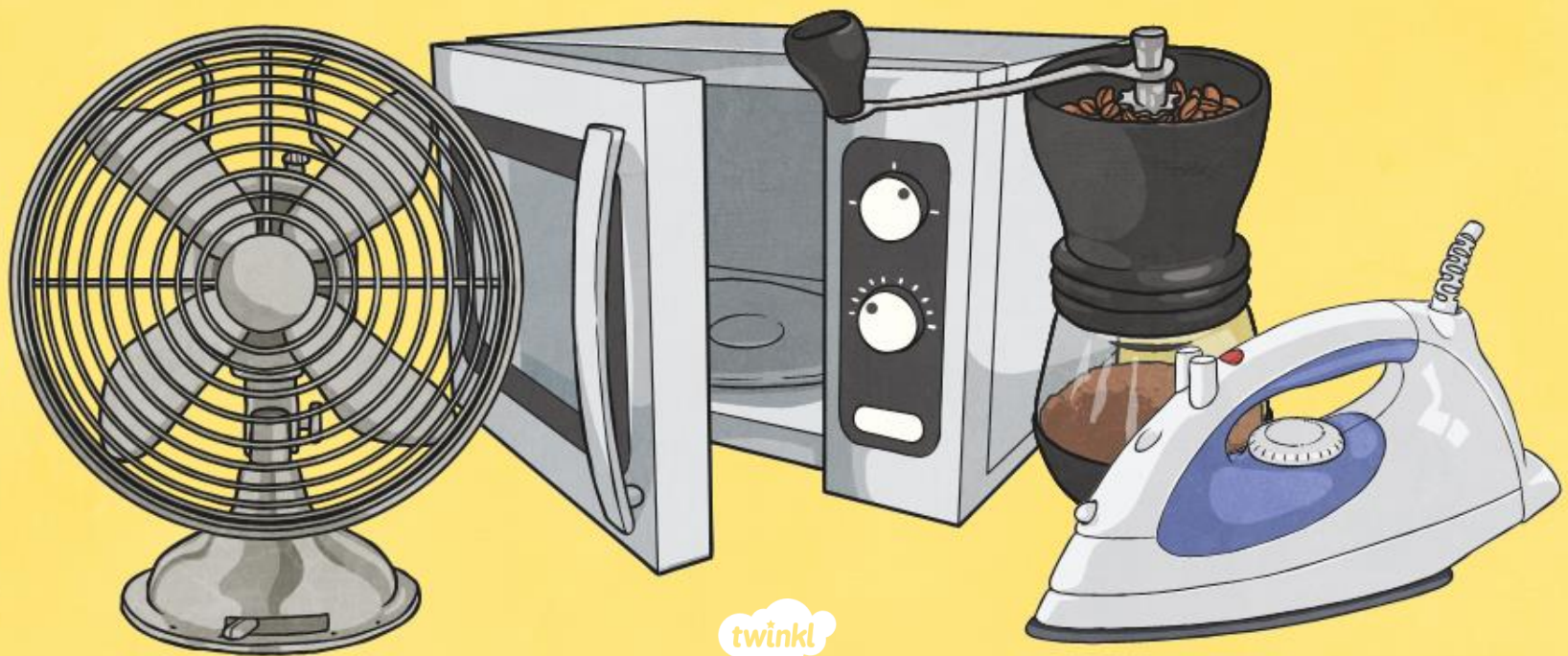




Science

Electricity

Everyday Electrical Appliances



twinkl

Aim

- I can identify electrical appliances and the types of electricity they use.

Success Criteria

- I can identify electrical appliances and non-electrical appliances.
- I can sort appliances based on whether they use mains or battery power.

What is an Appliance?

Definition:

An **Appliance** is a **device**, **piece of equipment** or an **instrument** designed to perform a **task**.

Examples:



A **washing machine** is an appliance which performs the task of **washing clothes**.

