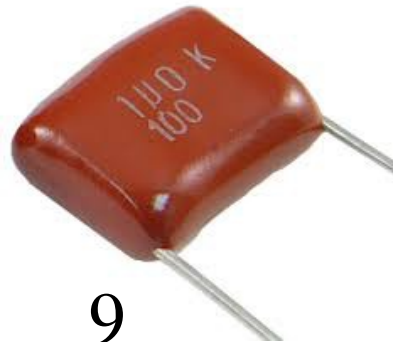
6



7



8



9

# VOCABULARY

- 1. An electrolytic capacitor**
- 2. square (n) / square (adj)**
- 3. Sphere (n) / Spherical (adj)**
- 4. Circle (n) / circular (adj)**
- 5. A motor pole shoe**
- 6. A cable conduit**
- 7. Transformer laminations**
- 8. A resistor**
- 9. A ceramic capacitor**

**Now complete each sentence using an appropriate phrase from this list:**

**A. Vocabulary**

1. Wound round : quấn vòng
2. Connected across : kết nối qua...
3. Mounted on : gắn thêm...
4. Wired to : có dây để...
5. Located within : nằm trong...
6. Applied to : áp dụng cho...
7. Connected to : kết nối với...
8. Connected between : kết nối giữa...

# Now complete each sentence using an appropriate phrase from this list:

1. Wound round

2. Connected across -1

3. Mounted on

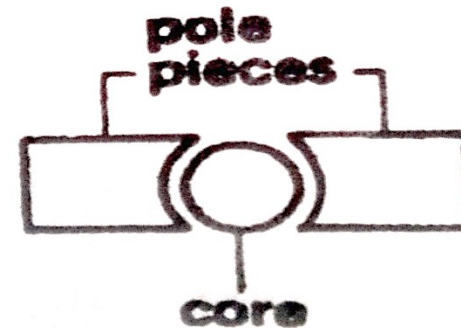
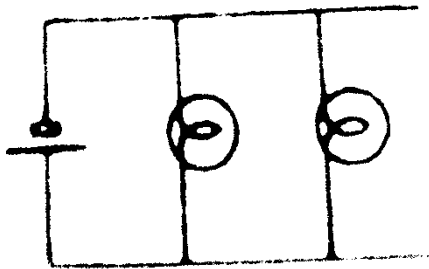
4. Wired to

5. Located within -2

6. Applied to

7. Connected to

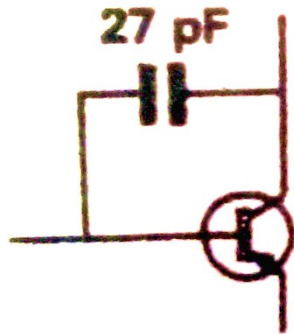
8. Connected between



1. The bulbs are ... the battery    2. the core is ... the pole pieces

# Now complete each sentence using an appropriate phrase from this list:

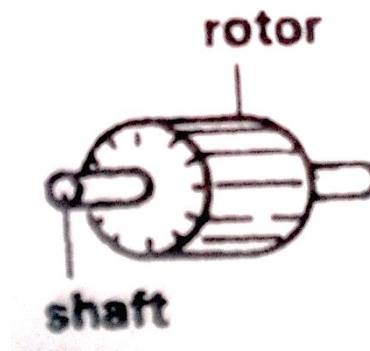
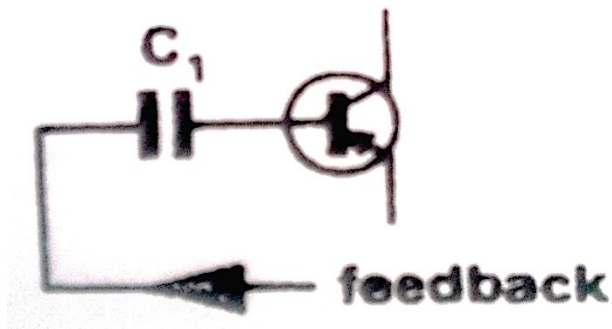
- |                     |                      |    |
|---------------------|----------------------|----|
| 1. Wound round      | 5. Located within    | -2 |
| 2. Connected across | 6. Applied to        | -1 |
| 3. Mounted on       | 7. Connected to      | -4 |
| 4. Wired to         | 8. Connected between | -3 |



3. The 27pF capacitor is ... the 4. the antenna is ... the coil  
collector and the base

# Now complete each sentence using an appropriate phrase from this list:

- |                     |                      |                 |    |
|---------------------|----------------------|-----------------|----|
| 1. Wound round      | 5. Located within    | -2              |    |
| 2. Connected across | -1                   | 6. Applied to   | -5 |
| 3. Mounted on       | -6                   | 7. Connected to | -4 |
| 4. Wired to         | 8. Connected between | -3              |    |



