

Facilitator notes: KS3/4 self-led/outreach assembly

Summary

The assembly/presentation is designed to be run by teachers in their schools to KS3 or KS4 pupils either as an assembly/presentation or as part of a classroom session.

Throughout the activity students are encouraged to think about water on the planet, how they use water and alternative ways of doing everyday things which use water.

At the end of the activity participants are invited to visit Severn Trent Water's website www.stwatereducation.co.uk/footprint. On this site they will be able to calculate the amount of water they use in everyday life and pledge how they might change their behaviour to use less water.

Aim

To encourage pupils to think about their own water consumption and how to waste less water.

Objectives

- To have knowledge of how much water individuals use in the UK
- To take personal responsibility to waste less water
- To have knowledge how they can save water at home
- To further understanding of global water issues

National Curriculum links

Subject

- Active Citizenship
- Geography
- Debating a global issue, Global issue, Local action

Resources

- Blu-tack or PowerPoint and projector
- Whiteboard/flipchart with pens
- 20 litre water container (can be full to demonstrate weight of water)
- Props: Toothbrush, dirty plate, shower head, bucket and sponge

- Print the following photos available at A4 size:
 - Tap with a lock on it
 - Shared stand pipe (developing world Picture)
 - Well (developing world Picture)
 - Tanker (developing world Picture)
 - River (developing world Picture)
 - Shared stand pipe (developed world Picture)
 - A Severn Trent Water water bowser (developed world Picture)
 - Images of water saving devices used in retrofit schools
- Severn Trent Water 'Water footprint' poster – this gives a link to an online water audit that shows how families can save water (and money) at home.
- Water saving 'Top tips' flyer – simple practical advice on saving water at home.

Optional - A3 posters with the following text printed:

- In the UK, we use 130 litres of water per person per day
- The global average for water use is 20 litres per person per day
- The salt waters of the oceans and seas account for 97% of the world's water, 2% is locked in ice caps, leaving only 1% as fresh water for all of humanity's needs
- 2/3 of people in the world now have water supply in their homes
- 1/5 of the world's population have no access to safe, clean water
- 80% of sickness in the world is caused by unclean water

Setting up

Ensure you have printed off the required photos and prepared blu-tack to quickly stick to a wall or window.

Running the activity: instructions

The wording in red indicates a photo to be used to illustrate the point being made. These photos can be left on display after the assembly to aid students' memory.

Introduction

Display this 'do not use the water' photograph.



What does this photograph show? Why do you think it has a red cross on it? (Give time for pupils to respond. Allow for imaginative responses).

This is not something we often see in the UK. We are used to water being on tap (pardon the pun!) 24 hours a day, seven days a week. But things may be changing here in the UK – why do you think that might be? (Rhetorical question)

Population increase, increased consumption per person, less rain due to climate change, pollution of water sources.....

Local/Global section

Ask pupils:

- How many times they have already turned on a tap today? Write the highest number on the board/chart.
- How many of them had baths (100 litres approx) or showers (50 litres approx) today? Write the total number of litres on the board/chart.
- Have they flushed a toilet? They all should have done, so multiply the total pupils in the school, plus staff by 10 litres. Write the total on the board/chart and add with the bath/shower total.
- Have they brushed their teeth? They all should have done, so multiply the total pupils in the school, plus staff by 5 litres). Write and add to the total water use.

- In what other ways have they used water?
- So already today by [actual time e.g. 9:15am] we have all used xxx litres of water. Circle total on the board.
- ***How different would their day have been, if they did not have access to clean water?***

Ask for a volunteer. Give them a chance to lift the container full of water. It should represent approximately 20 litres of water. (If this is not possible, halve the amount and adjust the measurements accordingly).

Tell pupils that ***2/3 of the world's population do not have taps in their homes*** so they have to carry water from a water source in containers like this one. Where would they get the water from?

Put up pictures with blu-tack on the wall or window as they are suggested.

Shared stand pipe (developing world picture)

Well (developing world picture)

Tanker (developing world picture)

River (developing world picture)

Point to the container and ask pupils how long they think this amount of water would last them. (In fact, it would not last them even one day - in the UK the average daily consumption of water is ***130 litres per person per day*** about 7 containers worth!).

Ask pupils how long it would last a person in the developing world. (The average is about ***20 litres per person per day***. It would therefore last them one day which means someone has to go out and fetch water every single day.)

