



# WATER TRACKER HOUSE

## TEACHER GUIDE

**ESSEX & SUFFOLK**  
**WATER** *living water*





## WATER TRACKER HOUSE

# INTRODUCING THE RIPPLE EFFECT

**Water is vital for all life on this planet. It is a precious resource that is essential for the environment and the health of us all. Essex & Suffolk Water wants to support this important work through The Ripple Effect:**

When we all make small changes to our water use, we can make big waves in protecting our precious water supply.

By putting children's use of water at the centre of our education resources, children are supported to quickly grasp vocabulary, consider the water cycle from a range of different start points and understand the need for, and impact of, water efficiency and saving. Your class can be part of The Ripple Effect by becoming Water Trackers. Water Trackers are expert protectors of water and guardians of the water cycle.

Your students may have already built their knowledge at Water Tracker Training Camp. Now it's time to test their knowledge on a journey through Water Tracker House, though don't worry if you're starting with the house – there's plenty to learn here that doesn't rely on the Training Camp.

If you do want to have a look, in Water Tracker Training Camp children complete tasks to earn Water Tracker badges.

Here in Water Tracker House, children will need to keep their wits about them and move around the rooms to solve water waste challenges and learn from water saving behaviour elsewhere in the world.

## The Ripple Effect Learning Objectives

1. I can name the different stages of the water cycle.
2. I know how water is treated and why it is important to do so.
3. I know that water is precious and why it is important to use water efficiently.
4. I am able to calculate how much water I use at school and at home.
5. I am able to make changes to my behaviour that use water more efficiently.
6. I am able to encourage other people to use water more efficiently.

Learning outcomes and curriculum links for each activity are included within the guidance for the individual activities.

## WATER TRACKER HOUSE

# INTRODUCING WATER TRACKER HOUSE

**Water Tracker House is an interactive PDF game designed to support children to develop their knowledge and skills about water efficiency and the water cycle. The house offers seven different areas to explore where there are different activities and challenges to participate in.**

This guidance document provides key learning themes, outcomes and curriculum links for each area and additional delivery ideas to support the use of this resource in the classroom. This resource can also work effectively for remote learning. Look out for our remote learning tips to find out how. An active internet connection is required for the Office, Living Room, TV Room and Pipes activities.

### How to use this game in the classroom

This resource has been designed to be flexible and easy to use with a wide range of options for delivery. Teachers may decide to:

1. Give all students access to Water Tracker House during a lesson where there is sufficient access to devices for the class either individually or in small groups – students can use the recommended route through the house (see next page) or choose their own way and make their way through the activities.
2. Water Tracker House can also be used on an interactive whiteboard with a whole class. The different rooms can be a focus for a range of lessons on water efficiency and the water cycle.

Where there isn't sufficient access to laptops and/or tablets, Water Tracker House can be used as part of a 'carousel' activity during a planned lesson.

Aspects of Water Tracker House can be used as starters and plenaries to supplement existing lessons. Additional delivery and differentiation recommendations have been made for each activity. An approximate timing range has been provided with 'only have 15 minutes?' options where appropriate.

**WATER TRACKER HOUSE**

# RECOMMENDED ROUTE THROUGH WATER TRACKER HOUSE\*

There are seven areas to explore and you may like to go through them in the following order:

**1) THE GARDEN - P7.**

**2) THE OFFICE - P11.**

**3) THE KITCHEN - P19.**

**4) THE LIVING ROOM - P22.**

**5) THE TV ROOM - P25.**

**6) THE BATHROOM - P31.**

**7) THE PIPES - P34.**



\* However, children can follow any route around the house – the activities don't rely on each other!

## WATER TRACKER HOUSE

# ACTIVITY OVERVIEW

### 1) Garden

In the garden, children will encounter a scene depicting a range of domestic activities. They will need to identify good water use behaviour alongside wasteful activities. The scene is interactive and will show additional facts when the children click in the right area. Once children have completed the activity, they are encouraged to use the information they have learned and to create their own poster.

### 2) Office

Children will be challenged to find ways to improve water usage for a number of families. They will read several case studies and use water saving facts to lower the amount of water used in each family. The next step will then be to use the interactive digital water impact calculator to calculate how much water the children could save over time when they pledge to change their home habits and recruit others to join The Ripple Effect.

### 3) Kitchen

Children will be presented with several household items and will need to try and guess the amount of water that is used to produce the items. Children will then discuss action plans to help reduce the amount of hidden embedded water they consume.

### 4) Living Room

Children will listen to Amie's water diary, where she highlights the issues her community has faced with water scarcity. Children will move the story on at their own pace once the audio is finished on each page.

At the end of the story there is a short quiz to check for comprehension of the story. Then children will be asked to keep their own water diary using a template provided.

### 5) TV Room

Children will be able to watch Water Tracker TV and follow several activities that will help them in their quest to use water efficiently.

They will:

1. Explore how much water they could save during their daily tooth brushing routine
2. Investigate the difference in water use between a bath and a shower
3. Make and find a place to install a mini water butt

## WATER TRACKER HOUSE

### 6) Bathroom

Children will explore several objects through 'hotspots' in this room where additional facts will be revealed. The range of facts shared through interaction with the hotspots will add to the students' knowledge about water waste in the bathroom and other issues that can interfere with water treatment. At the end of the activity children will be encouraged to take a water saving pledge to personalise their learning and to take action at home.

### 7) The Pipes

Children will use the Water Worker film to become more familiar with the water treatment process. They will then complete a fun quiz and find out where they might work in the water treatment process.



### Guidance for whole class delivery using an interactive whiteboard

- Introduce the activity by telling the class that today you are going to take a tour of Water Tracker House.
- Bring Water Tracker House up on the interactive whiteboard and show the children the range of rooms available for them to explore.
- Explain that each room contains challenges and activities that will help them to develop their Water Tracker skills. If you have already completed Water Tracker Training Camp the children will be familiar with Water Trackers – expert protectors of water and guardians of the water cycle. This new activity is part of The Ripple Effect, an education programme that wants to get everyone using water more wisely.
- When we all make small changes to our water use, we can make big waves in protecting our water supply.
- Ask the children to have a look at the different rooms and to guess what the challenges might be in each area.
- You may decide at this point to let the children decide what room they would like to visit first, or you may choose to use our recommended route through the house.

## WATER TRACKER HOUSE

# THE GARDEN

### Overview

In the garden, children will encounter a range of domestic activities. They will need to identify good water use behaviour alongside water waste activities. The poster is interactive and will show additional facts when the children click in the right area. Once children have completed the activity, they are encouraged to use the information they have learned and to create their own poster.

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Identify positive examples of water use alongside water waste behaviour.
- Understand how much water is used in everyday activities and learn how to use less.
- Create posters to encourage the school community to make positive changes to their use of water.

### Curriculum links

#### Geography:

- Communicate geographical information in a variety of ways, including through writing.
- Describe and understand key aspects of physical geography, including the water cycle.

- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

#### English – Writing:

- Write non-narrative material, using simple organisational devices (Persuasion/advertising).
- Express time, place and cause by using conjunctions, adverbs and prepositions.
- Use subordinate clauses, extending the range of sentences with more than one clause and in varied positions within sentences.
- Demonstrate an increasing understanding of purpose and audience.
- Discuss writing that is similar to that which they are planning to write to understand and learn from its structure, vocabulary and grammar.
- Make deliberate ambitious word choices to add detail.

#### English – Reading:

- Retrieve and record information from non-fiction.
- Check that the text makes sense to them, discussing their understanding and explaining the meaning of words in context.

## **WATER TRACKER HOUSE: THE GARDEN**

### **Resources required**

Teacher guide, Water Tracker House game, poster making materials.

### **Format**

**Introduction:** A short discussion about water use and saving in the garden and the interactive poster activity.

**Activity 1:** The children will work in small groups or on their own to identify all of the good water conservation activities alongside water waste activities.

**Activity 2:** The children will design posters to share water saving information with the rest of the school community.

**Plenary:** The children can vote on their favourite posters to be reproduced around the school.

### **Timing**

35 minutes.

### **Only have 15 minutes?**

Use the interactive poster and ask the children to work in small groups to identify the different ways water is being used. Creating the posters could be assigned as a homework activity if appropriate.

### **Home learning tips**

The interactive poster is perfect for home learning and with some additional instructions, the children could be encouraged to create their own posters at home too.

## **THE ACTIVITY**

- Bring Water Tracker House up on the interactive whiteboard and click on the Garden to show the children the interactive scene (or direct children to do the same on their devices).
- Tell them that there are nine different water use behaviours to identify. They need to find a number of pictures that show water being wasted, and there are also several good ways of saving water on show.
- Ask the children to work in small groups to try and find as many different behaviours as possible. Give the children five minutes to discuss the pictures and then take answers from the different groups.
- As the children share their answers you can select the picture on the screen to reveal extra information about that behaviour. You can also see the extra information on the Water saving/ Water waste behaviour table (p. 10).
- As you reveal the extra information you can ask the children if they are surprised or not. Also, ask if they will change any of their water use behaviour to save more water?
- Once the children have completed the activity it's time to get other people thinking more deeply about how they use water.

## **WATER TRACKER HOUSE: THE GARDEN**

- A great way to communicate with people is through posters. Tell the children that you are going to run a poster competition. You are looking for some bright and attractive posters that encourage the school community to use water more wisely. It could use some of the facts from the activity you have just completed. If you have completed Water Tracker Training Camp you can encourage the children to use the knowledge they have learned from that area too.
- At the end of the lesson the children can share their posters and vote on some class favourites to be selected and copied and displayed around the school.

## **DIFFERENTIATION**

Some children may need extra support during the interactive poster activity and may benefit from a supportive discussion with an adult as the activity is completed. The children could also create posters to take home, rather than for the school, to remove the competitive element.

The activity can be extended by asking the children to think about what an interactive poster of their school might look like – where is water wasted around school and where is it used wisely? The children can make a quick sketch and write down a few captions that they would include in their interactive poster.

## **WATER TRACKER HOUSE: THE GARDEN**

### **Water saving/Water waste behaviour    Extra information**

<b>A sprinkler keeping the grass green.</b>	Sprinklers use on average 1,000 litres of water a day. It's great playing with sprinklers on hot days but try and limit the time you use them for and always use them over grass rather than paved surfaces.
<b>A full paddling pool, one side is caving in due to the amount of water in the padding pool.</b>	Paddling pools are lots of fun but are best kept as an occasional treat. Remember you can cover paddling pools to use them over several days. When you've finished with the water you can use it to water the garden with.
<b>A car is being washed with a power hose.</b>	A hose can use up to 1,000 litres of water an hour. Having a trigger hose will help keep the water waste down but it's best to stick with a bucket of water to clean the car.
<b>An area of water efficient planting.</b>	Cacti aren't the only drought resistant plants! Some plants use water more efficiently than others – why not research a few and plant them in your school garden.
<b>An unused water butt with overgrown vegetation around it.</b>	Water butts are a fantastic way to collect rainwater at home. Rather than using the hose to water the garden you can fill the watering can up from here!
<b>A person with drinking glasses and is pouring leftover drinking water into the watering can.</b>	Leftover drinking water can always be used to keep your garden nice and hydrated. Don't throw it down the sink – give the flowers a drink!
<b>The sun, high in the sky; it is a hot sunny day.</b>	Super sunny days mean water evaporates fast. Try watering flowers early before it gets too hot or later in the evening once the sun has gone down.
<b>Two children are chasing each other around with water guns.</b>	Rather than using the hose to play with your friends, get your hands on a water efficient super soaker and remember to play on grass if there is some – you can water the grass as you chase!
<b>A spare outside tap is leaking.</b>	Leaking taps can waste 20 litres a day, so either try and get the leak fixed or collect the water regularly and use it elsewhere.

## WATER TRACKER HOUSE

# THE OFFICE

### Overview

Children will be challenged to find ways to improve water usage for a number of families. They will read several case studies and use water facts to lower the amount of water used in each family. The next step will then be to use the water calculator tool to calculate how much water the children could save over a range of different periods when they pledge to change their home habits.

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Recall facts about how simple changes to our water use can save water.
- Make recommendations of changes families can make to improve their use of water.
- Calculate how much water they could save on a weekly and annual basis by making simple changes to how they use water.

### Curriculum links

#### Geography:

- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

#### English – Reading:

- Retrieve and record information from non-fiction.
- Check that the text makes sense to them, discussing their understanding and explaining the meaning of words in context.

#### Maths:

- Solve number problems and practical problems – using digits in a three-digit number (hundreds, tens, ones).
- Solve number and practical problems that involve increasingly large positive numbers (including 10, 100 or 1,000).
- Compare and order numbers up to 1,000 (Year 3).
- Order and compare numbers beyond 1,000 (Year 4).
- Solve simple problems in contexts, deciding which of the four operations to use and why.
- Convert between different units of measure and build on their understanding of place value and decimal notation to record metric measures (Year 4).
- Recognise the per cent symbol (%) and understand that percent relates to ‘number of parts per hundred’, and write percentages as a fraction with denominator 100, and as a decimal (Year 5).

## **WATER TRACKER HOUSE: THE OFFICE**

### **Resources required**

Teacher guide, Water Tracker House game, Water Impact Calculator (We recommend you explore the calculator a little before using it with your class.)

### **Format**

**Introduction:** Children will refer to a Water Use Top Tips Table.

**Activity:** The children will need to read through several case studies and make recommendations about how the families and individuals can lower their use of water.

**Plenary:** Children will calculate the amount of water they might be able to save over a year if they make positive changes using our fun calculator.