5. feedback voltage is ... the base of the transistor through  $C_1$

6. the rotor is ... the shaft

# Now complete each sentence using an appropriate phrase from this list:

1. Wound round -7

2. Connected across -1

3. Mounted on -6

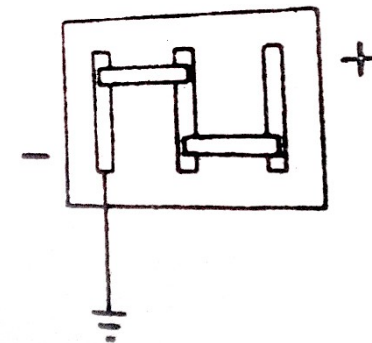
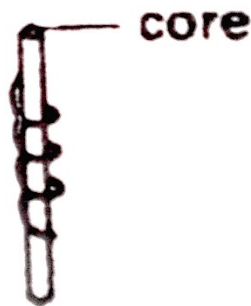
4. Wired to -8

5. Located within -2

6. Applied to -5

7. Connected to -4

8. Connected between -3



7. the coil is ... an iron core

8. the negative pole of the  
battery ... earth



# Translate English sentences into Vietnamese

1. The materials that are neither conductor nor insulator with energy gap of about 1 eV (electron volt) are called semiconductors.

Vật chất không dẫn hoặc cách điện với năng lượng khoảng 1eV được gọi là chất bán dẫn.

2. A battery is a device that converts chemical energy to electrical energy.

Pin là thiết bị chuyển hóa năng lượng thành điện năng.

3. Diodes are the simplest semiconductor device having only two layers, two terminals and one junction.

Diode là chất bán dẫn đơn giản nhất chỉ có 2 lớp, 2 cực và 1 lớp chuyển tiếp.

# **Transfer the following sentences from Vietnamese into English**

**1. Độ dẫn điện là tính chất cơ bản của vật liệu.**

**Electrical conductivity is a basic property of material.**

**2. Điện trở của dây dẫn tăng khi chiều của dây dẫn tăng.**

**Resistance of the conductor increases with increasing length of the conductor.**

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## Relative Pronouns

Relative pronoun	Use	Example
who	subject or object pronoun for people	I told you about the woman <i>who</i> lives next door.
which	subject or object pronoun for animals and things	Do you see the cat <i>which</i> is lying on the roof?
which	referring to a whole sentence	He couldn't read <i>which</i> surprised me.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## Relative Pronouns

Relative pronoun	Use	Example
whose	possession for people animals and things	Do you know the boy <i>whose</i> mother is a nurse?
whom	object pronoun for people, especially in non-defining relative clauses (in defining relative clauses we colloquially prefer <i>who</i> )	I was invited by the professor <i>whom</i> I met at the conference.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## Relative Pronouns

Relative pronoun	Use	Example
that	subject or object pronoun for people, animals and things in defining relative clauses ( <i>who</i> or <i>which</i> are also possible)	I don't like the table <i>that</i> stands in the kitchen.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## Relative Adverbs

Relative adverb	Meaning	Use	Example
when	in/on which	refers to a time expression	the day <i>when</i> we met him
where	in/at which	refers to a place	The place <i>where</i> we met him
why	for which	refers to a reason	the reason <i>why</i> we met him

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## EXERCISE J Relative clauses 1

**Study these sentences:**

1. Starter motor brushes are made of carbon.
2. The carbon contains copper.

Both these sentences refer to carbon. We can link them by making sentence a relative clause.

**1+2. Starter motor brushes are made of carbon WHICH CONTAINS COPPER.**

The relative clause is in capitals, Note that **THE CARBON** in sentence 2 becomes **WHICH**.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## EXERCISE J Relative clauses 1

**Study these other pairs of sentences and note how they are linked:**

3. Consumers are supplied at higher voltages than domestic consumers.

4. These consumers use large quantities of energy.

**3+4. Consumers WHO USE LARGE QUANTITIES OR ENERGY higher voltages than domestic consumers.**



# RELATIVE CLAUSES

(Mệnh đề quan hệ)

## EXERCISE J Relative clauses 1

**Study these other pairs of sentences and note how they are linked:**

5. 33kV lines are fed to intermediate substations.

6. In the intermediate substations the voltage is stepped down to 11 kV.

**5+6. 33kv lines are fed to intermediate substations **WHERE THE VOLTAGE STEPPED DOWN To 11kV.****

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

Now link these sentences Make the second sentence in each pair a relative clause:

1. The coil is connected in series with a resistor.

The resistor has a value of 240 ohms.

→ The coil is connected in series with a resistor **WHICH**  
has a value of 240 ohms.

2. The supply is fed to a distribution substation.

The supply is reduced to 415V in the distribution substation.

