

Day	Daily Water Challenges	Result	Platypus Points	Parents Signature
1	I measured my shortest shower time		5	
	I measured how fast our showerhead flows		10	
2	I made a water catcher		5	
	I measured the cold water in the hot tap		5	
	I calculated our daily water use		5	
3	I found how much water is in a toilet flush		10	
	I completed the crossword		5	
4	I measured water use in the wash basin		5	
	I compared a bath with a shower		10	
5	I described a water-saving invention		5	
	I made and put up reminder signs		10	
6	I checked the house for leaks		10	
	I tested the watertude of our family		5	
7	I found the amount of water used in one load of washing		5	
	I worked out how much water it takes to wash a shirt		10	
8	I worked out the average water use per person per week			
Total Platypus Points				

supported by:



In caring for the environment and this planet, the paper used in this publication has been printed with Bagasse fibre, a waste product of the sugar industry.

PLATYPUS PETE'S WATER PASSPORT

take it easy with water!



Assigned to: _____

Class: _____

School: _____

A Central Coast Public Schools' water saving initiative
"Supported by the NSW Government's Water Savings Fund".

DEAR PARENTS AND CARERS

My name's Platypus Pete and I come from the same place your water does. Don't worry - they clean it first!

As you know, water supplies are low and the challenge is to make it last. You're doing well. Since restrictions on outside watering came in, residential water use has gone down 30%. However, we're still using more than we need inside our homes. That's where your skilful student investigator will be tracking down every drip that gets wasted, using the knowledge and skills learnt at school to help us through the drought and on to an environmentally sustainable future.

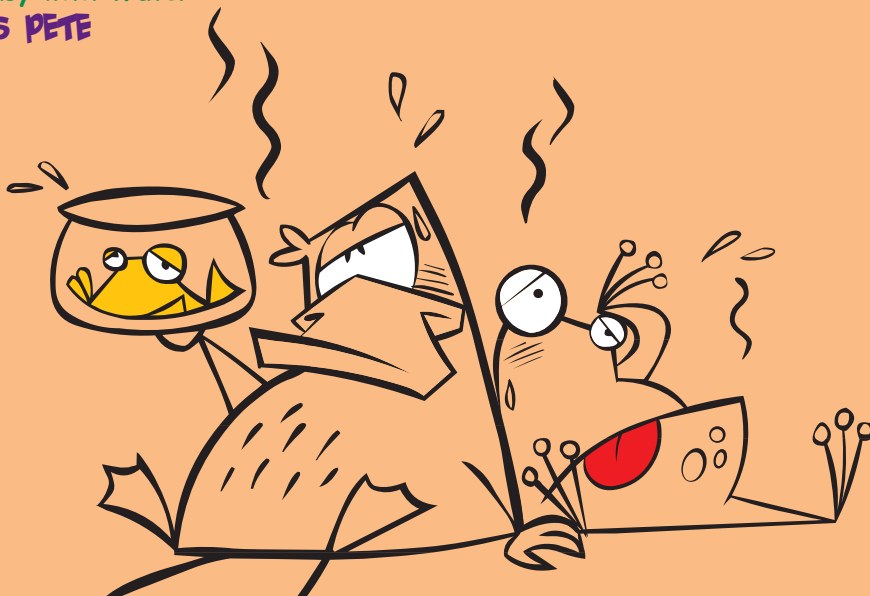


With this water passport and your support, they will find out:

- the average water use per person per day;
- how much water gets used for different activities;
- where water gets wasted; and
- ways it can be saved.

... AND they will be saving water for us - the platypuses, fish and frogs of the rivers and creeks that provide your water. With 300,000 people each using over 1000 litres per week, every litre you save makes a big difference to us.

Take it Easy with Water
PLATYPUS PETE



OUR GOAL:

- to use less than 1000 litres of water per week;
- to be a SUPER water friendly family; and
- to earn Platypus Points for the environment.

HOW DOES IT WORK?

There's a different watery activity on each day; fun investigations, things to make and puzzles to solve.

Each activity explores a different water use and reveals how much water gets used and ways in which it can be saved.

It's important that a parent signs the daily activities checklist on the back cover to show that the whole family benefits from the results.

The one essential activity is recording the water meter on the first and last days in order to calculate the average water use per person per day.

