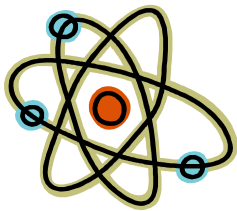


# Revision: Unit 1

1.- What is electricity?

2.- Write down the name of the atom's particles.



3.- What atom's particle moves through a conductor material?





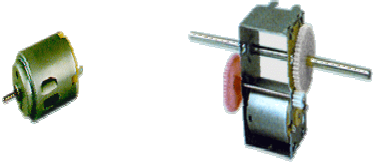


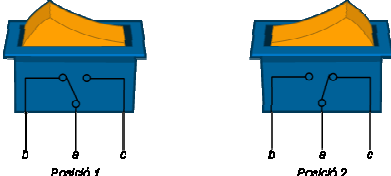
4.- Which are the electric components of an elemental electric circuit?

5.- Which are the electric current types? Write down the names.

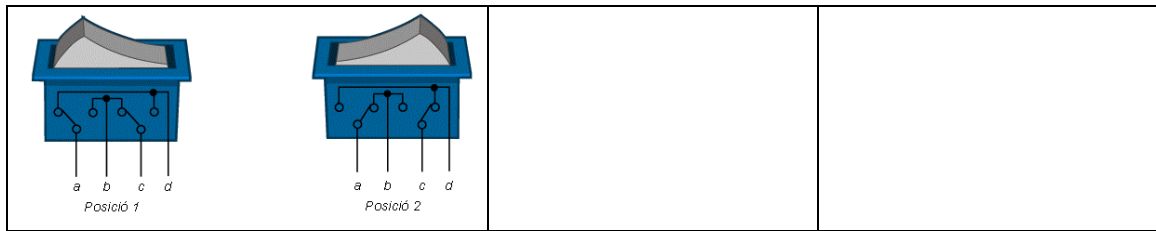
6.- Give me an example of a conductor material and another one of an insulator material.

## Electric Circuits & Application of Electrical Energy

7.- Fill the chart with the names and symbols corresponding to the pictures:

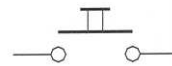
PICTURE	NAME	SYMBOL
		
		
		
		
		
		
		
		

## Electric Circuits & Application of Electrical Energy

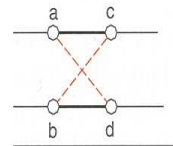


8.- Match the names with the corresponding symbols.

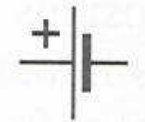
Battery



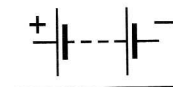
Push switch NC



Two-way switch



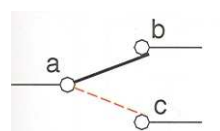
Double pole switch



Accumulator



Push switch NO


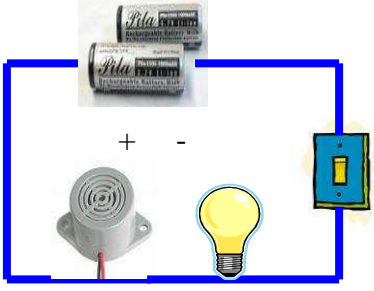


9.- True or false?

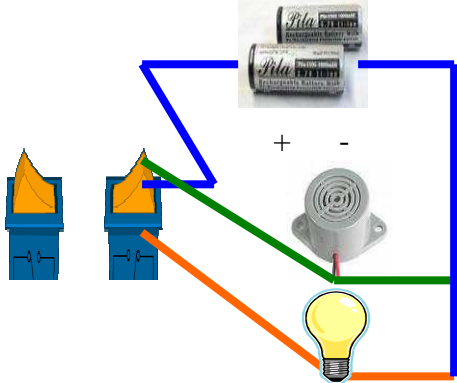
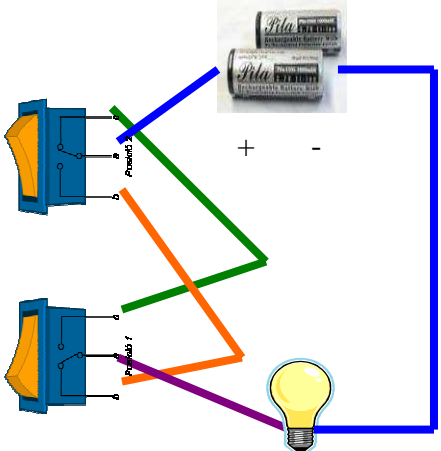
- A negatively charged atom has positive charge
- A negatively charged atom has negative charge
  
- A positively charged atom has more electrons than protons
- A positively charged atom has fewer electrons than protons
  
- A negatively charged atom has more electrons than protons
- A negatively charged atom has fewer electrons than protons

10.- Draw a picture of the way of electricity.

11.- Draw the electric diagram of the picture you have drawn.