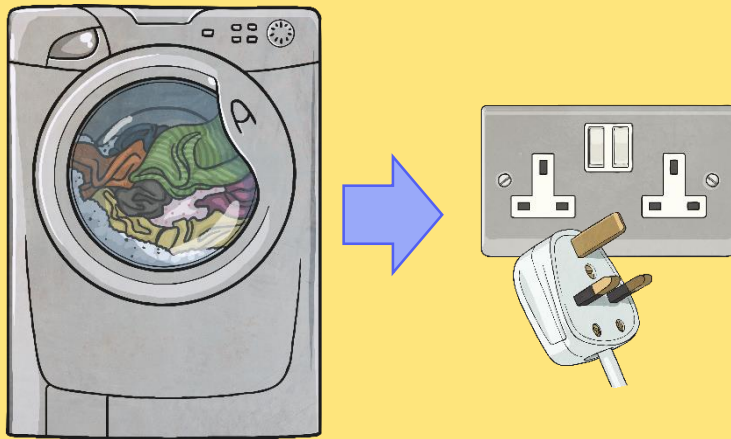


A **thermometer** is an appliance which performs the task of checking the **temperature**.

Types of Electricity

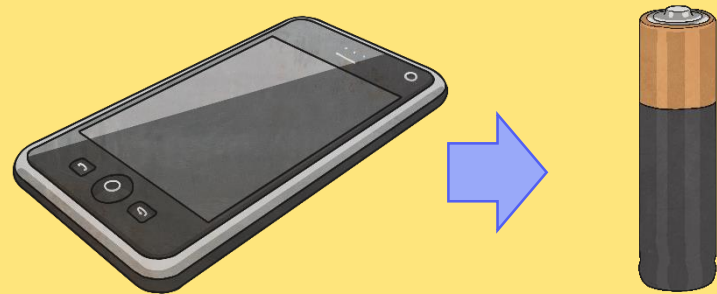
There are two types of electricity:

Mains Electricity



To use this type of electricity, you need to plug the appliance into a socket.

Battery Electricity



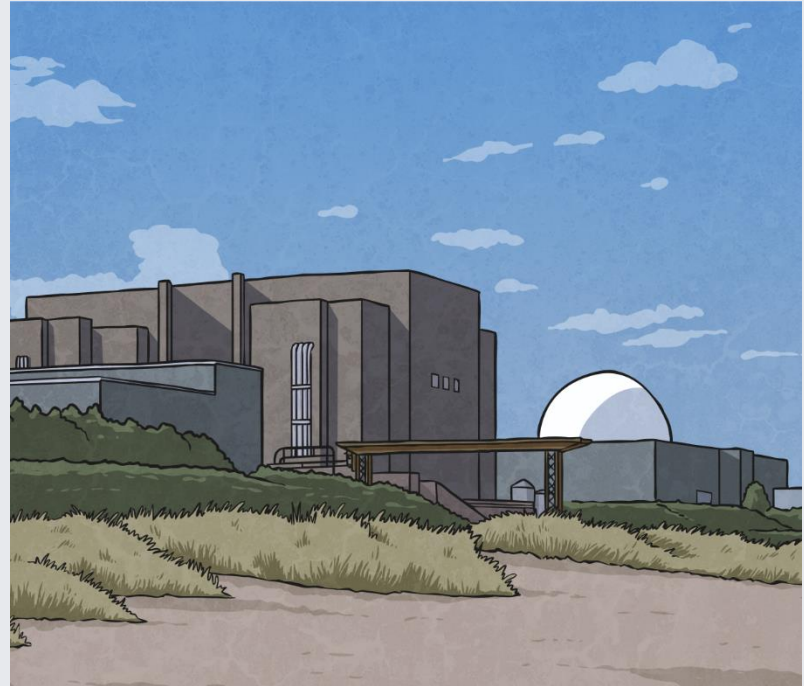
To use this type of electricity, you need to insert a battery into the appliance.