### **Timing**

**Family water diary activity:** 20 minutes.

**Water calculator:** 10 minutes or more.

### **Only have 15 minutes?**

Go straight to the water calculator where the children can calculate how they can save lots of precious water over a year.

### **Home learning tips**

The family case studies can be used at home by the children; they may need you to share answers with them or come back together with the class to check their suggestions.

## **THE ACTIVITY**

- Click on the Office and bring up the first challenge on the interactive whiteboard (Water waste table, p. 14). As a class, read through the different ways to save water when performing everyday tasks at home. You may want to ask different children to read the ideas out loud. What do they think about the water saving ripple ideas? Why might they be called water saving ripple ideas? They are ideas to be shared! Remind the class that when we all make small changes to our water use, we can make big waves in protecting our water supply.
- Once the children have discussed a number of the water saving ideas, tell them it's now time for them to put their knowledge to the test. The children will now look at three different case studies (they have been reproduced in this guide after Table 2) where they will read about how three families use water on an average day. The children will need to come up with ideas from the water saving ripples that will help the families save water.
- This activity can be carried out by bringing the case studies on the interactive whiteboard screen one by one and the children work in groups to discuss answers. Alternatively, the case studies can be printed, or a few devices could be used, and the children can be split into small groups to discuss then share their knowledge with the rest of the class.

## **WATER TRACKER HOUSE: THE OFFICE**

- The answers for each case study are here:

### **Case study 1: Answers**

The family should use a washing up bowl in the sink. The family should set a time limit for the sprinkler. The paddling pool water could be used to water the garden with. The family should also try and get a full load of washing to add to Joe's football kit.

### **Case study 2: Answers**

The family could consider not flushing the loo in the night particularly if it's just a wee! The family could fill up a jug of water at the beginning of the day and put it in the fridge to limit wasted drinking water. They should also try and get the leak fixed as soon as possible and they could look at collecting the wasted water and using it elsewhere – houseplants? Drinking water for pets? Cleaning the car is great but a bucket might work better than a hose.

### **Case study 3: Answers**

Jay needs to fill the dishwasher before using it. Jay could collect the water wasted when he waits for the shower to heat up and could use the water to flush the toilet or water his houseplants! He also needs to limit his shower time to 4 minutes, or reduce it as much as he can. Once the children have shared their ideas tell them now it's time to look at their own water consumption and how they too can use water more efficiently.

- Bring up the water calculator and demonstrate how it works. Give some of the children an opportunity to assess their own use of water using the calculator.

- The first slider in each section contributes to the 'You're currently saving' box total. The second slider contributes to the 'If you make the changes you could be saving' box total. This weekly figure is then multiplied by 52 to get the yearly figure, and multiplied again based on how many other people they bring on board. Children can then move the final slider to see the impact of their savings!
- If you have access to enough devices/tablets for the children, they can then go on to calculate their own water use. If this is not possible, the children can then access the calculator from home to calculate their own use of water and how much they could save.

## **DIFFERENTIATION**

Some children may need additional support to access the information in the case studies. The children could work in small multi ability groups to overcome this. This activity can be extended further by asking the children to create two further case studies. They can use their own family as an example or could work as a group to create a fictional case study that invites positive changes to the way water is used.

How much you explain the calculator to the class may depend on ability. You could challenge the children to figure it out for themselves if working with a more able group; calculations are located at the bottom of the web page.



## WATER TRACKER HOUSE: THE OFFICE

### Water waste

### Water saving ripple

<b>Leaving the tap running when:</b> Brushing teeth Washing the dishes Washing vegetables Washing your face	Use a washing up bowl or put the plug in the sink. Why? A running tap uses 6 litres a minute whereas filling the sink or a washing up bowl uses around 6 litres in total.
<b>Waiting for cold, fresh water when getting a drink</b>	Remember how much water is wasted per minute when you leave the tap running? 6 litres per minute! Why not fill a jug of water and pop it in the fridge – no more waiting for the water to cool down and no more waste!
<b>Only filling the dishwasher half full</b>	If you only fill the dishwasher half way you're wasting half of the water! A washing machine uses on average 14 litres of water per cycle – if it is only half full you're saving around 7 litres of water.
<b>Having baths</b>	Baths are great for an occasional treat, but remember baths use on average 80 litres. Get into a 4 minute shower and you're likely to only use around 60 litres.
<b>Having long showers</b>	Showers can be the best option IF you don't dawdle. Showers use on average 15 litres a minute. The average shower time in the UK is around 10 minutes – that's 150 litres of water! 4 minutes is a perfect amount of time for a shower and only uses 60 litres. You can also think about putting in a bucket in the shower to collect the wasted water when you're waiting for the shower to heat up...this water can be used to flush the toilet with!
<b>Only filling the washing machine half full</b>	It's best to fill the washing machine to capacity. A washing machine uses on average 50 litres each time you use it – if it is only half full you're wasting around 25 litres of water.



## WATER TRACKER HOUSE: THE OFFICE

### Water waste

### Water saving ripple

<b>Ignoring a leaking tap</b>	See if you can get the leak repaired and collect the wasted water in the meantime – you could use it to flush the loo or for plants. Drips can waste at least 20 litres a day (2 full bucket loads of water is wasted from slow dripping taps).
<b>Flushing the toilet each time you go with a full flush</b>	Normal toilets use between 6-9 litres of water. Each time you don't flush you're saving up to 9 litres! If you have to flush and you have the option of a short flush, use the short flush as it may only use 4-6 litres – you're saving a minimum of 2 litres. You can also check for leaks in your toilet. Put some food colouring into your cistern and see if, in between flushes, the colouring appears in the toilet bowl. If it's there you need to get the leak repaired.
<b>Using sprinklers and hose in the garden</b>	Sprinklers can waste a huge amount of water – up to 1,000 litres an hour. Try setting time limits for water fights in the summer time and think carefully about using paddling pools, some use over 350 litres. If you do use a paddling pool try and reuse the water elsewhere in the garden.

**WATER TRACKER HOUSE: THE OFFICE**

# CASE STUDY 1

## Meet Joe

Joe lives with his Grandma and Grandad. Both his Grandma and Grandad love cooking and often prepare vegetables for each meal leaving the tap running. There isn't a dishwasher so everyone takes turns to wash up and dry.

In the summertime, all of Joe's family gather at his Grandma and Grandad's and the children enjoy playing in the sprinkler and jumping in and out of the paddling pool. Joe's grandparents are extremely proud of their garden and over the summer spend a lot of time using the hose to water the flowerbeds.

Football is a family hobby and Joe plays for two local teams. This means that there is often dirty kit that needs washing. As there are only three of them in the house sometimes the washing machine is on with only a half load.

**HOW CAN JOE AND HIS GRANDPARENTS USE LESS WATER?**

**WATER TRACKER HOUSE: THE OFFICE**

# CASE STUDY 2

## Meet Tanesha

Tanesha has a large family – she has five brothers and sisters. The family try to be careful with their use of water during the day, the washing machine is only put on when it's full and the dishwasher is also always full when it's on. As there are a lot of people in the house the toilet is often in use with lots of flushing going on during the day and night.

