

SAVING WATER, SAVING LIFE TEACHER'S PROJECT NOTES



- 3** ENTREPRENEURSHIP
- EMPLOYABILITY
- EDUCATION

PLAYFUL PROJECT-BASED LEARNING | TERM 3 LIFE SKILLS PROJECT FOR SBA



basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



GRADE **5**

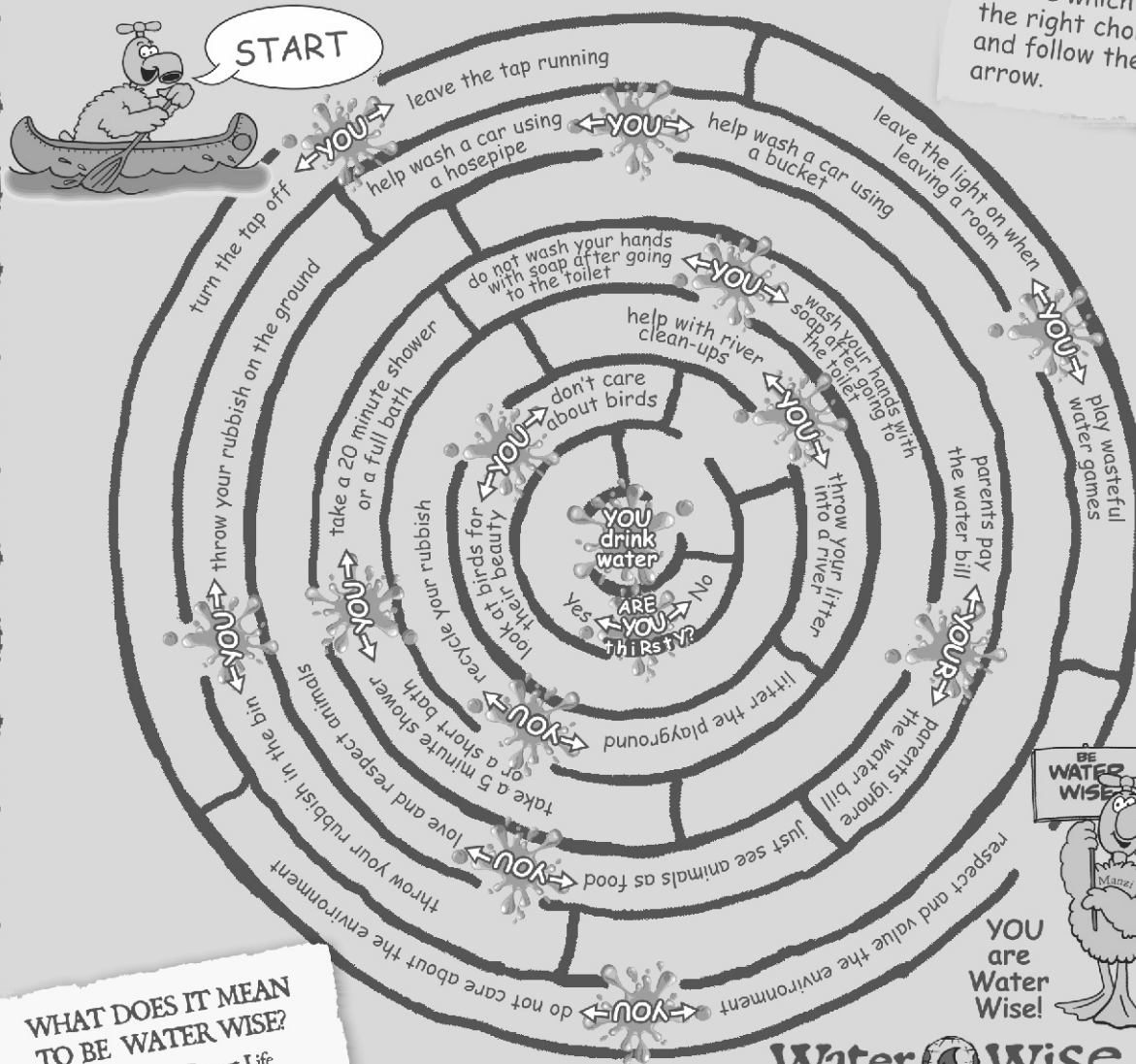


ARE YOUR CHOICES WATER WISE?

