

# VALENTINE Knowledge Organiser: AUTUMN 1

# **Year 4 Science:** Electricity

Vocabulary	Meaning
electricity	a form of energy
generator	a machine that converts energy into electricity
renewable	a source of energy that does not run out e.g. solar or wind
coal	black rock that is mined from the ground and used as fuel
transmission	passing something from one place to another
pylon	tall tower-like structure carrying cables high above ground
appliance	device designed to perform a specific task
mains power	power from plug sockets connected to the National Grid
battery	portable electrical power storage cell
hazard	a danger or risk
dangers	the possibility of suffering harm
safety	being protected from harm
electrocution	injury from an electric shock
circuit	a complete path which allows the flow of electricity
wire	thin metal that electricity can pass through
bulb	a lamp / light which turns on when fed with electricity
switch	component that completes or breaks an electrical circuit
conductor	material that lets electricity pass through it easily
insulator	material that prevents electricity passing through it

#### Key knowledge - Electricity Generation



A turbine can be used to generate electricity from energy sources. Power stations burn natural gas, coal, oil or rubbish to heat water to produce steam to power the turbine. Renewable energy sources such as wind, sun and water can also be used and converted to create electricity.

### Key knowledge - Electrical Safety



It is extremely important to be aware of possible hazards and to know how to stay safe around electricity as it can be dangerous and cause serious harm.

## Key knowledge - Electrical Circuits and Components



