



# LITTERA PUBLIC SCHOOL

**CLASS 6**

**CHAPTER 12**

**SCIENCE**

## **ELECTRICITY AND CIRCUITS**

### **Electricity**

- Electricity is a form of energy. It has made our life comfortable and luxurious.
- Electricity is useful in many ways such as lighting, heating, running various domestic appliances like electric fans, coolers, air conditioners, washing machines, computers, etc.

### **Electric Cell or Battery**

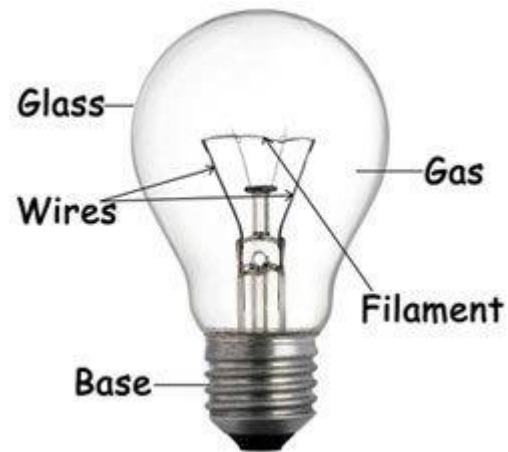
- An electric cell is a device which produces a small amount of electricity. It has two terminals, one is positive (+ve) while the other is negative (-ve).

### **Advantages of dry cells**

- They can be easily transported from one place to another.
- They are very light in and small in size.

## Electric Bulb

- An electric bulb is a device that runs on electricity. It glows when | electric current passes through it. It has a filament that is connected to its terminals.
- The thin wire in the bulb which emits light is called filament of the bulb. It is made up of tungsten metal. It has high resistance for current and has high melting point. It does not get oxidised even at very high temperature.



## Electric Circuit

- The path along which the electric current flows is called a circuit. It is the complete path, from one terminal of the cell (say positive) through the bulb and back to the other terminal (say negative). The circuit

must be complete for an electric current to flow.

## **Types of electric circuit**

1. Open circuit – The circuit through which the current does not flow and the bulb does not glow is called open circuit.
2. Closed circuit – The circuit through which the current flows and the bulb glows is called closed circuit.

## **The electric switch**

Switch is a device which controls the ON-OFF mechanism of any electric circuit.

## **Electric Torch**

A torch consists of a simple electric circuit in which two or more cells are connected to a torch bulb through a sliding switch. When the torch is needed to provide light, the sliding switch is closed by pushing it forward so that the circuit is completed and the bulb of the torch lights up. When the torch is not needed, the sliding switch is

opened by pushing it backwards so that the circuit breaks and the bulb are turned off.

## **Conductors**

The materials which allow electric current to pass through them are called conductors. For example iron, copper, silver.

## **Insulators**

The materials which do not allow electric current to pass through them are called insulators. For example rubber, plastic, glass etc.