When that's done, congratulate yourself and hand in the passport to earn a certificate and perhaps a prize for your Platypus Points.

LITRES SAVED



HOW TO GET PLATYPUS POINTS

Each person starts with 1000 litres.

Every litre of water not used by the end of the week earns one Platypus Point!

Points are also earned for completing daily challenges.

PRIZES!!! for the most water saved by:

- families at your school
- classes in the school
- schools in the region.
- ... and individual prizes for great water saving inventions, practices and ideas.

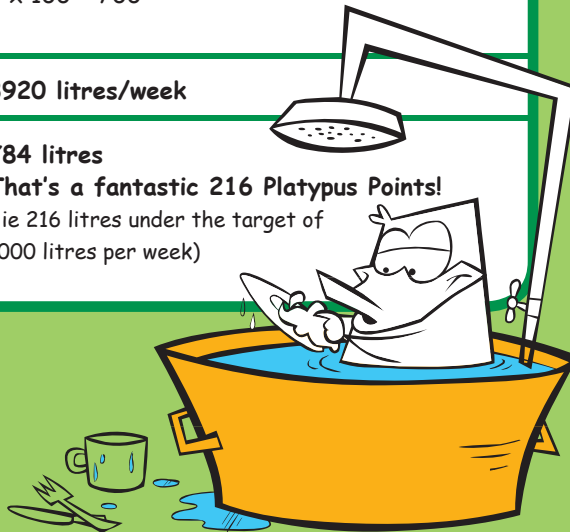


IT'S EASY TO SAVE WATER! SEE HOW A FAMILY OF 5 USED THEIR WATER OVER 1 WEEK

Use	Volumes	Amount of water used (litres/week)
Shower	20 litres/min Old style 10 litres/min Water saving	3 people have a 4 minute shower each day using an old style shower head 3 people x 4 minutes x 20 litres x 7 days = 1680
Bath	80 litres (1/3 full)	2 people share a bath each day 80 x 7 = 560
Basin tap	10 litres/min (aerator fitted)	Each person uses the basin tap for about 1 min /day to wash, clean teeth etc 5 x 10 x 7 = 350
Toilet	5 litres (half flush) 10 litres (full flush)	Each person uses the full flush once and the half flush once a day (5 x 10 x 7) + (5 x 5 x 7) = 525
Dishwashing	10 litres Sink 20 litres Machine	Washing up is done in the sink once a day 7 x 10 = 70
Drinks & Food preparation	5 litres	5 x 7 = 35
Washing clothes	100 litres/load	7 x 100 = 700
Total		3920 litres/week
Average per person per week		784 litres That's a fantastic 216 Platypus Points! (ie 216 litres under the target of 1000 litres per week)

A WATER-SAVING
SHOWER HEAD WOULD
SAVE 840 LITRES/
WEEK

THEY LET IT
MELLOW AND SAVED
350 LITRES/WEEK



HOW TO GET YOUR WHOLE FAMILY SAVING WATER...

- ✓ Challenge each of them to use less than 1000 litres per week.
- ✓ Encourage them each day.
- ✓ Get them to help with the daily water activities.
- ✓ Make it fun! Have a guessing competition to see who can estimate the weekly water use. Have a shortest shower competition.
- ✓ Get serious! Imagine living where just 50 litres per day is a luxury. Discuss how you would do it or see if you can.
- ✓ List the great things your family is already doing to save water eg re-using greywater, installing low flow showerheads, water tanks and water saving washing machines.
- ✓ Have a family reward at the end of the week for family members who help save water e.g. go to the movies, go out for dinner, go on a family outing.

Sis

Mum

big bro

DAD



TAKE THE FAMILY CHALLENGE

USE LESS THAN 1000 LITRES OF WATER PER PERSON PER WEEK

Sign on the dotted line if you:

ACCEPT THE CHALLENGE

Parent's signature



Too EASY! THAT'S
100 BUCKETS OF
WATER FOR EACH
PERSON

MEASURING WATER

The water meter shows the volume of water supplied to your house and provides an easy way to keep track of how much gets used. The difference between the readings on the first and last days of the week will show the amount of water used in that week. This is the amount that will be used to calculate your platypus points.

HOW TO READ YOUR WATER METER

This meter shows that 5,828,632 litres of water have gone into the house since the meter was installed.

If your meter is like this, record the reading just like it is on the meter.

