



# The Orchard Primary School: SCIENCE KNOWLEDGE ORGANISER



## Topic: Electricity

Year: 4

Term: Autumn 1

What should I already know about

Electricity is needed for certain appliances

Electricity can produce sound, light and heat

Safety rules for electricity

### Key questions

What 4 things can electricity produce?

Which appliances/devices use batteries and which use mains electricity?

What dangers are associate with electricity?

Which materials are good conductors of electricity?

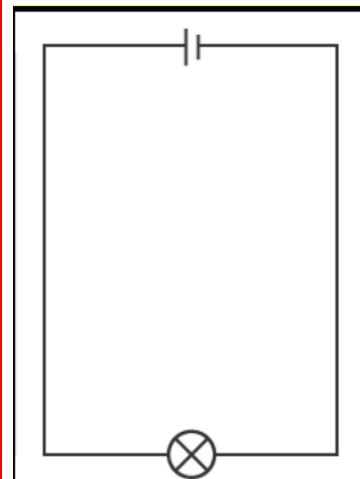
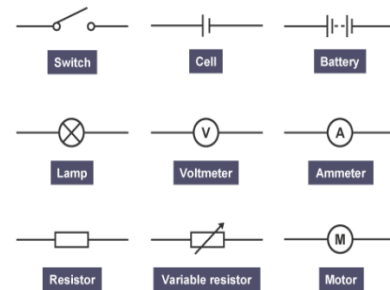
Which materials are electrical insulators?

What are the key components of a simple circuit?

### Maps / Diagrams / Images

#### Circuit symbols

We use **circuit symbols** to draw diagrams of electrical circuits, with straight lines to show the wires. The diagram shows some common circuit symbols.



### Vocabulary

|                      |  |
|----------------------|--|
| Electricity          | Electricity is the flow of tiny particles called electrons and protons. It can also mean the energy you get when electrons flow from place to place. |
| Circuit              | A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery.                          |
| Switch               | A component within an electrical Circuit which enables the flow of electricity to be turned on and of  |
| Battery              | A battery stores energy until it is needed.  |
| Electrical conductor | Materials that allow electric current to pass through them easily  |
| Electrical insulator | Materials that do not easily allow electric current to pass through them   |
| Appliance            | Devices operated by electricity  |
| Current              | The flow of an electrical charge   |