

WATER IS LIFE (LEVEL 1)

Description	Explore the different uses and sources of water and understand the importance of clean water for living things.
Leading Question	How can we become more mindful of how we use water?
Total Time Required	3.4 hours over 3 days
Subjects	Science, Maths
Supplies Required	Paper, pencil, pen or color pens, two cups, sand, pebbles
Learning Outcomes	<ol style="list-style-type: none"> 1. Understanding the importance of water for living things 2. Understanding of the need to save water and steps toward that end 3. Understanding of pollution 4. Addition within 10 5. Number discrimination 6. Data handling (simple pictograms within 10)
Previous Learning	Knowledge of numbers
Topics/Concepts Covered	<ul style="list-style-type: none"> ● Environmental Studies ● Importance of Water ● Water bodies and sources of water ● Water consumption and pollution

DAY 1

Today you will find out the different ways we use water!

Suggested Duration	Activity and Description
10 minutes	<ul style="list-style-type: none"> ● What happens when you don't drink water for a long time? Can you imagine not drinking water for days or weeks? Explain that all living things need water to survive. This means that humans, animals and plants cannot live without water. Most of the human body is actually made up of water.
20 minutes	<ul style="list-style-type: none"> ● Think about some ways water is used and draw images showing how water is used. For example, draw a bottle or glass of water to illustrate "drinking water". Older learners should also write it down in addition to drawing.

20 minutes	<ul style="list-style-type: none"> ● Do an experiment to show what happens when something loses water: <ul style="list-style-type: none"> - The learner will place a piece of fruit, vegetable, bread, or cooked rice out in the sun and come back to it at the end of the day or in 2 days to see how it changed. Ask the learner what they think happened. - Explain that almost every living thing contains water and that the object placed in the sun became dry and hard because the heat of the sun caused it to lose water. - The learner will draw a before and after image of the object to show changes.
15 minutes	<ul style="list-style-type: none"> ● Numeracy activities: <ul style="list-style-type: none"> - Count how many water bottles or cups are in your house and write the answer. - Draw a water bottle that is half full - Draw a water bottle that is one quarter full

DAY 2

Today you will continue to explore how water is used and learn about the different sources of water.

Suggested Duration	Activity and Description												
20 minutes	<ul style="list-style-type: none"> ● Think about some examples of water bodies and other sources of water in their home, neighborhood, city, and the world. ● Draw some of these sources in your notebook and label them, e.g. river, sea, lake etc. 												
30 minutes	<ul style="list-style-type: none"> ● Find out how much water is being consumed by her or his household daily. Create the following table to track daily water consumption by writing down how many glasses of water each member of the family drinks in a day. Ask each family member or observe their water consumption throughout the day <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Name</th> <th style="width: 33%;">Number of glasses (tally)</th> <th style="width: 33%;">Number of glasses</th> </tr> </thead> <tbody> <tr> <td>Family member 1</td> <td>HHH</td> <td>5</td> </tr> <tr> <td>Family member 2</td> <td>IIII</td> <td>4</td> </tr> <tr> <td>Family member 3</td> <td>HHH IIII</td> <td>9</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ● Who drinks the least amount of water? 	Name	Number of glasses (tally)	Number of glasses	Family member 1	HHH	5	Family member 2	IIII	4	Family member 3	HHH IIII	9
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	<ul style="list-style-type: none"> • Who drinks the most amount of water? • How many glasses of water do all family members drink in total?
10 minutes	<ul style="list-style-type: none"> • Reflect on different ways water is used that might be wasteful or unnecessary. Suggestions for prompts: <ul style="list-style-type: none"> - Do you think we need to keep the tap on while we brush our teeth? - Do you think it is ok to throw away water bottles that still have some water in them? - How do you think we can use less water in washing, showering, cleaning etc.? (Examples: keep taps turned off when you are not using them, take quick showers that are less than 5 minutes etc.)
10 minutes	<ul style="list-style-type: none"> • After reflecting on the different water wasting activities, come up with a few steps his or her family can take to save water. Illustrate or write down some steps everyone in your household can take to save water.

DAY 3

Today you will explore water pollution.

Suggested Duration	Activity and Description
20 minutes	<ul style="list-style-type: none"> • Do an experiment to learn about clean water: <ul style="list-style-type: none"> - The learner will fill a cup with water then find objects to put inside the cup to “pollute” the water. The learner can also make “beach water” by adding dirt/sand and little rocks to the cup. Note: do not use clean water for this experiment. Use water that was already used to wash dishes or clothes so that you do not waste clean water - The learner will examine the cup. Ask the learner if she or he can drink it? What would happen if you drank it? Explain that dirty water can make us sick and that it is important to drink clean water.
10 minutes	<ul style="list-style-type: none"> • Try to get clean water: <ul style="list-style-type: none"> - The learner will bring an empty cup. The learner will stir the cup with dirty water and notice how the dirt settles to the bottom. The learner will allow all the dirt to settle for a few minutes then transfer the water from the dirty cup to the clean cup. - Next the learner will try a different method of water purification. Pour the water back into the dirty cup and place a piece of light cloth (like nylon stockings) on top of the other empty cup. Now, pour the dirty water into the empty cup and watch it pass through the cloth filter to become clean.

	- The learner will reflect on which method worked best
15 minutes	<ul style="list-style-type: none"> Name and draw some examples of animals that live in different water bodies. Reflect on why it is important to keep water bodies clean for ourselves and these animals.
30 minutes	<ul style="list-style-type: none"> Revisit the steps you came up with to reduce water use and think about steps to reduce pollution (such as using glass bottles instead of water bottles, not littering beaches etc.). Then design a poster containing the different steps. Come up with a week or month-long challenge for your family to save water. Examples: <ul style="list-style-type: none"> Use buckets to clean your body instead of shower Recycle water used in washing vegetables and use it to water plants Keep the tap turned off when you are brushing your teeth, lathering your hands with soap to wash them, or scrubbing the dishes.
5 minutes	<ul style="list-style-type: none"> Share with your family the poster and challenge.

Additional enrichment activities:	- Learners can track water consumption habits for several days and calculate daily consumption for those days.
Modifications for simplification	- The learner can reduce the number of experiments done.

ASSESSMENT CRITERIA

A majority of my learners were able to:

- Complete the table tracking water consumption with the correct use of tally marks.
- Complete the poster with suggested steps to reduce water consumption and pollution.
- Challenge their family to reduce water waste and pollution.
- Execute all experiments properly.