5	8	2	8	6	3	2
---	---	---	---	---	---	---

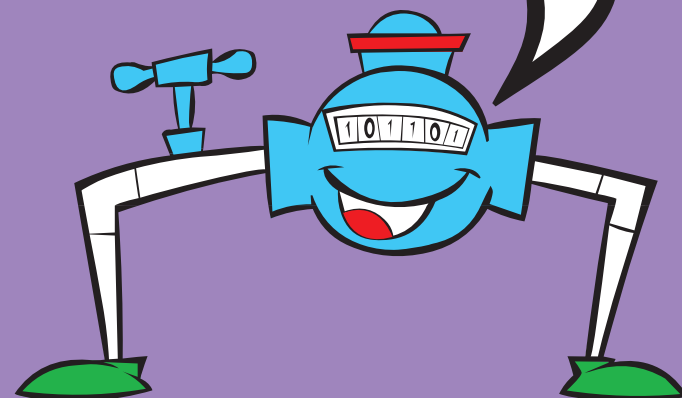
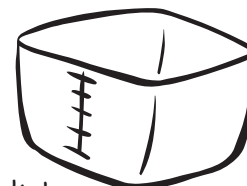
If your meter has 4 red numbers, don't record the last number (it's a fraction of 1 litre).

5	8	2	8	6	3	2	8
---	---	---	---	---	---	---	--------------

If your meter has only two red numbers add a zero at the end when you record it.

Other useful measuring devices.

Some of the daily activities require a container of known volume that can be used to measure water. Look around the house for medicine measuring cups, empty drink bottles, ice-cream tubs and a bucket.



DAY 1

READ YOUR WATER METER
AND RECORD IT BELOW

Date:

Today's reading:

Time:

--	--	--	--	--	--	--

THE BATHROOM IS WHERE BIG WATER AND
ENERGY SAVINGS CAN BE MADE.

Let's investigate...

...how fast your shower flows.

You will need a bucket and a watch for this activity.

- Use the bucket to collect all the water that comes out of the shower in 15 seconds.
- Measure how much you collected by pouring it into a container of known volume eg a 2 litre ice-cream tub.
- Tip the water on the garden and write the answer below.

Shower water collected in 15 seconds: _____ litres
Multiply this by 4 and write the answer
in the space below.

10 PLATYPUS
POINTS!

Our shower flows at _____ litres / minute.

Don't forget to record your results on the back cover to get
your Platypus Points.

















PETE'S TIPS:

- If your shower flows at more than 10 litres per minute you could save a lot of water, energy and money by installing a water-saving showerhead. They're practically free.
- Turn the shower off while lathering up and shampooing.

HAVE A SHORT SHOWER!

It's easy to get dreamy and comfortable in the shower and forget that precious water is going to waste. Find the minimum time needed to wash yourself under the shower. On the chart below circle the number of buckets you used.

5 PLATYPUS
POINTS!

Time	1 min	2 min	3 min	4 min	5 min	6 min	7 min	8 min
Old style Shower head*								
Each bucket holds 10 litres. Old style showerheads use about 20 litres per minute. Water-saving showerheads use about 10 litres/minute.								
Water saving shower head								
Number of litres								
	FANTASTIC		GREAT EFFORT		YOU MUST HAVE BEEN DIRTY		DID YOU GET WRINKLY?	

If you found out
how fast your
shower flows, fill
in this row

My shortest showertime was: _____

PETE'S TIP: Get a free shower timer from council.



DAY 2

24 HOUR WATER USE

READ YOUR WATER METER AT THE SAME TIME AS ON DAY 1

Time:

Today's reading:

--	--	--	--	--	--	--

Reading on Day 1

--	--	--	--	--	--	--

Amount Used in one day (litres)

--	--	--	--	--	--	--

The difference in the two readings is the amount of water used.

5 PLATYPUS POINTS!

WAITING FOR THE HOT WATER

When you turn on the hot tap at the kitchen sink or shower and then wait... and wait for the hot water to flow, do you ever think about the waste of good clean water and energy?

Let's investigate this problem!