Types of Electricity

In the UK, **mains electricity** is produced mainly by **gas, coal or nuclear power stations**.



gas power station



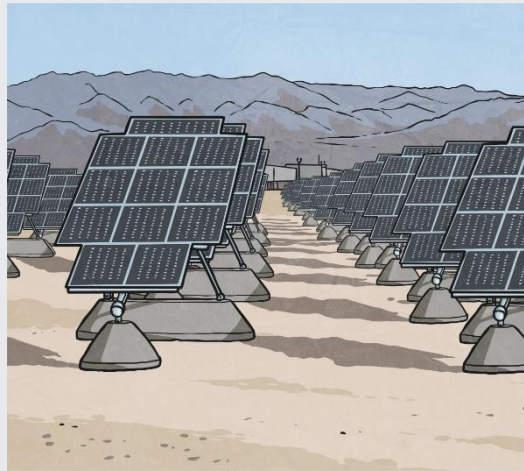
nuclear power station

Types of Electricity

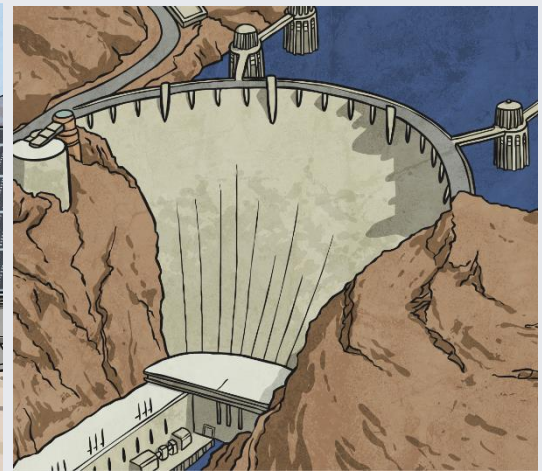
Wind turbines, hydroelectric and solar panel power stations are also used to generate electricity, but to a lesser extent.



