GREEN AMBASSADORS 4 Youth

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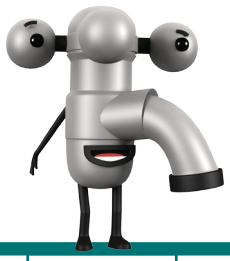


WATER

Message on a bottle

Time:

25 minutes

Who it's for:

5 to 10 year olds

You'll need:

- Plastic bottles
- Acrylic paints
- Glue
- Glitter

What to do:

1. Ask the group to collect plastic water bottles and bring them to the session.

2. Ask the group where they think the water in our taps comes from. Explain that around one-third of the water comes from water captured underground and the other two-thirds come from water stored in reservoirs or taken from rivers and lakes.

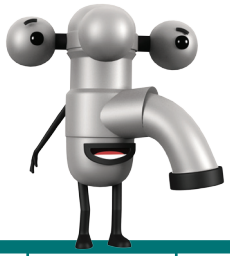
3. What animals do the group think live in Britain's rivers? You could start by talking about the characters in the Wind in the Willows.

4. Explain that as the population grows, more water is needed. This means that more water is taken out of our rivers and streams which is making life very hard for the wildlife that lives there.

5. Think about ways we can save water around the house and at school.

6. Now each member is going to decorate a water bottle. Ask them to think of a water saving message they could use in their design. Otherwise perhaps they could create a picture of one of the animals from our rivers.

7. Using acrylic paints, glue and glitter members should decorate the bottles to create beautiful water bottles which they can fill up and reuse every day, cutting down on buying bottled water which is expensive and wastes plastic, and saving on washing up lots of water glasses at home.



WATER

Bottle orchestra

Time:

30 minutes

Who it's for:

10+

You'll need:

- Water bottles
- Water

What to do:

1. Separate the group in to teams of ten and give each member a plastic bottle to fill up with water.

2. Ask each member of the team to drink a different amount of water from their bottle so they go from nearly full bottles all the way down to nearly empty.

3. By blowing over the mouth of the bottle each member should be able to produce a different tone from their bottle.

4. Challenge each team to create a song using their bottles. They could try to work out a version of a famous song or try to invent their own, focussing on the theme of water.

5. Once all teams have worked out their song you could hold a performance at the end of the session for parents or even organise a concert to raise money for WWF.

NB Can the group come up with ideas for how they could use the water after the activity to avoid wasting it?

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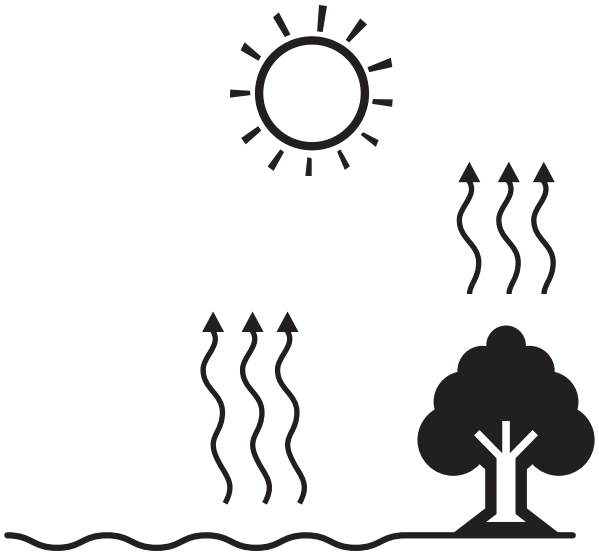
Water cycle cards



The sun heats the sea and causes it to **evaporate**. Water **transpires** from plants.

The **evaporation condenses** in the atmosphere and forms clouds.

The clouds hit high ground and water falls as **precipitation**.

The water hits the ground and **runs off** into rivers lakes and the sea.

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Water supply cards

© Edward Parker / WWF-Canon

China's huge population and fast economic growth has meant that many of their rivers are now severely polluted. This has consequences on people that use the water for drinking and farming as well as the animals that call the rivers home.

