

SCIENCE
CLASS 6
CHAPTER 12-
ELECTRICITY AND
CIRCUITS

ELECTRICITY AND ITS USES

We use electricity for many purposes to make our tasks easier. Electricity makes it possible to light our homes, roads, offices, markets and factories even after sunset. This helps us in working at night. Can you imagine life without electricity? However the supply of electricity may fail or it may not be available at some places. In such situations , a torch is sometimes used.

ELECTRIC CELL

The electric cell also known as dry cell produces electricity from the chemicals stored inside it. A dry cell , when connected in a closed circuit causes electric current to flow through the circuit. A dry cell is therefore a source of electrical energy. A dry cell has two terminals , positive and negative. The electric current flows from the positive to the negative terminal through the circuit.

AN ELECTRIC CIRCUIT

An electric circuit is an arrangement containing electric cell, wires and other devices. The electric circuit provides a complete path for electricity to pass between the two terminals of the electric cell. The bulb glows only when current flows through the circuit.

HOW DOES A BULB GLOW?

When the terminals of the bulb are connected with that of the electric cell by wires, the current passes through the filament of the bulb. This makes the bulb glow.

WHEN DOES A BULB GET FUSED?

When a huge amount of electricity suddenly passes through the bulb, the filament of the bulb melts and breaks. This causes the bulb to fuse.

ELECTRIC SWITCH-An electric switch is used in a circuit so that we can complete or break a circuit according to our requirements. Some gadgets that have switches built in them are torch, lamp, table fan, etc.

CONDUCTION TESTER- A tester is a simple circuit which helps us to test whether the given material is a conductor or insulator. It can be made using bulb, cell and wires. If the bulb in the conduction tester glows, the object is a conductor and if it doesn't glow, it is an insulator.

CONDUCTORS AND INSULATORS

Insulator– The materials which don't allow electricity to pass through them are called insulators. Eg: Rubber

Conductor – The materials which allow the electricity to pass through them are called conductors. Eg: Metals.

Both conductors and insulators are important in using electricity. You would have noticed that the outer coverings of switches, regulators of fans, plugs , etc. are made up of insulating material. This saves you from getting electric shocks.