

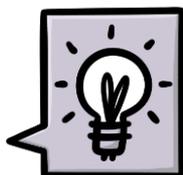
SCHOOL WATER AUDIT

Name: _____ Grade: _____

INTRODUCTION

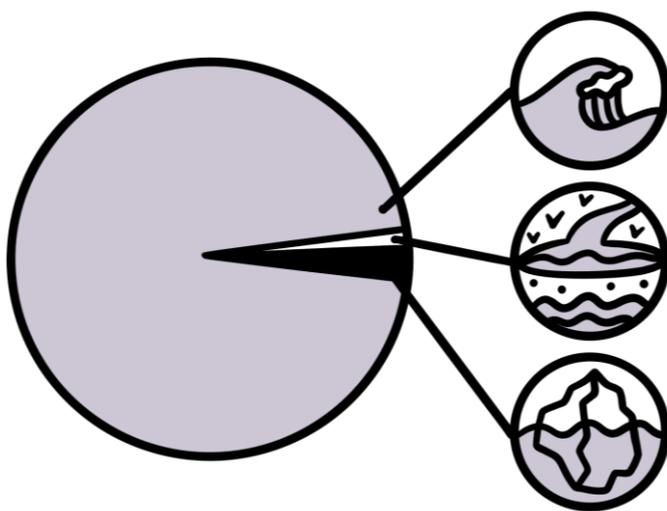
Water is Life!

All living creatures need water to survive.



Did you know? Only a tiny bit of water on earth is fresh water AND more than half of the fresh water is water we can't currently use (underground, in glaciers, or even polluted).

Water on Earth



Ocean 97%
Saltwater

Rivers, Lakes, Groundwater 1%
Freshwater

Glaciers 2%
Freshwater

Water is Precious!

- I wonder What can I do to help save water?

WATER & SANITATION

Grade 6 & 7 Audit

We can all do something to save water. Schools are a good place to start because they use a huge amount of water.

Before we can start saving water, we need to get a better idea about where we are wasting water.

- List all the activities and fixtures that use water in your school e.g. toilets, tuckshop



- Which areas do you think use the most water?



ACTIVITIES

Water Sources and Wastage

- In groups, complete the following table. Remember to visit all the areas listed above. Different groups can visit different areas.

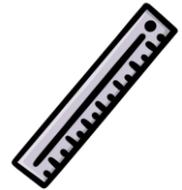
Water Point 	How many? 	How many are dripping or broken? 
Inside Tap		
Toilet		
Drinking fountain		
Urinals		
Outside Tap		
Sprinkler		
Other		
Total		

Looking at Leaks

So why does a leaking tap matter, isn't it just a tiny amount of water? Time to work out how much water is wasted.

Equipment needed: dripping tap, measuring jug, watch/timer

- Place the measuring jug under the drip/leak and measure how much water is wasted in one minute.
- Use the table below to work out how much water is being wasted.



A	B	C	D	E
Water lost in one minute	Water lost in one hour (A x 60)	Water lost in 24 hours (B x 24)	Converted to litres (C ÷ 1000)	Water lost in a year (D x 365)
A = ml	B = ml	C = ml	D = L	E = L

Wow, so much water was wasted from just one tap! I bet the amount surprised you. How can we make sure dripping taps don't send precious water down the drain?

- Write four solutions down below. Be creative, there are many solutions!

To the Toilets

Toilets use a lot of water. How much water you ask... let us try and work it out!

1. First, work out the amount of water contained in the water tank (cistern) of the toilet. Switch off the water supply to the toilet and flush the toilet. Use a container of known volume to refill the cistern to give you an idea of the capacity.
2. Gather your data: what we need to know next, is how many times a day a toilet is flushed. Using the record sheet below, encourage learners to place a tick each time they flush the loo. At the end of the day, collect all the data sheets and tally up the number of flushes per day. You can then use this to work out how much water is used (using the amount from step 1). Calculate a grand total for the number of litres used by the school in a day.
3. For accuracy this should be repeated over a few days.
4. Calculate your average loo flushing total for the school year, by using the following equation:



$$\begin{aligned} & \text{Number of litres used per day} \times 158 \text{ (average number of school days)} \\ & = \text{annual total } L \end{aligned}$$

Toilet Water Tally

Date _____

Toilet Location _____

Every time you flush the toilet, please tick in one of the boxes

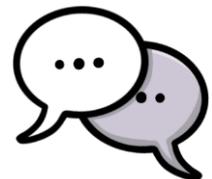
Cistern Capacity in Litres _____

Litres used today _____

DISCUSSION

Class Discussion

- Do toilets in different areas get flushed more or less frequently?
- Were there days when toilets were flushed more frequently? Why?
- What are the limitations of using a record sheet?
- Are there any water-saving measures in place in the toilets?
- Which do you think wasted more water, leaking taps or toilets?

