

The Green Classroom

Brought to you by Yorkshire Water

Name

Class

WHY WATER MATTERS

YorkshireWater

Hello

This booklet has everything you need to help complete the water conservation topic. As you work through this topic, keep your notes up-to-date, as this will help you complete the final task of writing a letter to Yorkshire Water.

Let's get to work...

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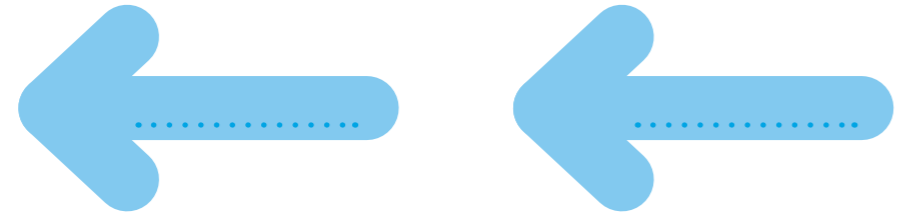
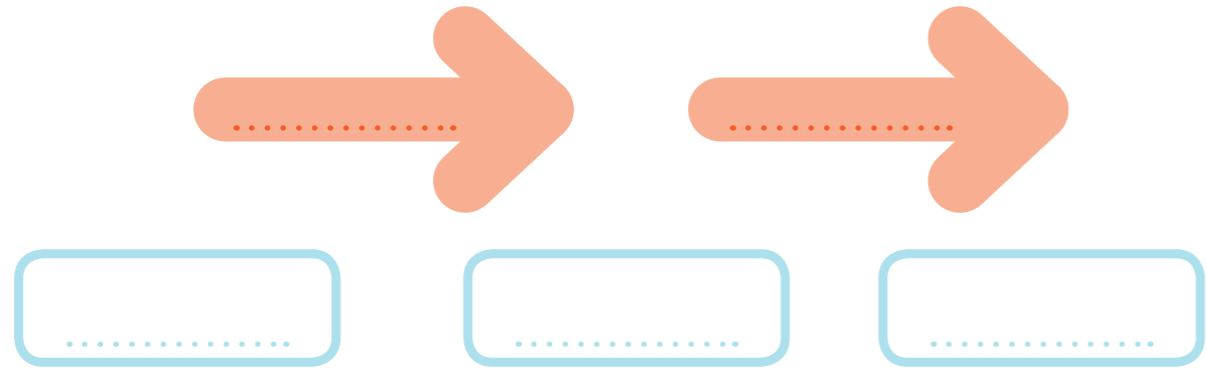
Lesson 1
Activity 1



Use the sink when you're washing your face and you could save up to 5 litres of water a day!

Water: A reversible change

Can you make your own reversible change sheet for water? Use the descriptions below and add them into the correct place on the diagram.



- Freezing
- Condensing
- Melting
- Evaporating
- Water
- Ice
- Water vapour

Lesson 1
Activity 2

The water cycle
Look at the diagram below... can you complete it using the labels?



- Groundwater flow
- Surface run-off
- Interception
- Evaporation
- Transpiration
- Precipitation
- Condensation
- Throughflow

Lesson 2
Activity 1

How do we get drinking water?

Did you know repairing a dripping tap can save your household up to 9 litres of water (so ask a grown up to try it!)

Use this sheet to help you research your topic card.
Remember, you can use books, CD-ROMS, photographs,
the Internet and lots more places to find things out!

Topic card

Definition

Benefits

Drawbacks

CONTROL PANEL
01 02
03 04

Lesson 3
Activity 1

How much water do we use?

Cut out these cards. Which of these activities uses the most water? Which uses the least? With a partner, can you order these, from least water used to most water used?

