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

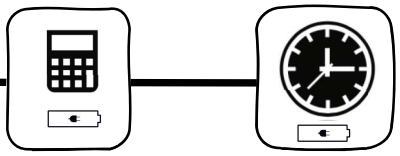
appliance (kettle)

appliances and **devices**

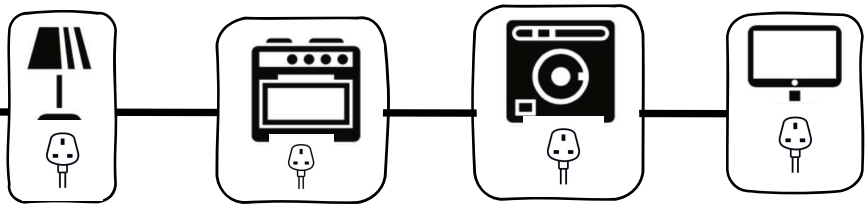
require different electrical power:
- battery
- mains
- both battery and mains

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

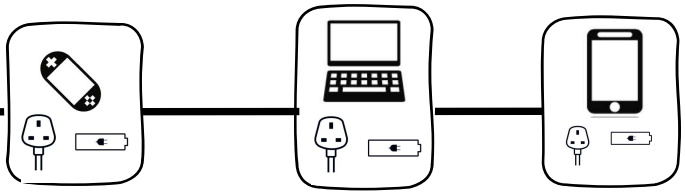
battery



mains



mains and rechargeable battery

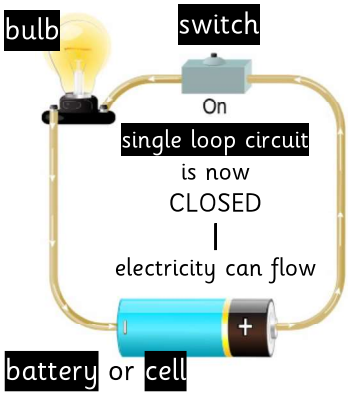


current
the 'flow' of electricity through the circuit

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

electrical components

battery or **power cell** | **bulb** | **motor** | **switch** | **buzzer**



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

aluminium | copper | graphite | steel | tap water

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

air | glass | wood | rubber | paper | plastic

- 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