

Easy Class 7 Science Chapter 14 Notes with Extra-Question Answers

I. Tick the correct option to complete each sentence.

1. A device used to break or complete the circuit is....

- a) resistor
- b) switch ✓
- c) battery
- d) fuse

2. When electric current is passed through a material with high resistance....

- a) heat is generated ✓
- b) sound is generated
- c) the circuit breaks
- d) the bulb stops glowing

3. Tungsten metal has....

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- a) low resistance
- b) low melting point
- c) high resistance ✓
- d) poor conducting property

4. An LED ...

- a) breaks easily
- b) does not have a long life
- c) produces more heat

d) consumes less electricity ✓

5. An electric bell is based on the principle of...

a) magnetic effect of electric current ✓

b) heating effect of electric current

c) chemical effect of electric current

d) lighting effect of electric current

II. Tick the correct statements and cross the false ones.

1. A switch is a part of every electric cell. ✗
2. Cells can be connected only in series. ✗
3. Copper wire does not have any resistance. ✗
4. An electric bell has an electromagnet in it. ✓
5. A circuit having an LED must have a resistor connected to it. ✓
6. An electromagnet can be made stronger by increasing the number of turns of the wire. ✓
7. Electromagnets are temporary magnets. ✓

III. Answer the following questions in one sentence.

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1. Which device protects the circuit against sudden increase in electric current?

Ans: A fuse protects the circuit against sudden increase in electric current.

2. Which device allows us to break and complete an electric circuit?

Ans: A switch allows us to break and complete an electric circuit.

3. Which device regulates the flow of current in an LED?

Ans: The resistor regulates the flow of current in an LED.

4. Name two appliances that use electromagnets.

Ans: Televisions and Telephones are two appliances that uses electromagnets.

5. State a method of increasing the strength of an electromagnet.

Ans: A method of increasing the strength of an electromagnet is by increasing the number of turns of the wire wrapped around it.

6. When does a wire in an electric circuit generate a magnetic field?

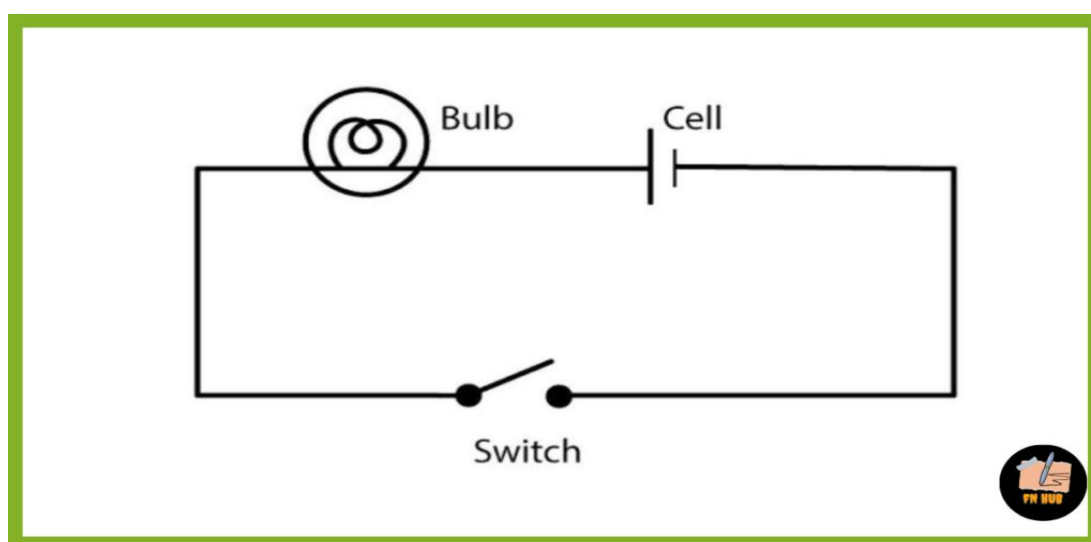
Ans: A wire in an electric circuit generates a magnetic field When current flows in it.

IV. Answer the following questions in two sentences.

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1. What is an electric circuit? Use symbols and draw a diagram of a circuit having a single cell, a bulb and a switch.

Ans: The path that electricity takes is called an electric circuit.