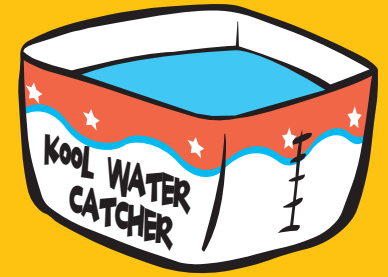
You will need a 3 or 4 litre container like an ice-cream tub to collect and measure the amount of cold water that comes from the hot water taps in the kitchen and shower. Record these amounts in the spaces below, together with some suggestions on how to make use of the water you collect.

Hot Tap	Cold Volume	Use it for...
Kitchen Sink	litres	
Shower	litres	
Total amount that could be saved in one week		

5 PLATYPUS POINTS!

Decorate an ice cream tub to make a handy water catcher for collecting all that cold water that comes out of the hot taps.

5 PLATYPUS POINTS!



PETE'S TIPS:

- Remember to fill your dishwasher before operating it.
- Wash vegetables in a bowl of water and then use the water on the garden.
- Don't thaw foods under running water.
- Keep some cold water in the fridge so you won't need to run water down the sink till it's cool enough to drink.
- Fit taps with \$3 aerators to reduce flows and provide 'softer' water.



DAY 3

How Big is A FLUSH?

READ YOUR WATER METER
BEFORE AND AFTER YOU
FLUSH THE TOILET.

The difference is the flush volume.

Before

--	--	--	--	--	--	--

After full flush

--	--	--	--	--	--	--

Full flush volume: _____

After half flush

--	--	--	--	--	--	--

Half flush volume: _____

LET IT MELLOW!

About 1/4 of all the clean drinking water we use inside our houses is flushed down the toilet - What a waste!

Record how often you flush the toilet in one day.

Full flush: _____

Half flush: _____

How much do you save by taking the advice of the poet who said?:

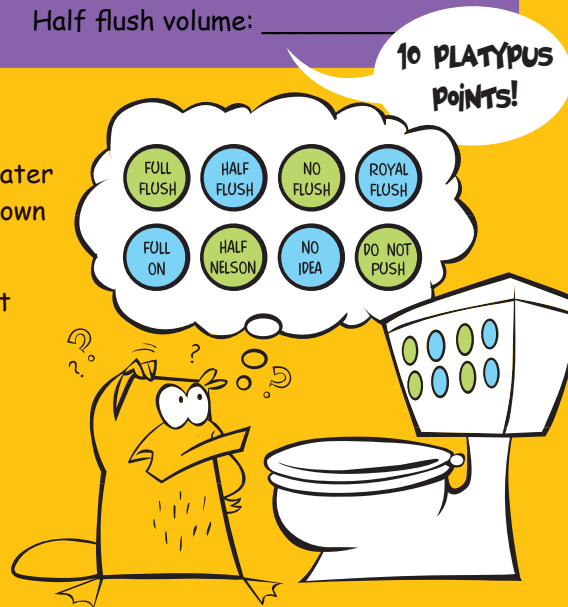
**If it's yellow let it mellow,
If it's brown flush it down**

Water saved by 'letting it mellow': _____ litres

If you haven't worked out the flush volumes using the meter, estimate a full flush as 8 litres and a half flush as 4 litres.

PETE'S TIPS:

- An old style single flush toilet could use over 12 litres. This volume can be reduced by placing a water-filled plastic bottle or a waterbag in the cistern. OR
- Get a cistern weight that allows the toilet to flush only as long as the button is held down. They're cheap and easy to install.



