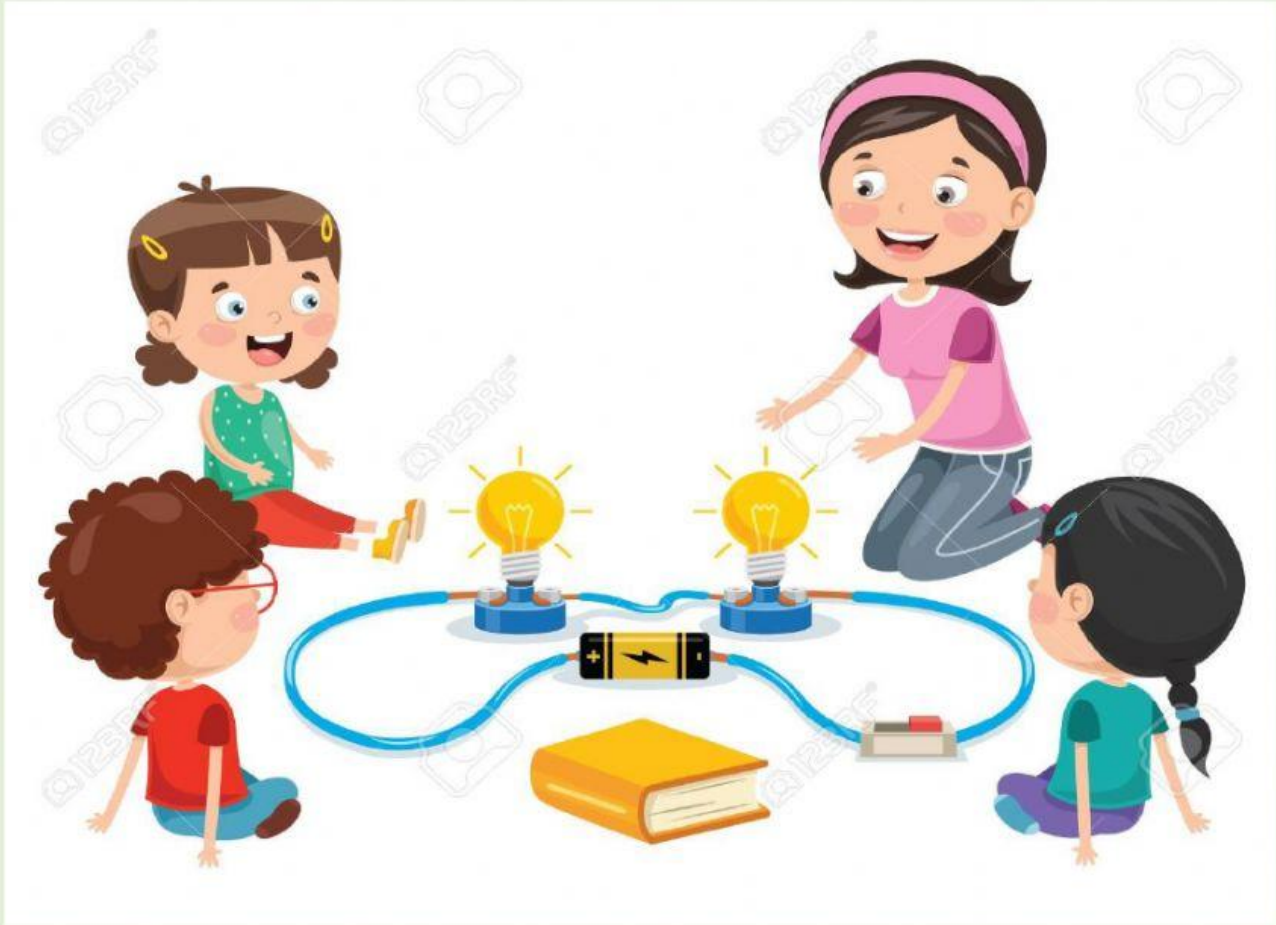




SCIENCE
CHAPTER 7- ENERGY
LESSON 4- ELECTRICITY
PART 2



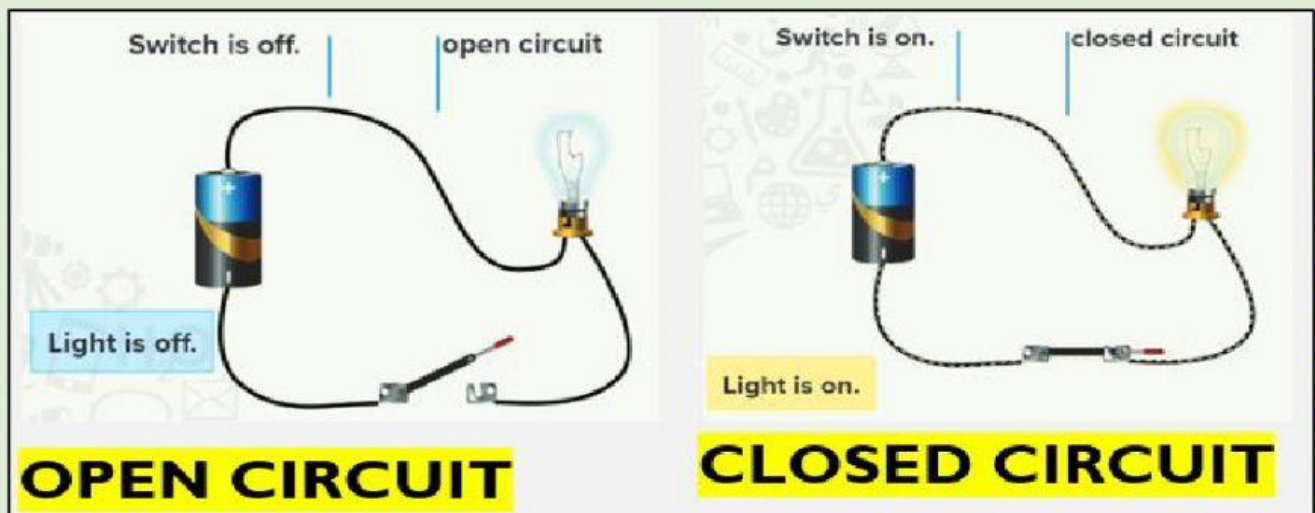
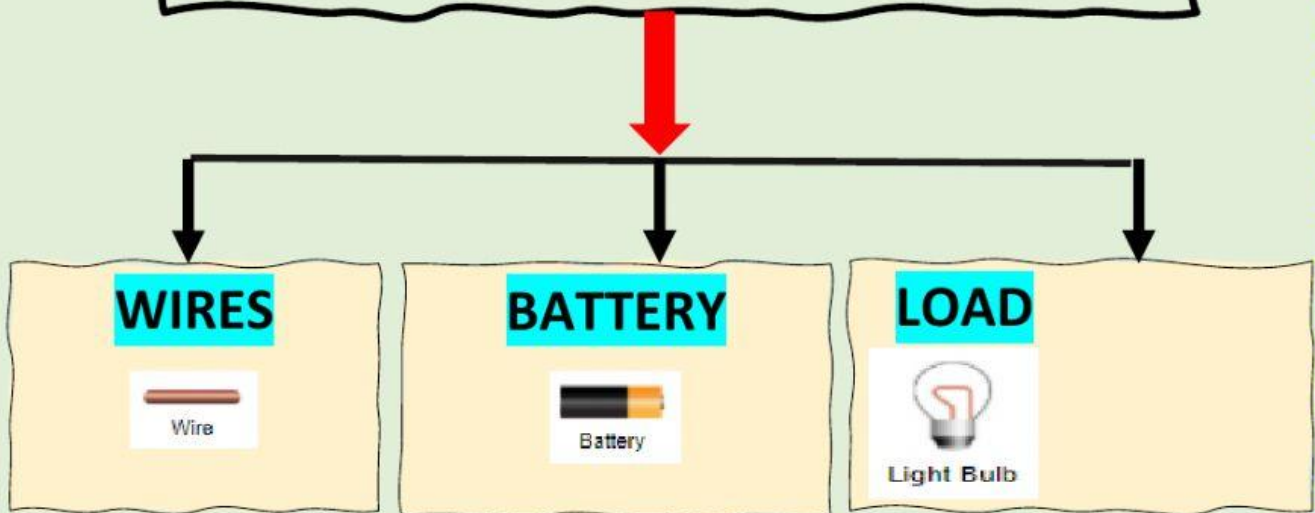
Created by- Nisha Tanwar

WHAT IS ELECTRICAL CURRENT?

❖ Flow of an electrical charge gives us electricity

ELECTRIC CIRCUITS

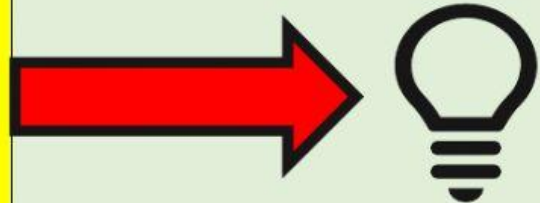
The path along which electrical current flows