2. Explain the importance of a switch in an electric circuit.

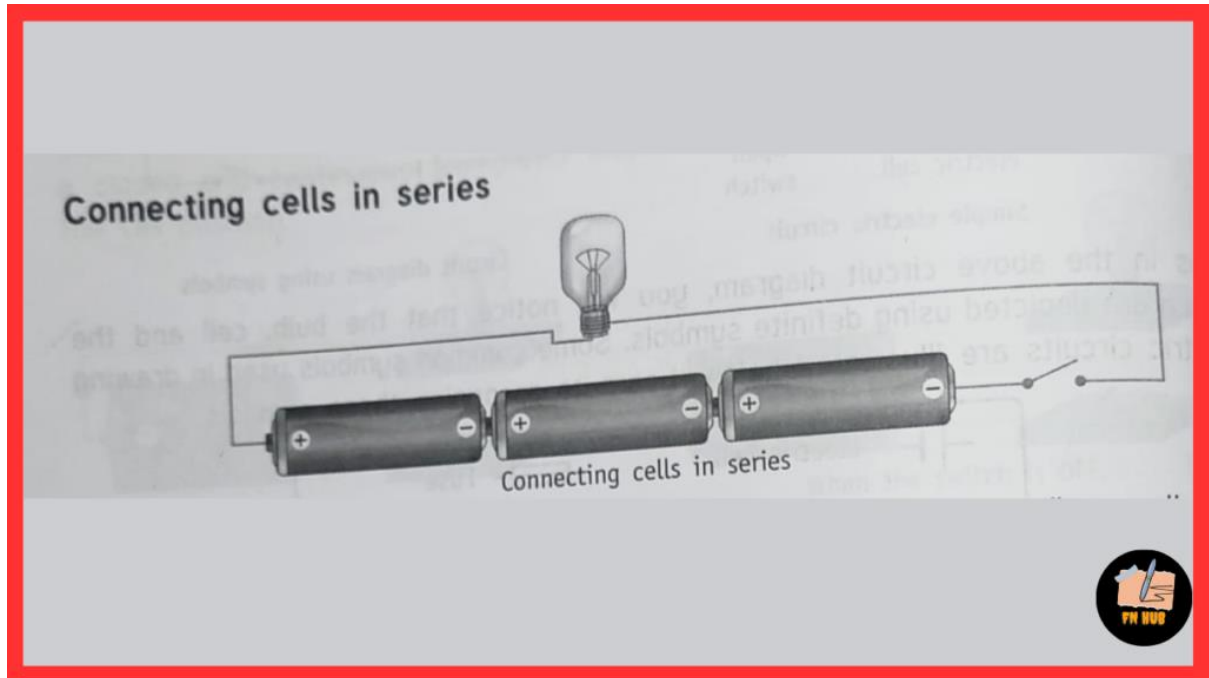
Ans: A switch is a part of every electric circuit. Its importance is that it allows us to either complete or break the circuit, i.e. enabling us to switch ON or switch OFF the electrical appliances.

3. Explain the importance of a fuse in an electric circuit.

Ans: A fuse is a safety device. Its importance is that it protects the circuit and the electrical appliances attached to the circuit, when a large electric current flows through it.

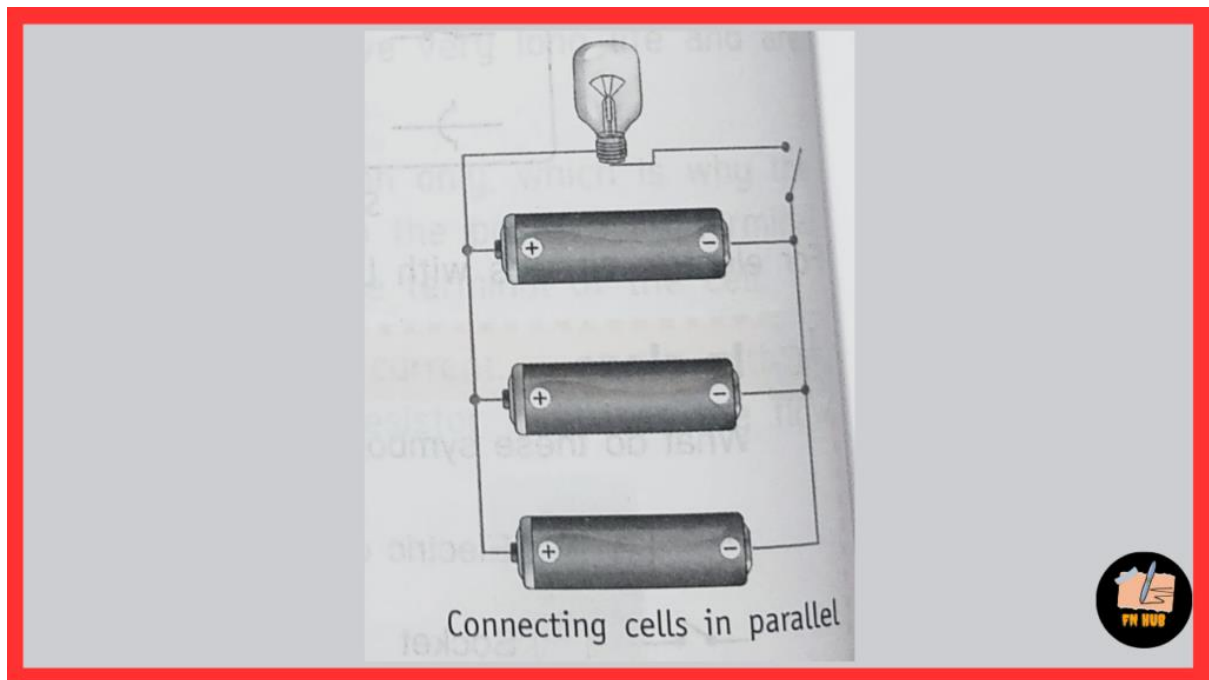
4. Describe how two cells can be connected in a series and in parallel with the help of a suitable diagrams.

Ans: The positive terminal of one cell is linked to the negative terminal of the other when cells are joined in series. We will have a positive terminal at one end and a negative terminal at the other after connecting the cells. The cells are linked in series in the circuit shown below.



Similar terminals on different cells are connected when the cells are joined in parallel. This indicates that all of the cells' positive terminals are linked. In a similar manner, as the diagram illustrates, all of the cells' negative terminals are linked.

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Extra Question - Answers / FAQ's

1. Define battery.

Ans: A group of cells is called a battery.

2. Define resistance.

Ans: Resistance is a property of substances, that resists the flow of electric current and heats the wire.

3. Define electromagnet.

Ans: A temporary magnet is called an electromagnet.

4. Define magnetic effect of electric current.

Ans: A coil of wire behaves like a magnet when electricity passes through it. This is known as the magnetic effect of electric current .