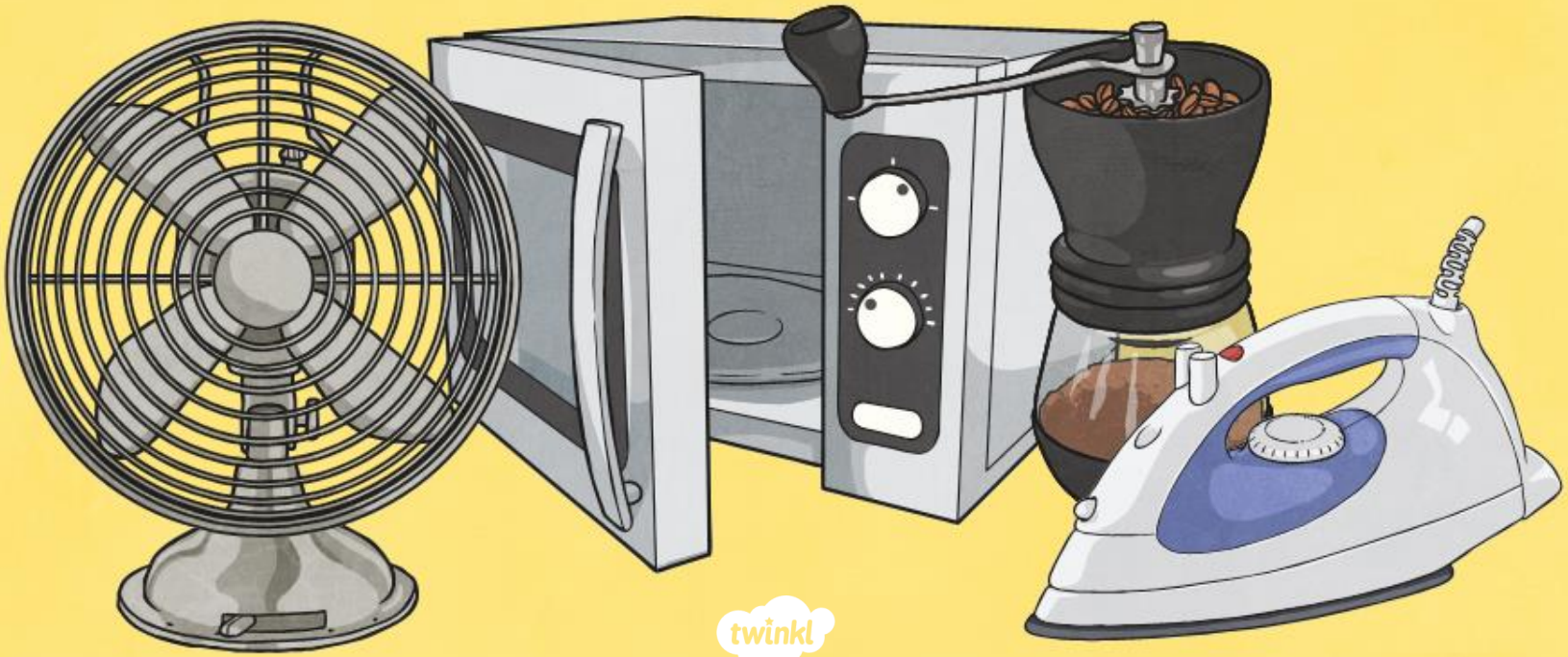
Everyday Electrical Appliances



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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.

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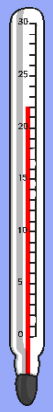
What is an Appliance?