When you go to a shop you have a choice. Do you choose a chocolate or do you choose an apple? Do you choose a toy or do you choose a book? Which choice is better for you? Some choices are good, some choices are bad. As you go through life you will learn about good and bad choices. Manzi is asking YOU to learn about some of these choices that you make every day. By making the RIGHT CHOICE YOU can become Water Wise.

WHAT MUST YOU DO?

- Enter the maze at START.
- At each T-junction, read the two choices.
- Decide which is the right choice and follow the arrow.



WHAT DOES IT MEAN TO BE WATER WISE?

- Respect Water, Respect Life
- Don't Waste Water
- Don't Pollute Water
- Pay for Water Services
- Take Environmental Action
- Conserve Water, Conserve the Environment



For Water Wise information please contact 0860 10 10 60 or log onto www.randwater.co.za and click on the Water Wise logo.

VIDEOS

Resource 1 Children can make a world of difference

<https://www.youtube.com/watch?v=bGWr5jXJfbs>

Resource 2 Water saving tips

<https://www.youtube.com/watch?v=6yCAPAqXodc>

Resource 3 Extra reading - Our blue planet

Our blue planet

Can you imagine a world without water? Probably not – without water we wouldn't have the world as we know it. In fact our planet would look like the moon – dry and lifeless.

Here are a few things that make life on earth possible. Air is one, and water is another. Did you know, all living things need water to survive?

How much water do we have?

75% ($\frac{3}{4}$) of the earth's surface is covered by water. Astronauts who have seen the earth from outer space say it looks very blue – so planet earth is sometime called the Blue Planet

This is a photograph of planet earth from space. See how blue it is. All the blue is water. In this view you can see the African continent and the Atlantic ocean.



With so much water – what is all the fuss about saving water?

To answer this question, we need to do some maths. Water, in liquid or solid form (Ice), covers about 70% of the surface of our planet. That's a lot of water – surely more than enough for everyone? But, most of this water is salty so we can't use it. Only about 2.5% of the 70% is fresh water that we can use – that's not much. But it gets worse...about half of all freshwater is frozen in the Arctic and Antarctic (the earth's frozen, icy pole caps)

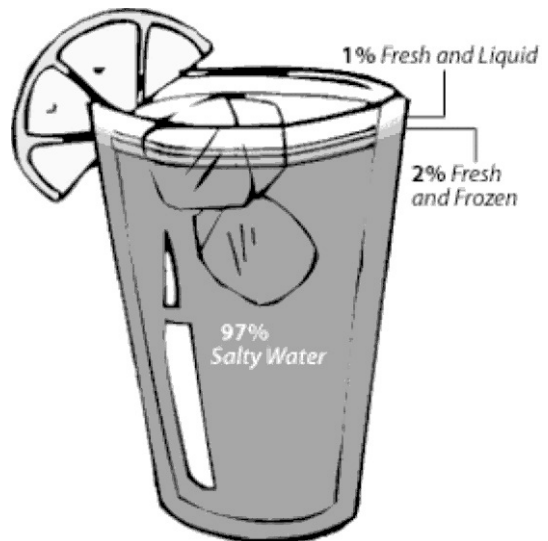
So, you think, why can't we melt some of this ice to get water? We can't, because it is impossible to melt the tonnes and tonnes of ice to get the millions and millions of litres of water we need – so melting polar ice is not a good solution.

If we take all the water on earth, subtract the salty sea water and subtract the water trapped in ice, we are left with about 1% of useable water – this is not much and this is why we all need to be a lot more water wise.



The Arctic (Northern hemisphere) and Antarctic (Southern Hemisphere) are solid sheets of ice, The thickest part of the Antarctic ice sheet is 4776 metres - can you convert that to kilometres?

If the water on earth was shown as a glass of water, you can see that there would only be a tiny sip at the top for you to drink.



Fun fact

Water is the only substance where all three states can be easily seen in everyday life: solid water as ice, liquid water in rivers and gaseous water as steam

How can we save water?

But how can I make a difference?“, you might ask yourself, I'm just one child. But you can. You can make a difference with your own water habits. Think about all the times you use water, and think about how impossible your life would become if you had little to no water. Use water wisely turn off taps when you are brushing teeth or washing hands, check your house for leaking taps, only flush the toilet when needed (If it's yellow, let it mellow) collect cooking and washing water, and water plants. When you have thought about the way you use water? Look at those around you and start to spread the message. If everyone uses a little less water every day, soon we will have enough to last us for a very long time.