© Brent Stirton / Getty Images / WWF-UK

Millions of people and animals rely on the great Ruaha river in Tanzania for water. However the water from this river is being overused in order to grow rice and feed livestock animals meaning that many people (and the animals in the Ruaha National Park) are left without drinking water.

© Michel Gunther / WWF-Canon

Governments often use dams to create hydroelectric power. However the creation of these dams can lead to the destruction of huge areas of land through flooding and also have a serious effect on the fish which live in the river. For example the Three Gorges dam on the Yangtze has contributed to a 95% reduction in the breeding of carp downstream since its completion.

© François Xavier Pelletier / WWF-Canon

The Indus river is used to irrigate 80% of Pakistan's farmland. However climate change has meant that the Himalayan glaciers which provide most of the Indus' water are starting to shrink. This makes the river more prone to water shortages in cold years and severe flooding in warm years.

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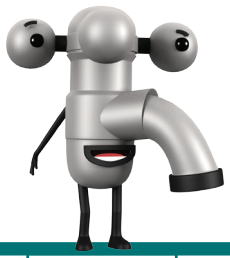

WATER

How much?

Time:

10 minutes

Who it's for:

All ages

You'll need:

- 1 set of the 'Water uses' cards and 'How much?' cards per team
- For the alternative to step 2, multiple copies of the bucket and bottle templates from the 'How much? – template' sheet for each team
- Some 10 litre buckets and 2 litre bottles filled with water – enough to illustrate in physical terms how much water one or two of the water use activities would take

What to do:

1. Split the group into teams and give them a copy of the cards cut out from the 'Water uses' cards and the 'How much?' cards.

2. Ask each team to decide which amount relates to each use (e.g. taking a bath – 80 litres) and match the cards accordingly.

ALTERNATIVE:
Call out each water use, one at a time and ask teams to match the cards accordingly, then use their buckets and bottles to show how many litres of water they think each activity would use.

3. Run through the correct answers using the 'How much? – answers' sheet.

4. Invite some group members to use the real buckets and bottles to physically illustrate the amount of water used by one or two of the activities.

5. Discuss as a group:
– Are members surprised by how much water some activities use?
– How would they manage if they had to fetch this amount of water from a well or river – as some children in other countries do?
– How might this affect how much water they use?

6. What could they do differently to help use less water?

NB Can the group come up with ideas for using the water after the activity to avoid wasting it?

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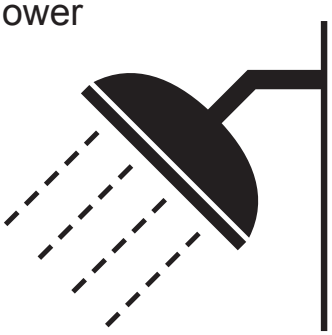
Water uses cards

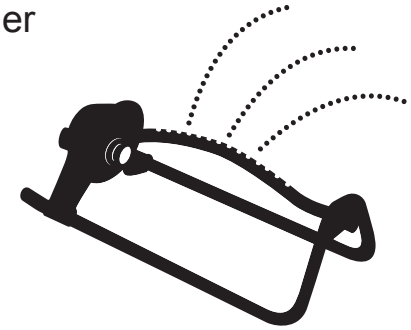
A dripping tap

Washing machine

Power shower



Sprinkler



Bath

Flushing the toilet

Leaving the tap running whilst brushing your teeth

Dishwasher

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How much? cards

85 litres	**12–20** litres
Up to 80 litres per day	**15** litres
65 litres	**5–7** litres
45–65 litres	**4** litres

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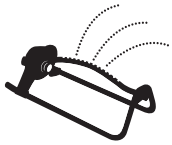
How much? – answers

	Bath	85 litres
	A dripping tap	Up to 80 litres per day
	Power shower	65 litres
	Washing machine	45-65 litres
	Dishwasher	12-20 litres
	Sprinkler	15 litres
	Flushing the toilet	5-7 litres
	Leaving the tap running whilst brushing your teeth	4 litres

Sources:
http://www.southwestwater.co.uk/media/pdf/t/3/UWUv2_0613_for_web.pdf and
http://www.south-staffs-water.co.uk/your_home/indoor_water_saving_tips.asp

