



**battery (cell)** is portable and a stored form of energy



**negative (-)**  
(end of battery)

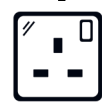
**positive (+)**  
(end of battery)

**electricity** is a form of energy that can be powered from a **battery** or the **mains**

**mains electricity** supplied to a building by wires

**sockets and plugs** connect **appliances** and devices to the electrical power source

**sockets**



**plug**



**appliance (kettle)**



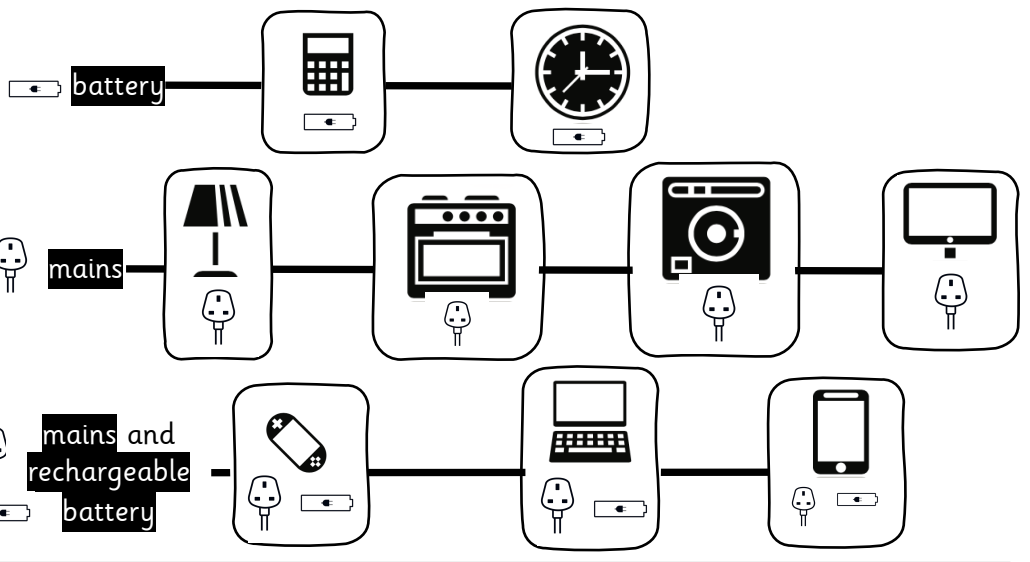
**appliances and devices**

require different electrical power:

- battery
- mains
- both battery and mains

**National Grid**

manages electricity and gas distribution for England, Scotland and Wales



**current**

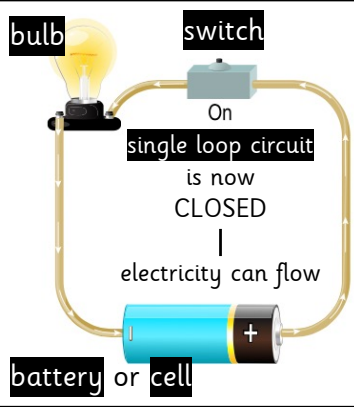
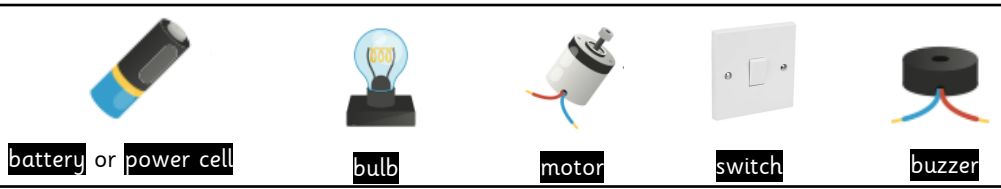
the 'flow' of electricity through the circuit

**simple series circuit (single loop circuit)**

- electrical current follows one path



**electrical components**



**conductors** - materials that **allow** electricity to flow



**insulators** - materials that **do not** allow electricity to flow



- It is dangerous to play with plugs
- Never put liquids near electrical items
- Never touch exposed wires



- Never touch switches with wet hands
- Don't fly kites near overhead power lines