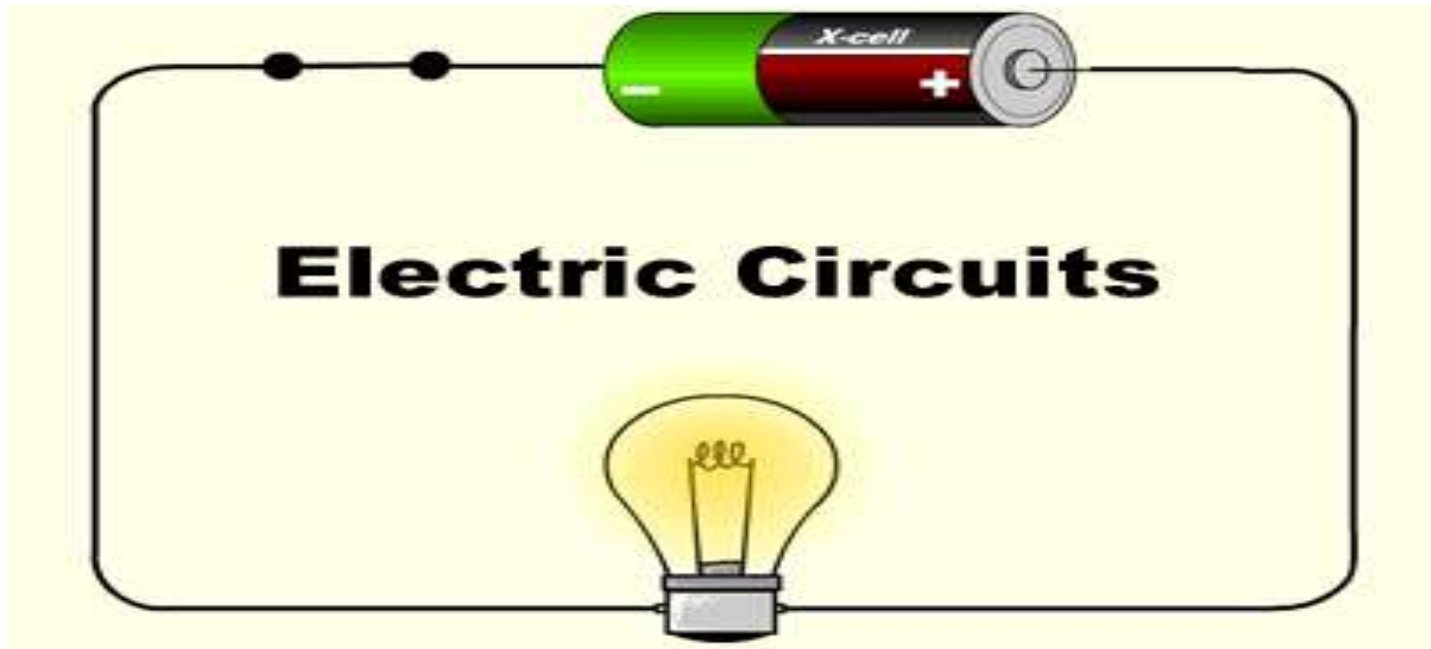


ELECTRIC CURRENT AND ITS EFFECTS



- Electricity- electricity is the most convenient and widely used form of energy



To understand the working of a Torch :