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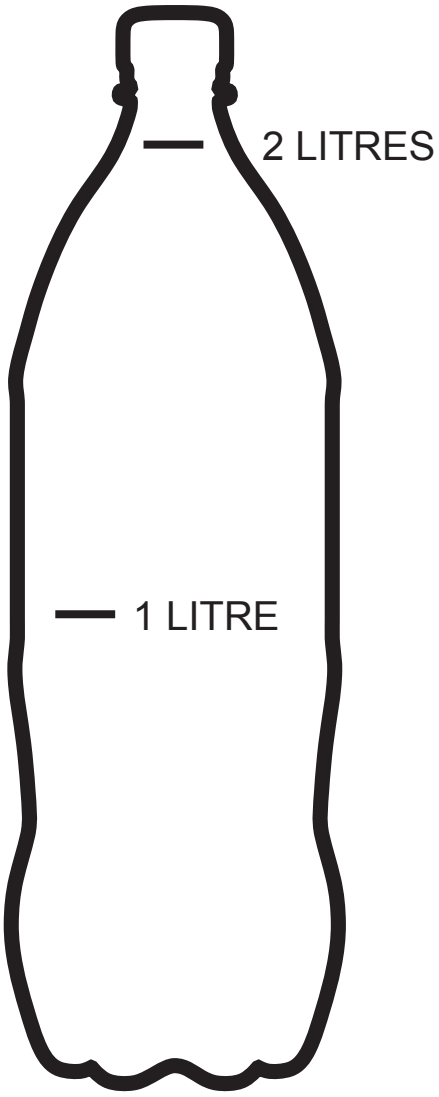
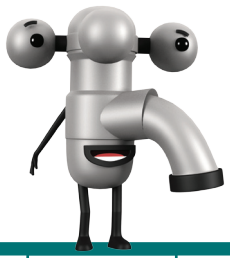
How much? – template





WATER

Water cycle

Time:

20 minutes

Who it's for:

10+

You'll need:

For teams of five
- 'Water cycle cards'
- 'Water supply cards'

What to do:

1. Recap on the water cycle by splitting the group into teams of five, giving each one a set of the 'Water cycle cards'.

2. Ask the teams to arrange the cards in the correct order to show the process of the water cycle.

3. Next hand out the 'Water supply cards' which contain information about some of the different factors effecting water availability around the world.

4. Get each member to choose one of the cards and debate in their teams which is the most serious problem. They don't need to come up with a definitive answer but need to practise presenting their argument convincingly.

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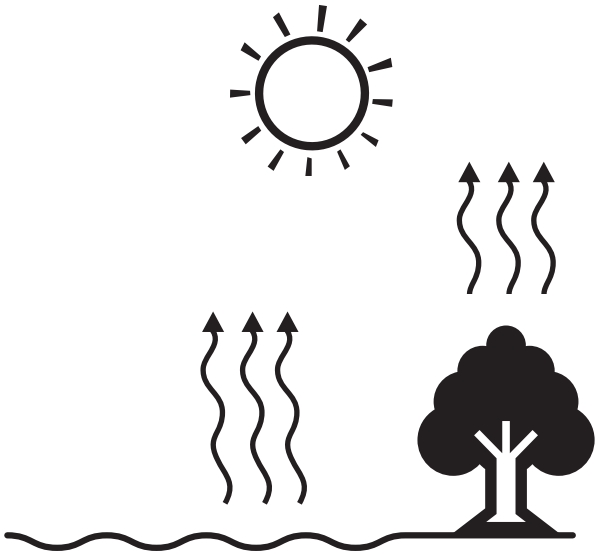
Water cycle cards



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Water supply cards

© Edward Parker / WWF-Canon

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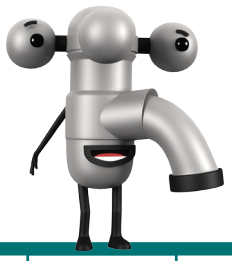

WATER

Filtering water

Time:

45 minutes

Who it's for:

All ages

You'll need: (for each pair)

- A copy of the 'Make your own water filter' sheet
- A 2 litre plastic bottle filled with dirty water
- Two 1 litre jugs
- Stones
- Grass / moss
- Builders sand
- Water
- Rough sand paper
- A drill
- NB If you are working with younger children, you may want to do steps 1 and 2 on the instruction sheet yourself in advance

What to do:

1. Ask the group where water goes once it goes down the drain. Would they use that water to wash up with again or even drink?