The family are great at keeping up their hydration levels and are often filling up drinking glasses from the tap, though unfortunately the tap has started leaking.

Tanesha's parents are very proud of the family car – it's pretty big to fit all of them in. It's a family tradition to clean the car each Sunday with everyone taking turns to use the hose.

**HOW CAN TANESHA AND HER FAMILY USE LESS WATER?**

**WATER TRACKER HOUSE: THE OFFICE**

# **CASE STUDY 3**

## **Meet Jay**

Jay has just moved into his first flat. It is fully fitted out with a dishwasher and a washing machine. Jay's new job keeps him quite busy and he hasn't had a chance to buy a full set of cutlery, glasses and dishes which means he often uses the dishwasher when it's only half full.

There is a bit of a problem with the shower as it takes quite a while to heat up and Jay has now got into the habit of listening to a 15 minute podcast whilst in the hot shower.

Jay's hobby is his collection of houseplants. He has become an expert at looking after them and has a strict watering regime in place.

### **HOW CAN JAY USE LESS WATER?**

## WATER TRACKER HOUSE

# THE KITCHEN

### Overview

Children will be presented with a number of household items and will need to try and guess the amount of water that is used to produce the items. Children will then discuss some action plans to help reduce the amount of hidden water they consume.

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Estimate how much 'hidden' or embedded water is used to produce household items.
- Research ways to get more use out of household items such as food and fashion through better planning, repairing and reusing.

### Curriculum links

#### Geography:

- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

#### Maths:

- Solve number problems and practical problems – using digits in a three-digit number (hundreds, tens, ones).
- Solve number and practical problems that involve increasingly large positive numbers (including 10, 100 or 1,000).
- Compare and order numbers up to 1,000 (Year 3).
- Order and compare numbers beyond 1,000 (Year 4).
- Recognise the per cent symbol (%) and understand that percent

relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal (Year 5).

- KS1 differentiation: To compare and order numbers from 0 up to 100; use <, > and = signs (Year 2).

### Resources required

Teacher guide, Water Tracker House game, links to websites about using food efficiently and repairing clothing.

### Format

**Introduction:** Investigating how water is used in the production of everyday household items.

**Activity:** Ordering hidden water activity.

**Plenary:** Creation of an action plan to ensure food and fashion go further at home.

### Timing

30 minutes.

### Only have 15 minutes?

Get straight into the ordering activity, this is a great way to get children thinking about hidden water waste.

### Home learning tips

The children should be able to complete the ordering activity at home. Put 10 food and everyday items on the table and put them in order of how much water it takes to produce them. Children should write down why they think some items use more water than others.

## **WATER TRACKER HOUSE: THE KITCHEN**

### **THE ACTIVITY**

- Bring up the kitchen on the screen and start a conversation with the children about where water is used in our houses. You can even use Water Tracker House as a guide as it shows very clearly the areas where water is used.
- Now ask the children if they have ever thought about how much water is used to produce everyday items at home. Tell them that the majority of the water we use (about 90%) is invisible to us! It takes lots of water to produce some household items. Ask the children can they think of what this means? Can they come up with any examples? If they think about food e.g. a loaf of bread. Bread is made with wheat and wheat crops need lots of watering. Ask them to think about the clothes they wear. What are the clothes made from? How might water be hidden in those products? Cotton requires lots of watering as do many other fibres. Sometimes the production of our clothes and other household items damages the water supply of other countries.
- Ask the children to look at the items on the screen. Can they guess how much water is contained in them?
- Depending on the age of the children you may want them to discuss the issues in small groups or you may want to have a structured discussion. You can start by asking the children which items do they think require the most water? On the other hand, which items might need relatively little water?
- It may be helpful to support the children with the highest and lowest items i.e. jeans (8,000 litres) and potatoes (30 litres), remind children that one normal bucket can hold 10 litres...a pair of jeans needs 800 bucket loads of water!
- Give the children some time to come up with their order of the items and ask if they can come up with some reasons too as to why they have put that object in that order.
- Reveal the answers for the ordering task:

100g potatoes	=	30 litres
100g cabbage	=	30 litres
one apple	=	125 litres
one egg	=	200 litres
100g chocolate	=	1,700 litres
one burger	=	2,500 litres
one T-shirt	=	2,700 litres
a pair of jeans	=	8,000 litres
- Now it's time think a little more about how we can ensure that all of the hidden water in our everyday food, clothes and household items doesn't go to waste. Ask the children if they have any ideas of how we can avoid wasting food. If they have a roast on a Sunday, what should happen to the leftovers? Should they go straight in the bin or is there a different option? What about a T-shirt with a hole in it. Should that go in the bin?

## **WATER TRACKER HOUSE: THE KITCHEN**

- Put the children into small groups and ask them to think of as many different ways to make food and fashion go further. Some of the ideas they may come up with could be: cook in big batches and freeze extra portions so they can be defrosted when you need them, use leftovers in meals for the following day.
- This website contains lots of tips about repairing items of clothing and could be a great resource to share with the children; 'Love your clothes'.
- Finish the activity by encouraging the children to think of one way they will try and make sure that the hidden water in their house isn't wasted.

## **DIFFERENTIATION**

The ordering task can be simplified by asking the children to put fewer objects in order. Some children may need support to investigate and navigate through the Love your clothes website. Early finishers of the ordering task can try to work out where the water is used for each of the objects. Chocolate is a good object to consider. Part of the reason it uses so much water is because it has several ingredients which all have their own 'water footprint'.



## WATER TRACKER HOUSE

# THE LIVING ROOM

### Overview

Children will listen to Amie's water story, where she highlights the issues her community has faced with water scarcity. Children will move the story on at their own pace once the audio is finished on each page.

At the end of the story there is a short quiz to check for comprehension of the story. Then children will be asked to create a water diary using a template provided within the game.

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Recall information about water scarcity issues in Arizona.
- Understand the impact of drought.
- Compare their weekly use of water using a water diary.

### Curriculum links

#### Geography:

- Communicate geographical information in a variety of ways, including through writing.
- Describe and understand key aspects of physical geography, including the water cycle.
- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.
- Locate the world's countries, using maps to focus on Europe and North and South America.

#### English – Reading:

- Check that the text makes sense to them, discussing their understanding and explaining the meaning of words in context.
- Ask and answer questions appropriately, including some simple inference questions based on characters' feelings, thoughts and motives.

#### English – Writing:

- Write non-narrative material, using simple organisational devices (diary).
- Express time, place and cause by using conjunctions, adverbs and prepositions.
- Use subordinate clauses, extending the range of sentences with more than one clause and in varied positions within sentences.
- Make deliberate ambitious word choices to add detail.

