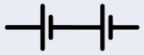
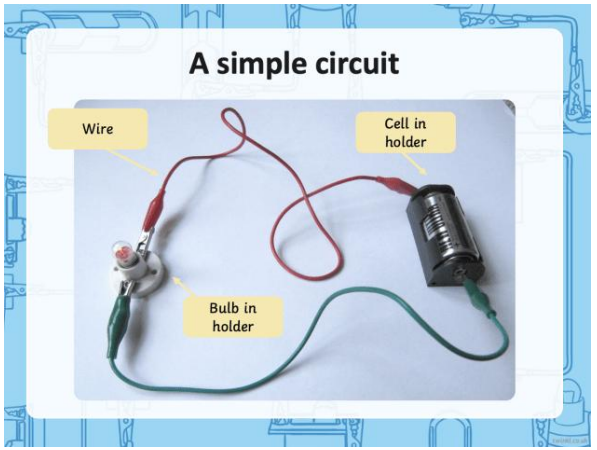
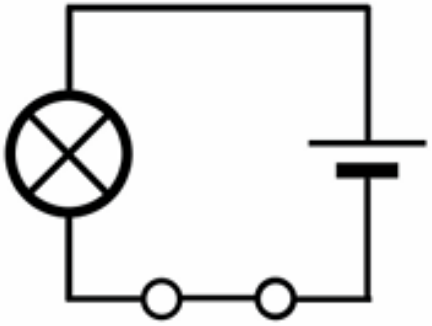
# Year 3/4 Science Knowledge Organiser – Electricity

## Vocabulary

| | |
|---|---|
| **1 components**  | the parts of a circuit e.g. bulb, cell, buzzer |
| **2 circuit**  | the path around which electricity flows |
| **3 cell**  | provides the power to make electricity flow |
| **4 battery**  | when two or more cells are used together |
| **5 lamp**  | provides light when electricity flows through it (also referred to as a bulb) |
| **6 electrical insulator** | an object or material which will not allow electricity to flow through itself easily e.g. plastic, wood, rubber, glass |
| **7 electrical conductor** | an object or material which will allow electricity to flow through itself easily e.g. silver, gold, copper |




A circuit diagram



Renewable energy

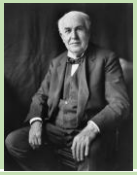
**solar panels**

**wind turbines**

## Key knowledge

Electricity powers many appliances in our home including fridges/freezers, televisions, washing machines and some toys.

The first electrical appliances, such as the iron, kettle and light bulb were invented in the 1800s.
Thomas Edison was a famous American inventor who is often credited with inventing the first electric lightbulb.



Electricity is generated in power stations burning fossil fuels (coal, gas, oil) or by renewable sources (wind, sun, water). These connect to generators that spin a ring of magnets inside coiled up metal wire. The spinning magnets generate an electrical current that flows through the wires.

Electricity is transported from power stations all around the country using powerlines. It is then transferred to underground cables to get into homes.