2. Explain that once water goes down the drain it passes through pipes until it reaches a sewer (along with rain water and waste water from businesses) which takes it to a water treatment plant. After treatment the water goes back into the environment and the water cycle where it can end up as drinking water again.

3. Hand out the 'Make your own water filter' sheet to pairs and explain that they are going to discover how water is treated by creating their own water filtration model. NB It takes about 10-15 minutes for the water to become clearer.

4. Explain that processing water takes a lot of energy and this is another reason why we should avoid wasting water wherever possible.

5. Finally, ask the group if they can think of how they might 're-use' water in the home. For example, do they think it would be all right to capture used water from showers or baths to water plants or flush the loo?

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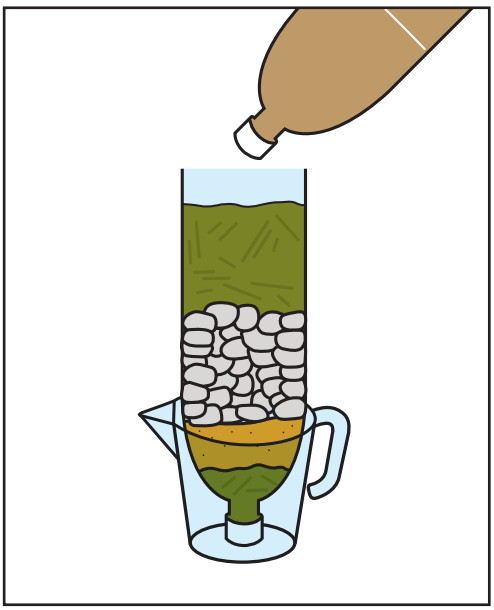
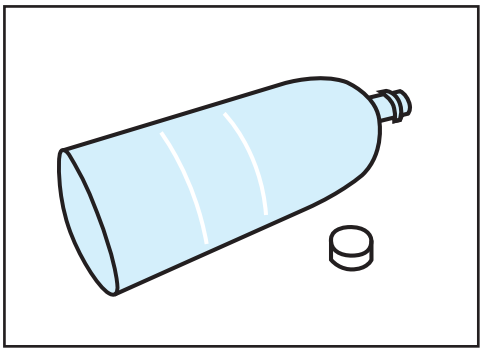
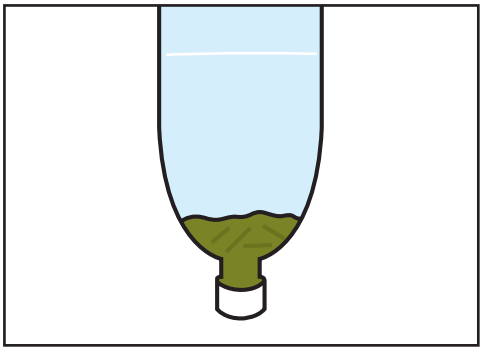


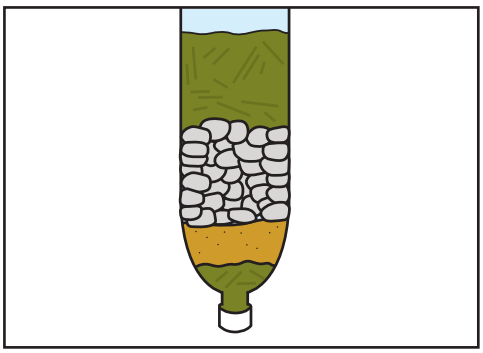
Make your own water filter

You will need:

- One empty 2 litre bottle of water with the label removed, the base cut off and a hole made in the screw cap
- One 2 litre bottle of water filled with dirty water
- Two 1 litre jugs
- A generous handful of grass/moss
- Two handfuls of pebbles
- Two handfuls of builders sand (play sand doesn't work)







1. Cut the base of the 2 litre bottle – the edges may be sharp so take care! Your leader may help you with this.

2. Make a hole in the screw cap (about 6mm) – your leader will help you to do this with a drill best to use the drill for this (if you can heat up the drill bit, it will slice through the plastic quite easily).

