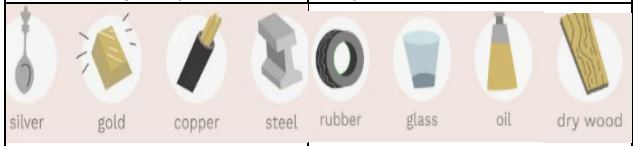
Electricity Knowledge Organiser – Year 4 – Autumn 2 – Science

I understand the dangers of electricity

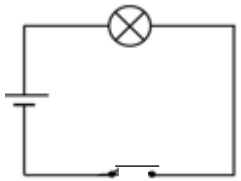
- Plugging in too many things in a socket
- Bare wires (with no plastic coating)
- Fingers in sockets
- Wires dangling or trailing on carpet
- Water near electrical appliances or wires (water conducts electricity)

I understand conductors and insulators

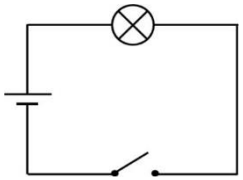
Electrical Conductors (allow electricity to flow)	Electrical Insulators (don't allow electricity to flow)
	
Copper Iron Steel Silver Gold	Rubber Wood Plastic Paper

I can identify some common appliances that run on electricity

I can explain how a switch works
I can draw a simple circuit diagram using symbols and explain if it will work or not



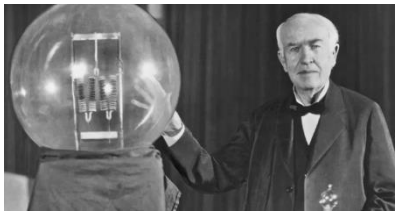
The light bulb will light in this circuit because the switch is closed.



The light bulb will not light in this circuit because the switch is open.

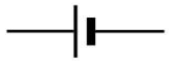
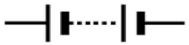
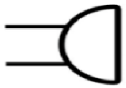
Closed switch - electricity will flow because the circuit is complete

Open switch - electricity won't flow because the circuit is not complete.



Thomas Edison is an American scientist and inventor. He invented his most famous invention in 1879.

Vocabulary — I can name and can use electrical circuit symbols

Lamp	A lamp will light up when the circuit is connected correctly. 
Wire	A long thin piece of metal that carries an electrical current often covered in plastic for safety.
Cell	A battery is an example of a cell. It provides electricity 
Battery	A small device that provides power for electrical items. 
Motor	A device that changes electrical energy into 
Buzzer	An electrical device that makes a buzzing sound. 
Switch	A switch allows an electrical device to be turned on and off
Current	A flow of electricity through a wire.
Circuit	A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery.