

Electricity and Circuits

Electricity has become an indispensable part of our life. It makes our task easier. The metro train runs with electricity which has made conveyance easier likewise many electronic appliances have made work simpler.

Electric Cell

An electric cell produces electricity from the chemicals stored inside it. It has two terminals namely the positive and the negative terminal. The metal cap is the positive terminal of the electric cell and the metal disc is the negative terminal. Electricity in the torch, wristwatches and alarm clocks is provided by the electric cell.



A Bulb connected to an Electric Cell

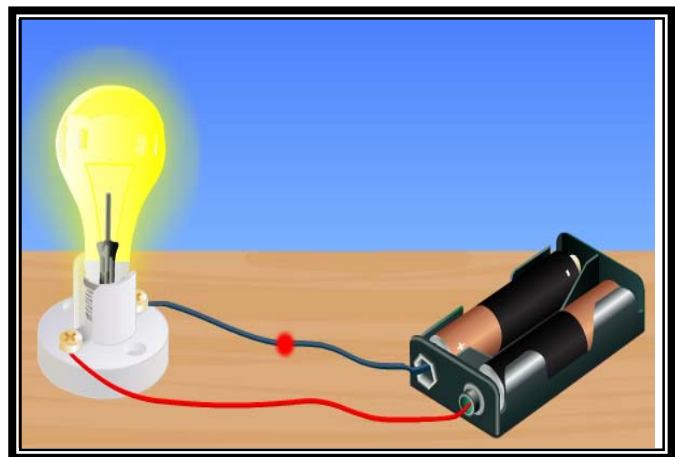
The bulb glows with the help of the electricity produced by the electric cell. The thin wire that gives off light is called the **filament** of the bulb.

An Electric Circuit

Electric circuit is a path through which electric current flows. It consists of electric cell, electric device and wires.

How to make an Electric Circuit

Take a bulb and insert it into a bulb holder. Now take two cells and place them in a cell holder. Connect one terminal of the electric bulb to the positive terminal of the first cell and negative end of the second cell to the other terminal of the electric bulb with the help of wires. You observe that the bulb glows. This is due to the flow of current through the circuit.



Electric switch

An electric switch is a simple device that either breaks the circuit or completes it.

Working of a electric switch

The materials require are a wooden board, two iron nails stuck to the board, bulb, bulb holder, a set a cells, wire and two metal clips. Connect one terminal of the electric bulb to the positive terminal of the electric cell through wires. Now connect the other terminal of the second cell to the metallic clip such that it passes through the iron nail. Another wire is connected from the second clip to the other terminal of the bulb again passing through the nail. The bulb does not glow. This is because the circuit is not complete. Now connect both the clips and observe. The bulb glows because the **current** flows through the circuit. Here the metallic clip acts as a switch which regulates the flow of current. Such an arrangement is an example of an electric circuit.