3. Replace the screw cap onto the bottle, tip upside down and put a small amount of grass/moss in the bottom to stop the builders sand falling out.

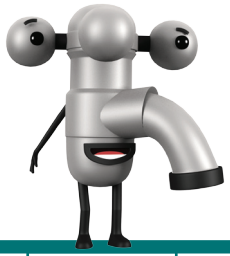
4. Next fill a third of the bottle with builders sand.

5. Fill another third with the pebbles.

6. Fill almost the last third (don't go to the top) with grass/moss.

7. Working in pairs, one group member holds the bottle filter in an empty jug, while the other pours the dirty water slowly into the bottle.

8. The water will have to go through the filer several times before it starts to clear, so the pair will need to work quickly to put the second, empty jug in place while the full jug is poured back through the bottle filter.



WATER

How little challenge

Time:

20 minutes

Who it's for:

10+

You'll need:

- Buckets filled with warm water
- Shampoo
- Cups
- Towels

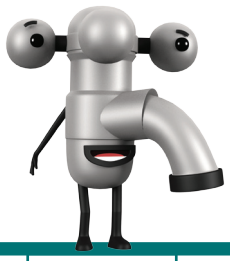
What to do:

1. As a group recap on the reasons not to waste water.

2. Set the group a challenge to see whether they can wash their hair with only three cups of water.

3. Split the group into pairs and get them to work together to try and complete the challenge. The activity will be best done outdoors to save making too much mess!

4. Were the group surprised at how much they could do with so little water?



WATER

Water investigators

Time:

15 minutes

Who it's for:

All ages

You'll need:

- 'Water investigators' sheets for pairs
- Copies of the images on the 'Water savers' sheet enlarged on a photocopier

What to do:

1. Recap on why it is important to try and avoid wasting water where possible (we use and waste too much water which can affect rivers and streams, and even the 'water table' – with knock-on effects for people, wildlife and habitats; processing water for homes uses lots of energy etc).

2. Explain that there are small changes we can all make to help save water.

3. Hand out the 'Water investigators' sheets and, in pairs, ask members to circle anything which they think could be changed to help save water (e.g. dripping tap).

4. Go round the room inviting each pair to give one of their answers, until you think all the possible answers have been covered.

5. For slightly older group members, you could now show the images from the 'Water savers' sheet and ask them what they think they are and how they can help save water. Do they have any other ideas for saving water, eg only filling the kettle with the amount of water you need, keeping a jug of water in the fridge rather than running water until it gets really cold, using bath water to water plants.