PLATYPUS PETE'S TAKE IT EASY WITH WATER CROSSWORD

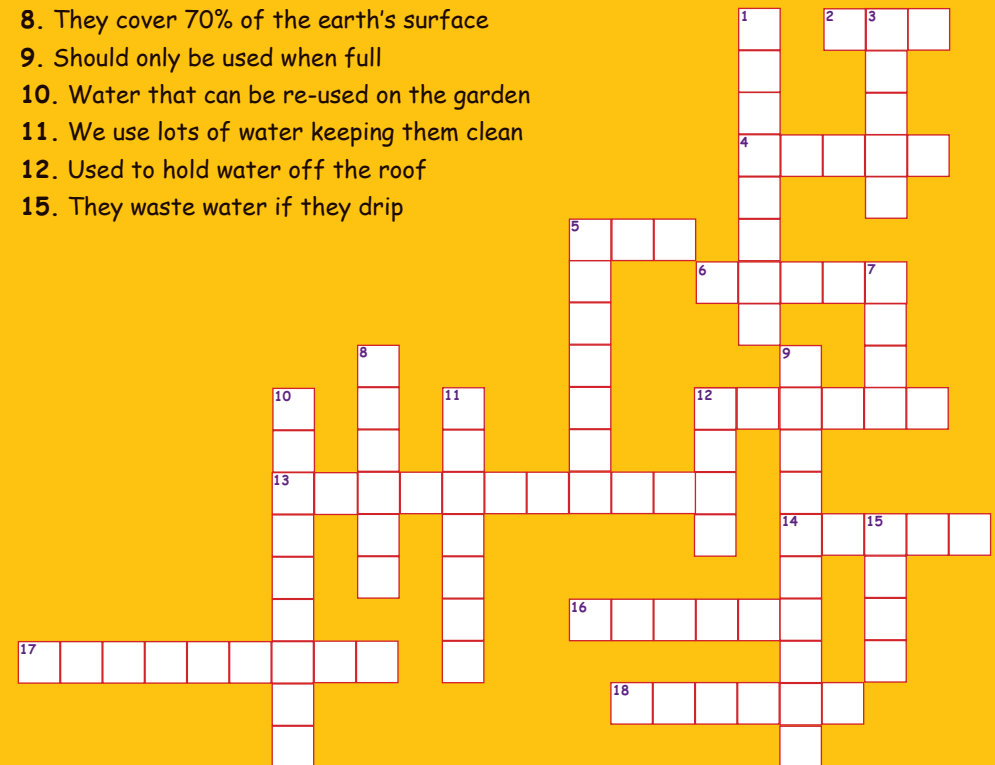
ACROSS

- This makes up most of earth's freshwater
- Helps save water in the shower
- Holds back the flow of water
- This can save water in the garden
- Save water here by letting it mellow
- Part of the water cycle
- There would be no life without it
- These can be a sign of rain
- 1000 litres
- Biggest water use inside the home

DOWN

- A unique animal that needs healthy flowing rivers
- Helps stop water evaporating from a swimming pool
- A period when the rains don't come
- This can't be used when there are level 4 water restrictions
- They cover 70% of the earth's surface
- Should only be used when full
- Water that can be re-used on the garden
- We use lots of water keeping them clean
- Used to hold water off the roof
- They waste water if they drip

5 PLATYPUS
points!



DAY 4 WASH-BASIN BASICS

Time how long it takes to clean your teeth (properly).

Time: _____ seconds

Of course you didn't leave the tap running - but if you had, guess how much water it would have wasted?

Mark your guess on the scale below.



5 PLATYPUS POINTS!

To find the correct answer you will need a small container eg a 2 litre ice-cream container and a watch. Use them to measure the amount of water you can collect in 10 seconds.

Basin water collected in 10 seconds: _____ litres

Therefore the basin water that would have been wasted in the time needed to clean my teeth is: _____ litres



PETE'S TIPS:

- Use a shaving mug instead of the basin when shaving.
- There's no need to leave the tap running while you brush your teeth. Simply wet your toothbrush before you begin and use a glass of water to rinse your mouth.

BATH OR SHOWER?

To bath, or shower: that is the question. Whether it's more wasteful to have one or the other? Decisions, decisions!

Let's investigate this eternal question...

To make it interesting, have a guessing competition to see which family member comes closest to estimating the volume of water in the bath. First you'll have to agree on the level of water needed for a good wash without wasting water. You might like to mark this level with coloured sticky tape.



Have your say .. Bath or Shower

- The same bath water can be used by other people in the family.
- Old bath water can be used to flush the toilet, water the garden and wash the dog.
- You can shave in the bath but it's very wasteful in the shower

Now mark your family's guesses on the scale below:



Time how long it takes to run the bath to the agreed level.

Time to run the bath: _____ minutes

While you're waiting, find the rate at which water comes out of the tap. Do this by collecting the water in a bucket for 15 seconds and then measuring the volume collected.

Water collected in 15 seconds: _____ litres

Multiply this by 4 to get the rate in litres per minute.

My bath tap flows at _____ litres / minute

Now multiply this by the time it took to run the bath to get:

The amount of water in the bath: _____ litres

How long would it takes to use the same amount of water in your shower? _____ minutes

10 PLATYPUS POINTS!

DAY 5

REMINDER SIGNS

10 PLATYPUS
POINTS!

5 PLATYPUS
POINTS!

**THINK UP CATCHY SLOGANS AND
TURN THEM INTO EYE-CATCHING SIGNS.**

Display them near water outlets around the
house to help remind everyone to save water.