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.**

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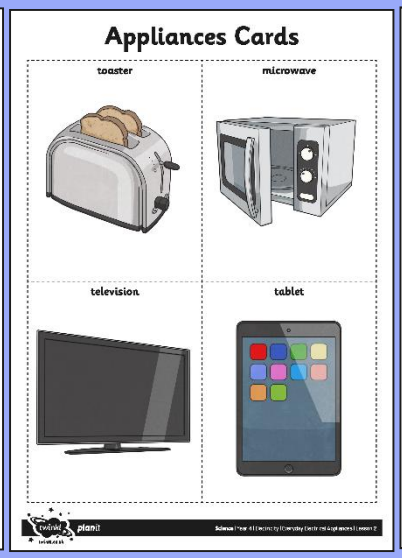
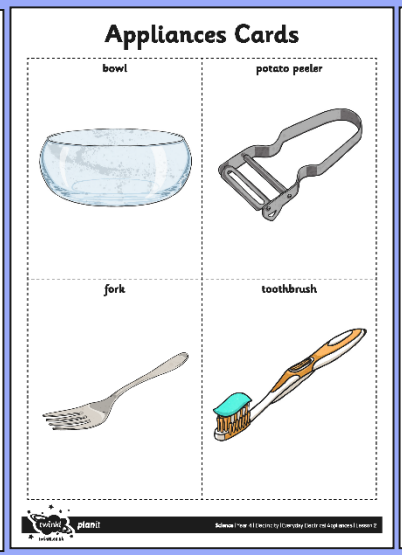
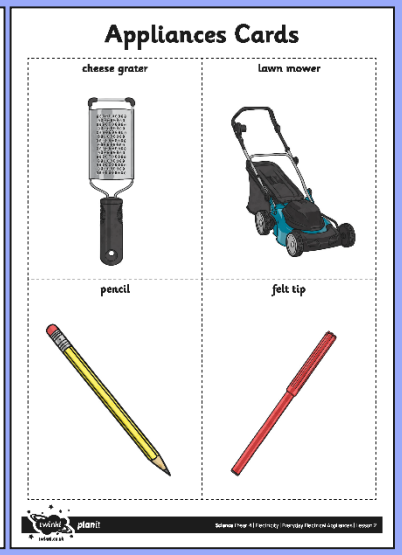
Electrical Appliances

Look at the Appliance Cards worksheet on the class page, make a list of which ones you think are Electrical Appliances and which ones are not.







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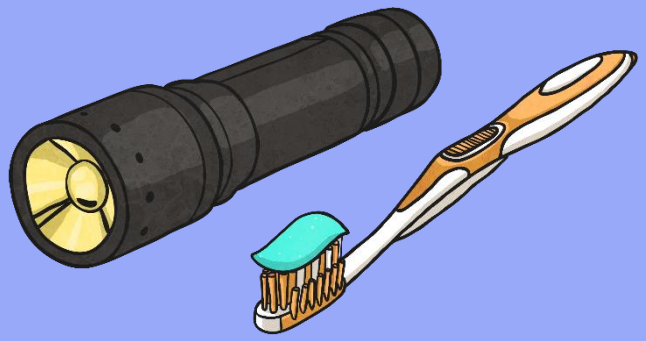
Electrical Appliances Answers

Electrical Appliances	Non-electrical Appliances
washing machine	thermometer
mobile phone	saucepan
lawn mower	cheese grater
toaster	pencil
microwave	felt tip
television	bowl
tablet	potato peeler
fan	fork
sewing machine	toothbrush
torch	gas oven
iron	rake
hairdryer	coffee grinder
	candle
	hammer
	sponge

Questions

1. Which appliances did you think used electricity?
2. Which did you think did not use electricity?
3. Can you explain why?



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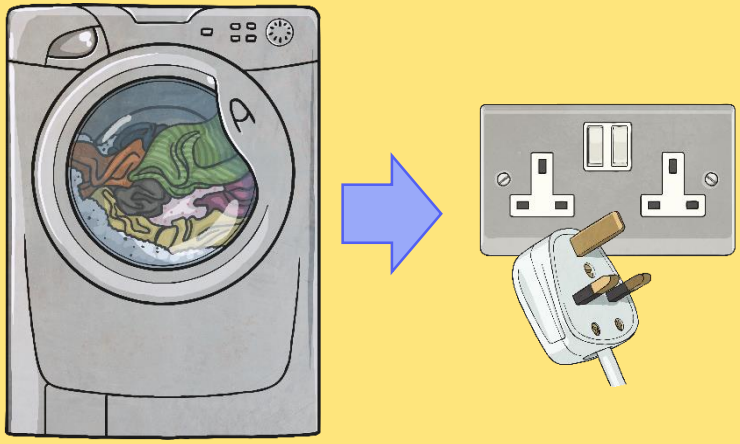
Types of Electricity

