

Interesting Facts
Electricity travels at the speed of light – more than 186,000 miles per second!
Electricity can flow through the components in a complete electrical circuit.
Electricity will only travel around a circuit that is complete. That means it has no gaps. You can use a switch in a circuit to create a gap in a circuit. This can be used to switch it on and off.
A circuit always needs a power source, such as a battery, with wires connected to both the positive (+) and negative (-) ends. A battery is made from a collection of cells connected together.
A circuit can also contain other electrical components, such as bulbs, buzzers or motors, which allow electricity to pass through.
When a switch is open (off), there is a gap in the circuit. Electricity cannot travel around the circuit. When a switch is closed (on), it makes the circuit complete. Electricity can travel around the circuit.

Scientists Involved In Development of Electricity	
	<p>Benjamin Franklin conducted research in electricity. In June 1752 he attached a metal key to the bottom of a dampened kite string and flew the kite in a storm. A succession of sparks jumping from the key to the back of his hand showed that lightning was electrical in nature.</p>



Vocabulary Dozen	
Battery	A container consisting of one or more cells where chemical energy is converted into electricity and used as a source of power
Bulb	A glass bulb which provides light by passing an electrical current through a filament
Buzzer	Buzzer – An electrical device that makes a buzzing noise and is used for signalling
Cell	A device containing electrodes that is used for generating current
Circuit	A complete and closed path around which a circulating electric current can flow
Conductor	A material or device which allows heat or electricity to carry through
Current	A flow of electricity which results from the ordered directional movement of electrically charged particles
Electricity	A form of energy resulting from the existence of charged particles
Filament	A conducting wire or thread with a high melting point that forms part of an electric bulb
Motor	A machine powered by electricity that supplies motive power for a vehicle or other moveable device
Switch	A device for making and breaking the connection in an electric circuit
Voltage	An electrical force that makes electricity move through a wire, measured in volts

Home Scientist

Whilst at home you can use the link below to watch videos to help you with consolidating your knowledge of electricity.

<https://www.bbc.com/bitesize/topics/zq99q6f/resources/1>

If you want to try some games to help with your learning use the link below:

<http://www.primaryhomeworkhelp.co.uk/revision/Science/electricity.htm>



Samson Class Science: Electricity

Electricity Timeline	
1881	The first public electricity supply
1883	First electric railway
1886	Heinrich Hertz produced and detected electric waves
1905	Albert Einstein shows light can produce electricity.
1925	John Logie Baird demonstrates televised images.
1926	Work starts on the National Grid so electricity can be available to everyone easily and cheaply. By 1933, one in three British people have electricity at home.
1939-1945	During WWII electricity was a threat as light allowed the enemy to identify where to bomb. Streetlights were switched off during blackouts.
1956	The first nuclear power station opens in Cumbria.
1974	The computer is born called the 'Altair' a few years later the 'PC' goes mainstream.
2003	Our reliance on electricity is demonstrated when New York has a massive blackout. People are stranded and sewage plants malfunction.
2008	The UK Government pledges to cut carbon dioxide emissions by 80% by 2050.
2013	Electricity consumption from consumer electronics e.g. mobiles and tablets has risen by 377% since 1970.

Quotes

Electricity is just organised lightning.
George Carlin

The kingdom of heaven is like electricity. You don't see it. It is with you.
Maharishi Mahesh Yogi

Key Question: Can you send a coded message?