→ The supply **WHICH** is reduced to 415V in the  
distribution substation is fed to a distribution  
substation.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

Now link these sentences Make the second sentence in each pair a relative clause:

1. The coil is connected in series with a resistor.

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2. The supply is fed to a distribution substation.

The supply is reduced to 415V in the distribution substation.

→ The supply **WHICH** is reduced to 415V in the  
distribution substation is fed to a distribution  
substation.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

Now link these sentences Make the second sentence in each pair a relative clause:

3. Workers require a high degree of illumination.

The workers assemble very small precision instruments.

→ Workers... **WHO**... assemble... very... small... precision instruments, require a high degree of illumination.....

4. Manganin is a metal.

This metal has a comparatively high resistance.

→ Manganin is a metal **WHICH** has a comparatively high resistance.....

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

Now link these sentences Make the second sentence in each pair a relative clause:

5. The signal passes to the detector.

The signal is rectified by the detector.

→ The signal **WHICH** is rectified by the detector passes to the detector.

6. A milliammeter is an instrument.

The instrument is used for measuring small currents.

→ A milliammeter is an instrument **WHICH** is used for measuring small currents.

# RELATIVE CLAUSES

(Mệnh đề quan hệ)

Now link these sentences Make the second sentence in each pair a relative clause:

7. Workers require illumination of 300 lux.

The workers assemble heavy machinery.

→ **Workers WHICH assemble heavy machinery require illumination of 300 lux.**

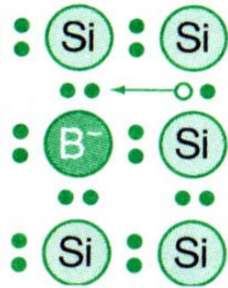
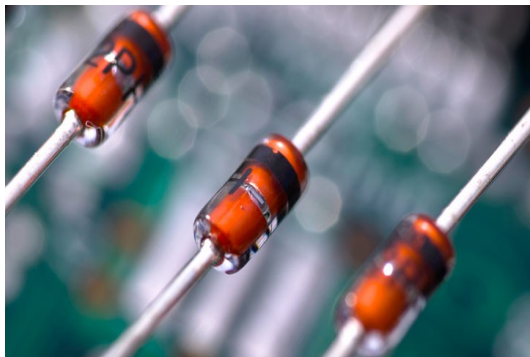
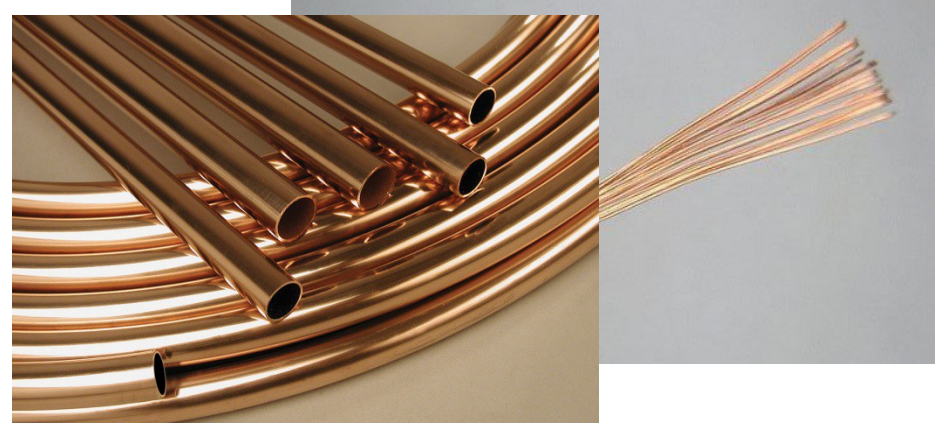
8. Annoured cables are used in places.

There is a risk of mechanical damage in these places.

→ **Annoured cables are used in places WHERE there is a risk of mechanical damage.**

# VOCABULARY

1. **A conductor** is an object or type of material that allows the flow of an electrical current in one or more directions.



2. **A Semiconductor** is a material that in some cases will conduct electricity but not in others.

3. **A metal** is a material (an element, compound, or alloy) that is typically hard, opaque, shiny, and has good electrical and thermal conductivity.