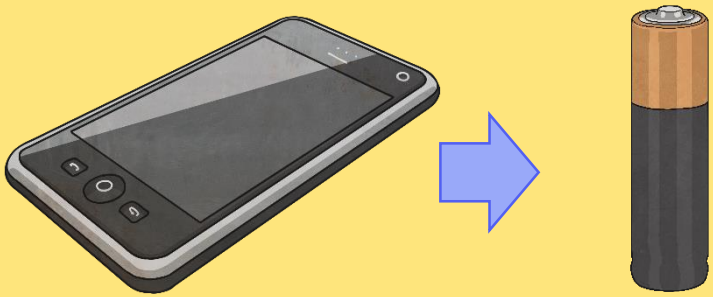
There are two types of electricity:

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.

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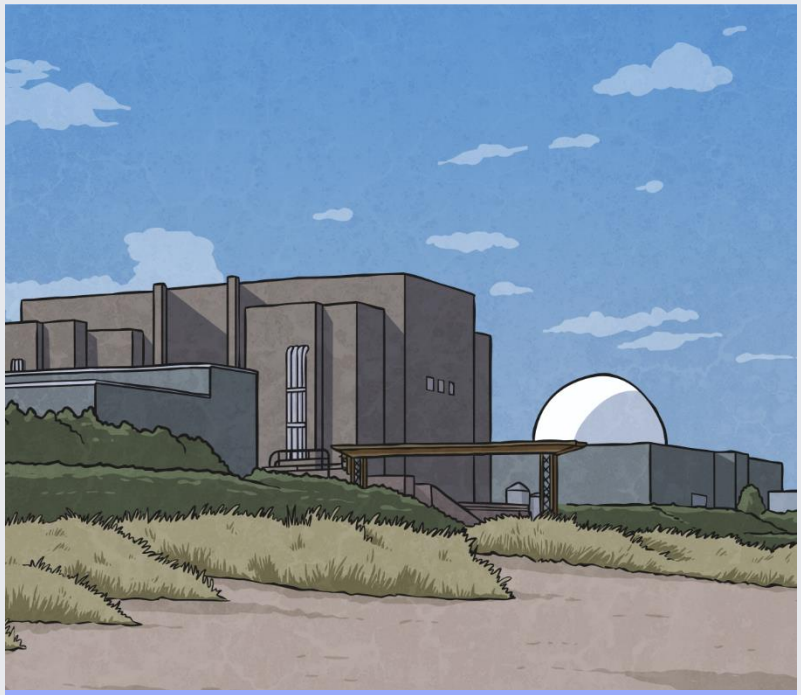
Types of Electricity