Picture	Electric Diagram
	<p style="text-align: center;"><b>Question</b></p> <p>When the push switch is in ON position the buzzer_____.</p>
	<p style="text-align: center;"><b>Question</b></p> <p>When the one-way switch is in OFF position the buzzer_____and the bulb_____.</p>

# Electric Circuits & Application of Electrical Energy

 <p>A circuit diagram showing a battery at the top with positive (+) and negative (-) terminals. A blue wire connects the positive terminal to the top terminal of the first two-way switch. A green wire connects the top terminal of the first switch to the top terminal of the second two-way switch. An orange wire connects the bottom terminal of the second switch to a light bulb. A purple wire connects the bottom terminal of the first switch to a buzzer. A blue wire connects the negative terminal of the battery to the bottom terminal of the second switch.</p>	
	<b>Question</b>
	<p>When the two-way switch is in OFF position the buzzer _____ and the bulb _____.</p>
 <p>A circuit diagram showing a battery at the top with positive (+) and negative (-) terminals. A blue wire connects the positive terminal to the top terminal of the first two-way switch. A green wire connects the top terminal of the first switch to the top terminal of the second two-way switch. An orange wire connects the bottom terminal of the second switch to a light bulb. A purple wire connects the bottom terminal of the first switch to the light bulb. A blue wire connects the negative terminal of the battery to the bottom terminal of the second switch.</p>	<b>Question</b>
	<p>When the two-way switch n° 1 is in OFF position and the two-way switch n° 2 is in ON position the bulb _____.</p>

# Revision: Unit 2

1.- What is voltage? What is current? What is resistance?

Voltage:

Current:

Resistance:

2.- Fill in this chart:

Magnitude	Unit	Symbol
		V
	Ampere	
Resistance		

3.-Discuss the following dilemma with a classmate:

*You have two wires. The first one is 2 mm wide and the second one 4 mm wide. You have an iron that spends 20 A and a hairdryer that spends 5 A.*

***Which wire would you use in each case?***

Write two sentences:

*I would use the wire \_\_\_\_\_ with the \_\_\_\_\_ because that wire is \_\_\_\_\_ so \_\_\_\_\_ electrons can pass through it.*

## Electric Circuits & Application of Electrical Energy

4. - Draw an electric diagram with these components:

2 two-way switches  
1 double-pole switch  
Wires  
1 buzzer  
1 cell

When is the buzzer going to ring?

5. - True or false?

- A **voltmeter** is connected in **series** to measure the voltage across a component in a circuit.
- An **ammeter** is connected in **series** to measure the current flowing through a component in a circuit.
- An **ohmmeter** is connected in **parallel** and **with voltage** to measure the resistance of a resistor.
- The **connection** of a **multimeter** depends on what electrical magnitude it measures.

Rewrite the statements that are scientifically wrong so that they're true.

6. - Complete the table below:

Voltage	Current	Resistance
8 V		2 $\Omega$
	3 A	5 $\Omega$
12 V	4 A	

7. - Complete the sentences:

## Electric Circuits & Application of Electrical Energy

- To **increase** the **current** without modifying the **voltage** we must\_\_\_\_\_.
- To **decrease** the **current** without modifying the **voltage** we must\_\_\_\_\_.
- To **increase** the **current** without modifying the **resistance** we must\_\_\_\_\_.
- To **decrease** the **current** without modifying the **resistance** we must\_\_\_\_\_.

8.- Draw the electric diagram of an electric circuit that consists of three bulbs:

- connected in series. If one bulb is blown, what will happen?
  
  
  
  
  
  
  
  
  
  
- connected in parallel. If one bulb is blown, what will happen?