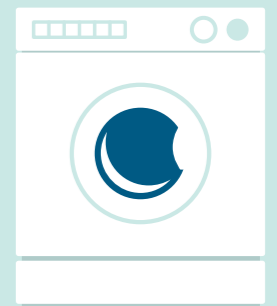
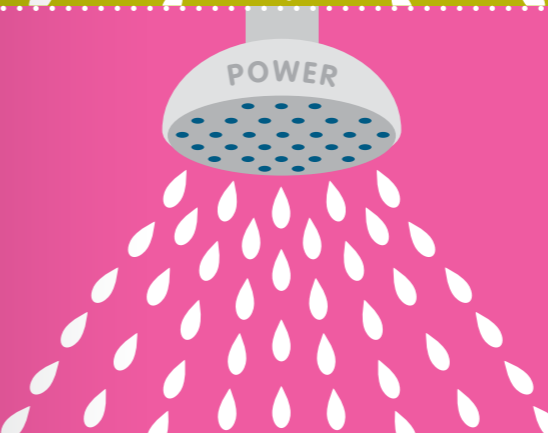
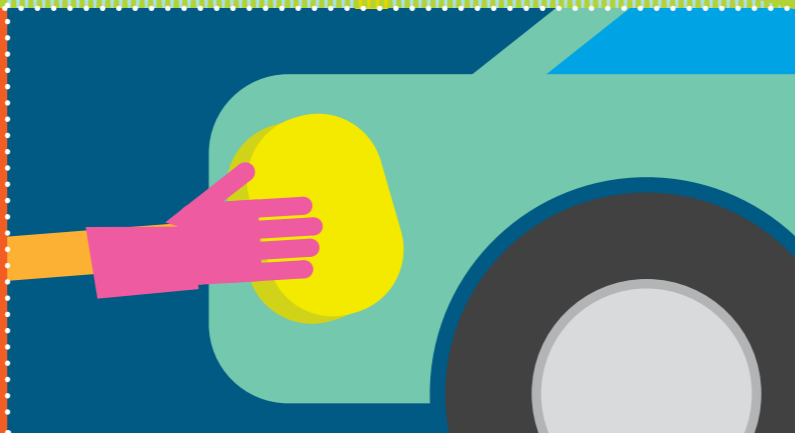
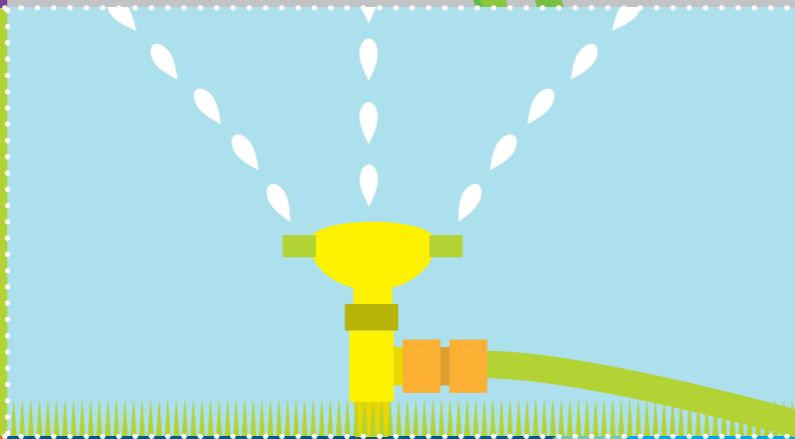
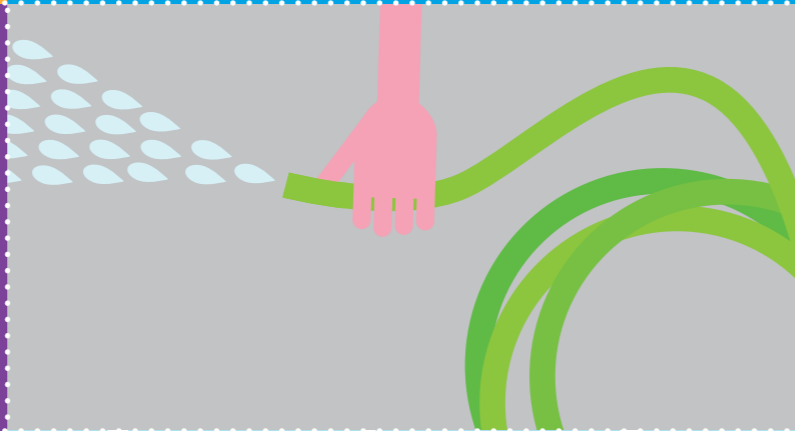
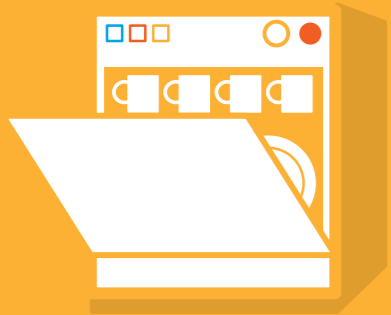
Turn the tap off when you're brushing your teeth and it'll help save up to 12 litres of water a day!

