Topic: **Electricity**	Year: 4	Strand: **Physics**

What should I already know?

- Similarities and differences between common, everyday objects (EYFS)
- **Electricity** is a form of **energy** that can be carried by wires and is used for heating and lighting, and to provide **power** for **devices**
- **Sources** of light and sound may need

What will I know by the end of the unit?

Where does **electricity** come	**Electricity** is **generated** using **energy** from natural **sources** such as the Sun, oil, water and wind.
Which **appliances** run on **electricity**?	Some **appliances** use **batteries** and some use **mains electricity**. **Batteries** come in different sizes depending on how much and for how long the **appliance** is used. Common appliances that use **electricity**. 
How does a **circuit** work?	A complete **circuit** is a loop that allows **electrical current** to flow through **wires**. A **circuit** contains a **battery (cell)**, **wires** and an **bulb, buzzer** or **motor.** The **electrical current** flows through the wires from the **battery (cell)** to the **bulb, motor** or **buzzer**). A **switch** can break or reconnect a **circuit**. A **switch** controls the flow of the **electrical current** around the **circuit**. When the **switch** is off, the **current** cannot flow. This is not the same as an incomplete **circuit**
What are **electrical conductors** and **insulators**?	Some objects may or may not allow **electricity** to pass through. Materials that allow **electricity** to pass through a create a complete **circuit** are called **electrical conductors**. Materials that do not allow **electricity** to pass through and do not complete a **circuit** are called **electrical insulators**.

Key vocabulary

appliance	a **device** or machine in your home that you use to do a job such as cleaning. **Appliances** are often **electrical**
battery	small **devices** that provide the **power** for **electrical** items such as torches
bulb	the glass part of an **electric** lamp, which gives out light when **electricity** passes through it
cell	a synonym for **battery**
circuit	a complete route which an **electric current** can flow around
component	the parts that something is made of
conductor	a substance that heat or **electricity** can pass through or along
current	a flow of **electricity** through a **wire** or **circuit**
device	an object that has been invented for a particular purpose
electricity	a form of **energy** that can be carried by **wires** and in used for heating and lighting, and to provide **power** for **devices**
insulator	a non-**conductor** of **electricity** or heat
mains	where the supply of water, **electricity**, or gas enters a building
power	**power** is **energy**, especially **electricity**, that is obtained in large quantities from a fuel **source** and used to operate lights, heating and machinery
switch	a small control for an **electrical device** which you use to turn the **device** on or off
wires	a long thin piece of metal that is used to fasten things or to carry **electric current**