For example:

- Take it Easy with Water
- Slow the Flow of H₂O
- Every Drop Counts
- Short Showers Shave Water
- Shut Your Tap
- If it's yellow - Let it mellow
(for the toilet)



OUR AMAZING WATER SAVING INVENTIONS

If you've heard about aqueducts, windmills and
no-flush toilets you will know that people do
amazing things to provide a reliable water supply.
Describe things that people in your house do or
could do to save, get or re-use water.



OUR GREAT IDEAS ARE...



DAY 6 THE SEARCH FOR GHOSTS & HIDDEN LEAKS

If the water meter shows water being used when no-one in the house is using any, then either you have ghosts or you have leaks.

Let's investigate...

Arrange for there to be no-one in the house turning on taps, using washing machines, dishwashers or flushing toilets for about 3 hours.

Now read the water meter and record it in the space below:

--	--	--	--	--	--	--	--

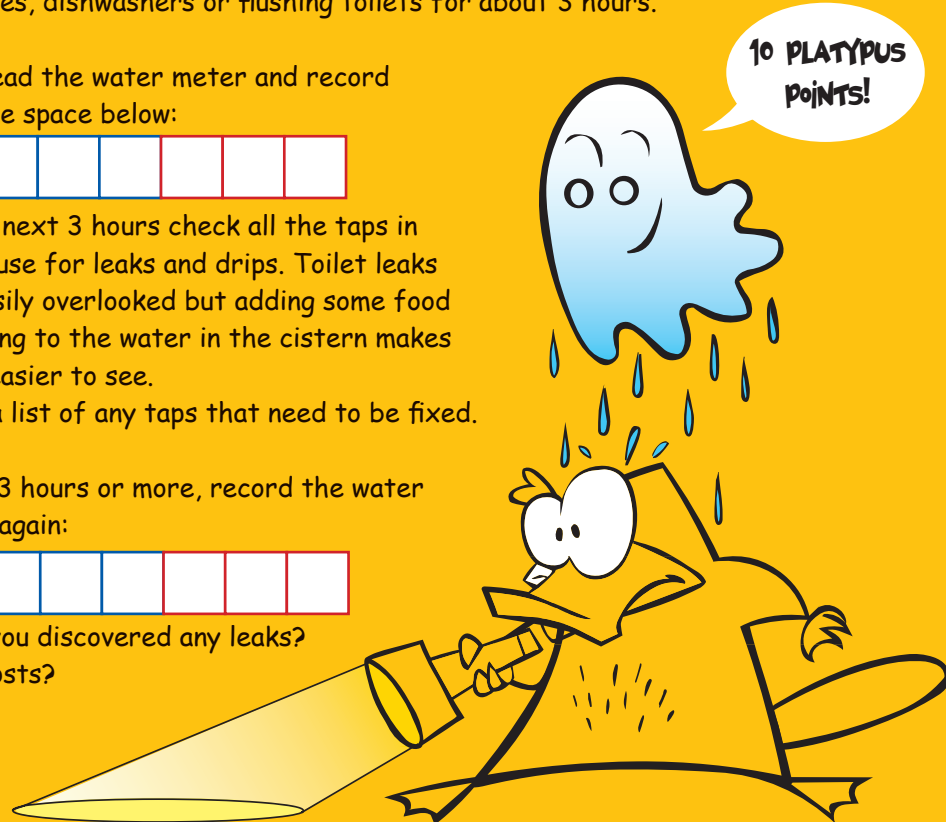
In the next 3 hours check all the taps in the house for leaks and drips. Toilet leaks are easily overlooked but adding some food colouring to the water in the cistern makes them easier to see.

Make a list of any taps that need to be fixed.

After 3 hours or more, record the water meter again:

--	--	--	--	--	--	--	--

Have you discovered any leaks?
Or ghosts?



WHAT'S YOUR WATERTUDE?

