

# Glossary

Fill this in as you work through the booklet

<b>Key term</b>	<b>Definition</b>
Electricity	
Component	
Series Circuit	
Parallel Circuit	
Current	
Potential Difference	
Resistance	
Static Electricity	
Non-contact force	
Electric field	
Energy	
Charge	
Electron	

# Lesson 1 - Electric Circuits

Describe what is happening in the picture.

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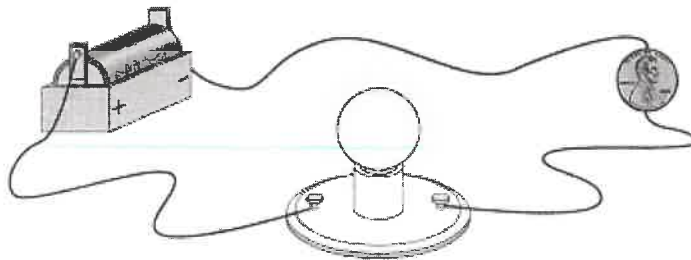
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A **conductor** is a material that allows electricity to flow through it.

An **insulator** is a material that electricity cannot flow through.

To determine whether an object is a conductor or insulator, you can build a simple circuit with a battery, light bulb, and three pieces of wire.

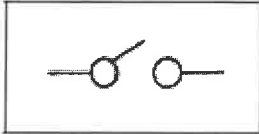

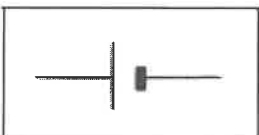
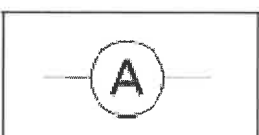

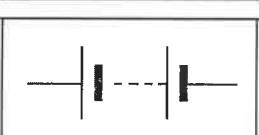


Touch the free ends of the wire to the object you are testing. If the light bulb lights up, the object is made from a conductor. If it does not, the object is made from an insulator.

Object	Prediction: Conductor or Insulator?
rubber band	
penny	
nickel	
toothpick	
key	
paper clip	
brass paper fastener	
glass microscope slide	

## Electricity Components and Symbols - Activity Sheet

Draw a line to match the component to its symbol.

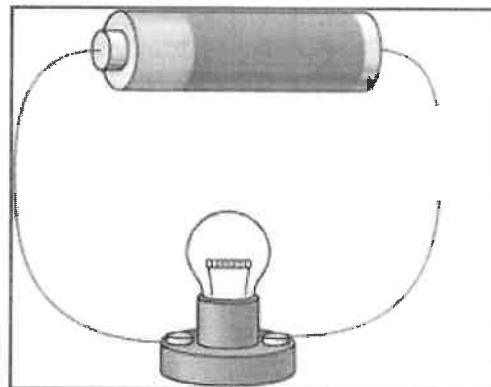
Cell	
Battery	
Lamp	
Switch	
Voltmeter	
Ammeter	

We can easily draw electrical circuits by following some simple rules

1. Use a ruler to draw straight lines to represent the wires.
2. Use the correct circuit symbols to represent different components.
3. Ensure that the circuit is closed and has no gaps.

Write down as many things as possible that is wrong with the circuit below?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



1. Draw a circuit with a battery, 2 lamps and a switch.

2. Draw a circuit with a cell and 1 lamp.

### Are these sentences true or false?

1. Circuits will work if there is a gap in them \_\_\_\_\_
2. The current is the same all over the circuit \_\_\_\_\_
3. A voltmeter measures current \_\_\_\_\_
4. Electrical conductors will not allow current to pass through \_\_\_\_\_
5. All metals are good conductors of electricity \_\_\_\_\_
6. The current in a circuit gets used up \_\_\_\_\_