Scary fact

One toilet flush can use up to 11 litres of clean water. Flushing less will save millions of litres of water which can be used in more important ways.

Resource 4 Respect water, respect life



G5 resource 4
Respect_Water_Respect_Life.pdf

http://www.waterwise.co.za/export/sites/water-wise/education/activities/respect-water/downloads/Respect_Waterx_Respect_Lifex.pdf

Resource 5 Thousands of years old and still fresh



Thousands_of_Years_
Old_and_Still_Fresh.pdf

http://www.waterwise.co.za/export/sites/water-wise/education/activities/respect-water/downloads/Thousands_of_Years_Old_and_Still_Fresh.pdf

Resource 6 Pipes and puddles (board game)



Resource 6 Pipes and
Puddles game board.pdf

Resource 7 Lets be water wise (board game)



Resource 7 Lets be
Water Wise game board.pdf

Resource 8 Are your choices water wise? (board game)



Resource 8 Are your
choices Wate Wise board game.pdf

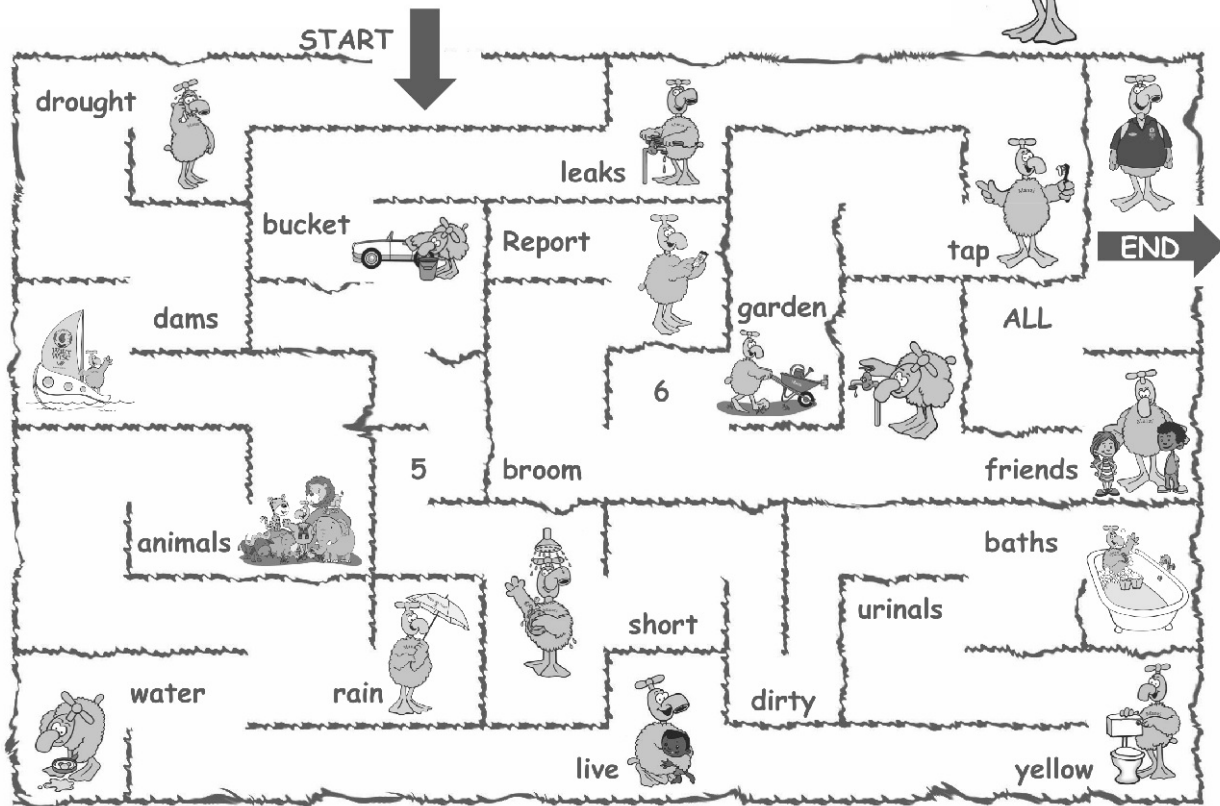
Resource 9 Water music

<http://www.waterwise.co.za/export/sites/water-wise/education/activities/respect-water/downloads/Water - Life Blood of the Earth.pdf>