#### Resources required

Teacher guide, Water Tracker House game, mini whiteboards (optional), Water Diary Template.

## **WATER TRACKER HOUSE: THE LIVING ROOM**

### **Format**

**Introduction:** Think about places where water is scarce.

**Activity:** Listen to Amie's story and complete the quiz.

**Homework:** Create a water diary.

### **Timing**

**Amie's Story:** 20 minutes.

**Water Diary:** 10 minutes.

### **Only got 15 minutes?**

Listen to Amie's diary and complete the quiz.

### **Home learning tips**

Amie's diary activity is perfect for home learning as there is audio and a quiz to assess learning. Everyone in the household could complete the diary and then see who uses the most water.

## **THE ACTIVITY**

- Bring up the Living Room area and tell the children that they are going to hear Amie's story. Amie lives in an area where water is scarce. In fact this area has been in drought for twenty years. Can the children guess where this child lives? The children may guess countries where they are familiar with hearing about droughts such as countries in East Africa and South East Asia. Tell them that they may be surprised to hear that Amie lives in a southern state in the United States, Arizona.
- Click the first audio message and allow the children to listen to Amie's story.

- Once the children have listened to the story they can complete the quiz. The quiz could be done all together as a class with the children using mini whiteboards to share their answers.

### **Answers to Amie's Quiz**

**Q: What is the average use of water per person in Arizona?**

A: 120 gallons or 545 litres.

**Q: How many states in the United States of America are supplied with water from the Colorado river?**

A: 7 states.

**Q: Name three animals that could become endangered if the Colorado River runs dry**

A: The Mexican Spotted Owl, North American River Otter, Colorado Pikeminnow.

**Q: What is the name of the dam that formed Lake Mead?**

A: The Hoover Dam.

**Q: What does drought resistant mean?**

A: Drought resistant means plants and flowers that do not need lots of water to survive.

**Q: How much water is Amie's family saving a day by turning the tap off when they brush their teeth?**

A: The family could be saving around 120 litres a day by turning the tap off when they brush their teeth.

## WATER TRACKER HOUSE: THE LIVING ROOM

**Q: What percentage of our water in our houses is used to flush the toilet?**

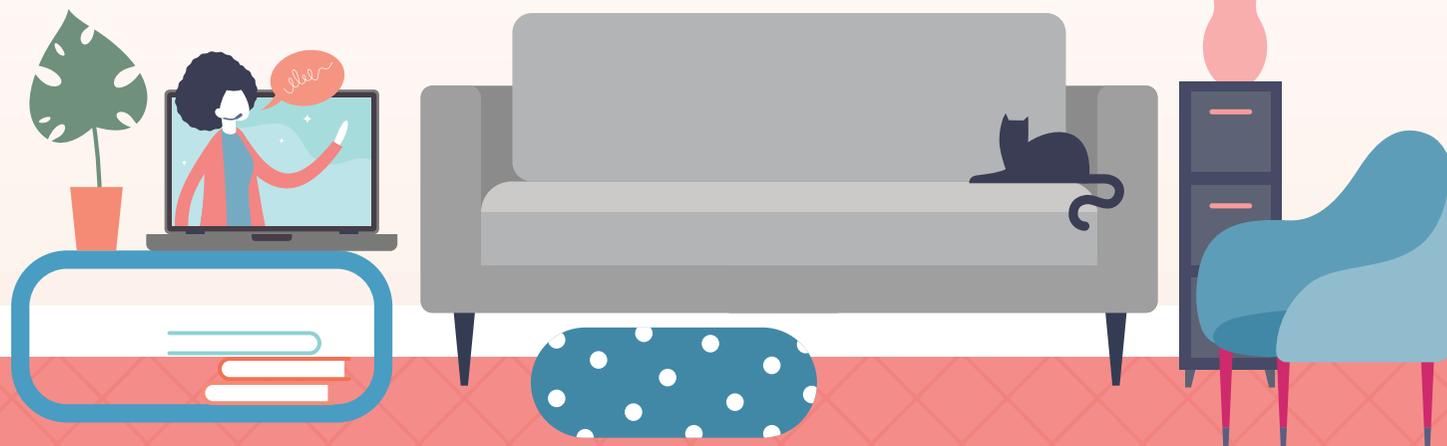
**A:** 25% of our water supply is used in the toilet

- Next, it's time to look at Amie's water diary and how much water she uses on a weekly basis. Does anything surprise the children about Amie's use of water? Do the children think they use more or less than Amie?
- Introduce the homework activity. The children will need to fill in their own water diary over a week. We'll then compare everyone's use of water and look if there are any opportunities to save water.
- After a week the children should return their water diaries to school. Which child uses the least amount of water? How can everyone make positive changes to the way they use water? Was it helpful to complete a diary?

## DIFFERENTIATION

Some children may need additional support to complete the quiz and would benefit from an adult supported discussion after they have listened to Amie's diary.

Depending on the maths ability of the group, some may need more help with the water diary activity than others; calculators should not be used if working with a group familiar with simple multiplication. The activity can be extended further by asking children to research a totally different location where there are water shortages e.g. Australia, Kenya, Thailand, South Africa.



## WATER TRACKER HOUSE

# THE TV ROOM

### Overview

Children will be able to test a few water saving behaviours to see which saves more water. They will extend their knowledge about the water cycle and water efficiency.

### Learning outcomes

Upon successful completion of this activity children will be able to:

#### Experiment 1:

- Understand the difference in water use when brushing teeth with tap on or off.
- Compare volumes of water, completing simple calculations.

#### Experiment 2:

- Explore two different methods of cleaning a paintbrush to simulate baths and showers and compare the pros and cons of each method.

#### Experiment 3:

- Understand what a water butt is and how they can help us be more water efficient.
- Name the different stages of the water cycle.

### Curriculum links

#### Geography:

- Describe and understand key aspects of physical geography, including the water cycle.
- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

#### Maths:

- Solve number problems and practical problems – using digits in a three-digit number (hundreds, tens, ones).
- Solve number and practical problems that involve increasingly large positive numbers (including 10, 100 or 1,000).
- Solve simple problems in contexts, deciding which of the four operations to use and why.
- Compare and order numbers up to 1,000 (Year 3).
- Order and compare numbers beyond 1,000 (Year 4).
- KS1 differentiation; compare and order numbers from 0 up to 100; use  $<$ ,  $>$  and  $=$  signs (Year 2).

#### Science – working scientifically focused for practical experiments:

- Ask relevant questions and use different types of scientific enquiries to answer them.
- Set up simple practical enquiries, comparative and fair tests.
- Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment.
- Gather, record, classify and present data in a variety of ways to help in answering questions.
- Report on findings from enquiries, through oral and written explanations.

## **WATER TRACKER HOUSE: THE TV ROOM**

- Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

### **KS1 Differentiation:**

- Observe closely, using simple equipment performing simple tests.
- Use their observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.