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

gas power station



nuclear power station

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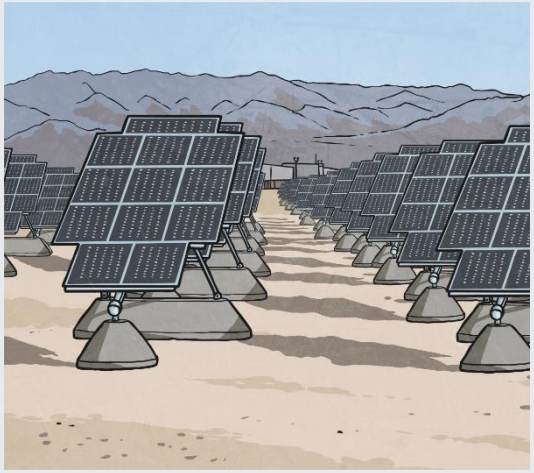
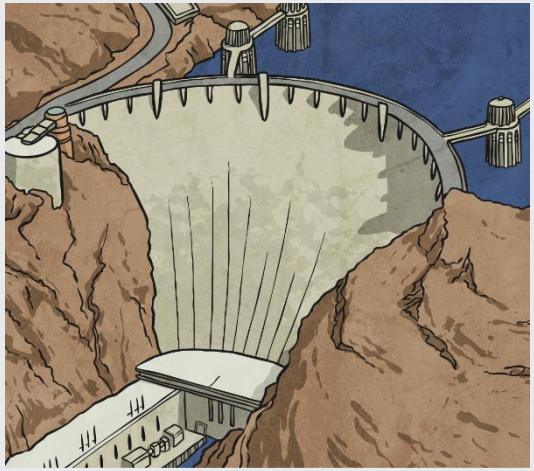
Types of Electricity

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

wind turbines

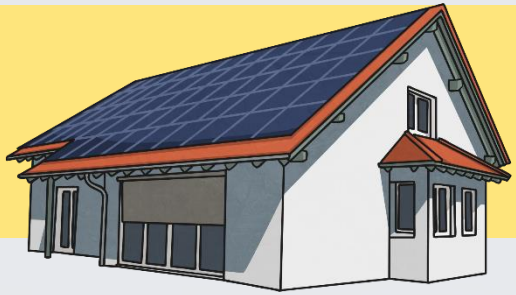


solar panels



hydroelectric power

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



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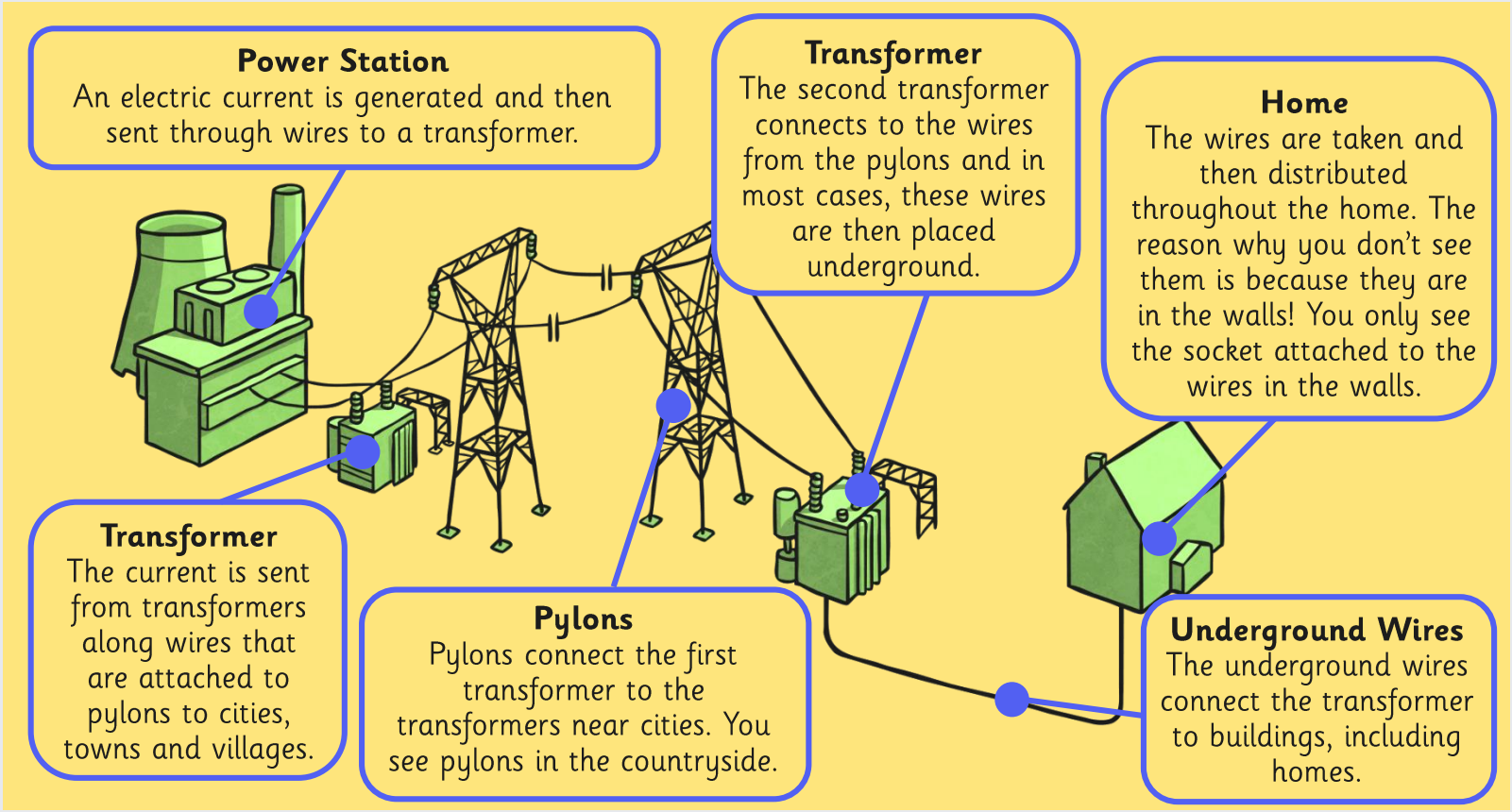
Types of Electricity

