

11 Water in Our Life

During the festival of Holi, Arvind was playing with his friends. They had gone to the market and bought different colours. They mixed each colour in a bucket of water and poured mugs full of water on each other. They sprayed colours on each other as well. Arvind and all his friends were completely drenched and enjoyed themselves a lot. Then they decided to go and have a wash.



Fig. 1

They went to a well and took bath with several buckets of water. They washed their clothes as well.

- If there was no water, what would happen to Arvind and his friends?
- For what purposes do we need water in our life?
- Do plants and animals also require water like us?

We need water to perform several day to day activities like cooking food, washing clothes, cleaning utensils etc. We can't survive without water for even a single day.

Activity-1: Water and its uses

Make a group of five students and discuss the uses of water in their daily life. Write down the uses.

Classify the above uses of water in three groups, uses in a house or family, for agricultural purposes and others.

Over 1 billion people use less than 6 litres of water per day.





Fig. 2 : Uses of water in our daily life

Measuring the volume of water

Aravind used buckets of water to clean the colours from his body and his clothes. He said he used seven buckets of water. Is bucket a measure of the volume of water used? How do we measure the volume of water?

We can keep water in different vessels. Often, we say, a glass of water, bucketful of water, bottle of water etc. Do you know any specific unit of measurement of volume?

Almost 4 million people die each year from water related diseases.

Activity-2: Quantity of water

Collect different, used water bottles or water pouches from nearby shops. Observe their labels. What quantity of water is mentioned on the label? Record your observations in your notebook.

- Do all the bottles and pouches have the same quantity of water?

You can also ask the water-vendor how much water there is in a water can or bottle.

Do you know?...Water, and other liquids as well, is measured in liters and milliliters. The water tanks in some villages and most towns and cities have the capacity to store gallons of water. Gallon is also a measure of volume of liquids. **W**ater level in the reservoirs is measured in feet. Water released from dams and projects during floods is measured in cusecs (cubic centimeters/sec).

• Think:

Air and water are freely available in nature but now people have to pay for water along with other commodities. Find out from your parents and grandparents whether they also paid for water.

Activity-3: How much water do we use daily?

We use water for different purposes. Can you estimate how much water your family uses in a day?

Record your estimates in table 1. Also think how you could reduce the amount of water used and write how much water you can save.

Table1

Activity	Water used (In liters)	How much can you save ?

Drinking		
Toilets		
Bathing		
Washing clothes		
Other		
Total		

To estimate in litres the amount of water used, take any 1 litre bottle and find out how many bottles of water are needed to fill a bucket, a glass, a mug etc. Now, find out how much water is used in a whole day by you and your family. Also, calculate the amount of water you and your family were able to save.

43% of water related deaths are due to diarrhoea.

You have a rough idea of how much water your family uses in a day. With this information you may be able to calculate the approximate quantity of water required for your colony/ village/ town/city. For this, you will need to know the population as well. Ask your teacher about population.

Approximate quantity of water used per day by a person

Number of people in the colony/village etc.

Approximate quantity of water used per day in the colony/village etc.

.....

Approximate quantity of water used per month in the colony/village

.....

Approximate quantity of water per year in the colony/village etc.

.....

Imagine how much water is needed across the world!

Where do we get water from?

We get water from different water sources in our surroundings. In most villages wells, canals, tanks, ponds, rivers, etc are the main water sources.

- List out the sources from where you get water in your village/town.
- Are the sources from where you get water for your daily needs and crops the same or not? Give your reasons.

Do you know?...Water is not only available from sources such as the rivers, lakes and ponds but also present in certain fruits and vegetables. Fruits like watermelon and vegetables like cucumber contain a lot of water. Can you suggest some other examples? Our body also contains 70% of water by weight. Think, why we take juicy fruits in summer.

Water on the earth

There are different sources of water on the earth. We know that nearly 3/4th of the surface of the earth is occupied by water. Is this water useful for us?

- Can we drink the water available in the sea?

Sea-water is salty but water used by us in our daily purposes is not salty. It is known as fresh water. Water in ponds, puddles, river, from tube-wells and our taps at home is usually fresh water.

Meet your panchayat officer and collect information about safe drinking water scheme in your village. Don't forget to prepare questionnaire for interview. Display your observations in your wall magazine .

98% of water related deaths occur in the developing world.

Activity-4: How the well was dug

Go to nearby village and look at a well from where people get drinking water. Can you estimate the approximate volume of water in the well? Collect information from elders in the village about the level of water in the well over the years. Is the water level constant or has it changed? How was the well dug? Have you seen a borewell being dug? Write the process in your notebook.

Tapping of ground water by digging a well or borewell is a tough job. Many people put in a lot of hard work in this process. We need to appreciate this and preserve water.

Do you know?...*Even though the river Krishna flows through Nalgonda district, it suffers from severe water scarcity. Most people in Prakasam district of our state face a water-crisis. This is because the ground water is polluted and drinking it causes fluorosis.*

You have read about the different types of water sources in our surroundings. The water level in them depends upon rainfall. Generally, we observe that the water levels in wells or other water sources go up in rainy season and down during the summer season.