WATCH VIDEO ABOUT OPEN AND CLOSED CIRCUITS



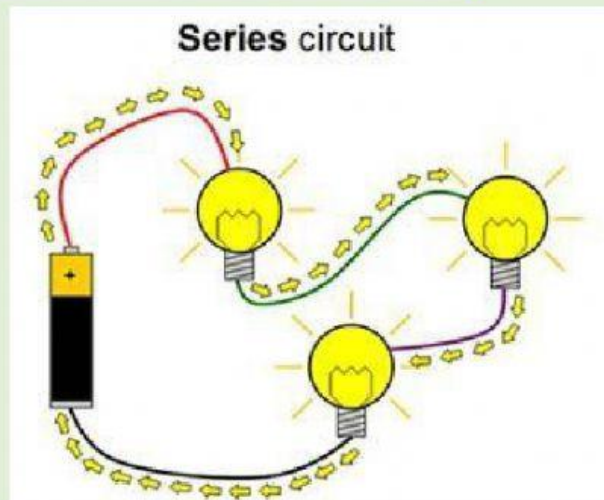
**CLICK ON BULB ICON TO
CREATE CLOSED AND OPEN
CIRCUITS**



SERIES AND PARALLEL CIRCUITS

1. Series circuit

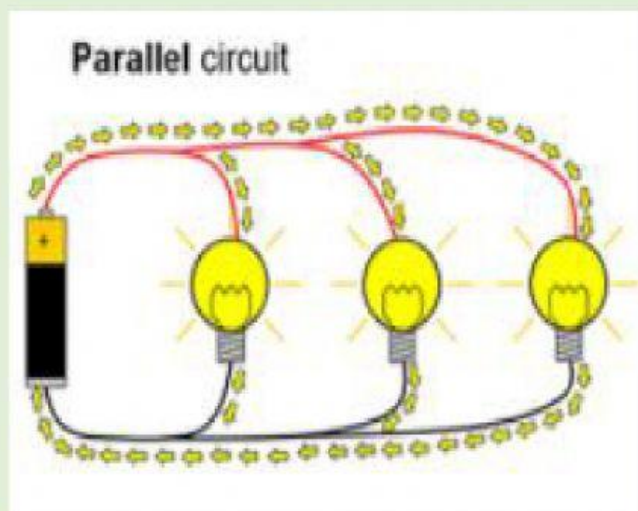
Current flows in one path



2. Parallel circuit

Current flows in many

paths



CLICK ON BULB ICON TO
CREATE SERIES AND PARALLEL
CIRCUITS



WATCH VIDEO ABOUT SERIES AND PARALLEL CIRCUITS



HOW CAN WE USE ELECTRICITY SAFELY?

Current flows through a path of little resistance

A **fuse** is a device that helps prevent short circuits. A fuse has a thin strip of metal in it. The strip has high resistance. If too much current flows through, it heats up and melts. The circuit opens. Current stops flowing.



If a fuse breaks, it cannot be reused.

WATCH VIDEO ABOUT FUSE



Fuses can be used only once, but circuit breakers can be reset. A **circuit breaker** is a switch that protects circuits. When a dangerously high current flows through it, the switch opens. Current does not flow.

Most homes have circuit breakers.



QUESTIONS FROM BOOK

1. What happens to the circuit when the switch is on? What happens to the light?

2. A parallel circuit has two lightbulbs. One of them burns out. What happens to the other bulb?

3. In new buildings, circuit breakers are used more often than fuses. Why?

4.

Test Prep. Which has separate paths connecting each load to its power source?

A a short circuit

C a series circuit

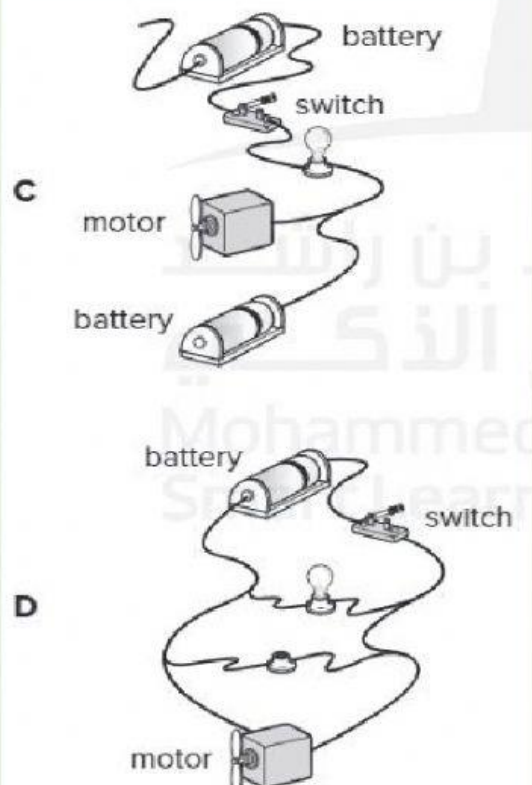
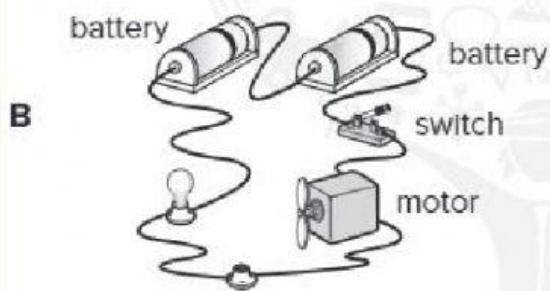
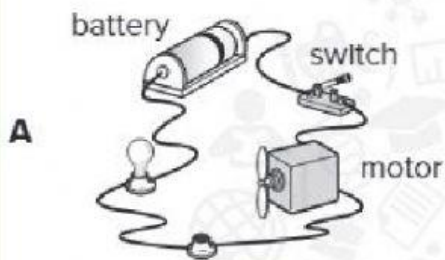
B a circuit breaker

D a parallel circuit

TYPE YOUR ANSWER

5.

In which of the diagrams below could both the lightbulb and the motor function?



IMPORTANT LINKS FOR PRACTICE

- [Click](#) here to practice more about circuits
- [Click](#) here to practice more about series and parallel circuits

