World Water Day 2021 - Valuing Water

Why do we have World Water Day?

...Because water is wonderful! And it's time to think about parts of the world where people can't just turn on a tap to get clean water.

Did you know that the water we use is not just limited to the water you can see, such as for drinking, washing and cleaning (***direct use***), but it is also used in the production of what we use, wear and eat (***indirect use***)?

Our personal ***water footprint*** is made up of our ***direct water*** uses and our ***indirect water*** uses too.

A lot of the food we eat and clothes we wear are produced in other countries, so our water footprint can span the globe!

In the UK we directly use around 145 litres of water, per person, per day. However, our actual water consumption is much higher, and nearly 90% of our water consumption is from our ***indirect water*** usage.

To highlight ***indirect water*** and celebrate ***World Water Day*** we are setting a challenge, but first we need to introduce the concept of the ***water footprint of food.***

Water Footprint of Food

How do you fit 1220 litres of water in a single pan?

Well you can't, can you. But did you know, that is how much water is required to make pasta for 4 people!

If we have pasta for dinner, the pasta is cooked in ***direct water***. However, the pasta also contains ***indirect water***; that's the water to

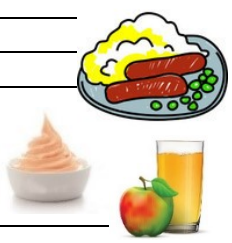
- grow the wheat,
- produce the fuel and build the machines to harvest the wheat
- transport the wheat
- produce electricity to process wheat into flour and then the flour into pasta.

Meaning that pasta for 4 people has a water footprint of around 1220 litres, which is equivalent to 15 bathtubs of water!

Each of us indirectly use approximately 2357 litres of water (30 bathtubs) each a day just from the food we eat. Approximately 70% of all freshwater taken from the natural environment is used by agriculture.

Let's take a closer look at the water footprint of 2 meals

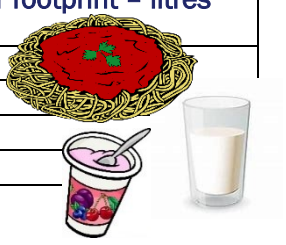
Ingredients	Water footprint – litres
2 sausages	1198
carrots	16
green beans	44
mashed potato	23
ice cream	143
glass of apple juice	150



Total = 1574 litres

Look at what has the highest water footprint.

Ingredients	Water footprint – litres
pasta	305
pasta tomato sauce	50
yoghurt	148
glass of milk	204



Total = 707 litres

Why do you think producing this meal used less water?

Water Footprint Challenge

Use the table below to help you create ***one meal*** with a ***low*** water footprint and ***another*** with a ***high*** water footprint. You may wish to look up extra foods for a greater choice using the websites below. Each meal should be for ***one person*** and include a ***main course***, a ***dessert*** and a ***drink***.

Ingredient	Water Footprint per portion/serving (litres)
Fruit	
1 apple	125
1 banana	160
1 orange	84
1 peach	140
1 tomato	50
Strawberries	28
Orange juice (200ml)	170
Apple Juice (200ml)	150
Avocado	320
Vegetables	
1 onion	27
1 pepper	76
Cabbage	28
Lettuce	19
Broccoli	16
Carrots	16
Spinach	23
Green beans	44
Potatoes	23
Meat	
1 sausage	599
1 hamburger	1545
Bacon	216
Salami	312
Beef	1387
Chicken	519
Pork	540
Lamb/goat	789
Fish	56

Ingredient	Water Footprint per portion/serving (litres)
Grocery	
Rice	192
Noodles	139
Pasta	305
Pasta tomato sauce	50
Olive oil	144
Sunflower Oil	68
Egg	163
Pulses	202
Butter	55
Cheese	95
Milk (200ml)	204
Crisps	40
Chocolate	21
Cup of coffee	140
Desserts	
Ice cream	143
Apple pie	236
Custard	142
Yoghurt	148
Add your own	

You could find out more information online, we found these websites useful:
https://www.bbc.co.uk/news/science-environment-46459714
https://www.bbcgoodfood.com/howto/guide/your-diet-contributing-water-scarcity
https://www.ted.com/talks/balsher_singh_sidhu_are_we_running_out_of_clean_water#t-12956
https://www.waterfootprint.org/en/resources/interactive-tools/product-gallery/

Thirsty for more?

Lots more world issues for you to look into….

Water footprint How can we increase awareness of the water footprint of food? Could we go viral?

Carbon emissions Calculate the carbon footprint of producing our food. How can we reduce carbon emissions?

Sustainable farming Where is your food grown? Is it local or imported? What is the environmental impact of transporting food globally? How can we take steps to produce food sustainably?

Is it just food? Investigate the carbon and water footprint of other consumer goods such as mobile phones, clothing, laptops or data usage. How could we influence manufactures to show the carbon and water footprint?

Water ration If you only had 20 litres of water per day (in developing countries some families may only have this amount per day!) how would you use this? Would you use it for drinking, washing, cooking or flushing the toilet? How will you decide?

We would LOVE to hear from you!

Find your local water company below. Tweet us, tag us on social media or send us an email.
And for more water fun and facts, do visit our websites.

Education pages (click name)	Tweet your work@ #WeareUKWater	Email your work
Anglian Water	@AnglianWater	education@anglianwater.co.uk
Bristol Water	@BristolWater	thefoundation@bristolwater.co.uk
Cambridge Water	@CambsWater	education@south-staffs-water.co.uk *(NB Cambridge Water is part of South Staffordshire PLC)*
Northern Ireland Water	@niwnews	education@niwater.com
Scottish Water	@scottish_water	listeningtoyou@scottishwater.co.uk
SES Water	@SESWater	communications@seswater.co.uk
South East Water	@SeWaterUK	education@southeastwater.co.uk
Southern Water	@SouthernWater	education@southernwater.co.uk
South Staffs	@SthStaffsWater	education@south-staffs-water.co.uk
Thames Water	@ThamesWater	education@thameswater.co.uk
Welsh Water	@DiscoverDwr	education@dwrcymru.com
Yorkshire Water	@YorkshireWater	education@yorkshirewater.co.uk

valuing our most precious resource
we are UK WATER
The Water Education Forum