Power stations generate a continuous electric current.



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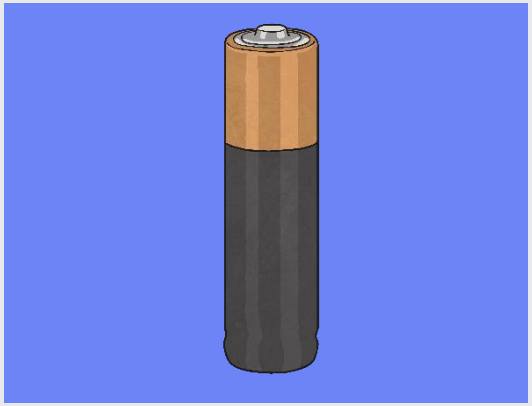
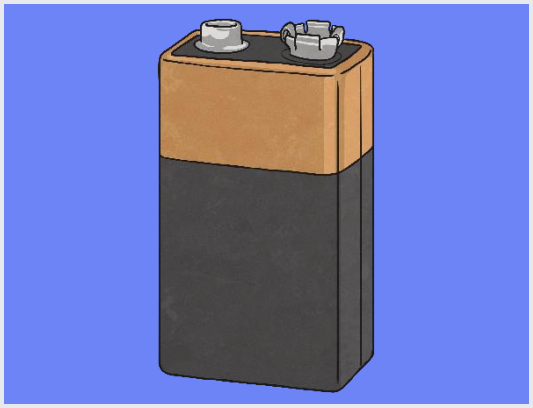
Types of Electricity

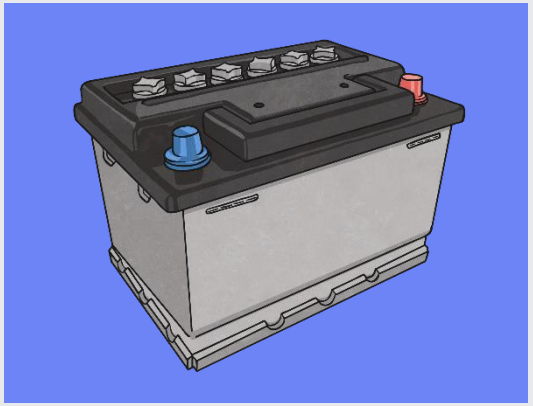
Batteries store chemicals which produce an electric current. They eventually stop working as the chemicals stop being able to produce an electric current.



battery

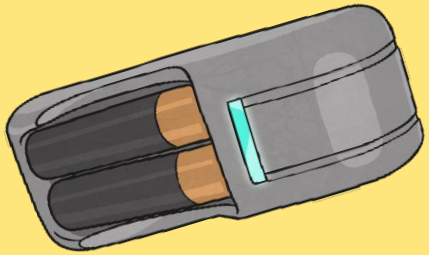


square battery



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.



