How much is fresh?

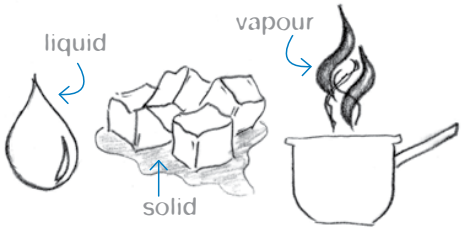
WATER OF LIFE ACTIVITY

What can we learn?
b) Fresh, clean water is a relatively scarce resource

This experimental activity compares how much water is in two of the three states (liquid and solid). It then looks at how much of the liquid water is available as fresh water for drinking.

You will need

A series of measuring containers that can measure 1 L, 24 ml, 6 ml and a single drop (an eyedropper or stirring rod can pick up one drop of water)



Method

How much water is there in the world?

1. Fill a container with 1 litre of water. This represents all the water in the world (excluding vapour in the atmosphere).
2. Take out 24 ml. This represents all the water that is frozen in snow and ice, 2.4 percent of the water on the planet. Put this in a separate container and label it 'ice'.
3. See how much is left. This is the amount of water that is liquid. Keep this for the next activity.

How much can we drink?

4. Take the liquid component left from the previous activity (976 ml).
5. Draw out 6 ml of water and put into a smaller container. This represents the fresh water in the world in a liquid state (0.6 percent of the total water). Note that of the 6 ml, only about 2 ml represents surface water; the rest is underground. However, don't measure this out as some ground and some surface water are available.
6. Put salt in the rest (970 ml) and label this container 'oceans'.
7. Now, from the 6 ml of fresh water, draw out a single drop (0.003 ml).

This represents the proportion of water in the world that is available to drink (0.0003 percent of the total). The rest of the fresh water is too dirty, trapped in the soil, or too far underground to extract. Drop the drop into a container and label it 'drinkable water'.

Reflection/ Pūmahara

How do you feel about wai, after doing this activity?

Is there enough water in the world for us to drink?

Is the source for our Enviroschool's water supply plentiful or limited?

Do all people have the same amount of available drinking water?