

THEME:	Sustainability
SCOPE & SEQUENCE UNIT:	Home Water Audit
OBJECTIVE:	How much water do we use?
ACTIVITY:	Take-home water audit http://www.mwcog.org/environment/water/watersupply/downloads/Home%20Water%20Audit.pdf

Notes:	In-class activity & take home activity
Teacher Prep.:	This activity is partially homework as students need to have input from the adult(s) at home. This activity follows well after the Mapping Home Water Flow.
Time:	45 minutes – in-class

Skills:

- ◆ Critical & creative thinking
- ◆ Math literacy
- ◆ Ecological (water) literacy

Objectives:

- ◆ To understand how much water is used at home and in different households
- ◆ To consider where water is used within the home
- ◆ To consider ways to recycle or reduce water use at home (inside and outside)

Vocabulary:

Audit: An evaluation or assessment of a process, system, organization, etc.

Finite: Not endless or limitless.

Domestic: Pertaining to the household or family.

Average: The measure of a typical or middle ground value calculated from a data set. Often the average condition or situation does not exist in reality.

Potable: Water safe enough for humans to drink and not get sick.

Materials:

Home water audit – to take home

Flip chart page to record predictions of home water use

Completed home water audit – for in-class activity

Sticky notes (1/student)

Background Information:

Freshwater is available in a limited and finite quantity. Issues dealing with water revolve around both quantity and quality available. Potable freshwater is a precious resource. Water is a finite resource meaning there is a limited amount of potable freshwater available for our needs. How we use this water determines how much is available for our continued use, for others use, and for the natural world.

Introductory Discussion:

How much water do each of us use in the home in an average day or week? Is this something we need to think about? What difference does it make how much water we use?

Activity:

Make a prediction as to how much water is used at home, then complete the Home Water Audit at home and bring it back to class.

With completed home water audits in hand, have students turn to their left and pair up with their neighbour to discuss their home water audit. Three minutes each.

Create a class list of student names and home water total use (list student names and across top have a scale of home water consumption; students place their home total value on the stickie note, then stick it to the correct place on the chart).

As a class, dialogue on home water use: Were the predictions close? What is the least amount of home water consumption from the chart? What is the most? Calculate the average home water use from the chart.

Reviewing individual home water audits, what activities use the most water? Does the number of people living in a home make a difference to water consumption?

Option: To visually see where water is used in the home, students chart their results and create a bar graph showing specific household activity on the y axis and litres of water used up the x axis.

Reflection Discussion:

How could water consumption at home be reduced? Does water in the toilet need to be potable as it is currently? Does water on the lawn need to be potable or water for washing the car? What might be other sources of water for this? Nature recycles everything. Is there any case of recycling water in the home? Domestic water use is only one use of water. What are other uses or categories of uses of water?

Student Page:

Home water audit

<http://www.mwcog.org/environment/water/watersupply/downloads/Home%20Water%20Audit.pdf>

note that this water audit uses units of gallons; another audit using litres and with a lesson plan can be found at :

<http://www.peelregion.ca/pw/waterstory/pdf/activities/home-water-audit.pdf>

Taking it further:

Brainstorm ways to save water and set up a class challenge.

Write a letter to the local newspaper about water use and offer the audit to readers.

Research global water use relative to the home water audit.

Consider the quantity of water used in the things we buy – the virtual water use of each product.