### **Resources required**

Teacher guide, Water Tracker House game, embedded films, additional resources for making water related products.

### **Format**

**Introduction:** We're going to do some experiments that compare different types of water use to find out more about water saving behaviours and practice some STEM skills.

### **Activity:**

1. Explore how much water they could save during their daily tooth brushing routine.
2. Investigate the difference in water use between a bath and a shower.
3. Make a water butt.

### **Plenary:**

Bring the water saving behaviour back to The Ripple Effect, reminding students that even small ripples can lead to big waves in protecting our water supply.

### **Timing**

**Films:** 5 minutes each to watch plus discussion time.

**Experiments:** 20 minutes each.

### **Only got 15 minutes?**

Pick between Experiment 1 or 2, they can easily be watched and completed in less than 15 minutes. Experiment 2 requires the least pre-planning.

### **Home learning**

All these experiments could work well at home, but will require supervision and support from a parent or carer. The children will particularly need help answering the questions within the Experiment 2 film.

## WATER TRACKER HOUSE: THE TV ROOM

### THE ACTIVITY:

Students can watch the films and then try the experiment themselves or pause the films as they complete each step to help them through. Watch the films through ahead of delivering them to familiarise yourself with the activities in more detail.

#### Experiment 1:

**Introduction:** In this experiment, children will pair up to compare how much water is used when the tap is left on, or turned off, while brushing their teeth. The film is 2:07 minutes and includes pause points for your class to discuss questions e.g. how could you waste less water by brushing your teeth?

Resources needed: Toothbrush (students should bring their own), large containers, measuring jug(s).

- Remember to ask students to bring in their toothbrushes on the day you do this experiment!
- In this experiment, pairs of students will compare how much water is used if you turn the tap off, or leave it running, while brushing their teeth.
- Students will need to record their results; depending on how you're running this they could use their notebooks but you may like to keep track of everyone's results on a whiteboard or class list.
- You could run this experiment by pairing off the whole class, or ask a couple of students to volunteer to demonstrate for the rest of the class.

#### Extending learning:

- Consider putting all the water used when people brushed with the tap off into one bucket and see how impact you can make when you all work together; it's likely that the students who left the tap on have used way too much water to fit it one bucket!
- Encourage children to think about their results in the context of The Ripple Effect – how much water have you saved? How much water could your whole class save? Help children to see how much their class can save by adding up everyone's results.
- If working with a group working on multiplication, ask students to think about how much your school could save, by multiplying your class total by the number of classes in your school; remind the class that this is how The Ripple Effect works; even small changes can make big waves in protecting our water supply.

## **WATER TRACKER HOUSE: THE TV ROOM**

### **Experiment 2:**

**Introduction:** In this experiment, children will investigate how much water is used in a bath compared with a shower and consider which is the right choice for them. The film is 2:06 minutes and includes pause points for your class to discuss questions e.g. which cleaning method used the least water?

Resources needed: Measuring beakers, buckets, watering can and paintbrushes.

- In this experiment, children will compare how much water a bath and a shower use to get something clean.
- They will also consider what is best for them to use based on whether they have a bath or a shower in their home; have sensitivity to students who may only have one or the other.
- The following questions are included in the experiment film for children to discuss; you can use them to facilitate a discussion with the group.

#### **Q1: Do you know if your house has a power shower?**

Discussion points: Power showers use a LOT more water than a regular shower – it's easy for a shower with these will use more water than a bath! Knowing which they have can help your students make an informed decision about whether a shower or a bath is best for them.

#### **Q2: How could you use less water in the bath?**

Answer: By only filling it halfway.

#### **Q3: Could you take a four minute shower? Or reduce your shower by two minutes to save more water?**

Discussion points: Remind students that the average shower length is about 10 minutes and showers use approximately 15 litres/minute, so even shortening their shower by two minutes can be a big saving. Water saving shower heads may use less than this, but any reduction in time will save a reasonable amount of water! You can challenge children to time their shower as people can very often over or underestimate how long they spend.

#### **Q4: Instead of filling it all the way up, could you half fill the bath?**

Discussion points: Ask for the children's opinions, will they agree to try a nice half full bath to save litres and litres of water? (An average bath is about 80L.)

### **Extending learning:**

- Discuss how deep children fill their baths, and how long they spend in the shower. Discuss why is this relevant; how even filling the bath a bit less or shortening your shower by two minutes can save quite a lot of water – especially if The Ripple Effect means your whole family, your class or even your whole school do it too!

## WATER TRACKER HOUSE: THE TV ROOM

### Experiment 3:

**Introduction:** In this experiment, children will learn what a water butt is, decorate their own mini water butt and revise the stages of the water cycle. The film is 2:28 minutes and includes pause points for your class to discuss questions e.g. why might we use a water butt in the garden?

**Resources needed:** Large plastic bottles, scissors, garden twine, paint, felt tip pens, PVA glue, additional craft materials of your choice (to decorate the bottles).

- In this experiment children will learn what a water butt is and design their own miniature one!
- They'll also revisit the water cycle while thinking about why having a water butt is a good idea.

### Extending learning:

- If students need a refresher on the Water Cycle to help them understand the value of a water butt activity, check out the Water Wise badge in Water Tracker Training Camp!
- Share with the class that water butts are a really good idea because the collected water does not need to be treated and pumped to homes before use. Tap water is fine for plants, however a water butt is a more effective alternative as it reduces the need to rely on tap water. Can the class find out why through research? (Answer: It's because the water collected in the water butt does not need to go through the treatment process or be pumped around, therefore reducing the amount of chemicals and energy use.)

- Students could keep track of how much their water butt saves over a month and bring their results to class for a maths based extension; if the class add up all their totals this is a good opportunity to talk about The Ripple Effect; even small changes can help protect our water supply.

## DIFFERENTIATION

For younger audiences, watch the films all the way through once, then use them as a step-by-step guide to complete the experiments. Some of the additional learning contain more complicated calculations that will be better suited to an older or more able group.



## **WATER TRACKER HOUSE: THE TV ROOM**

### **GLOSSARY**

Have the following terms at your disposal to help inform your pupils' understanding of the water cycle.

**EVAPORATION** – a process where liquids change to a gas or vapor.

**PRECIPITATION** – the release of water from the sky, it can be liquid or solid, for example, rain, sleet, hail and snow.

**SEA** – a body of salt water not as large as an ocean and often nearly surrounded by land.

**WASTEWATER TREATMENT** – a process used to remove contaminants from dirty water or sewage so that it can be returned to the water cycle with acceptable impact on the environment, or reused for various purposes.

**CONTAMINANTS** – substances and impurities that affect the quality of water such as sediment or bacteria.

**EFFLUENT** – sewage or other liquid waste that's treated so it can safely flow back into a body of water such as a river or lake.

**CONDENSATION** – the process by which water vapor (water in its gas form) turns into liquid.

**RIVERS** – a river is a natural flow of running water that follows a well-defined, permanent path, usually within a valley.