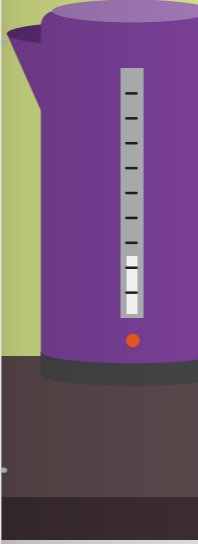
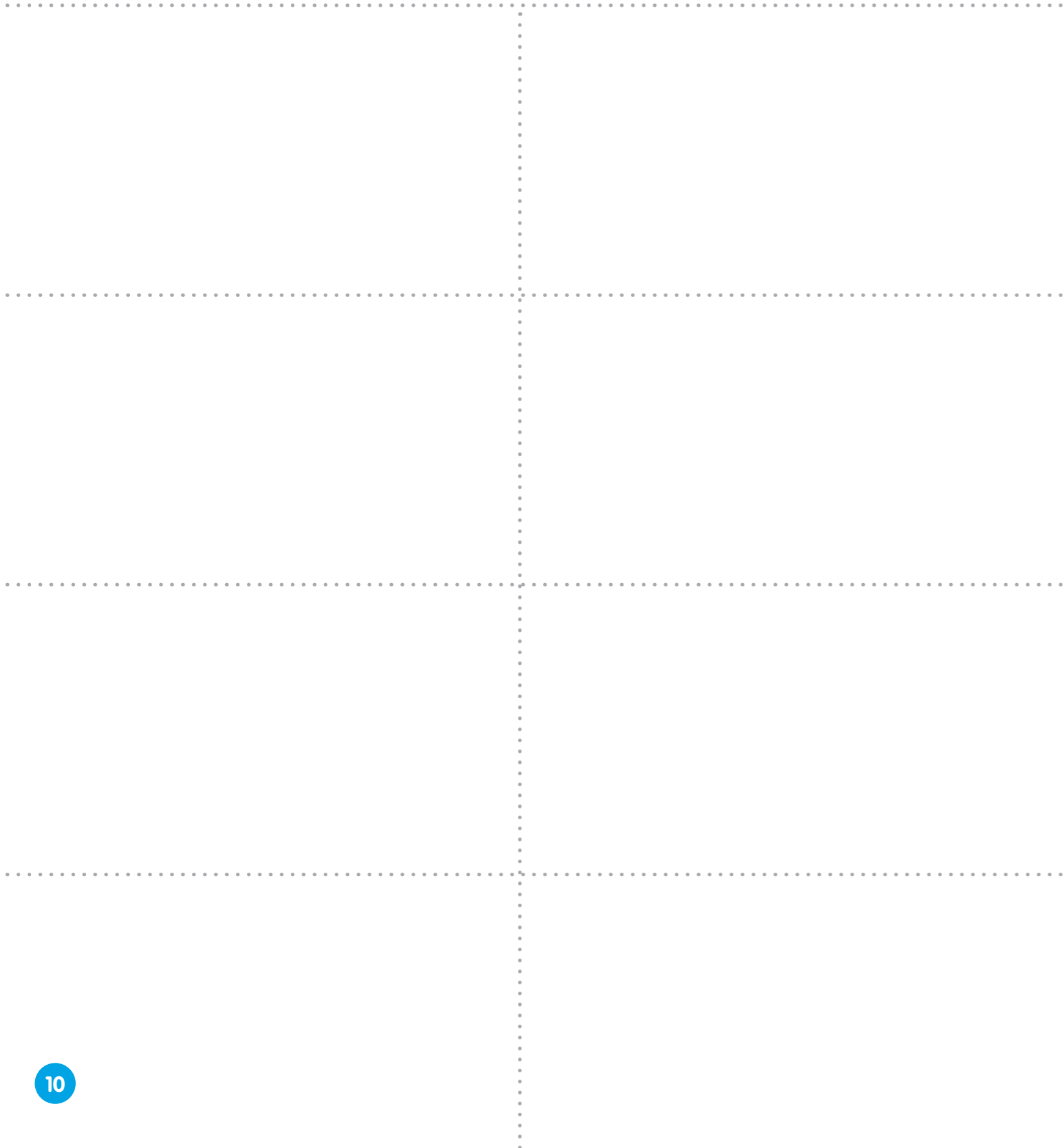
Lesson 3
Activity 2

