













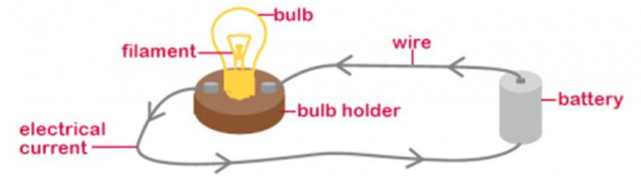


# Electricity

	<b>BULB (LAMP)</b> A component which lights up when electricity passes through it in a circuit	
	<b>MOTOR</b> A component which moves (spins) when electricity passes through it in a circuit	
	<b>BUZZER</b> A component which makes a sound when electricity passes through it in a circuit	
	<b>WIRE</b> Plastic-coated electrical wire which conducts electricity around a circuit	
	<b>SWITCH</b> Part of a circuit which can easily be opened or closed to control the flow of electric current	
	<b>CELL - 1 battery</b> A safe power source. A store of chemical potential energy that can power a circuit	
	<b>CELL - 2 batteries</b> Two cells used together to make a more powerful power source	



What we know about electricity...

- Electricity is a form of energy that flows from one place to another. This is called current electricity.
- Many things that we use every day run on electricity. Toasters, hair dryers, lights, radios, cars, trains, and many more, rely on electricity to work properly.
- It is made in power stations, wind turbines, some batteries and solar panels. It is then stored and carried along wires to where it needs to be used, like in homes, hospitals and factories.
- The first electric motor was invented in 1821 by Michael Faraday.
- Electricity is measured in volts. It is stored in huge grids and then flows throughout the country to different places.
- It can be very dangerous as you can get an electric shock from it. You need to be sensible around electrical things.
- Electricity flows better through wires made from silver, gold and copper.

## Important Vocabulary for Electricity

- **Electrical Conductor** – will allow electricity to flow through it
- **Electrical Insulator** – will not allow electricity to flow through it
- **Battery** – two or more cells joined together
- **Cell** – device used to generate electricity usually by transforming chemical energy into electricity
- **Electrical component** – part of an electrical circuit e.g. bulb or battery
- **Voltage** – the measure of the push of the electrical current.
- **Amp** – the unit current is measured in
- **Ohm** – the unit resistance is measured in
- **In series** – components that are connected one after another on the same loop of the circuit are connected in series
- **In parallel** – components that are connected on separate loops are connected in parallel
- **Current** – a flow of electric charged particles called electrons
- **Resistance** – when something tries to

### 5 Electrical Conductors



silver gold copper steel sea water

### 5 Electrical Insulators



rubber glass oil diamond dry wood

ThoughtCo

We'll be investigating what happens if

- We make the wires longer
- If we add more bulbs to a circuit
- If we add more batteries

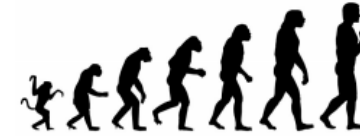


**Danger  
Electricity**



*"In the beginning God created the heavens and the earth."*  
Genesis 1:1

# Creation and Science



**Christian Creation Story**  
The Christian creation story is in Genesis, the first book of the Bible. It shows Christians that God created the world from nothing and in 6 days, resting on the 7th day. God is believed to have given humans dominion over the rest of creation which meant they had responsibility to look after the Earth and all its inhabitants. Christians have different beliefs about this as a creation story. Some consider it to be a factual account of creation (creationists), whilst others believe that the story is a myth that has symbolic meaning (liberalists).



- Key vocabulary**
- Creation-the action or process of bringing something into existence.
  - Cosmology- the study of the origins of the universe. 'the Big bang Theory' is the dominant current model.
  - Evolution- a model of how life developed through simple origins based on genetic change, natural selection and self-replication,
  - Myth-a traditional story, especially one concerning the early history of a people or explaining a natural or social phenomenon
  - Universe-all existing matter and space considered as a whole; the cosmos.

**Scientific Creation Story**  
Scientists believe the Universe began in a Big Bang (huge explosion) about 14 billion years ago. At that time, the entire Universe was inside a bubble that was thousands of times smaller than a pinhead. It was hotter and denser than anything we can imagine. Then it suddenly exploded. The Universe that we know was born. Time, space and matter all began with the Big Bang. In a fraction of a second, the Universe grew from smaller than a single atom to bigger than a galaxy. As the Universe expanded and cooled, energy changed into particles of matter, forming hydrogen and eventually stars. When stars die and explode (supernova), they release all of the materials needed to create planets and also life. Scientists also believe that life on Earth has developed over millions of years and humans are here as a result of a process of evolution. Humans and other animals have evolved by adapting to their environment through a process known as Natural Selection (species who are best suited to their environment are successful and pass on their genes to their offspring). Liberal Christians do support current scientific theory and believe that God could have caused the Big Bang and is therefore still the creator of the universe.