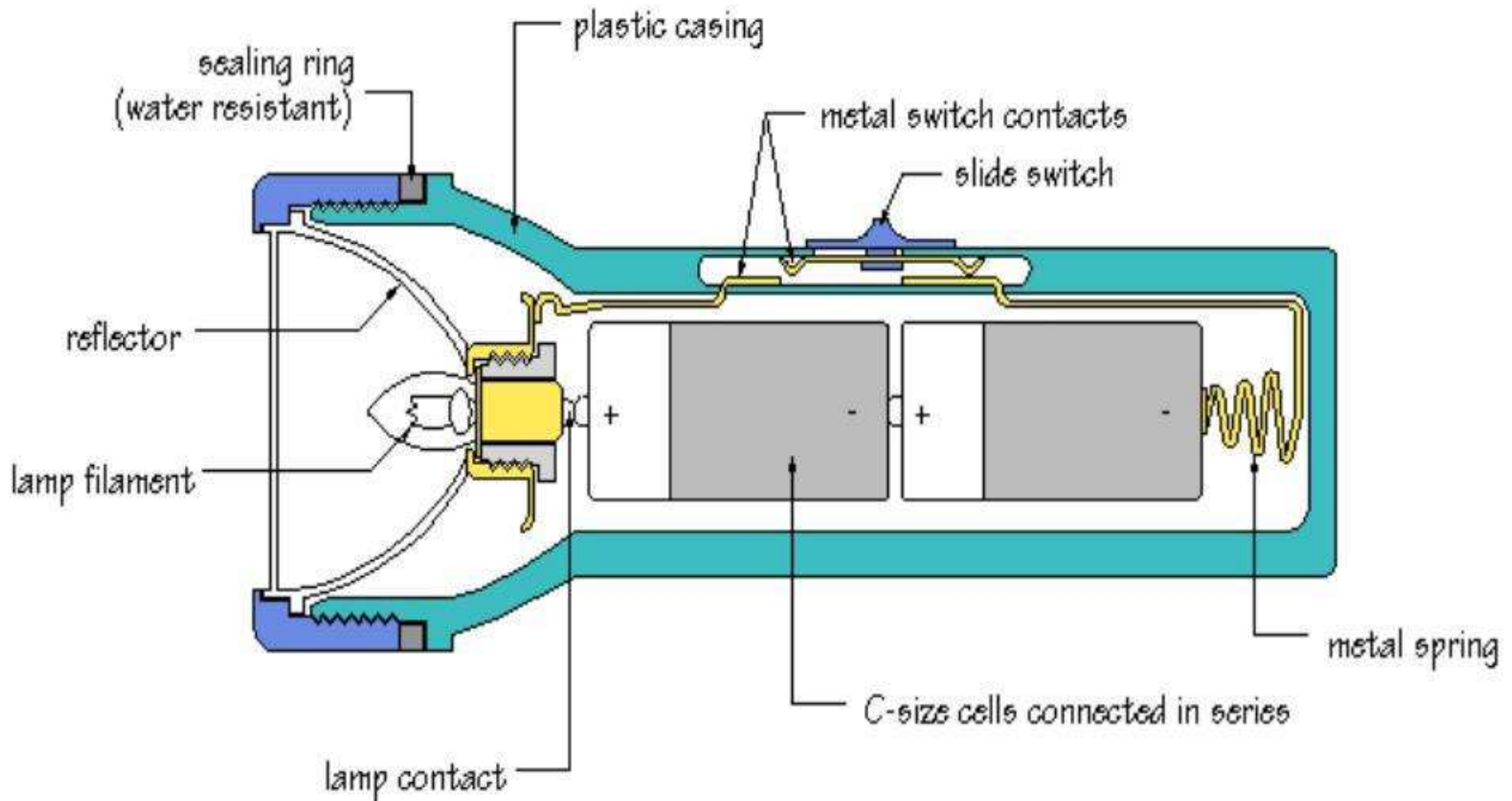
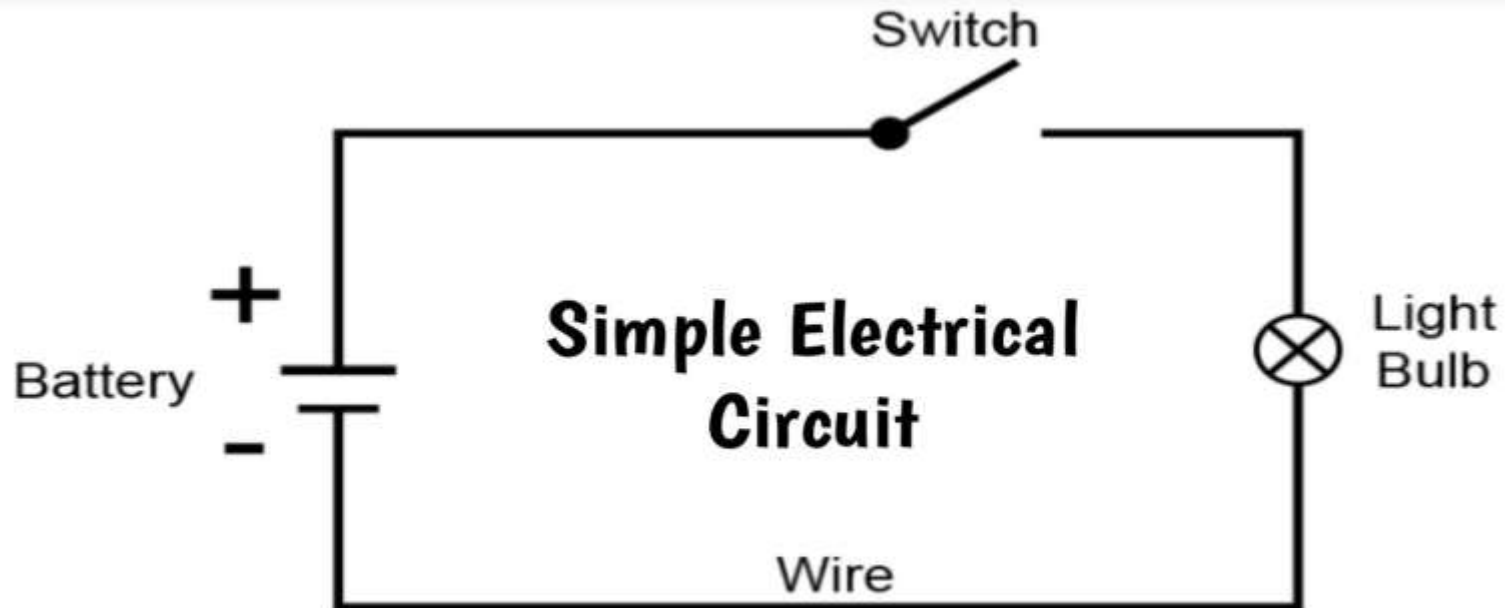


