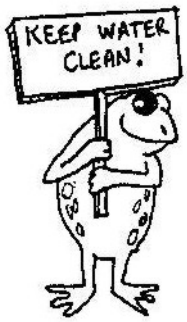
ACTIVITY ONE: HOW MUCH WATER DO I USE?

This week-long MATHEMATICS activity encourages young learners to take careful note of the water they use by keeping a water diary of their daily water use.



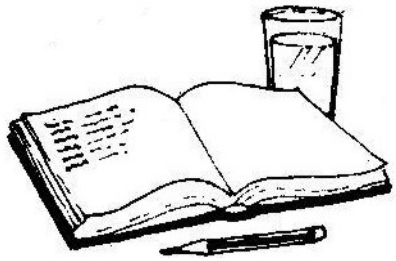
Water is very important to us as we cannot live without it. Did you know that 75% of our body is made up of water and the longest we can go without drinking water is 3 to 4 days! With more and more people needing clean water there is a greater demand for water in our country.

Sadly, water pollution is very common in South Africa. One of the most common pollutants comes from wastewater from towns, especially where people do not have sewage and water cleansing facilities. Water pollution can cause health problems so we need to make sure that we do not pollute the water supplies that we have. We also need to make sure that we use water carefully and wisely and not wastefully.

In order to be more careful about the water we use, we need to look at how much water we each use every day. We can do this by keeping a daily water diary.

ACTIVITY:

- Hand out the 'My Water Diary' provided on page 3. Let the children keep a water diary of all the activities where they use water, during the school day. You can make it a day diary, that is, for one day they record every time they use water. Or, you could be more ambitious and get the learners to keep the diary for a week.

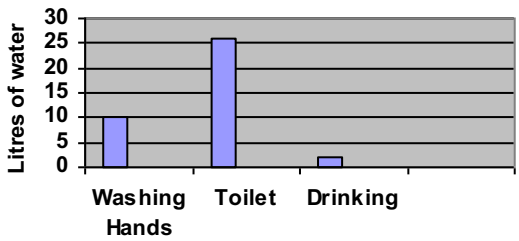


The following amounts are rough estimates of water use, which may help the learners when calculating their water usage.

- Cup of water/juice – 250ml
- Flushing toilet - 13 litres
- Having a short shower (10 minutes) – 30 litres
- Having a long shower – (30–40 minutes) – 120 litres
- Washing hands (with water running) – 5 litres
- Washing hands (without the tap running) – 1 litre

- At the end of the day / week, get the learners to draw a bar graph of their water use at school.

My water use on Monday



- Discuss with your class where most of the water is being used.
- Is it possible for the learners to save water during their daily activities? How?

You may want to take this activity further and get the children to extend their water diary to include after-school activities (such as having a bath/shower at home, helping to wash a car or their bicycle or watering the home vegetable garden or flower beds).

More estimates for the learners to use if you extend this activity to after-school activities:

- Brushing teeth (with water running) – 2 litres
- Having a bath – 90 litres
- Washing a sinkful of dishes – 18 litres
- Washing the car (with a hosepipe) - 50 litres
- Watering the garden (15 minutes) - 50 litres
- Washing clothes in an automatic washing machine – 250 litres
- Washing clothes in a twin tub machine – 40 litres
- Topping up the pool - 4 000 litres

Remember, if the children recycle their bath water at home and use it for watering flowers or vegetables, they will still need to record this, 90 litres, for a bath but there will be '0 litres' in the amount of "how much water did I use" column for watering the garden – see example below.

Day	Time	What did I do?	How much water did I use?
Monday	6pm	Had a bath	90 litres
Monday	6.30pm	Watered the vegetable garden with the bath water	0 litres

Criteria to assess learners during this mathematics lesson

Criteria	Exceeded requirements of the Learning Outcome	Satisfied requirements of the Learning Outcome	Partially satisfied requirements of the Learning Outcome	Not satisfied requirements of the Learning Outcome
The learner was able to fill in the time on the 'My Water Diary' worksheet				
The learner was able to collect information (data) during the time they spent at school and correctly write it down in their water diary				
The learner was able to draw a bar graph of the data from their water diary				