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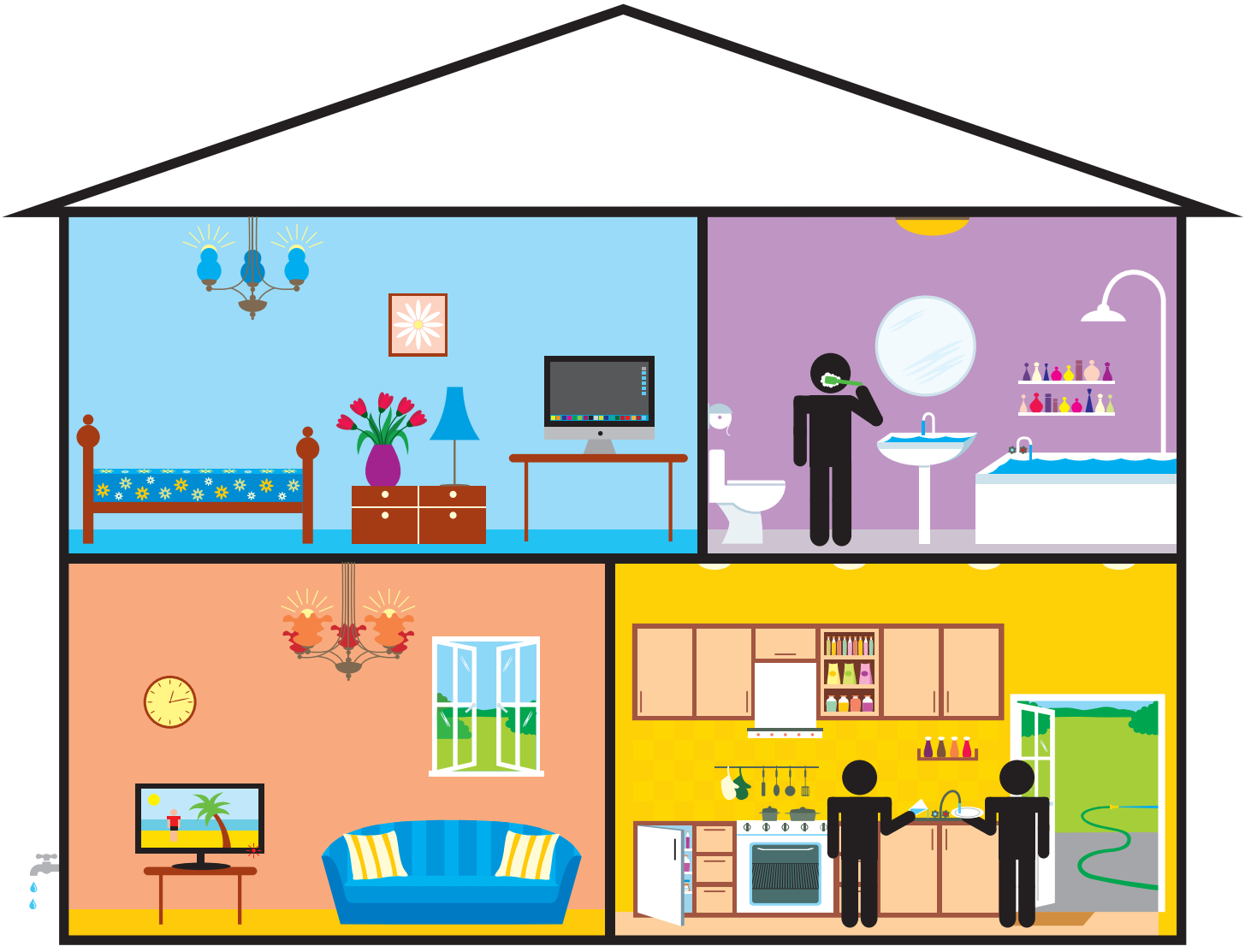
Water investigators

Look at the illustration below and see how many examples of water you can see being wasted. Circle any that you find.



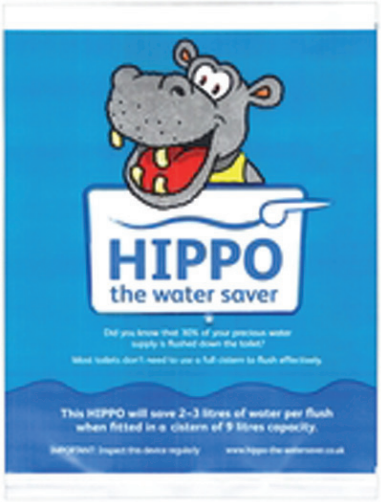
Can you think of ways in which the people in this picture could avoid wasting water?

_____

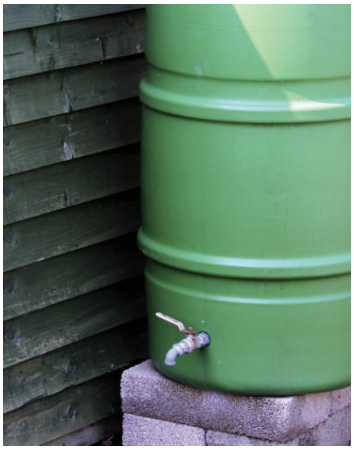
_____

_____

Water savers



Hippo bag



Water butt

Shower

Shower timer

Watering can