Summer 2 Week 9 Science Lesson 2

Can I identify common appliances that are powered by electricity?

Fast five - Answers are on the next slide.

1) What is electricity?

2) What is electricity measured in?

3) Name an example of an appliance that is powered by electricity?

4) True or false: It is safe to put our fingers in plug sockets.

5) True or false: It is unsafe to have water near electrical sources, it could result in an electric shock!

Fast Five - Answers

1) What is electricity? Electricity is the flow of an electric charge from place to place.

2) What is electricity measured in? Watts and Kilowatts.

3) Name an example of an appliance that is powered by electricity? Fridge, oven, TVs, lights etc.

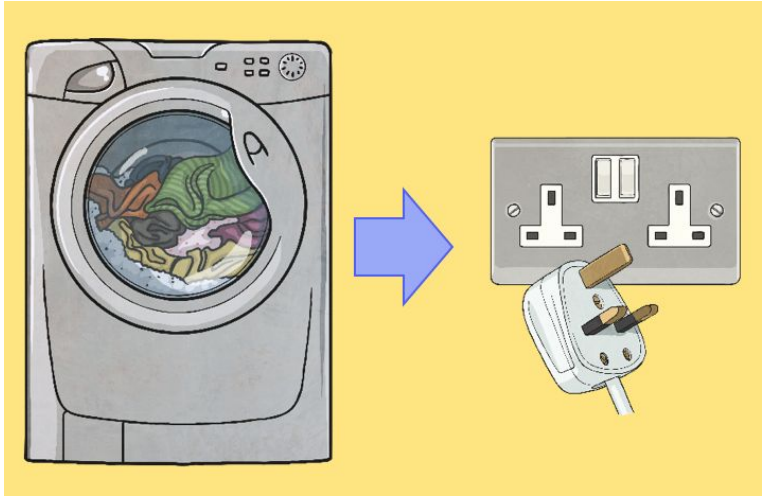
4) True or false: It is safe to put our fingers in plug sockets. FALSE! We must NEVER put our fingers into plug sockets.

5) True or false: It is unsafe to have water near electrical sources, it could result in an electric shock! True! Water near electrical sources is very dangerous, and this could result in an electric shock.

What ways can appliances be powered by electricity?

Electrical appliances can be powered by electricity in two main ways:

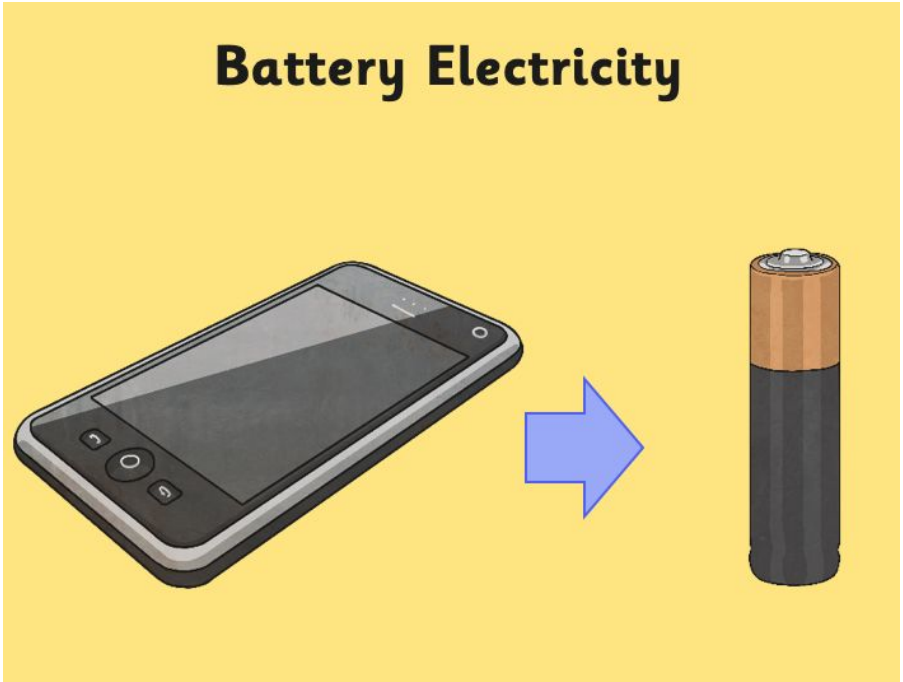
They can be plugged into the mains power supply through the plug sockets in the wall. The mains power supply is constant, so this is useful for appliances that need to be on all of the time - such as fridges or freezers.



Appliances powered by the mains are often either needed to be powered all of the time, or require a larger amount of electricity than batteries can supply.

What ways can appliances be powered by electricity?

They can be powered by batteries. These batteries have a limited supply of electricity, so they will need to be replaced or charged frequently.



Look at these examples of electrical appliances and consider if they are powered by a mains supply or batteries:

Mains supply! We plug lamps into plug sockets and use the switch to turn them on as and when we need to.

Look at these examples of electrical appliances and consider if they are powered by a mains supply or batteries:

Batteries! We use batteries in wall clocks. Even though they are working all of the time, they use very little power so a small battery is more appropriate than a mains power supply.

Look at these examples of electrical appliances and consider if they are powered by a mains supply or batteries:

Mains power supply! We plug our games consoles into the mains plug sockets because they require a larger supply of electricity than batteries can provide.

The wireless controllers are powered by batteries! We charge them once they run out of charge. By using batteries, it allows the controller to be wireless.

Activity: Sort the different appliances into those powered by mains supply and those powered by batteries.

Red - Sort the appliances into the table.

Yellow - Sort the appliances and create a venn diagram.

Green - Sort the appliances and create a venn diagram. Can you think of an additional 3 appliances and add those to your venn diagram?