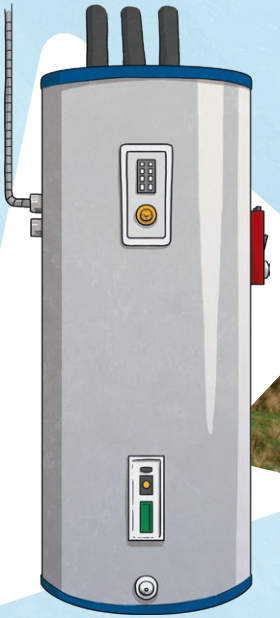
WATER WASTE

Water and Energy

We use water so often throughout our day but have you ever stopped to think what is the link between water and **energy**? They are actually very closely connected!

Producing **energy** from different sources requires water and supplying water for human use requires **energy**. Consider how the water you use all the time gets to your tap...

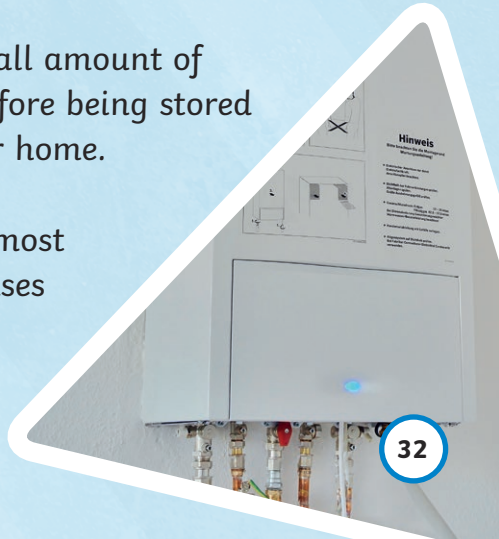


Our water comes from rivers, lakes and reservoirs. However, it must first be treated to ensure it is clean and safe for us to use.

Energy is needed to pump water from these sources to water treatment works, where it is filtered and particles are removed.

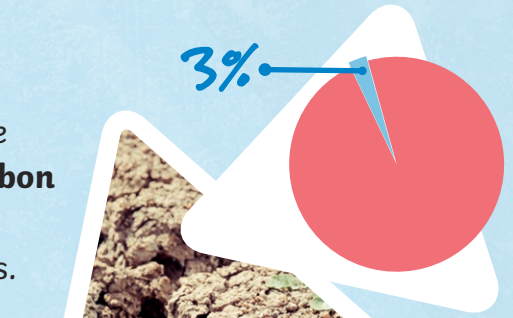
It is then treated with a very small amount of chlorine (which kills bacteria) before being stored in reservoirs and pumped to your home.

When you use hot water, this is most often heated by a boiler, which uses **fossil fuels**.



Water Shortages

Saving water will help save **energy** and **reduce** our **carbon footprint** but it is also important for other reasons.



Only 3% of the water on Earth is fresh water. Fresh water is what we use to drink, keep clean and grow crops. Around the world, it is estimated that 1 in 10 people live without access to clean water close to home. That is around 785 million people!

Now, **climate change** is putting greater pressure on water supplies and is expected to cause more frequent water shortages and droughts around the world.

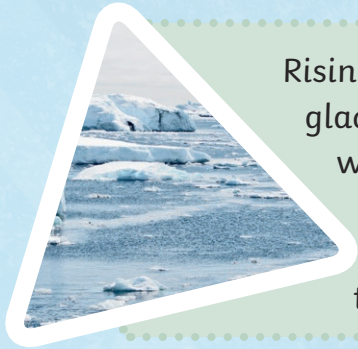
The average person in the UK uses 142 litres of water per day. That's equivalent to 71 standard-sized bottles of lemonade!

Did You Know...?

How Does Climate Change Affect Water Supply?

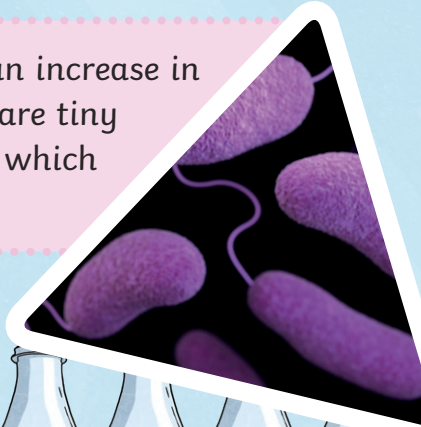
Climate change is already causing more extreme weather events and affecting patterns in the water cycle. These changes make it harder to predict how much water is available. Here are some of the ways that **climate change** is predicted to affect our global water supply:

Rising temperatures can cause heatwaves and extreme droughts, leading to further water shortages and difficulty in growing crops.



Rising sea levels (due to melting ice caps and glaciers) cause fresh water to become salty, which is not safe to drink. Salt water can be made into fresh water through a process called desalination – however, this is expensive and uses lots of **energy**.

Rising temperatures can also lead to an increase in **pathogens** in fresh water. **Pathogens** are tiny creatures, such as viruses or bacteria, which spread illness and diseases.



Saving Water

Saving water by reducing the amount we use can help **reduce energy** bills, lower our **carbon footprint** and avoid 'wasting' this natural resource. This will also help with the management of water supplies and trying to ensure there is enough for everyone in the future.

Look at these pictures carefully – how many ways can you spot to help conserve water?

Answers: 1. Turning off the taps when they're not in use or when you are brushing your teeth. **2.** Only filling the kettle with as much water as you need. **3.** Using a water butt in the garden to collect rainwater for plants. **4.** Taking short showers rather than large baths. **5.** Ensuring appliances such as washing machines and dishwashers are full before running them.