

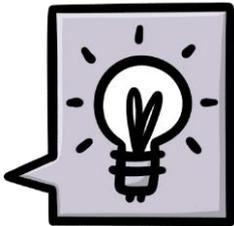
SCHOOL WATER AUDIT

Name: _____ Grade: _____

INTRODUCTION

Water is Life!

All living creatures need water to survive.



Did you know? Only about 3% of the earth's water is fresh water. Even more astounding is that of this 3% only about 1.2% is currently accessible to humans for drinking. The remainder is either polluted, locked away in glaciers, ice caps and permafrost or deep underground. The reality is that we need to really focus our efforts on conserving our water for generations to come.

I wonder

- How is water treated before reaching our school?
- What is the cost of delivering safe water to the school?
- Why is it important that the school community uses water wisely?
- How much water does our school really need?
- How can we reduce the amount of water that is used at school?

How do we start saving water?

To conserve water, we need to understand how, where, and why water is used in our school. The simplest method is to do a water audit.

ACTIVITIES

Pre-Audit

Identify the allocated areas in your school that have water devices. Prepare a school map or use Google Earth and clearly mark the various water points at your school.

Possible audit areas within the school grounds could include:

- Boys' toilets
- Girls' toilets
- Staffroom, staff toilets, offices
- Classroom taps (include library, etc.)
- Other rooms and buildings such as the hall, maintenance room, tuckshop, dormitories etc.

Meter Reading

Reading the water meter of a property gives an accurate overview of whole school water usage. It does not, however, show where water is used. If possible, take readings at the same time of day (morning and afternoon) for a week to record total water usage in the school. **Calculate the average daily water-use and record in the table.**

Day	Morning Reading	Afternoon Reading	Daily Water Use (afternoon – morning)
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Total			
Average Daily Water Use			

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

DISCUSSION

Discussion Points

- What percentage of water points had water leakage problems?
- How many of these problems had an easy solved?
- Which areas had the most problems?
- How much water do you estimate the school is losing through leaks? Apply this to your daily water usage, acquired from the water meter readings.
- What are the limitations of an audit of this sort?

ACTION PLANNING

Water Management

Think about the actions that need to be taken for each problem that was noted in the various audit areas. **Create a management plan to address issues in a timeous manner.** An example has been provided below.

Audit Areas/Locations	Water-saving Actions	Performance Target
<i>E.g.: Staff toilets</i>	<i>Dripping tap in staff toilet to have washer replaced</i>	<i>To repair by month end</i>

Water, water everywhere it shouldn't be...

The audit has addressed a single factor of water wastage in the schools. Pick one other area of water wastage of which you are aware. **Describe the issue, propose a method to audit this issue and finally prepare a management plan detailing how to tackle the issue.** For example: *excessive use of sprinklers*

Sources used as reference:

- Cool Australia water secondary Student Worksheet:
<https://www.coolaustralia.org>
- Water audit:
https://www.dnrme.qld.gov.au/_data/assets/pdf_file/0007/1409263/years6to8-geography-science-school-water-audit.pdf
- Sydney Water audit :
<https://www.sydneywater.com.au/sw/education/programs-resources/highschool/water-audit/index.htm>