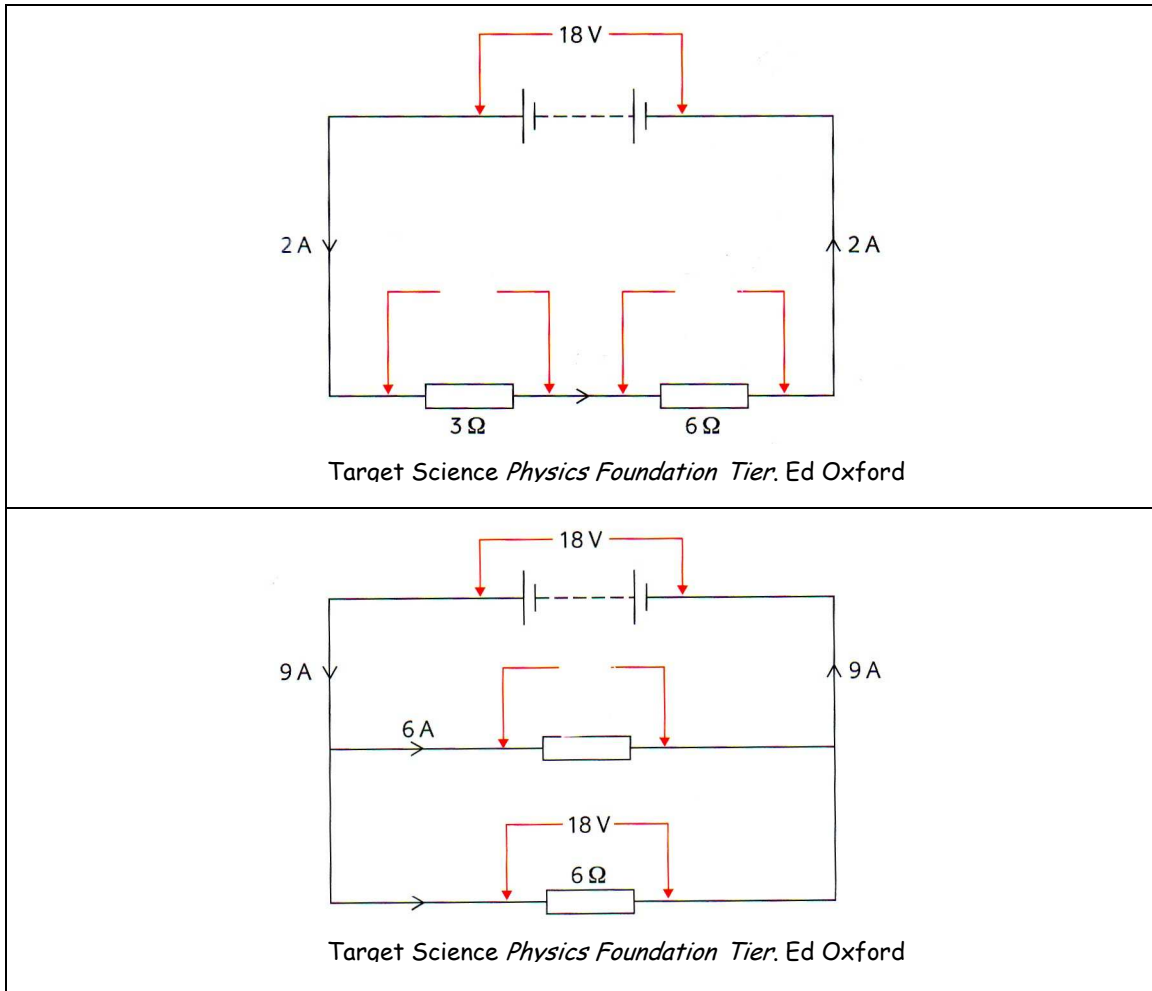
9.- Draw the electric diagram of an electric circuit that consists of three cells:

- connected in series:
  
  
  
  
  
  
  
  
  
  
- connected in parallel:



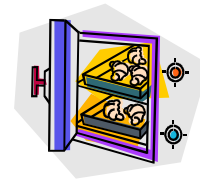
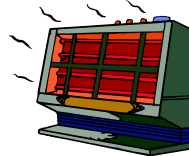
## Electric Circuits & Application of Electrical Energy

10. -Complete this picture with the right values of voltage, current or resistance.



# Revision: Unit 3

1.- Which of these electric devices are fostered in Joule effect? Look for them in this word puzzle.




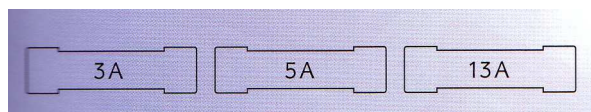
P	Z	O	X	F	S	Z	G	I	N
C	Z	R	V	R	A	O	R	B	C
C	U	H	B	E	H	O	E	L	J
H	Y	Z	K	T	N	H	Y	U	E
E	Q	K	K	A	S	I	R	B	Q
F	E	P	C	E	L	X	D	G	U
J	H	X	Q	H	Q	L	R	C	O
S	X	V	A	O	X	L	I	R	N
N	M	J	K	H	B	G	A	Z	B
K	J	M	E	M	G	Q	H	O	E
Y	R	N	K	C	U	L	T	P	V
A	F	B	C	I	D	A	N	R	O

## Electric Circuits & Application of Electrical Energy

2.- What is a **short circuit**?

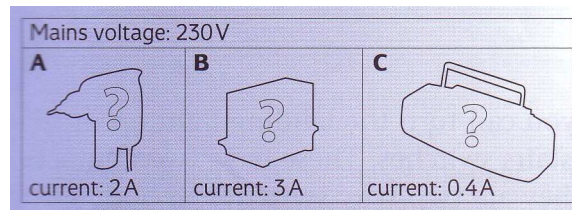
3.- What is a **fuse**?

4.- Which of the fuses below would you choose for a fan  taking a 10 A current?



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5.- What is the electrical power of these devices?



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Device A:

Device B:

Device C:

What is the name of every device?