Science study | Electricity | Year ___ ___Term

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

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

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

mains electricity
- supplied to a building by wires

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

sockets

plug

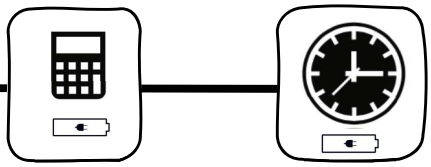
appliance (kettle)

appliances and devices

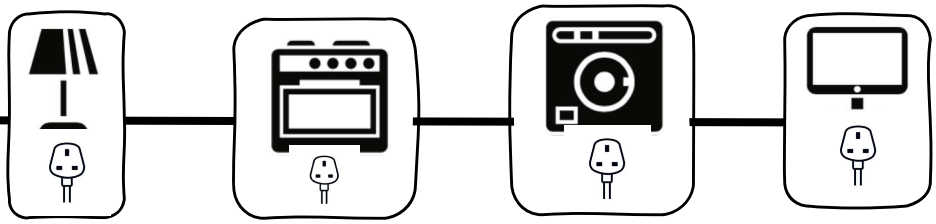
require different electrical power:
- battery
- mains
- both battery and mains

National Grid
manages electricity and gas distribution for England, Scotland and Wales

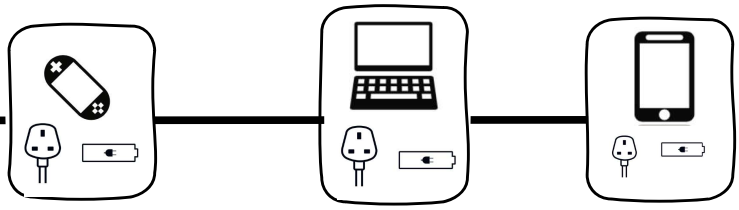
battery



mains



mains and rechargeable battery



current
the 'flow' of electricity through the circuit

simple series circuit (single loop circuit)
- electrical current follows one path

electrical components

battery or **power cell**

bulb

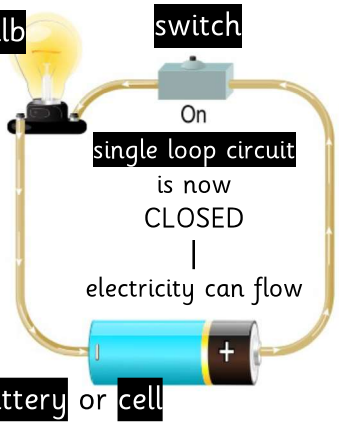
motor

switch

buzzer

bulb

switch



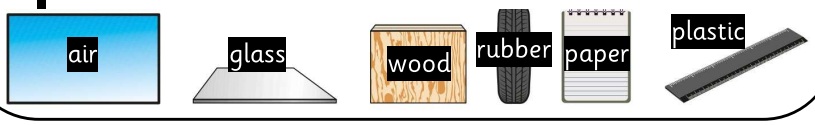
single loop circuit is now CLOSED

electricity can flow

battery or **cell**

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