LET'S BE WATER WISE



Please help Manzi work his way through the maze to collect the missing words for the important message below:



South Africa is suffering from a _____. The land is dry; the rivers and _____ are low; _____ and people are thirsty; and we are not getting _____. We all need to use the _____ that we have in a wise way. We cannot afford to waste water as all life needs water to _____. Here are some Water Wise tips:

- ☘ If it's _____ in a toilet, let it mellow. If it's brown, flush it down.
- ☘ Turn off _____ that run all the time.
- ☘ Take short _____ (less than 20cm). Use the _____ water on the garden.
- ☘ Take _____ showers (less than _____ minutes). Collect the dirty water in a _____ and use it on the garden or to wash a car.
- ☘ Check for _____ and have them fixed.
- ☘ Turn off the _____ whilst brushing your teeth.
- ☘ Water your _____ before 6am and after _____ pm and only for a short time.
- ☘ Sweep any paving with a _____ instead of washing it with water.
- ☘ _____ water leaks to your local municipality.
- ☘ Spread the Water Wise message to your family and _____.

LET'S _____ BE WATER WISE!

For more Water Wise information please log onto www.randwater.co.za and click on the Water Wise logo or phone 0860 10 10 60





World Wise

Intermediate Phase:
Social Sciences
- History

RESPECT WATER,
RESPECT LIFE

Thousands of years old and still fresh!



Did you know that the water we use today is the same water that the dinosaurs drank? So every time you have a glass of water, you are drinking something that an extinct animal drank thousands and thousands of years ago!

Imagine living in a world with no clothes, no cars, no cellphones, no roads or any of the things we take for granted today. But this is how people lived many thousands of years ago. They hunted animals and gathered plant products for their food and they moved from place to place as the seasons changed to follow their food source. In the past, people had respect for water.

But nobody, since the beginning of our Earth's history has been able to survive without water. The plants and animals that provided food for our ancestors all needed water to survive. Humans need water every day and the water needs to be clean and free of pollution. Water needs to be respected as it gives life.

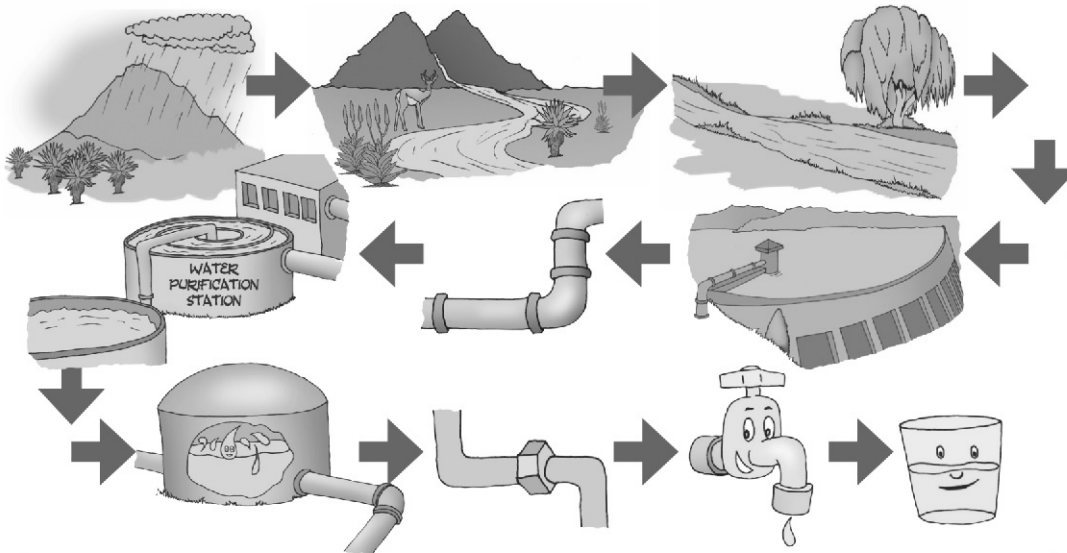
How does water get into our homes?

When you drink a glass of water, do you ever think where it comes from? Why don't you draw a poster of the route that water takes in your area to get into your glass – i.e. the human-made water cycle? Use these questions to help you:

- Does the water come from a river, a dam or from underground?
- Is the water stored in a dam?
- Is the water cleaned before it gets to you?
- Where is the clean water stored?
- How does it get to your tap?

