



THE RIPPLE EFFECT ASSEMBLY

MAKING WAVES IN PRIMARY SCHOOLS

TEACHER GAMES GUIDE

ESSEX&SUFFOLK
WATER *living water*

HOW MANY BUCKETS?

Time for activity

10 minutes

Resources required

- Presentation
- Beanbags, multi-links cubes or dienes (each team will need 15 beanbags, multi-link cubes or dienes so this may limit the amount of teams you can have).
- Buckets for the children to put the beanbags, multi-link cubes or dienes in (this could also be a hula hoop on the ground that the children need to place their beanbags or alternatives in).

Objective of the game

The aim of the game is for the children to develop a clear idea of how much water everyday activities use.

Top tips for delivery

This game can be noisy so establish clear rules that once you start a verbal countdown 5-4-3-2-1, the teams need to quieten down quickly.

Steps for delivery

- Split the pupils into teams, this could be through a school house system or simply through year groups or classes. With large numbers of children it may be best to split them according to where they are sitting in the room.
- Each team will need 15 beanbags, multi-link cubes or dienes each. It's fine to have a large number of children in a team as long as they know who their team captain is (see below).
- Choose a team captain for each team. Ask the team captains to stand at the front of the room.
- You may want to demonstrate how you will countdown 5-4-3-2-1 and everyone should be ready to listen.
- Remind the children that this is part of their Water Tracker training and that they need to do well in order to take the Ripple Effect pledge.
- Tell the children that you are going to bring up a water waste activity on the screen and they will need to either remember (from the story or their prior learning) how many buckets of water are used or wasted in that activity.
- Each beanbag, multi-link cube or diene represents a bucket of water which is 10 litres. For each picture that appears on the screen the children will need to choose an amount of beanbag,

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multi-link cube or diene to put in their buckets.

- The teams must communicate with their captains and help them to choose the right amount of beanbag, multi-link cube or diene to use to estimate the water use. You can encourage the teams to use their fingers to indicate how many buckets of water could be wasted.
- Ask a colleague or nominate a child to use a pen and paper or a whiteboard to keep score of which teams are the closest to the actual water use/water waste answer.
- Once you have ensured that each team has all of the resources required, the game can start. Ask the children to count down 5-4-3-2-1.
- Give the children 1 minute to make their decision each time – if you have a stopwatch to time the countdown, this will add to the fun.
- Work through the first four water waste examples giving the children the answers as you go.

1. How much water could a leaking tap waste over a day?

Answer: 20 litres (2 beanbags).

2. How much water does a full bath use?

Answer: 80 litres (8 beanbags).

3. How much water does a dishwasher use?

Answer: 14 litres (1.5 beanbags) you can also ask your pupils how much water they think is wasted if you only half fill the dishwasher. 7 litres.

4. How much water does a 10 minute shower use?

Answer: 150 litres (15 beanbags).

- The final two water waste examples use much more water than the previous examples. Tell the children that now each of their beanbag, multi-link cube or diene are worth 100 buckets each!

5. How much water could a garden sprinkler waste if left on by mistake for an hour?

Answer: 1,000 litres an hour, which is 100 beanbags. The children are likely to underestimate the amount of water used here but this will be done deliberately.

6. How much water is used to make a pair of jeans?

Answer: Approximately 8,000 litres!

- If you or the children want to know more about hidden water you can visit the **Water Tracker House** and visit the Kitchen area to learn more about this.
- Congratulate the children on their efforts and return to the next part of the assembly within the main guide.

HIGHER OR LOWER WATER USE

Time for activity

10 minutes

Resources required

- Presentation
- a bucket (optional)

Objective of the game

The aim of the game is to guess if one activity uses more or less water than another. Along the way, children will be encouraged to pick out “hero items” which can help them use water more efficiently.

Top tips for delivery

The trick here is to make the game feel a bit like a gameshow. Try to keep the pace lively, but check that the children are following the game and understanding what you are asking them to do.

Steps for delivery

- Bring up the presentation.
- Take all of the children through the instructions for the game. You might want to say:

“We are going to play a game called higher or lower. In this game, you are going to have to guess if you think one object or activity uses a higher or lower amount of water than the other.”

“One of the activities might be taking a shower and another might be using a dishwasher – you’re going to have to guess if the dishwasher uses a higher or lower amount of water than the shower.”

“Can you think of a way to show me if you think it uses a higher amount without shouting out?” Children may use their fingers to point upwards.

“Now what about a lower amount of water?” Children may use their hands to indicate a lower amount.

We do have some “hero items” in this presentation to keep a look out for. These items can help us save water.

- Emphasise that this game is fast paced and that there are only a few minutes to get through the game.
- Ask a child or a colleague to keep score of how many correct guesses the children make.

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- If you have a bucket you may want to show the children the bucket and remind them that it holds ten litres of water.
- Move the presentation onto the first picture – a fully filled bath.
- Ask the children to raise their hands if they would like to guess how much water is used in a fully filled bath.
- Establish that 80 litres are used, which is 8 buckets of water. Share the tip of running shallower baths to save water.
- Tell the children that now the challenge is going to begin! Move the presentation on to the next slide (washing machine).
- Ask the **questions** indicated in **red** in the boxes below and encourage the children to show if they think the activity uses a higher or lower amount of water than the previous activity each time.
- Once the children have found out if their answers were correct, share the **tip** in **green** below.
- To ensure high levels of engagement ask different children in the audience about their choice at each stage – are they sure? Would they like to change their mind?
- Once the children have guessed, take the answer that has been provided by the majority of children.
- You may want to use the script below:

“Ok, so we have established that a fully filled bath uses 80 litres of water. Baths are great but remember it is possible to use less water by not filling the bath up as much.”

