

Knowledge Organiser

Y4

Electricity

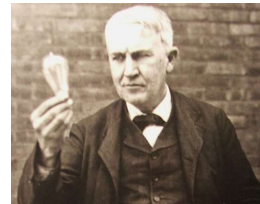
Electrical Safety

Electricity is helpful. It provides energy that we use to light our homes and operate lots of other things. But electricity can also be dangerous. Lots of people are hurt and killed each year in electrical accidents. We could avoid the accidents by following these simple safety tips:



Famous Scientists - Electricity

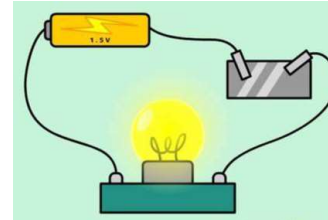
Thomas Alva Edison was a famous American inventor. He is best known for inventing 'domestic' lightbulbs to go in houses, and the electric power system that allows them to work. He came up with over 1000 successful inventions in his lifetime.



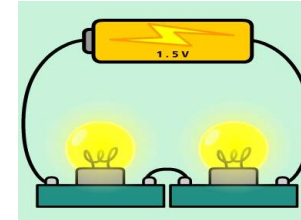
Hertha Ayrton was a pioneering physicist and promoter of women's rights. She is best remembered for her work *The Electric Arc* (1902) and for the Ayrton fan, a device used in trench warfare for dispelling poisonous gases, which she invented while living at 41 Norfolk Square, just south of Paddington Station.



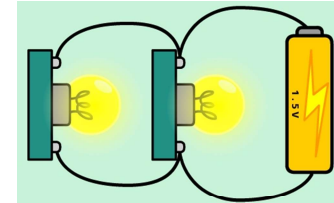
Simple Circuit



Series Circuit



Parallel Circuit



Vocabulary:

appliances	Objects that work using electricity
electricity	The flow of tiny particles called electrons and protons
danger	Something that may cause injury or harm
electrical safety	Any safety precautions taken against electricity
insulators	A material (as rubber or glass) that is a poor conductor of electricity
conductors	A material capable of transmitting electricity. Copper is a good conductor of electricity.

Insulators and Conductors

Rubber	Silver
Glass	Gold
Oil	Copper
Wood	Steel
Cotton Wool	Aluminum
Plastic	Iron

Electrical Symbols

Wire	Wires (joined)	Wire (unjoined)	Cell
Battery	Bulb	Switch (off)	Switch (on)
Push switch	Buzzer	Motor	Resistor
Variable resistor	Fuse	Voltmeter	