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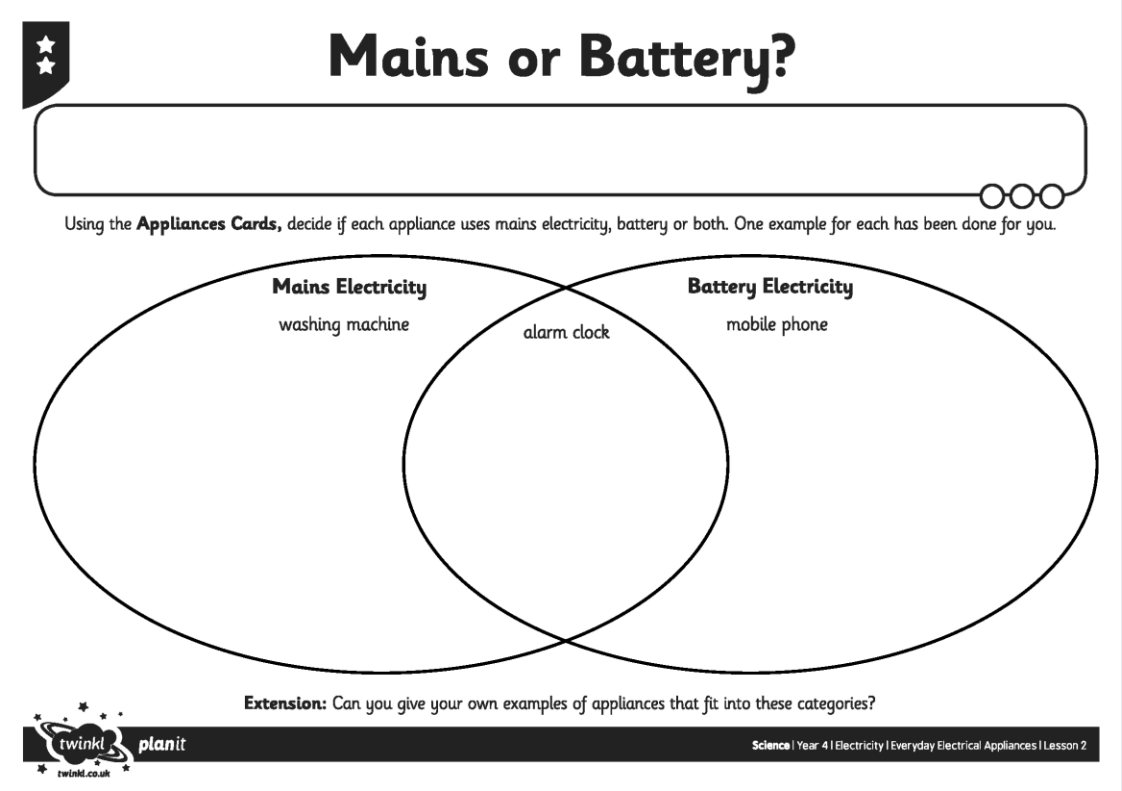
Electricity Detective

- Look again at the appliance pictures, do you have this appliance in your home? Do you think it uses main electricity, battery electricity or could it be both?



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

alarm clock

Battery Electricity

mobile phone

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

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Science | Year 4 | Electricity | Everyday Electrical Appliances | Lesson 2

Can you draw a Venn diagram like the one above, placing the appliances in the correct place?

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Staying Safe

Whole Class

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.

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