wind turbines



solar panels



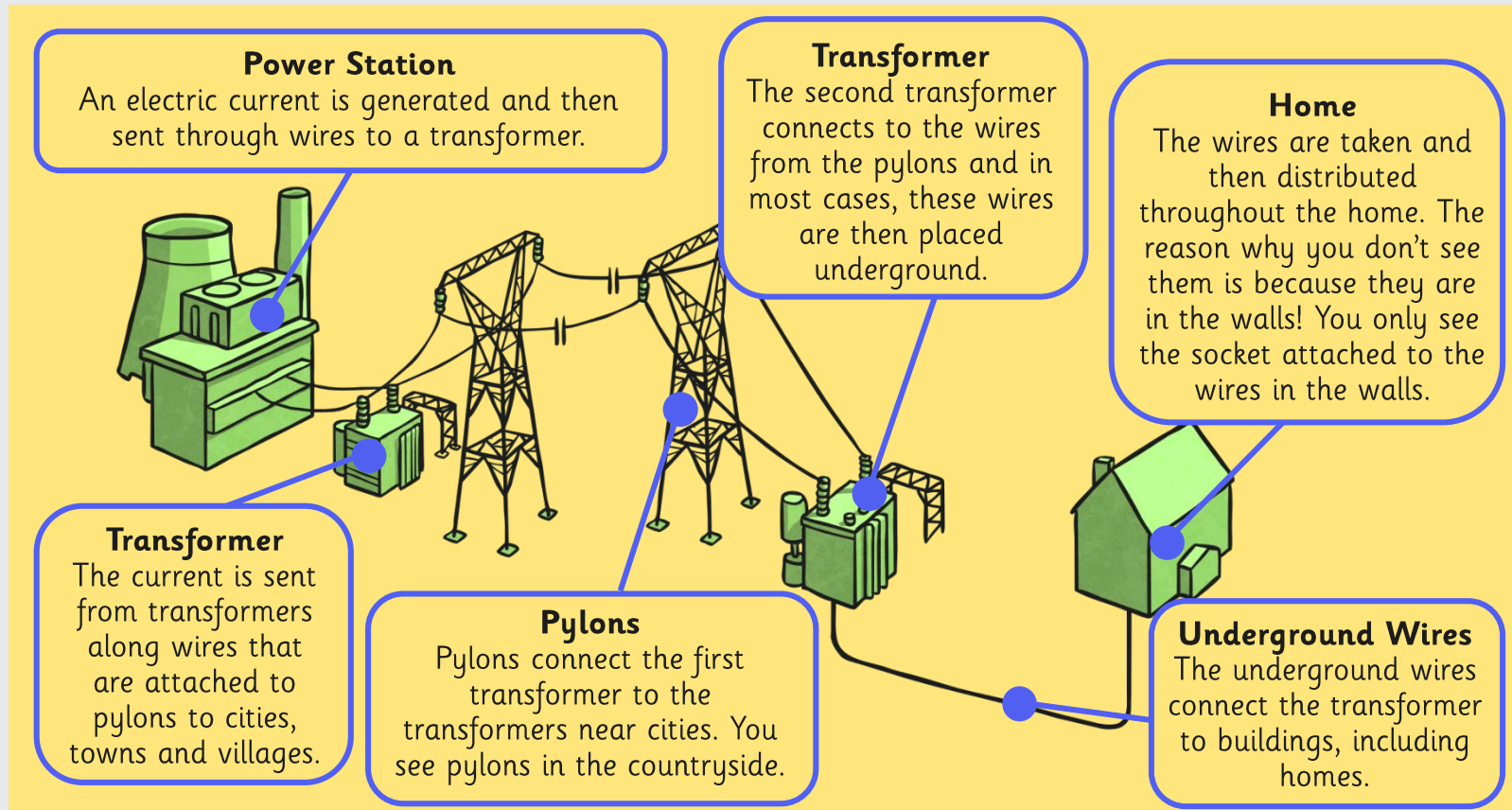
hydroelectric power

A small number of homes have **solar panels** attached to their roofs to provide mains electricity.



Types of Electricity

Power stations generate a continuous electric current.

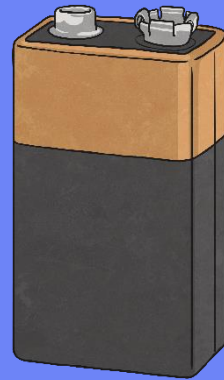


Types of Electricity

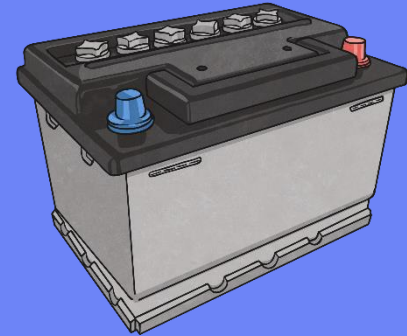
Batteries store chemicals which produce an electric current. They eventually stop working as the chemicals stop being able to produce an electric current.



battery

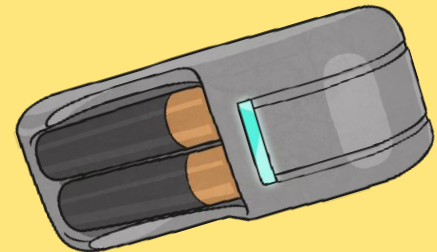


square battery

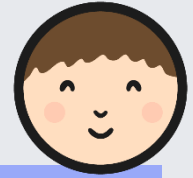


car battery

Rechargeable batteries are ones where the chemical reaction can be reversed so that the battery is able to create an electric current again. However, even rechargeable batteries will eventually stop producing an electric current.



Mains or Battery?



Mains or Battery?

Using the **Appliances Cards**, decide if each appliance uses mains or battery electricity. One example for each has been done for you.

Mains	Battery
washing machine	mobile phone

Mains or Battery?

Using the **Appliances Cards**, decide if each appliance uses mains electricity, battery or both. One example for each has been done for you.

Mains Electricity
 washing machine

Battery Electricity
 mobile phone

alarm clock

What fit into these categories?

Mains or Battery?

Using the **Appliances Cards**, decide if each appliance uses mains electricity, battery or both or neither. One example each has been done for you.

Mains Electricity
 washing machine

Battery Electricity
 mobile phone

alarm clock

pencil

Extension: Can you give your own examples of appliances that fit into these categories?

Staying Safe



Mains electricity can be dangerous, causing anything from a minor electric shock, to serious burns and even death!

Do you know how to stay safe in your home?

Click on the house below and let's see.



Aim



- I can identify electrical appliances and the types of electricity they use.

Success Criteria

- I can identify electrical appliances and non-electrical appliances.
- I can sort appliances based on whether they use mains or battery power.