How much water do we use?

Use your research skills to help find out how much water the different jobs/activities on the picture cards use. Write these on the blank cards, cut them out and match them with the picture cards in order!

Did you know, filling up the washing machine (rather than turning it on half full) will help save your house 8 litres of water every day!





Lesson 3
Activity 3



My water diary



Use this sheet to help you keep a diary of how much water you use at home.

Activity	Flushing toilet	Washing water/hot and cold drinks	Washing machine	Hand washing dishes	Dishwasher	Shower	Bath	Brushing teeth	Washing car
Amount used	6 litres per flush	0.5 litre per drink	50 litres per wash	12 litres	14 litres	150 litres for power shower, 40 for normal	80 litres	6 litres	35 litres per bucket
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									

Lesson 4
Activity 1

Adding up your usage

Look at the information you collected for your water diary.
Can you use your maths skills to help complete the tables below?

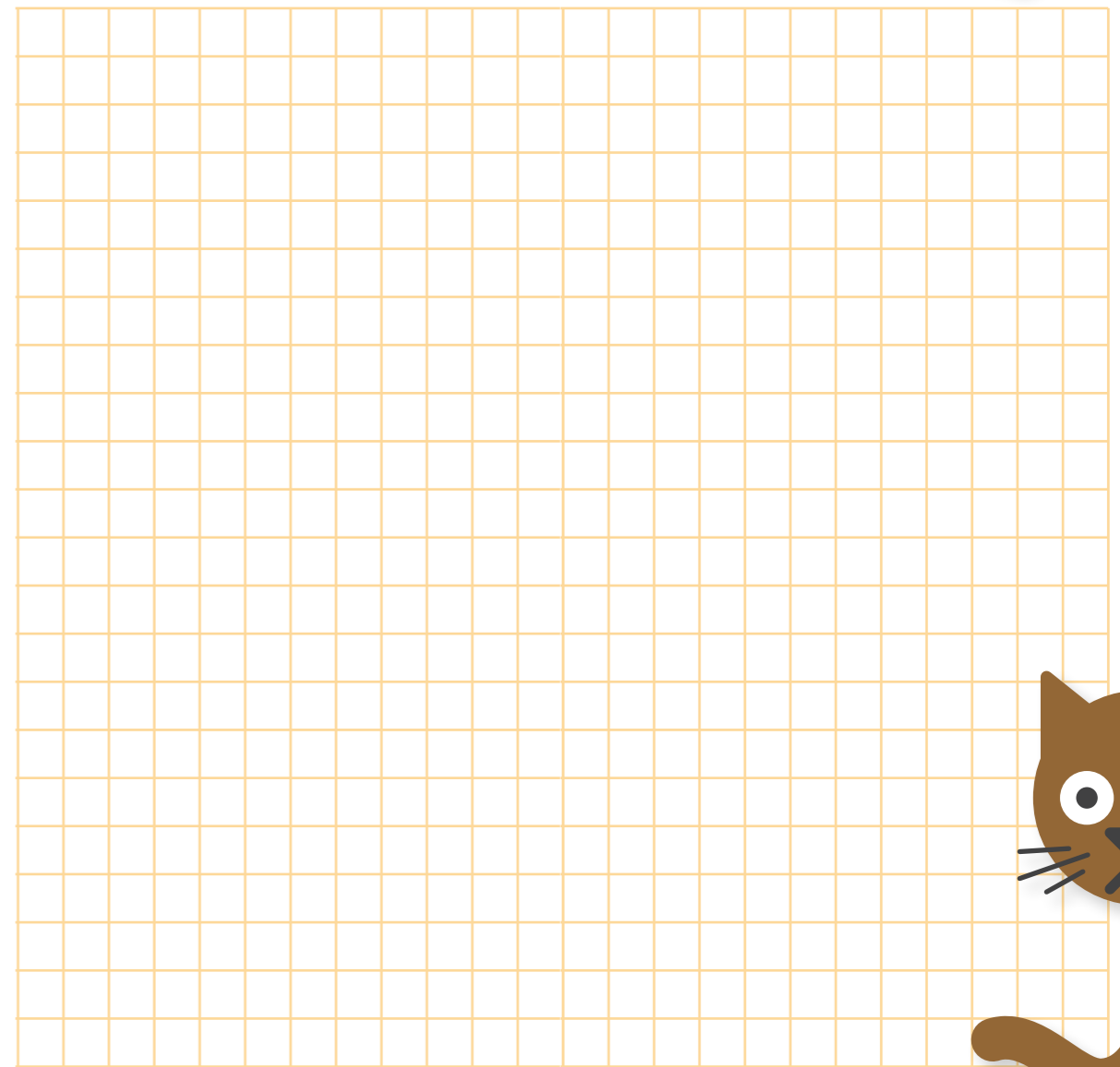
Totals per day	
Day	Total litres used
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Total for week	
Average weekly usage	