**STREAMS** – a natural flow of water that follows a more temporary path that is usually not in a valley.

**CLEAN WATER SUPPLY** – water reserved or suitable for drinking.

**SUN** – the star at the center of our solar system. It is a hot ball of gases that gives off great amounts of energy.

**GROUND WATER** – the water found underground in the cracks and spaces in soil, sand and rock.

**INFILTRATION** – the process by which water on the ground surface enters the soil.

**TRANSPIRATION** – the evaporation of water from plants, especially leaves.

**RUNOFF** – the part of the water cycle that flows over land as surface water instead of being absorbed into groundwater or evaporating.

## WATER TRACKER HOUSE

# THE BATHROOM

### Overview

Children will explore several objects through 'hotspots' in this room where additional facts will be revealed. The range of facts shared through interaction with the hotspots will add to the students' knowledge about water waste in the bathroom and other issues that can interfere with water treatment. At the end of the activity children will be encouraged to take a water saving pledge to personalise their learning and to take action at home.

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Recall a range of tips for saving water in the bathroom.
- Make a water saving pledge.

### Curriculum links

#### Geography:

- Communicate geographical information in a variety of ways, including through writing.
- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

#### English – Writing:

- Write non-narrative material, using simple organisational devices.
- Demonstrate an increasing understanding of purpose and audience.

- Discuss writing that is similar to that which they are planning to write to understand and learn from its structure, vocabulary and grammar.
- Make deliberate ambitious word choices to add detail.

#### English – Reading:

- Retrieve and record information from non-fiction.
- Check that the text makes sense to them, discussing their understanding and explaining the meaning of words in context.

#### Maths:

- To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by ten (Year 3).
- To measure using the appropriate tools and units, compare (including simple scaling by integers) add and subtract using mixed units: volume/capacity (l/ml) (Year 3).

### Resources required

Teacher guide, Water Tracker House game and Pledge Template.

## **WATER TRACKER HOUSE: THE BATHROOM**

### **Format**

**Introduction:** Which room in the house uses the most water?

**Activity:** Bathroom investigation and Ripple Effect Pledge

**Plenary:** Review ways to ensure that The Ripple Effect pledges are kept

### **Timing**

**Bathroom investigation:** 15 minutes

**Pledge making:** 10 minutes

### **Only have 15 minutes?**

Do the bathroom investigation activity – lots of great ideas for saving water in there.

### **Home Learning tips**

The bathroom investigation would work well as a home learning activity.

## **THE ACTIVITY**

- Open up the Bathroom activity. Ask the children which room in the house uses the most water? They should reply with the bathroom, and now we're going to learn a little more about water use in this room.
- Ask for volunteers to come up to select different hotspots if completing on an interactive whiteboard, the answers to the questions are below along with some other facts you might want to share with the children.

### **1) Hot spot on the toilet:**

Toilet flushing often uses the most water in our homes. Have you checked if you have a dual flush? Ask the children if they know which button is the short and which is the long flush, and why it's important to know the difference. You could save water by using the half flush option.

You might also want to tell the children that it's important to check for toilet leaks. We know that 1 out of 5 homes in the UK have a leaking toilet, wasting up to 400 litres each toilet per day. That's the same as having 8 showers a day or losing £200 worth of water down the toilet, every year. If you can see water constantly flowing through the toilet or hear it (sometimes leaks aren't visible) it's worth getting it checked.

### **2) Hotspot on the sink:**

You'll have seen this fact elsewhere in Water Tracker House but a running tap uses 6 litres of water a minute. Write down three ways can you think to be more water efficient with the bathroom tap?

**Answers:** A. Turn the tap off when brushing teeth, B. Use a bowl in the bathroom sink for shaving and face washing, C. if the tap takes a while to warm up, catch water in a bowl and use to flush the toilet or water plants.

## **WATER TRACKER HOUSE: THE BATHROOM**

### **3) Hotspot on the shower:**

Try to keep your shower time to 4 minutes. At the moment the average shower time in the UK is 10 minutes! Even reducing your shower by two minutes will save lots of water too. This shower takes on average one minute to warm up. What could be done with the water that is wasted?

**Answer:** You could fill a bucket and use the wasted water to flush the toilet with.

### **4) Hotspot on the bath:**

If you have baths, try to just use the water you need and avoid lots of topping up. You could recommend that the children can spend as much time as they'd like in the bath, but don't overfill it.

### **5) Hotspot on the shelf:**

Which objects cause the most problems in the sewers? Only flush the three Ps. Ask the children do they know what the 3 Ps are? They stand for poo, pee and paper. Other items should go in the bin and not down the toilet! All of these items cause problems and blockages in the sewers dental floss, wet wipes, kitchen towel, medicine.

- Once the children have completed the bathroom activity, they are invited to create a water pledge. The pledges are designed to work well as a wall display. This would make a great central focus for the whole school Ripple Effect project.
- There are some good pledge ideas on the template for the children to choose from, You may want to remind them that saving water doesn't mean lots of cold baths or less fun!

- Ask the children to share some of the pledges they have written with the group.

## **DIFFERENTIATION**

- Some children may need some additional support to answer the questions posed in the hotspots and these groups can be encouraged to focus specifically on two hotspots e.g. the toilet and on the bath/shower (whichever they use!). Mixed ability groups can also work well here. Early finishers can be encouraged to think of how they would use hotspots in a different room e.g. Kitchen, where would the hotspots go? Kettle, sink, taps, washing machine, dishwasher? Can they write some additional information that would help people to use water more wisely in the kitchen?
- Keep in mind that some children may not have a shower in their home, and some may only have a shower. There are ways to save water using either a bath or a shower, so make sure to approach this sensitively. If some pupils bathe with a sibling, this can save water, but avoid recommending it in case of vulnerable pupils who may find this triggering due to negative experiences.

## WATER TRACKER HOUSE

# THE PIPES

### Overview

Children will use the Water Worker film to become more familiar with the water treatment process and the people that clean the water for us. After watching the film, the children will complete a short comprehension quiz. They will then go on to analyse their own skills and decide which water worker they are most like.

NB: You may recognise this activity if you've already been through Water Tracker Training Camp. Feel free to try it again, or skip it this time around!

### Learning outcomes

Upon successful completion of this activity children will be able to:

- Discuss a range of professions within the water treatment sector.
- Recognise the huge amount of work involved in getting clean water into our homes.
- Consider their own skills and which jobs they may be suited to in the water treatment industry.

### Curriculum links

#### Geography:

- Describe and understand key aspects of physical geography, including the water cycle and rivers.
- Describe and understand key aspects of human geography, including the distribution of natural resources such as water.

### Science – States of Matter (Year 3 or 4):

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

### English – Reading:

- Retrieve and record information from non-fiction.