- You have friends over for a sleepover. One of them has been in the shower for 15 minutes. You: **a)** say nothing **b)** ask him/her to hurry up **c)** complain to the others behind his/her back
- You've come back from the beach with sandy feet. Before going inside, you: **a)** hose your feet **b)** walk straight to the shower **c)** brush off the sand using a towel
- You've decided to change clothes to go to the movies. The clothes you take off are not dirty. You: **a)** put them back in your drawer **b)** leave them on the floor for someone else to decide where they go **c)** put them in the washing basket.
- Someone in your family has just had a bath. You: **a)** drain the water out and run a fresh bath for yourself **b)** ask them to leave the plug in so that you can re-use the bath **c)** have a shower
- You have a garden that you water with **a)** greywater from the washing machine **b)** tank water **c)** the hose
- The dog needs a wash. You: **a)** ring the mobile dog wash **b)** fill up the bath **c)** use last night's bath water
- You shower: **a)** usually once a day **b)** usually twice a day **c)** more than twice a day
- In the toilet you: **a)** always use the half flush **b)** let it mellow if it's yellow **c)** always use the full flush
- Your dad is about to wash the car with the hose. You tell him about the water restrictions and suggest: **a)** that he drives to the carwash **b)** that he makes sure the neighbours aren't watching. **c)** that he should use a bucket of greywater from the shower or bath
- Your main water saving behaviour is: **a)** having short showers **b)** only drinking bottled water **c)** trying not to splash water out of the pool

5 PLATYPUS POINTS!

1 0 a) 0, b) 10, c) 5 / 2 a) 0, b) 5, c) 10 / 3 a) 10, b) 5, c) 0 / 4 a) 0, b) 10, c) 5 / 5 a) 5, b) 10, c) 0 / 6 a) 5, b) 0, c) 10, / 7 a) 10, b) 5, c) 0 / 8 a) 5, b) 10, c) 0 / 9 a) 5, b) 0, c) 10, / 10 a) 10, b) 0, c) 5 / 00 100 Wicked watertude. You value water and are prepared to do your bit to make it last. A real droughtbuster
70 - 85 Willing Watertude. You're a water saver at heart!
45 - 65 Wishing Watertude. You're just praying for rain.
0 - 40 What Watertude? Not the sort of person to be stuck with on a desert island.

DAY 1 WASHING DAY

HOW MUCH WATER DOES IT TAKE TO WASH A SHIRT?

First you need to find how much water it takes to wash a full load.

Use the Water Meter:

- arrange for there to be no-one in the house turning on taps, using dishwashers or flushing toilets while the clothes are washing.

Read the water meter before the washing machine starts and again just after it finishes.

Before

--	--	--	--	--	--	--	--

After

--	--	--	--	--	--	--	--

5 PLATYPUS POINTS!

The difference in the two readings is the amount of water used.

One load of washing uses: _____ litres

PETE'S TIPS FOR SAVING WATER IN THE LAUNDRY:

- Only wash when there is a full load
- Select the most water efficient cycle that the machine offers
- Wash and/or rinse a 2nd load with the same water
- Collect the rinse water to use on the garden, or to wash the floor, windows or the car
- Both Gosford and Wyong Councils provide a \$200 rebate to residents who buy a water efficient washing machine.



The next step is to count all the items in the wash. Best to do this as they are hung on the line. Don't worry about the different sizes (it'll all come out in the wash) because the average size is probably about the size of a shirt.

