How has electricity impacted our lives?

Year 3 Crew

Knowledge Organiser

Terms 1 and 2

Vocabulary

Science	acoustics	the qualities in a room that affect sound
	attract	to draw by a physical force causing or tending to cause to approach
	amplitude	a measure of the strength of a sound wave
	battery	provides power for electrical items.
	cell	a battery is an example of a cell.
	circuit	a complete route which an electric current can flow around.
	conductor	a material that allows electricity to travel
	components	parts of a circuit
	copper	a material used to conduct electricity
	current	a flow of electricity through a wire.
	electric	the flow of tiny particles called electrons
	electricity	an energy used for power
	electromagnetic spectrum'	the order of wave lengths from longest to shortest
	electrons	very small piece of energy
	generators	machines that make electrical energy
	insulator	does not allow electricity to pass through
	magnet	a piece of iron or other material exhibiting properties of magnetism
	opaque	not able to see through; not transparent
	repel	to push back or away by a force, as one body acting upon another
	shadow	dark shape on a surface that is made when something stands between a light and the surface
	translucent	allows light to travel through
	transparent	can be seen through
	vacuum	a space without air or matter
	vibrations	invisible waves that move quickly
	voltage	force of an electric current
	volume	how loud or quiet a sound is
Art	analyse	look at or study
	cold colours	show sad, calm, and tranquil emotions
	emotions	feelings
	logo	symbol
	monochrome	black and white
	warm colours	associated with happy, joyful emotions

Enquiries

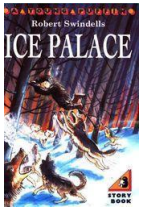
How has electricity impacted our lives?
How can we create and adapt an electric circuit?
Where does light come from?
How do you make a bulb brighter?
How do you form and change the size of a shadow?
How can you feel force?

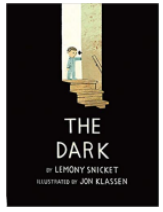
Key Facts

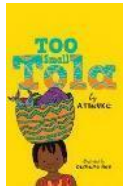
We see light from the sun every day. Light is measured in 'waves'
Light travels in straight lines and faster than anything else in the universe.
Light travels at 300,000 km per second (186,000 miles per second).
A light source is something that emits light by burning, electricity or chemical reactions.
Shadows are formed by opaque objects.
Shadows can be formed by natural light as well as artificial light.
Electricity is generated using energy from natural sources such as the Sun, oil, water and wind. These can also be called fuel sources.
A circuit contains a battery (cell), wires and an appliance that requires electricity to work (such as a bulb, motor or buzzer).
Circuits are either complete or incomplete.
Magnets with the same pole repel each other. Magnets with different poles attract each show.

Anchor texts

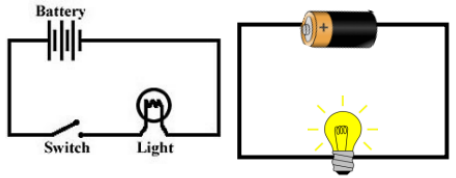
Ice Palace by Robert Swindells
Too Small Tola by Atinuke
The Dark by Lemony Snicket



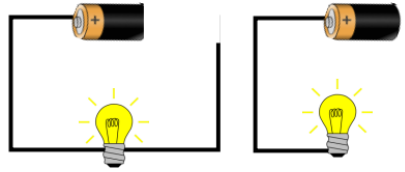




Diagrams



These are complete **circuits** - they have a **battery (cell)** and a **component (bulb).**
The **wires** are placed in the right places of the **battery** for the **circuit** to work.



These **circuits** will not work as they are incomplete.

How are **shadows** formed?