Refer back to the container of water. Take out five tablespoons of water and put them in a glass. Explain to pupils that that if all the earth's water were in the container, the amount of available fresh water would equal about five tablespoons. ***Nearly 97% of the world's water is undrinkable or salty. Another 2% is locked in ice caps and glaciers. This leaves just 1% for all of humanity's needs.*** It is the same amount of water since the formation of the Earth, no new water is made or lost, it goes around the water cycle. This means that every glass of water contains some water that may have been drunk before – possibly by dinosaurs or pharaohs or your next door neighbour!

The world's supply of fresh water is therefore a small, fixed volume but it is getting an increasingly scarce resource for humans and it is also important that it is clean. Unsafe water is responsible for ***80% of all the sickness in the world.*** Severn Trent Water treats the water that comes to your homes, making it clean and safe for you to drink.

Taking it home section

What else can you do to make a difference? Save water in your own homes!

Show props: Toothbrush, dirty plate, shower head, bucket and sponge

- Do you turn off the tap while brushing your teeth? (You can save 5 litres of water every minute by doing this).
- Do you turn off the tap when washing the dishes? (This will save between 2 and 18 litres of water).
- Do you take baths or showers? (Taking a bath can use 100+ litres of water. A four minute shower uses half the water of a bath).
- Wash cars with a bucket of water instead of a hosepipe, collect rainwater for the garden in a water butt.

Simply by turning the tap off while brushing your teeth, you could save up to 12 litres of water every day. Customers who have done this have saved 4,300 litres of water a year – proving that every one of us can make a difference. Make a lifelong change today and turn the tap off!

Severn Trent Water has some useful resources on their website about the importance of wasting less water.

Go to: www.stwatereducation.co.uk/savingwater for more information.

Please introduce the Severn Trent Water 'Water footprint' poster to students and ask them to share what they have found out with their family at home.

By trying the home water audit, (www.stwatereducation.co.uk/footprint) their family can learn about how to save water in their home and to see where savings can be made.

Final word

Ask pupils what they think should happen with the water used during this assembly. How could it be put to good use?

Retrofit section

(For schools that have had water efficiency equipment installed in their school.)

Severn Trent Water supplies 7.4 million customers with around 2 billion litres of drinking water every day, that's enough to fill over 1000 Olympic-sized swimming pools. We also supply sewerage services to 8.5 million people in an area covering 21,000 square kilometres in the Midlands and mid-Wales.

Britons tend to think of themselves as coming from a wet nation, but the UK's high population density means less water is available per person than many realise. In fact, in the Severn Trent Water region, we don't have enough water available to meet long term demand. We estimate that we will be about 250 million litres per day short over the next 25 years. That is about 14% of our current supply.

Climate change is likely to make things more difficult for us with warmer wetter winters and warmer drier summers and more extreme and frequent floods and droughts.

On top of this, domestic water use has risen by 1% a year since 1930. The average Severn Trent Water customer uses just over **130 litres a day** for cooking, cleaning, washing and flushing the toilet. Meanwhile, the population is forecast to grow by five million in England and Wales by 2020.

But water scarcity isn't the only reason we need to reduce our water usage. Abstracting, treating, distributing and most importantly heating water all uses energy. Heating water is the second largest user of energy in the home, accounting for 5% of the UK's greenhouse gas emissions (about the same as from aviation).

So what can we do today to make a difference? Start by wasting less water!

Severn Trent Water (our water supplier) has fitted water saving equipment throughout the school. They have been busy fitting equipment that saves water every time you turn on a tap, flush a toilet or have a shower [dependant on school]. Our school has made a commitment to Severn Trent Water to waste less water.

Show images/examples of Cistern Displacement Devices, ecobeta etc

You may not have noticed anything new but we are expecting to save xxx litres per year which is £xxx per year that we can spend on your education rather than

the water! To get these savings we still need you to turn off taps, report dripping taps etc.....information is available from our school's retrofit report.

It is important that we spread the message about the importance of using water wisely. Can you help?

Taking it home section

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Simply by turning the tap off while brushing your teeth, you could save up to 12 litres of water every day. Customers who have done this have saved 4,300 litres of water a year – proving that every one of us can make a difference. Make a lifelong change today and turn the tap off!

Severn Trent Water is the company that supplies water here at school and to your own homes. They have some useful resources on their website about the importance of wasting less water.

Go to: www.stwatereducation.co.uk/savingwater for more information.

Please introduce the Severn Trent Water postcards to students and ask them to share what they have found out with their family at home.

By trying the home water audit, (www.stwatereducation.co.uk/footprint) their family can learn about how to save water in their home and to see where savings can be made.

Final word

Ask pupils what they think should happen with the water used during this assembly. How could it be put to good use?