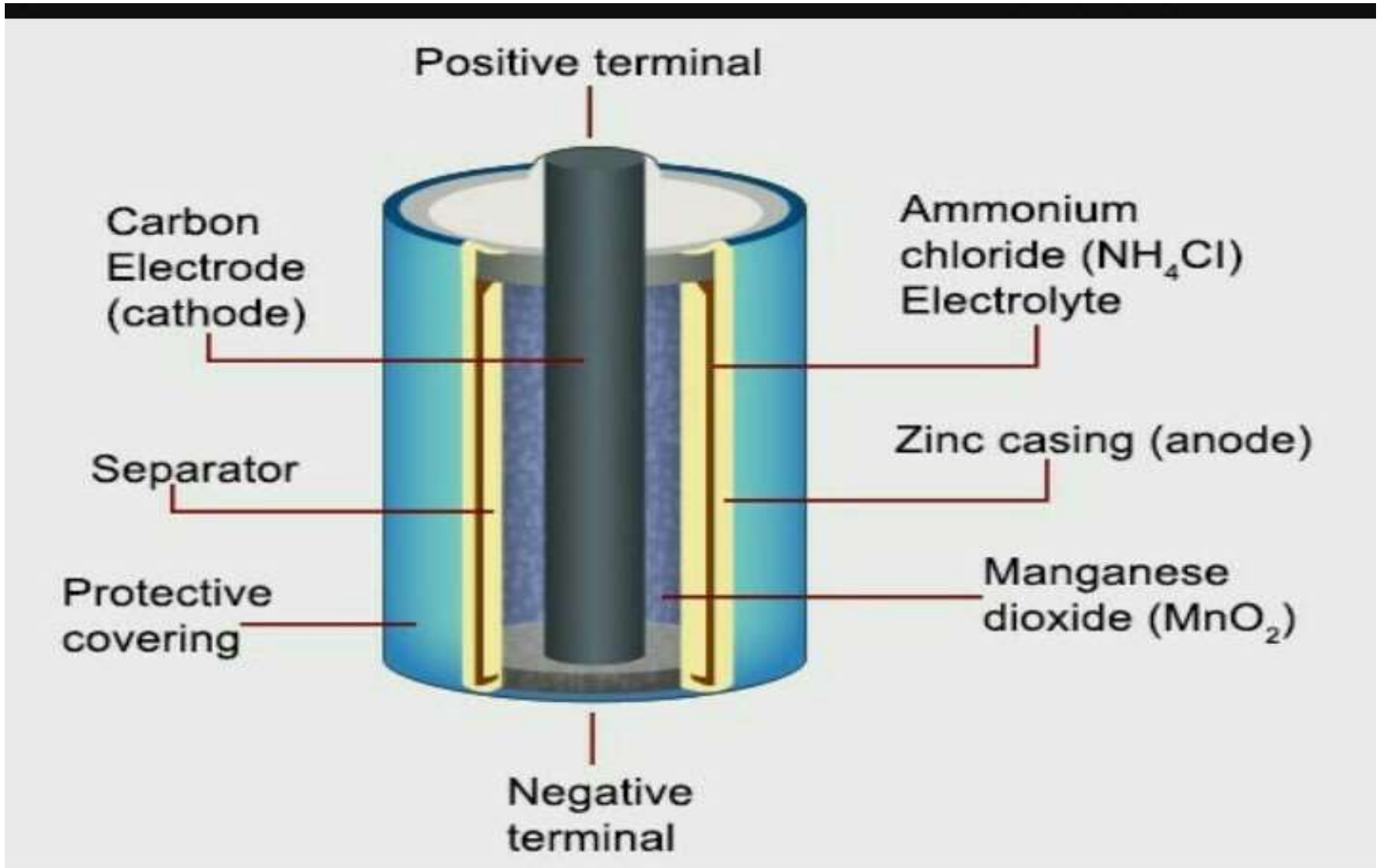
Diagram of a Torch

It has three main parts :