Lesson 4
Activity 2

Drawing a graph

Now you've completed your tables, can you make a graph to show this data? Use this sheet to draw a simple bar graph of your results.

Think about taking a shower instead of a bath - it could save you 10 litres of water every day!



Totals per activity	
Activity	Total litres used over week
Flushing toilet	
Washing	
Drinking	
Washing machine	
Hand washing dishes	
Dishwasher	
Shower	
Bath	
Brushing teeth	
Washing car	
Total water used	

Lesson 5
Activity 1

The cost of water

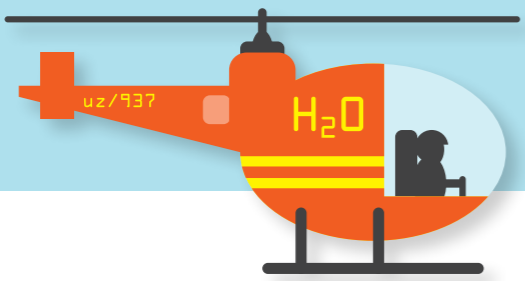
Remember...water costs change all of the time.
For this exercise, use the following data:

1 litre of clean water pumped to your home = 0.2 pence
Producing 1 litre of clean tap water creates 0.0003kg or 0.3g of carbon dioxide.

Fill the dishwasher up fully before you turn on- it'll save your household up to two litres of water!

Think about your answers and write them in the boxes!

- A bucket holds 3 litres of water. Nick uses 10 buckets to wash the car. How much does this cost?
- Fiona leaves the tap running while brushing her teeth. This uses 6 litres of water. If she brushes her teeth twice a day, how much water does she use? What is the cost of this?
- Sam decides to water his garden. His hosepipe uses 1000 litres of water an hour. How much water does he use in 30 minutes?
- A bath uses 80 litres of water. A power shower uses 150 litres. What is the difference in the amount of water and the costs?
- Flushing the toilet uses about 6 litres of water. What is the cost in pence per flush? How much carbon dioxide is created to make this water?
- Tom has 4 showers per week using 60 litres per shower. How much water does he use?
- The washing machine uses 50 litres to do a full load of washing. What are the money and carbon costs for 1 load of washing?
- A water meter records that a house is using 400 litres of water per day. Four people live there. How much water do they use? What is the cost?
- The Smith household uses 500 litres a day. Mr Smith goes away for the day and the water meter records usage as 380 litres. How much does Mr. Smith usually use?
- The family dishwasher uses 10 litres of water per cycle. The dishwasher is used twice a day. How much does it cost per day?