“Are you ready to see the next water use activity? Ok! So we have a washing machine – Does a washing machine use a higher or lower amount of water than a lovely fully filled bath?”

“Have a think... higher or lower? Remember to use your hand signals. (Choose a child) Are you totally sure of your answer? 100% sure? Don’t want to change your mind? Ok...are we all saying a washing machine uses a lower amount of water than a fully filled bath?”

“You are correct! A washing machine only uses five buckets of water so 50 litres, remember it’s always better to do full loads of washing.”

Alternative if the group has guessed incorrectly...

“Oh dear, nope that’s not right this time. In fact a washing machine uses a lower amount of water than a fully filled bath. It’s 50 litres of water. Shall we try again on the next one?”

“Brilliant, right onto our next water use activity. Ok we have a sprinkler – and I can give you some more information here... the sprinkler is left on for AN HOUR!”

“Does a sprinkler left on for an hour use a higher or lower amount of water than a washing machine. Have a think, higher or lower?”

- Use this format to go through all of the different water use examples, sharing tips and hero items with the children
- Once the children have completed the game, congratulate them on their efforts – share their score and return to the next section of the assembly in the main presenter script guide.



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A fully filled bath: 80 litres

- **Tip:** So that's 8 buckets full of water! Baths are great but they do use lots of water. Could you try and use less water?

A Washing machine: 50 litres

Question: Does a washing machine use a higher or lower amount of water than a lovely fully filled bath?

- **LOWER** – only five buckets full this time.
- **Tip:** full loads of washing are always better than only half full ones.

Sprinkler left on for an hour: 1,000 litres an hour

Question: Does a sprinkler left on for an hour use a higher or lower amount of water than a washing machine?

- **HIGHER** (much higher!) Yikes! That's 100 buckets of water every hour!
- **Tip:** brown grass will quickly turn green again once there is some rain there's no need to water a lawn.
- **Hero item:** a water blaster- you can always use a water blaster (or a watering can) to water plants.

A dishwasher: 14 litres

Question: Does a dishwasher use a higher or lower amount of water than a sprinkler?

- **LOWER**
- **Tip:** remember to always fill your dishwasher up – if you switch it on and it's only half full you could be wasting 7 litres of water!

Washing up leaving the tap running for 10 minutes: 60 litres

Question: Does leaving the tap running for ten minutes use a higher or lower amount of water than a dishwasher?

- **HIGHER**
- **Tip:** surprisingly many modern dishwashers use less water than washing up by hand.
- **Hero item:** washing up bowl - if you don't have a dishwasher you can fill your washing up bowl instead of letting the water run.



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A ten minute shower: 150 litres

Question: Does a ten minute shower use a higher or lower amount of water than leaving the tap running for ten minutes?

- **HIGHER**
- **Tip:** Shower's are an efficient way to wash but you're best limiting your shower to four minutes at a time.
- **Hero item:** Stopwatch – you can set a timer to help you reduce the amount of time you spend in the shower.

A leaky toilet: 215-400 litres

Question: Does a leaky toilet use a higher or lower amount of water than a ten minute shower?

- **HIGHER**
- **Tip:** You can check if you have a leaky loo by putting food colouring in your tank – if the colour comes into the toilet bowl in between flushes then you have a leak.

A week of leaving the tap running while you brush your teeth: 170 litres

6 litres a minute – dentists advise brushing for 2 minutes twice a day = 168 litres over a week.

- **Question:** Does leaving the tap running while you brush your teeth for a whole week use a higher or lower amount of water than a leaky toilet?
- **LOWER** but that's still 17 buckets full of drinking water wasted!
- **Tip:** Turn off the tap as you're brushing your teeth.

SPOT THE WATER WASTE

Time for activity

5 minutes

Resources required

Presentation

Objective of the game

The aim of the game is to find as many water waste activities as possible PLUS some good examples of how to use water more efficiently.

Top tips for delivery

Ask the children to talk with someone next to them to discuss the picture.

Steps for delivery

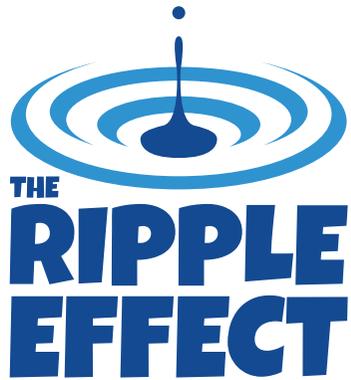
- Bring up the water waste picture on the screen.
- Ask the children to have a really good look at the picture on the screen. Tell them to explore all of the different activities that are going on.
- Give the children time to become familiar with the water waste picture. Then tell them that they need to work out where water is being wasted AND where water is being used carefully.
- Ask the children to work in small groups to try and find as many different behaviours as possible (there are six in total). 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.
- 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 return back to the main presentation and presentation guide.



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Water saving/Water waste behaviour Extra information

A sprinkler keeping the grass green	Sprinklers use on average 1000 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.
A long bath (steam coming out of the window)	Taking a long and fully filled bath use a lot of water! If you do have bath, try to use just the water you need and avoid lots of topping up.
A car is being washed with a power hose	A hose can use up to 1000l 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.
Hosing the dog	Hoses can waste a huge amount of water. Try using it for a very short period of time.
An unused water butt with overgrown vegetation around it	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!
The sun, high in the sky; it is a hot sunny day	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.
A spare outside tap is leaking	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.



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