### Resources required

Teacher guide, Water Tracker House game, Water Worker film. You will need to decide if you are going to get the children to work through the quizzes online or on paper. If you using paper, make sure to print out sufficient numbers for the group you are working with. The 'Water Worker Quiz' and 'Where could you work in the water treatment cycle?' is suited for whole class delivery or for students to work through individually on a device or on paper. You may want the children to use a small piece of paper to remember their shapes for the 'Where could you work in the water treatment cycle?' Quiz.

## **WATER TRACKER HOUSE: THE PIPES**

### **Format**

**Introduction:** A recap about the water cycle and a consideration of how clean water gets into our houses.

**Activity 1:** Watch the Water Worker film and complete the Water Worker Quiz.

**Activity 2:** Complete the 'Where could you work in the water treatment cycle?' Quiz.

**Plenary:** A discussion about the Ripple Effect and the actions the children are taking to protect our precious water supply. Children should also discuss the length water travels from collection through to the journey into our homes, and reflect on how a water company is an exciting place to work with a variety of roles that suit their interests and skills.

### **Timing**

**Film:** 5 minutes.

**Quiz 1:** 15 minutes.

**Quiz 2:** 15 minutes.

### **Only have 15 minutes?**

Watch the Water Worker film and complete the Water Worker Quiz as a whole class.

### **Home Learning Tips**

Children can access the film at home if they have an internet connection and can work through both quizzes independently.

## **THE ACTIVITY**

- Go to The Pipes section of Water Tracker House. You may want to ask the children some recap questions about the water cycle such as the following:
  - What are the three states that water is found in and where do they sit in the water cycle? Water begins as water on the ground usually in rivers, lakes, seas and oceans. Water is also present as a gas (water vapour) in the atmosphere and as a solid – ice, at the polar ice caps, glaciers and permanent snow.
- Now ask the children how does water get from where it starts, into our buildings? (If you have a tap in the classroom it would be great to demonstrate the next question by turning on the tap.) Does it come straight from the rivers and lakes? Hopefully the children will say that the water needs to be cleaned before it gets into our homes.
- Remind children that in fact, if the water that came out of our taps looked like the water we get from a river then we wouldn't want to drink it.
- Tell the children that although it may look ok from the riverbank, river water can be dirty and has lots of things living and floating in it. When the water is cleaned, any colour, dirt and any diseases are removed from the water. Given the amount of water we use, it takes a great team effort to get water to our homes that looks right, smells right and tastes right too. Now, let the children know they're going to hear from some of the people involved in treating our water so we can turn the tap and have safe drinking water.

## WATER TRACKER HOUSE: THE PIPES

- Watch the Water Worker film and tell the children to watch carefully because they will need to answer some questions about the information they hear in the film.
- You may want to pause the film in parts to elaborate more on the jobs that the Water Workers do and check for understanding of some vocabulary depending on the age and attainment levels of the group you are working with.
- Once the children have watched the film, ask them if they knew that so many people were involved in keeping clean water flowing into homes and businesses. Are they ready for the Water Worker Quiz, which will ask them questions about the things they have learned from the water workers?

### Water Worker Quiz

- Allow the children to spend some time going back through their quiz answers in your preferred manner. The children can work in small groups or independently.
- Once the children have finished the quiz, use the answers below to check their results and assess understanding:

### Answers to Water Worker Quiz

**Can you remember how many people work at Essex & Suffolk Water and how many different jobs there are?**

**A:** 3,000 people and 800 jobs.

**What did Tom speak to farmers, businesses and landowners about?**

**A:** B: How to reduce pollution in water that hasn't been treated yet.

**What Tom use sometimes to quickly find water problems?**

**A:** A: Drones.

**What does Diran have a special room for?**

**A:** C: Making sure that water tastes and smells great.

**In which season does Katie say we use a lot of water?**

**A:** C: Summer.

**Which of the sentences below are true?**

**A:** All of the sentences are true.

- Ask the children to add up their scores and share them with the rest of the group.

### 'Where could you work in the water cycle?' Quiz

- Now tell the class that they are now going to have a think about the types of skills that Essex & Suffolk Water need people in its team to have. Can the children think about the sorts of skills that Tom, Steve, Diran, Katie and Denise might need to do their jobs? As they do very different things, they need different skills. Use these questions and answers to help the discussion.
  - What sorts of skills would Tom need to be able to speak to lots of people and to help them stop polluting rivers?  
**Potential answers:** Communication, problem solving, deep knowledge about water systems, pesticides and fertilisers that farmers use on their crops.
  - What about Denise who speaks to lots of customers?  
**Potential answers:** Communication, quick thinking, resilience and managing people's feelings.

## WATER TRACKER HOUSE: THE PIPES

- Does anyone here think they have these sorts of skills and could help keep the water flowing? Ask the children to raise their hands if they think this is the case.
- Bring the ‘Where could you work in the water treatment cycle?’ Quiz up on the screen – If you are working through the quiz on the interactive whiteboard, you can ask the children to make notes of the answers they give. Each question has four potential answers: circle, star, square or triangle. The children will choose the answer they think best describes them and at the end of the quiz will work out which shape they have the most of e.g. Mostly squares – You’d make a fantastic water supply manager like Katie. You’re a great communicator who is able to lead a team. You like solving problems and have a great eye for detail. Other results are included in Water Tracker House.
- Children can also complete the activity independently online or offline once they’ve watched the Water Workers film.
- Once the children have finished the activity, ask them to share their answers. Work out how many people might be working together at the treatment centre as they share a skillset. Can the children think of any other jobs where these skills might be useful?
- To complete the activity, bring the children’s minds back to the taps in their kitchens and bathrooms. It’s important to remember all of our water saving skills to help the teams at treatment centres up and down the country. When we remember The Ripple Effect, and make small changes to our water use, we can make big waves in protecting our precious water supply. Can the children share three things they are going to try and get their family to do to protect our water supply?

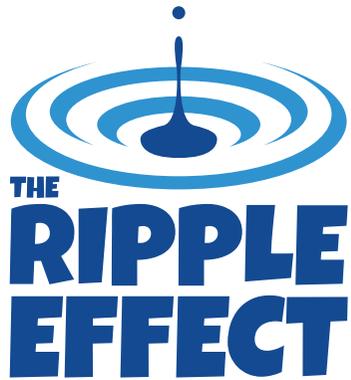
## DIFFERENTIATION

Children that need additional support can work through the Water Worker Quiz as a small group with support from an adult to recall the different parts of the film. Children that finish the task early can be encouraged to research the different stages of the treatment cycle in more detail: abstraction, clarification, filtration and testing. More information can be found on our website.

## CONGRATULATIONS FOR MAKING IT ALL THE WAY THROUGH WATER TRACKER HOUSE!

To further your class’s learning about water efficiency and water cycle, [visit our website](#) for more resources and water saving ideas to help you and your students be part of The Ripple Effect, protecting our precious water supply.





**ESSEX & SUFFOLK**  
**WATER** *living water*