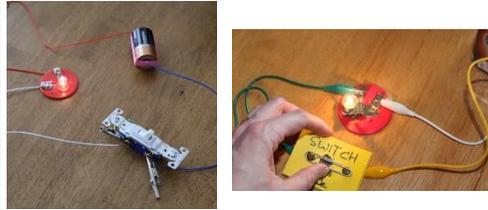




Science - Electricity Year 4 Knowledge Mat



Experiments



ELECTRICITY



Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Alternative to using cells
Wire		Allows current to travel
Bulb/light		Converts electrical energy into heat and light
Motor		Converts electrical energy into movement energy
Buzzer		Converts electrical energy into sound energy
Switch		Allows circuit to be opened or closed

Subject Specific Vocabulary

Conductor	Let's electricity pass through easily - metal.
Insulator	Does not let electricity Pass through - wood, glass.
Circuit	A closed path that allows electricity to pass through.
Cell (battery)	Provides electrical energy.
Bulb/light	Converts electrical energy into heat/light.
Switch	Allows the circuit to be opened or closed.
Buzzer	Converts electricity into sound.
Turbine	A machine which creates continuous power - spins.
Fuse	A safety device - Will break a circuit if it too much power.
Generator	A machine that converts energy into electricity.

Important Bits

Know that the brightness of a bulb is associated with the voltage.

Use symbols to construct a simple circuit

Answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors.

Sticky Knowledge about

- Electricity travels at the speed of light. That's more than 186,000 miles per second!
 - Electricity comes from the power station, the wind, the sun, water and even an animal's poo!
 - Coal is the biggest source of energy. It is burned in furnaces & boils water creating steam.
 - Hydropower is a process where electricity is made by water which spins turbines attached to generators.
 - Some materials let electricity pass through them easily whilst others don't.
- No prior knowledge -new learning

