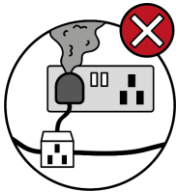
Electricity

Electrical safety

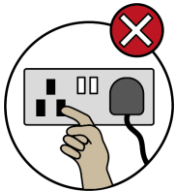
It is important to be safe when working with electricity.

Don't pull wires.



Don't overload sockets.

Don't use electrical appliances near water.



Don't put your fingers in sockets.

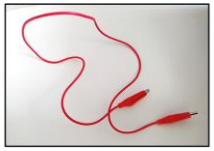
Don't climb trees or fly kites near power lines.

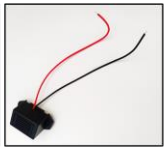
Complete circuits

A complete circuit must have:

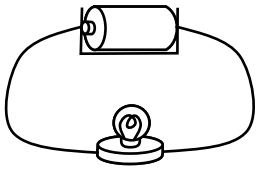
- at least one cell
- at least one component
- have all the **components** connected in a loop.

If any of these things are missing it is an **incomplete circuit.**

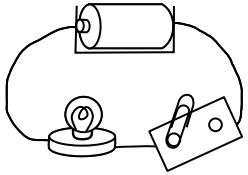




lamp wire buzzer motor cell



A complete circuit.



A **switch** can be used to create a break in a circuit.

Key vocabulary

- **electrical appliance/device**: something that needs electricity to work, like a kettle or TV.
- **electrical circuit:** a complete loop that electricity can flow through.

Conductors and insulators

- Materials that let electricity pass through them easily are known as good **electrical conductors**.
- Copper, iron and steel are good electrical conductors.
- **Electrical insulators** do not allow electricity to pass though them easily. They are poor electrical conductors.
- Wood, plastic, rubber and air are good insulators.