Because of our modern lifestyle, many of our rivers have become polluted and unsafe to drink. To ensure that we have enough clean water, we have had to build dams to store water and water purification stations to clean the water before feeding into the pipes that bring water to our homes. Let's find out how it works.

Look at the diagram below and see whether you can explain what is happening. Label each drawing.



LO1: HISTORICAL ENQUIRY

The learner will be able to use enquiry skills to investigate the past and present.

LO2: HISTORICAL KNOWLEDGE AND UNDERSTANDING

The learner will be able to demonstrate historical knowledge and understanding.

5



RAND WATER

Arty Party

Intermediate Phase:
Arts & Culture – Music

Water – Life blood of the Earth

RESPECT WATER,
RESPECT LIFE

Ever thought how much we rely on water? Just count how many times a day you use it ... you may just get a surprise! And what do you use it for? Think a bit about what else in our world is dependent on water? What happens to crops in a dry season? How does this affect our lives? Water should be respected, as it is very important to all life on Earth. Think about this when doing these activities.



Compare these satellite pictures of the Earth and Venus. What makes it possible for our planet to support life where the others in our Solar System don't?

Tapping up a storm

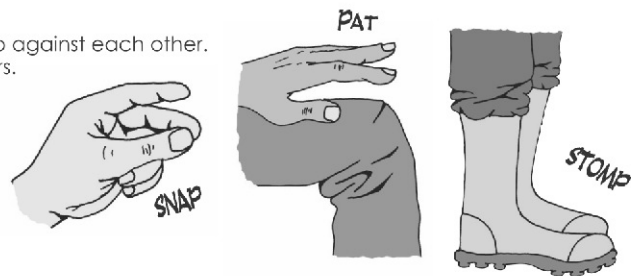
Stand in a circle.

The leader 'passes' the following actions round the circle to the right, and keeps doing that same action until it comes back round the circle. The leader then changes the action and 'passes' a new one around the circle in the same way. Continue to change the action each time the old one completes a circle.

Actions

- Light flicking of all fingers and thumb against each other.
- Fast tapping of palm with two fingers.
- Clapping of hands.
- Patting of thighs.
- Stamping of feet.
- Tapping of palms.
- Flicking of fingers.

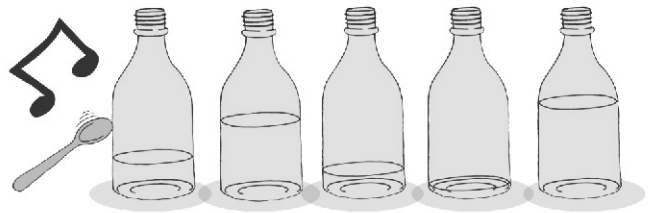
What sound picture has your 'body orchestra' just made?



Water music

You will need:

- Five or six identical glass bottles;
- A measuring jug;
- Water;
- Masking tape; and
- A metal spoon.



Fill all the bottles with different amounts of water – e.g. 50 ml for the first, 100 ml for the second, 150 ml for the third, 200 ml for the fourth, etc.

Hit them with the spoon and listen to the different musical notes that each bottle makes.

Try blowing across the neck of the bottle to make a note.

Decide which of these ways of playing you prefer, then vary the amount of water in each bottle to create notes you can make tunes with. Mark the water level with masking tape, or record how many millilitres of water each bottle contains.

Can you find out why the bottles with the most water produce lower notes when you hit them, but higher notes when you blow across them?

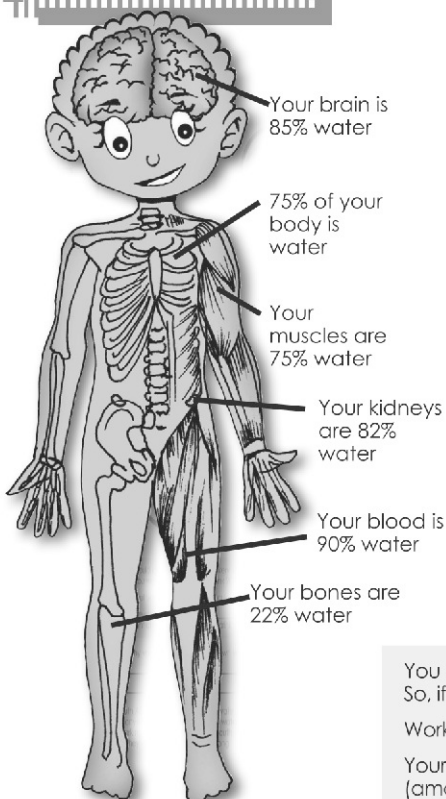
LO3: PARTICIPATING AND COLLABORATING

The learner will be able to demonstrate personal and interpersonal skills through individual and group participation in Arts and Culture activities.

