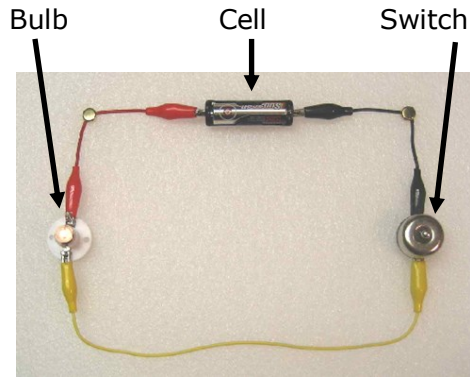
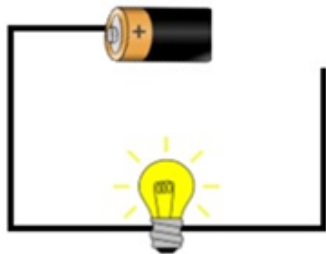


Knowledge Organiser Science Year 4 Electricity

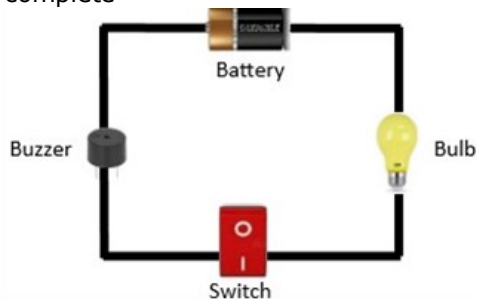
Electrical Circuits



The switch opens and closes the circuit. The bulb lights because the switch is



This circuit will not work as it is not complete



This circuit is complete so the buzzer will sound and the bulb will light.

Key Vocabulary

electricity	A form of energy used for lighting, heating, making sound and making machines work.
electrical appliance	A machine or device that runs on electricity.
mains	The electricity supplied to households from power stations.
electrical circuit	This consists of a cell or battery connected to a component using wires. It needs to be a complete circuit to work.
cell and battery	A cell is a single unit and a battery is a collection of cells.
electrical component	A part that combines with others to form a circuit. E.g. bulb, motor, buzzer
switch	Can be added to a circuit to turn a component on or off. It allows the electricity to flow or it stops it.
conductor	Material that allows electricity to pass through.
insulator	Material that does not allow electricity to pass through it.

Electrical Safety

Electricity can be dangerous if not used properly. It can cause shocks, burns and even death. There are electrical dangers both in the home and outdoors.



Electrical appliances

Mains	Battery

Conductors and insulators

Conductors

Some materials let electricity pass through them easily. These are known as electrical conductors. Many metals are good electrical conductors, such as iron, copper and steel.



Insulators

Some materials do not allow electricity to pass through them. They are known as insulators. Plastic, wood, rubber and glass are good electrical insulators.