- What happens if there is less rain fall or too much rain fall?

Activity-5: Droughts - water scarcity

Form groups of 4 to 5 students and discuss the following topics in each group. Prepare and submit a group report. The topics to be discussed are :

Group-1 : What will happen if rainfall this year is less than last year?

Group-2 : What would happen if there was no rainfall for five years?

Group-3 : What could be the possible reasons for water scarcity in a particular place?

Group-4 : What problems can arise due to water scarcity in a particular place?

In our region, if there is no rain for a long period (4 to 5 years), it may cause droughts. During this period, it is very difficult to get food and fodder; drinking water is scarce. People need to travel long distances to collect water. Soil becomes dry agriculture and cultivation is difficult.



Many people who depend on farming for their livelihood, migrate to other places in search of jobs. In our state, Anantapur and Mahaboobnagar districts are treated as drought prone areas.

Unsafe water is the biggest killer of children under five; around 90% of all diarrhoeal deaths are in this age group.

Activity-6: Drought affects our life

Here is a letter for you try to understand how drought affects our lives. Discuss the following points

- What problems were faced by Ramanna?
- How can Firoz help him?

Water scarcity is a problem in some districts of our state, as mentioned earlier. Here rainfall is less and farmers are largely dependent on irrigation using underground water to raise crops.

- What will happen if farmer grow crops that require more water in these districts?

If several bore wells are dug and underground water is tapped constantly, what will happen to the source of ground water?

Discuss with your friends the reasons that can cause reduction of ground water.

Ananthapur

Dear Firoz,

I hope you are fine there. Nowadays, we are facing severe problems due to drought. For the last five years we have had no rains. All our fields have dried and there are cracks on them. We fail to grow any crop. My father invested money on bore wells with no results. Now we get water, after a great struggle from the bore-well which is five kilometers from our village. The days have become very bad. Several people have sold their cattle and migrated to Hyderabad and Bengaluru. My family also wants to do so. I request you to ask your parents to search for a job for my father at your place. My father may have been a well-known, rich farmer here but he is willing to do any kind of job there.

Yours loving friend

Ramanna

The recommended daily water requirement for sanitation, bathing, cooking and consumption is approximately 50 litres per person per day.

Activity-7: How much water do we waste?

After playing in the ground you may wash your hands and legs under the tap in your school. Measure the time the tap is on open for you to complete your wash. Then take a bucket put it under the tap open the tap for the same time that you measured with the same flow of water. How many students of your class can wash thier hands and feet with the bucket of water that you collect from the tap?

List out those situations in our life where we waste water unwisely and make suggestions to avoid this.

Activity-8: Floods a natural hazard

Usually, during the rainy season, you may have come across pictures of this type in newspapers (Fig. 4). Discuss the following.



Fig. 4

- What does the picture tell us?
- Does excessive rainfall in certain areas of our country lead to such a condition?
- Are there other reasons as well that can lead to this situation?
- Did you ever face or hear about flood? On the basis of the newspaper cutting or your own experience in this matter if any, write down a few lines on floods.

We can't live single day without water. It is unwise pumping water if it leads to drought. Arvind decided that water is precious. Don't waste even a single drop of water. We must preserve water not only for us but also for future generations.

Keywords

Water sources, drought, floods, migration

What we have learnt

- We need water for domestic use, agriculture, industries etc.
- We get water from sources like ponds, lakes, rivers etc.
- Of the water available on the earth, only 1% is fresh water.
- We depend on rains for water.
- Long periods of less rainfall usually causes condition of droughts.
- Floods are natural disasters that affect human life.

Improve your learning

1. How can you say water is necessary for us?
2. Ravi wants to know the measuring units of water. What will you tell him?
3. Why do people need protected drinking water scheme?

Agriculture is responsible for about 70% of the world's water usage. Industry uses a further 22%.

4. List out the activities that we perform in our daily life that consume water.
5. In ----- season we face severe water scarcity. Give your reason.
6. The nature of sea water is -----
a) Salty b) Tasteless C) Odourless D) Sweet
7. If we use water in the same way what will happen in future. Write your suggestions to prevent water wastage.
8. Prepare a map of your village showing different water sources.
9. Make a pamphlet on "Don't waste water". Display it on wall magazine
10. Collect information about water related games and make a scrap book.
11. Find out the relationship between water shortage and drought?
12. Justify the statement "droughts and floods are a result of actions made by man". Investigate your reasons.
13. Aravind never forgot to switch off water pumping motor in time. Do you support him? Why?
15. If people are suffering due to severe floods, what would you do to help them?

Who said:

Killer Cover..*We people are using polythene bags, covers, disposable plates, glasses for various purposes in our daily life. Most of the food items are also available in polythene pouches and packets in the market. These disposable materials do not decompose in the soil. They obstruct water flow in canals and drainages during heavy rains and causes to floods. particularly in urban areas and thus creates hurdles to human life.*

* * * * *

It takes up to 5000 litres of water to produce 1kg of rice.