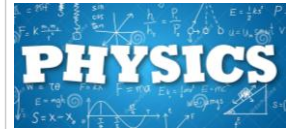
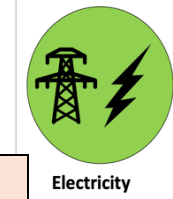




Saint Elizabeth's Knowledge Mat



Year: 4

Subject: Science

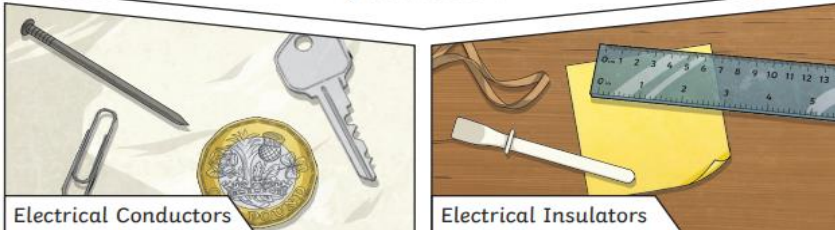
Topic: Electricity

1. What I know already:



- Know about the properties of everyday materials (Y1)
- Know why a material might or might not be used for a specific job (Y2)
- Create a practical enquiry (Y4)

A conductor of **electricity** is a material that will allow **electricity** to flow through it. Metals are good conductors. Materials that are electrical insulators do not allow **electricity** to flow through them. Wood, plastic and glass are good insulators



Electrical Conductors

Electrical Insulators

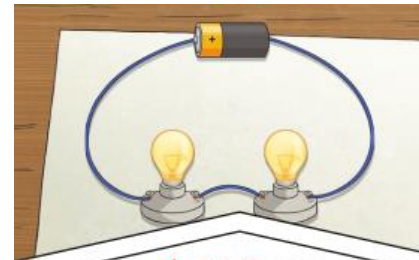
2. What I am going to learn – My Sticky Knowledge



- The four outcomes of **electricity** are light, movement heat and sound.
- The 6 **sources** of **electricity** are solar, hydro, wind, nuclear, geothermal & fossil fuels (coal, oil, gas).
- **Electricity** can be passed through the mains (**alternating current**) or a battery (**direct current**).
- The difference between a **cell** and a **battery** is that a cell is a single unit that converts **chemical energy** into **electrical energy**, and a battery is a **collection of cells**.
- A **switch** opens and closes a **circuit** by stopping and starting the **flow of electricitu**.

3. Key vocabulary

Electrical conductor:	A material that lets electricity pass through easily.
Electrical Insulator:	A material that does not let electricity pass through easily.
Generate:	To make or produce.
Battery:	A device that stores electrical energy as a chemical.
Circuit:	A pathway that electricity can flow around. It includes wires and a power supply.
Renewable energy:	A source of electricity that will not run out. .
Non-renewable energy	A source of electricity that will eventually run out



Electricity can only flow around a complete **circuit** that has no gaps. There must be wires connected to both the positive and negative end of the power supply/**battery**.

Battery electricity: **batteries** store chemicals which produce an electric current. Eventually, even rechargeable **batteries** will stop producing an electric current.



Mains electricity: power stations send an electric charge through wires to transformers and pylons. Then, underground wires carry the electricity into our homes via wires in the walls and out through **plug sockets**.

