



Objectives and Sticky Knowledge

Previous Knowledge:



Land Objectives and Sticky Knowledge:

<p>- Identify and name appliances that require electricity to function.</p>	<p>- Construct a series circuit.</p>	<p>- Predict and test whether a lamp will light within a circuit. - Know the function of a switch.</p>	<p>- Know the difference between a conductor and an insulator; giving examples of each.</p>
<p>1. I know that appliances that require mains electricity will have a plug. 2. I know that some appliances can work using batteries. 3. I know that televisions, kettles, toasters and microwaves require mains electricity. 4. I know that laptops, tablets and phones can run on batteries that need to be recharged.</p>	<p>1. I know that a series circuit is where the components are connected in a loop. 2. I know that electricity flows through each component in a single pathway.</p>	<p>1. My circuit is complete when electricity can flow through all components and the bulb lights up. 2. I can identify when a circuit is complete. 3. I can identify when a circuit is incomplete and how to solve the problem. 4. I know that a switch turned off will stop the flow of electricity. 5. I know that a switch turned on will complete the circuit and allow electricity to flow through the circuit.</p>	<p>1. I know that a conductor allows electricity to flow through it. 2. I know that an insulator will not allow electricity to pass through. 3. Examples of conductors: metals-wires, coins, keys, paperclips, screw. 4. Examples of insulators: wood, plastic, rubber, fabric, glass.</p>

Sea:

Links with 'Communication' Golden Thread

Links to CST and CTK values:

Year 4 Science - Electricity Knowledge Organiser

Key Vocabulary



Electricity	The flow of an electric current through a material, e.g. from a power source through wires to an appliance
Appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
Battery	A device that stores electrical energy as a chemical. Two or more cells joined together form a battery
Circuit	A pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors.
Cell	Normally, we would call this a battery but scientifically, this is a cell. Two or more cells joined together form a battery.
Switch	Used to turn other components in the circuit on or off.

Incomplete Circuit
 There is a break in the **circuit** that prevents the **electricity** from flowing. The components will not work.

Series Circuit
 A **circuit** where the components are connected in a loop. **Electricity** flows through each component in a single pathway.

Complete Circuit
Electricity can flow. The components will work.

Materials can be tested in a **circuit** to see if they are **electrical conductors** or **electrical insulators**.

10p = metal = **electrical conductors** test **circuit** ruler = plastic = **electrical insulators**

Sky Objectives:

1. Begin to understand which types of enquiry can be used to answer questions.
2. Conduct comparative tests and explain the changes in results.
3. Use concluding remarks to begin to make predictions for future investigations.