Slice of Life

DID YOU KNOW?

OUR BODIES ARE 75% WATER. THIS IS WHY WATER IS SO IMPORTANT TO OUR HEALTH AND WELL-BEING. WITHOUT WATER, WE WOULD DIE. WATER MUST BE RESPECTED!



Respect Water! Respect Life!

**RESPECT WATER,
RESPECT LIFE**

"Wow ... I NEVER REALISED HOW IMPORTANT WATER IS IN MY BODY. NO WONDER I NEED TO DRINK WATER EVERYDAY."

"WE ALL NEED TO DRINK ENOUGH CLEAN WATER EVERYDAY TO KEEP OUR BODIES HEALTHY. IF WE DO NOT DRINK ENOUGH WATER, WE WILL FEEL TIRED AND GET SICK MORE EASILY."

"YOU LOSE WATER EVERYDAY THROUGH PERSPIRATION (SWEATING). THIS HAPPENS WHETHER IT'S COLD OR HOT AND WHETHER YOU EXERCISE OR NOT. BUT REMEMBER IF IT'S HOT AND YOU EXERCISE, YOU MUST REPLACE THE WATER YOU LOSE THROUGH DRINKING WATER."

"SO HOW MUCH WATER SHOULD I DRINK?"

"GOOD QUESTION. YOU SHOULD DRINK EIGHT GLASSES OF WATER A DAY. THIS WILL KEEP YOUR BODY WORKING WELL. YOU CAN ALSO WORK OUT EXACTLY HOW MUCH WATER YOUR BODY NEEDS BY HOW MUCH YOU WEIGH. DO THE QUICK CALCULATION BELOW TO WORK OUT HOW MUCH YOU NEED."

"WATER IS VERY IMPORTANT FOR MY BODY. WE MUST RESPECT WATER!"

You should drink 30ml of water for every kilogram of body weight. So, if you weigh 30kg, you should drink 900ml of water everyday.

Work out your body's daily water requirement:

Your weight x 30ml = _____ ml
(amount of clean water you should drink everyday)

DID YOU KNOW?

ACCESS TO CLEAN DRINKING WATER IS A BASIC HUMAN RIGHT?

Talk about why you think this is and write down your ideas:

Not all South Africans have enough clean water and have to walk many kilometres everyday to fetch water. There are people working to change this so that all South Africans get the water they need to be healthy and strong.

LO1: HEALTH PROMOTION

The learner will be able to make informed decisions regarding personal, community and environmental health.

LO2: SOCIAL DEVELOPMENT

The learner will be able to understand and demonstrate an understanding of and commitment to constitutional rights and responsibilities, and to show an understanding of diverse cultures and religions.



RAND WATER

Water Conservation

FINISH!

93

92

91

90

You have cut the lawn too much & watered it
BACK 10

88

87

86



84

83

72

Your sprinkler is spraying water on the drive
BACK 4

74

75

76

You planted plants that need less water
MOVE ON 8

78



80

81

82

71

70



68

67

66

65



Your tap is leaking
MISS A TURN

62

61

60

59

48

49

You used dishwater to water the plants
MOVE ON 6

51



53

54

You left the tap running to get cold water
BACK 3



57

58

47

46

45

44

43



You didn't put a plug in the sink
MISS A TURN

40

39

38

37



35

24

25

You used your toilet as a rubbish bin
BACK 3

27

28

29

30

31

You put a full load in the washing machine
MOVE ON 4

33

34



22



20

19

18

You covered the pool to stop evaporation
MOVE ON 4

16

15



13

You took a quick shower
MOVE ON 2

11

Throw a six to start

START
1



3

You turned off the tap while brushing your teeth
MOVE ON 3

5

6



You used a hose instead of a bucket to wash the car
Back 6

9

10