Lesson 5
Activity 2

The cost of water

Remember...water costs change all of the time.
For this exercise, use the following data:

1 litre of clean water pumped to your home = 0.2 pence
Producing 1 litre of clean tap water creates 0.0003kg or 0.3g of carbon dioxide.

Think about your answers and write them in the boxes!

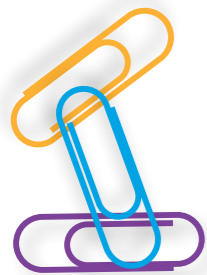
- A bucket holds 9 litres of water. Nick uses 10 buckets to wash the car. How much does this cost?
- Sam decides to water his garden. His hosepipe uses an average of 1000 litres an hour. He spends 15 minutes watering his garden. How much water does he use? How much money does this cost? What is the carbon cost?
- Flushing the toilet uses about 6 litres of water. What is the cost in pence per flush? How much carbon dioxide is created to make this water? If a toilet is flushed 15 times a day, how much water does it use and what is the cost?
- A washing machine uses 50 litres to do a full load of washing. What are the money and carbon costs for 1 load of washing? If a family does 8 loads of washing a week, what is the cost per week?
- A family dishwasher uses 14 litres of water per cycle. The dishwasher is used twice a day. What is the cost for the week?
- Fiona leaves the tap running while brushing her teeth. This uses 6 litres of water. If she brushes her teeth twice a day, how much water does she use in 1 week? What is the cost of this?
- Dylan prefers to have baths rather than showers. He has 104 baths in a year. How many baths is this per week? If a typical bath uses 80 litres of water, how much does he use in one week? How much does he use in a year? How much money does this cost his family?
- Tom has 4 showers per week using 60 litres per shower. Dan has 5 baths per week using 80 litres per bath. Who uses the most water? What is the difference in their water consumption? What is the difference in their water costs?
- A water meter records that a house is using 612 litres of water per day. Four people live there. How much water do they each use? What is the cost?
- The Smith household uses 720 litres of water per day. Mr Smith goes away for the day and the water meter records 620 litres. How much water does Mr. Smith use?

Lesson 6
Activity 1

Taking a shorter shower could save you 7 litres of water every day!

School water diary

Just like the water diary you filled out at home, can you use your research skills to find out how much water is used in school?



Activity									
Amount used									
Monday									
Tuesday									
Wednesday									
Thursday									
Friday									
Saturday									
Sunday									

Lesson 6
Activity 2

How can our school save water?

Now you've thought about all the ways our school uses water, jot down the ways you think we can save and conserve it.



Planning your leaflet

Use this template to help you plan out your ideas for your leaflet.

Did you know using a bowl for hand washing your dishes could save your house 18 litres of water every day?

Remember your audience!

Front cover

Large title, eye-catching picture, overview sentence about leaflet

Back cover

List of useful tips and things to remember

Page 1

Why is it important to save water?

Page 2

Arguments to help convince audience to save water

Planning your assembly

Use a watering can instead of a hose and it'll save your house four litres a day!

Use this sheet, either individually or as a group, to help plan out your assembly to help teach other people in school about water conservation.

Who is in the group:

What props do we need:

Key topic area to be covered:

Which sources of information will we look to use:

Who has which roles:

Who will present/say which parts:

What resources will we use:

Other comments:

Planning your letter

You are now going to write a letter to Yorkshire Water to tell them all about your topic. Use the question prompts to plan out the key parts of your letter.

Did you know if you wash your food and vegetables in a bowl it could save your house up to 7 litres of water a day?

Opening sentence
How do you want to open your letter?

Paragraph 1
Why is water conservation important?

Paragraph 2
What behaviours will you change?

Paragraph 3
How will you promote water conservation with others?

Paragraph 4
What did you find most interesting while doing this work?

Paragraph 5
What would you change about this unit of work?

Closing sentence

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