



MANZI'S NEWS



A Newsletter for Manzi's Buddies

November 2017

WATER IN SOUTH AFRICA

Hi Friends,




Have you ever wondered how water is used in our daily lives? Have you thought what water actually is? How much water do we have on Earth? What about how people get water to use every day? Finally, has the thought ever crossed your mind how water is polluted and what effects it can have on our lives and our health? Well, I would love to share some information with you!

What do we know about water as a resource?

- Water is made up of 2 hydrogen atoms and 1 oxygen atom, which makes up the molecule H_2O .
- 70% of planet Earth is made up of water, the remaining 30% is land.
- 97.2% of the 70% water on Earth is salt water. The remaining 2.8% is freshwater.
- The 2.8% freshwater can be found in dams, rivers, streams, wetlands, groundwater, glaciers and permanent snow cover.



This activity will help you understand this:

<p><u>Step 1:</u> Pour 750 ml of water into a 1 litre jug.</p>  <p>750 ml</p> <p>Water makes up 70% of planet Earth</p>	<p><u>Step 2:</u> Take 3 teaspoons of water (15ml) out of the jug and place it in a glass</p>  <p>15 ml</p> <p>This is the 2.8% freshwater on Earth.</p>	 <p>735 ml</p> <p>This is the 97.2% of salt water on Earth.</p>
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What do we know about water in South Africa?

- The Earth receives an average rainfall of 985 millimetres per year.
- South Africa receives an annual rainfall of 492 millimetres per year. This is nearly half the earth's average and because of this, South Africa is classified as a water-stressed country.

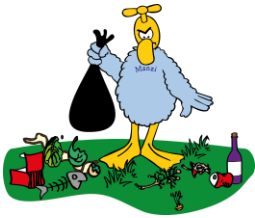
- Rainfall is unevenly distributed across South Africa. The eastern half of the country is much wetter than the western half due to the nature of the weather conditions.
- South Africa also experiences alternating periods of droughts and floods which affects the amount of water across South Africa.
- Hot dry conditions result in a high evaporation rate of water in South Africa.

Why is water such an important resource and what can happen if we don't look after it?

As we have now seen, there is only a limited amount of freshwater available on Earth!

**But what would happen if that water was no longer there
or if it wasn't safe enough for us to use?**

Water quality is defined as water which is safe, drinkable and appealing to all life on Earth. Freshwater in South Africa is decreasing in quality because of an increase in pollution and the destruction of river catchments.

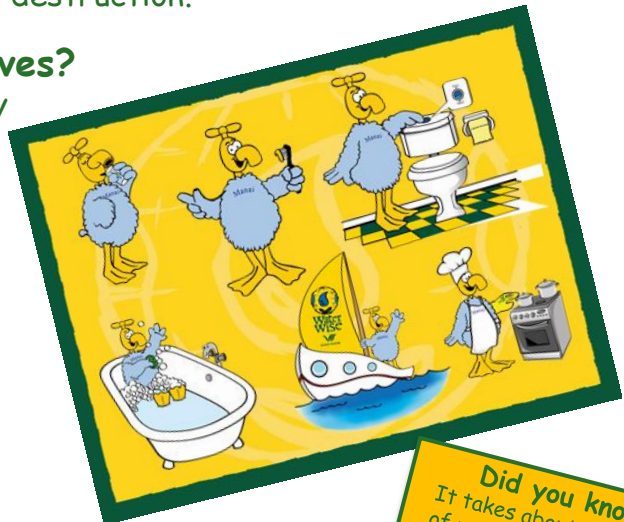


Pollution can be caused by urbanisation, deforestation, damming of rivers, destruction of wetlands, industry, mining, agriculture, energy use and accidental water pollution. As the human population increases, there is an increase in pollution and catchment destruction.

How is water used in our daily lives?

People use water on a daily basis in many different ways:

- Drinking
- Brushing teeth
- Bathing or showering
- Cooking
- Flushing toilets
- Recreational activities such as boating or swimming
- Doing laundry
- Watering the garden
- Manufacturing of goods and products for human use



Direct water use and indirect water use are two ways of classifying the way we use water. Direct water use is the water that we can actually see being used. Indirect water use is said to be virtual water. Virtual water is the amount of "hidden" water used to produce a product or service from start to finish.

Did you know?
It takes about 1700 litres of water to make a typical 100 gram chocolate bar. That's about ten bathtubs of water for one bar of chocolate!

Source:
<https://voices.nationalgeographic.org/2015/02/12/love-water-for-chocolate>

As we can see, water is used in many different ways through many different activities in our daily lives. Water in South Africa is also in great demand! As the human population increases with its increasing needs for survival, the greater is the demand for water.

ACTIVITY

Do you know how people get their water? What affect does drinking dirty water have on humans? Try this activity.

A. Answer the following questions by circling the correct answer:

1. **Where do people get water from?**
 - a. From taps
 - b. From rivers
 - c. From underground
 - d. From water tankers
 - e. All of the above
2. **Is this water safe to drink?**
 - a. Yes
 - b. No
 - c. It depends where the water comes from
3. **What diseases could you get from drinking dirty water?**
 - a. Cholera
 - b. Typhoid Fever
 - c. Infectious Hepatitis
 - d. Dysentry
 - e. All of the above
4. **What can you do to help water stay healthy?**
 - a. Throw your litter in the bin
 - b. Recycle, reuse, reduce and reclaim
 - c. Look out for problems and report them
 - d. Teach others about the importance of water
 - e. All of the above

B. What do you think about the current water situation in South Africa? How do you think you can help after learning that water is such an important part of life?

My dear friends, I hope that I have helped you understand just a little bit more about water and the many aspects that are associated with this wonderful life giving resource. I really hope that I have also motivated you into thinking a little more carefully about your daily activities and what you do with water as well as your behaviour and how it can affect water South Africa.

Remember, Water is Life! Without it, we have nothing!

Till next time...Your Friend, MANZI



Answers to A:
1 = e
2 = c
3 = e
4 = e