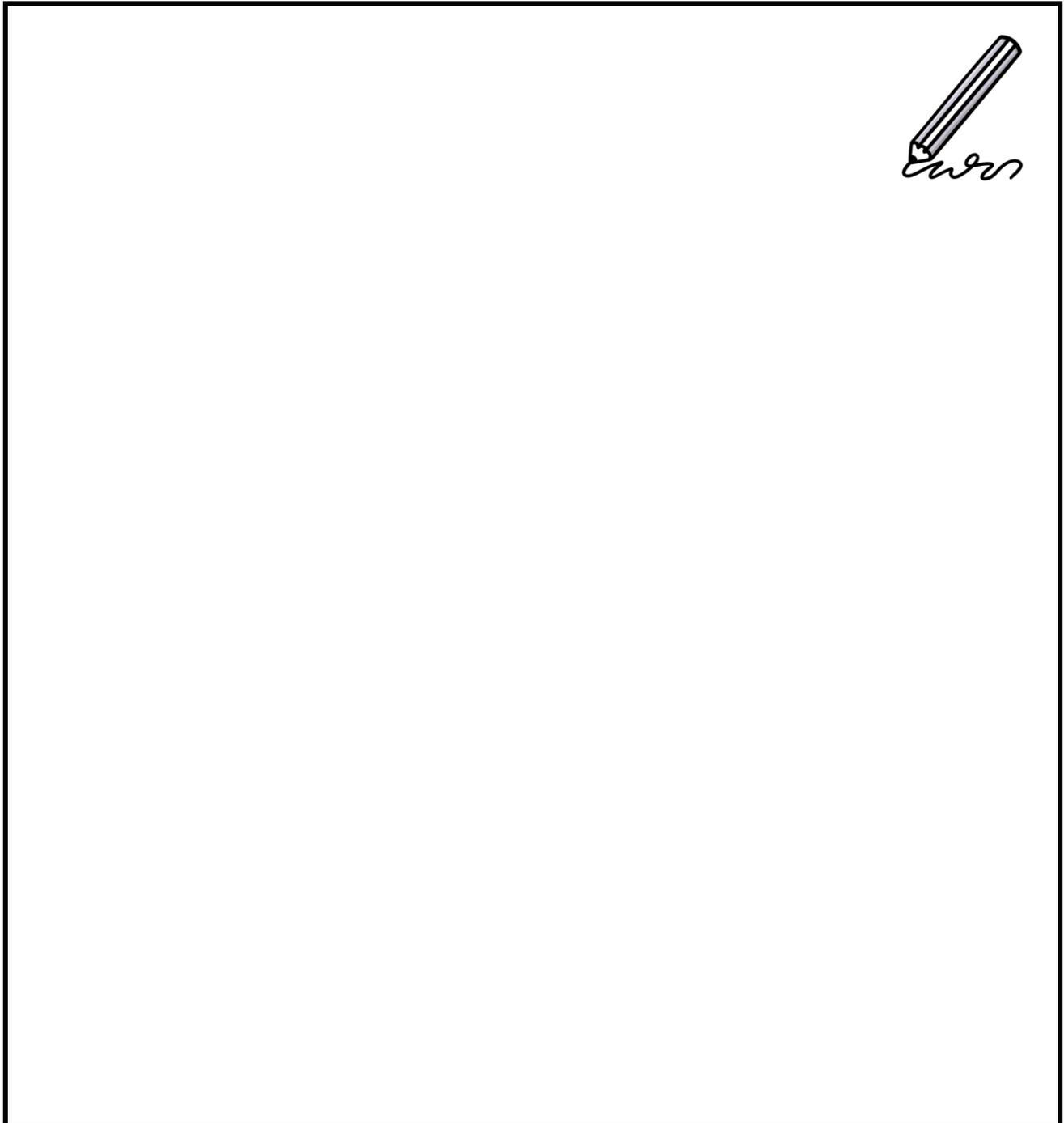


ACTION PLANNING

Save the World

Design an innovative bathroom system for a school that fulfils the following:

- reduces water use
- creatively re-uses wastewater



A large empty rectangular box for drawing a design, with a pencil icon in the top right corner.