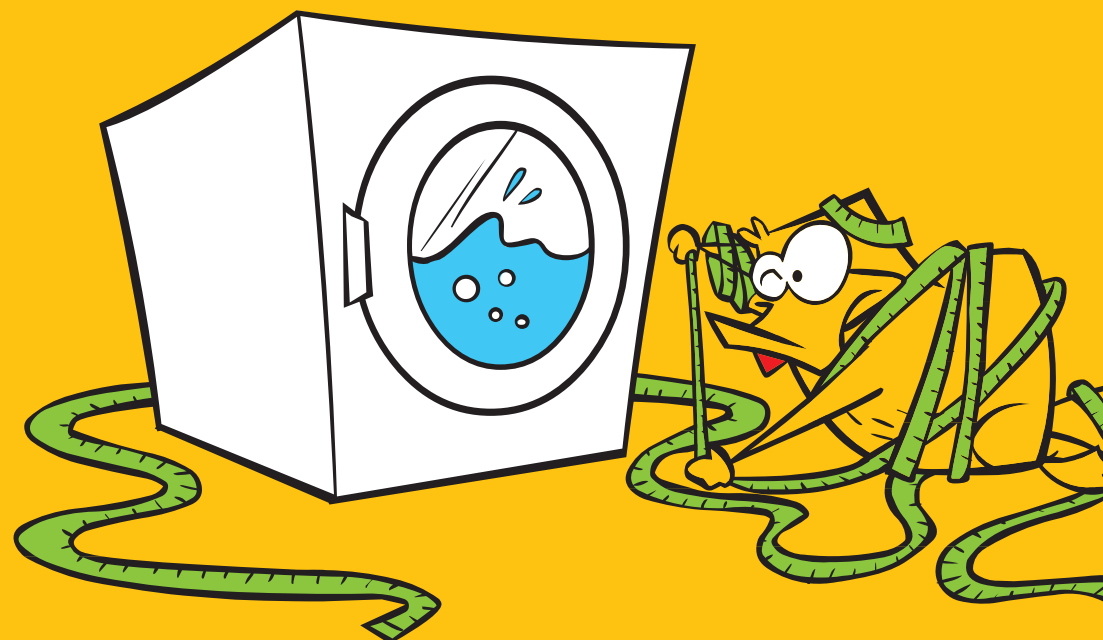
10 PLATYPUS POINTS!

Number of items washed: _____

COMPLETE THIS SENTENCE: It took _____ litres of water to wash _____ items of clothing. How much did it take to wash one average-sized item of clothing?

Average amount of water per item of clothing: _____ litres

This is the amount of water wasted when clothes get washed unnecessarily eg towels washed after a single use or clothes left on the floor when they should have been put away.



DAY 8

AVERAGE WEEKLY WATER USE

READ YOUR WATER METER AT THE SAME TIME AS ON DAY 1

Time:

Today's reading:

--	--	--	--	--	--	--	--

Reading on Day 1

--	--	--	--	--	--	--	--

Amount Used in one week (litres)

--	--	--	--	--	--	--	--

The difference in the two readings is the amount of water used.

Calculate your Platypus Points:

Divide the amount of water your family used in one week by the number of people in the house to find the average water use per person per week.

We each used _____ litres / person / week

Each litre below the target of 1000 litres per week earns one Platypus Point.

I EARNED

PLATYPUS POINTS

WELL DONE! CHALLENGE COMPLETED



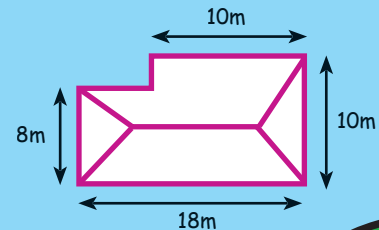
Did You Know?



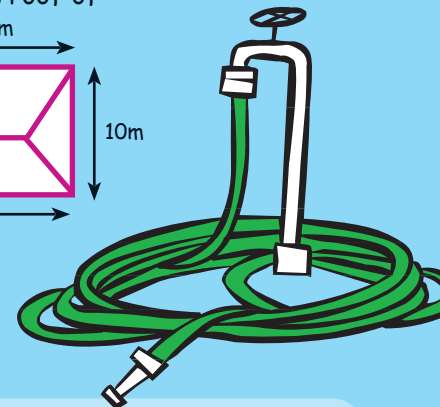
- 1000 litres (1 kilolitre) of water weighs one tonne and would fill a regular box trailer
- A camel in the desert can survive 20 days without a drink.
- It takes about 6000 litres of water to produce the ingredients for a hamburger
- A human is 66% water.
- Freshwater animals are disappearing five times faster than land animals.
- The Australian desert hopping mouse lives on dry seeds and never drinks.
- A \$19 water saving showerhead can cut \$100 a year from power and water bills.
- Over 1 billion people in the world don't have a supply of safe drinking water.

How Much Water Runs Off The Roof?

Water tanks store the water that falls on the roof. It can be used to water gardens, wash clothes and flush toilets. To estimate how much water falls on the roof of a house in one year, measure the roof area in square meters and then multiply this number by the average yearly rainfall for the Central Coast which is about 1200mm eg if roof area is 164sq metres then $164 \times 1200 = 196,800$ litres or nearly 200KL.



TANK WATER
DO NOT DRINK



PETE'S TIP: Your council provides rebates for water tanks.