1. An electric bulb
2. An electric cell or a combination of electric cells- Battery
3. Switch



Electric Cell:



DIFFERENCE BETWEEN CFLS AND LEDS:

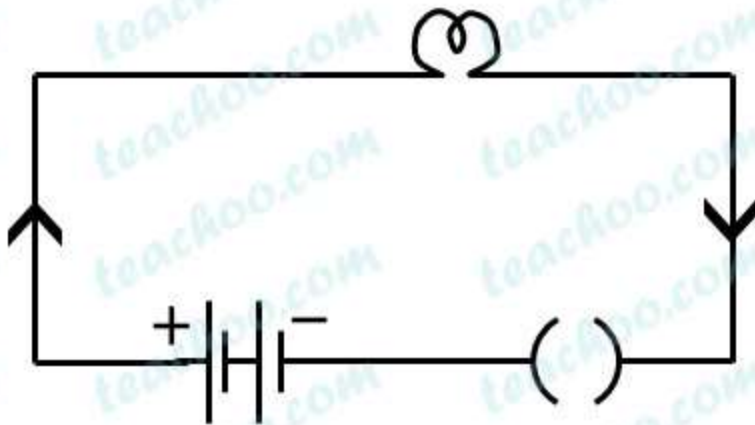


LED	CFL	Incandescent
Avg Life: 25,000 Hrs	Avg Life: 8,000 Hrs	Avg Life: 1,200 Hrs
No Mercury	Mercury	No Mercury
6-8 Watts	13-15 Watts	60 Watts
Uses 84% less energy	Uses 75% less energy	90% energy lost to heat

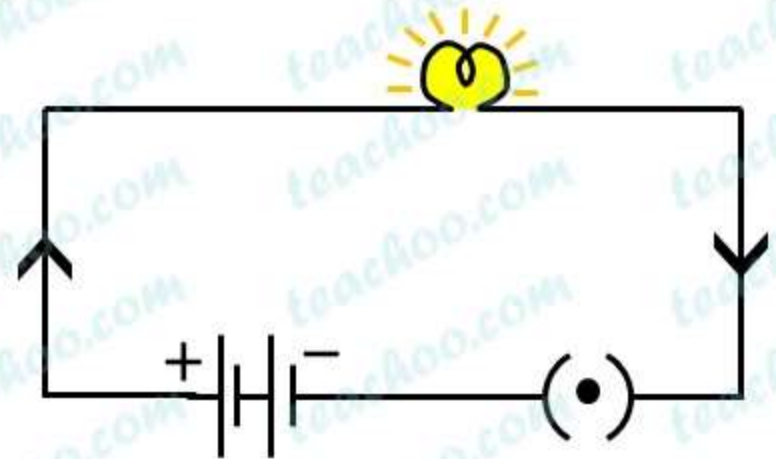
ELECTRIC SWITCH:

teachoo.com






Circuit Diagram with Open and Closed Switch



Open Switch



Closed Switch

Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Can be used in place of cells
Wire		Allows current to pass through it
Bulb/light		Converts electrical energy into heat and light
Switch		Allows circuit to be opened or closed

Conductors and insulators.

Conductors

1. Those substances through which electricity can flow are called conductors.
2. Electrical resistances of conductors are very low.
3. They contain large number of free electrons.
4. Generally metals are conductors. E.g. silver, copper, aluminium

Insulators

1. Those substances through which electricity cannot flow are called insulators.
2. Electrical resistances of insulators are infinitely very high.
3. They do not contain free electrons.
4. Generally non - metals are insulators. E.g. wood, rubber, plastic

Safety precautions when using electricity

- Never touch bare or broken wires
 - Never touch appliances/switches with wet hands
 - Never overload a circuit
 - Never use electric appliances in wet places
 - Do not push anything into sockets
 - Never put nails into walls near switches, sockets and wires
 - Do not use electrical appliances with old or frayed wires
-