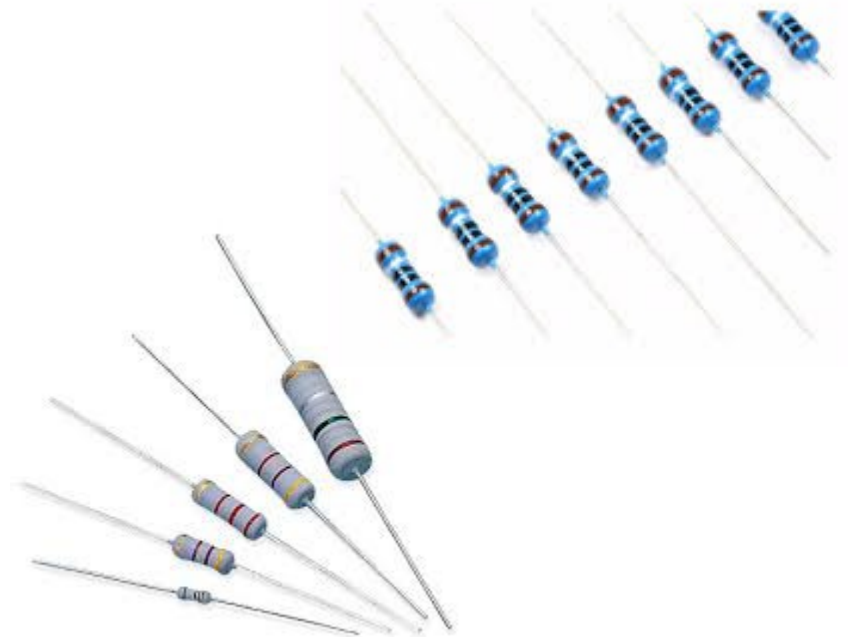


# VOCABULARY



4. **Non-metal**..... is a chemical element that does not have the properties of a metal. Some are gases including: hydrogen, helium, oxygen, nitrogen, fluorine, neon, or radon and many others.

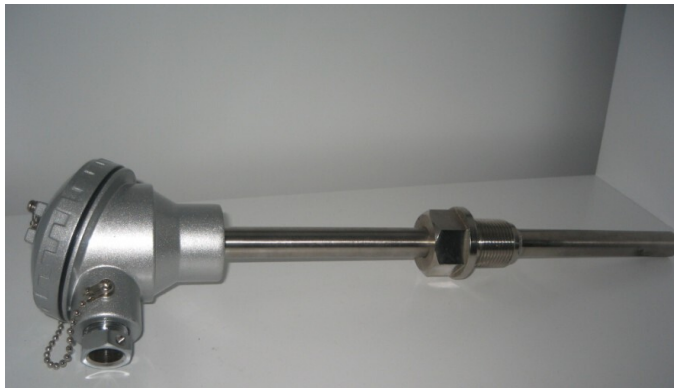
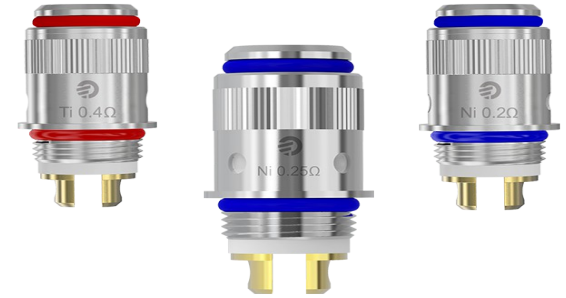
5. **A resistor** is a passive two-terminal electrical component that implements electrical resistance as a circuit element.





# VOCABULARY

6. **Resistance**... is the opposition that a substance offers to the flow of electric current.



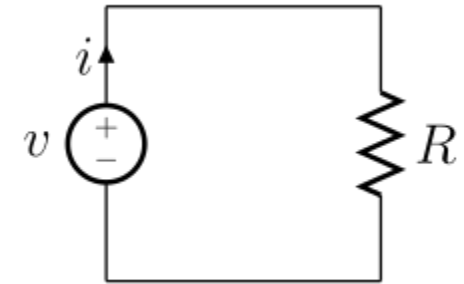
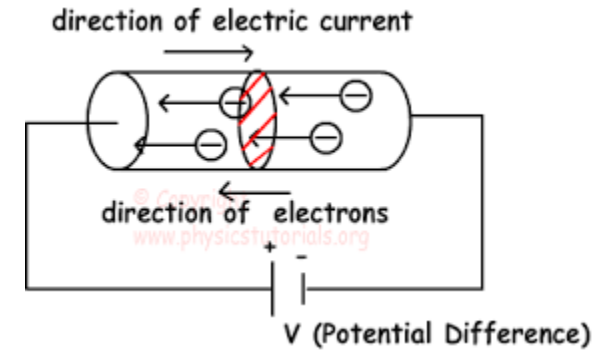
7. **A thermistor**.... is a type of resistor whose resistance is dependent on temperature, more so than in standard resistors.

8. **An electrical insulator**. is a material whose internal electric charges do not flow freely; very little electric current will flow through it under the influence of an electric field.



# VOCABULARY

9. **An electric current** is a flow of electric charge. In electric circuits this charge is often carried by moving electrons in a wire. It can also be carried by ions in an electrolyte, or by both ions and electrons such as in an ionised gas.



10. **Temperature-sensing device** is a rugged, general-purpose temperature sensor that can be used in organic liquids, salt solutions, acids, and bases.

**The end**

**THANK YOU!!!**