

## 5. Water for Every Household

**Can you recall ?**

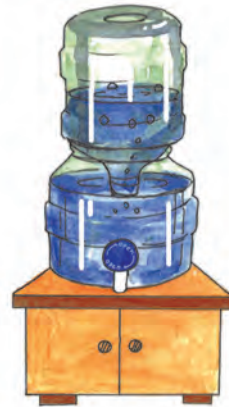
- What are the different purposes for which we need water?



**Can you tell ?**

The picture below shows some containers used for storing water at home.

- Which of these have come into use more recently?
- What materials are used to make these different containers?
- What are the advantages of having a lid and a tap on the container?



## Care of drinking water

To ensure good hygiene, we must have safe drinking water. If we consume contaminated water, it can cause diseases. That is why, we take special care of the water we store for drinking and cooking.



We keep the drinking water containers covered. This prevents dust and other rubbish from entering the water. If we dip our hands in the water to take it out, the dirt on our hands can enter the water. So we use a dipper to take the water and we replace the lid at once.

But the best method of taking water is to have a tap on the container. This way, it becomes easier to take the water, and it also prevents contamination.

When the water in a container is finished, we wash the container well before refilling it. If we take such care, drinking water remains clean.



### Do you know ?

#### Water does not become stale ...

Some people believe that the previous day's drinking water must be thrown away and fresh water stored every day, because the previous day's water becomes stale. But, this is a misconception. Throwing away that water amounts to wasting good water. We should use drinking water for other purposes only if it gets dirtied due to some reason.



### Use your brain power !

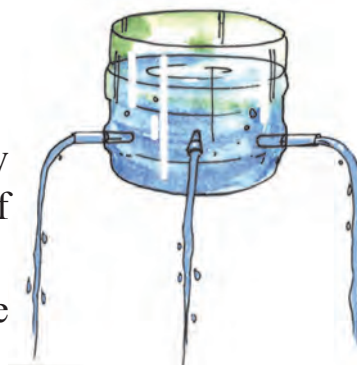
Why have people begun to use plastic or steel containers for storing water?



### Try this.

#### Do this under adult supervision.

- Take a plastic bottle. Cut off its upper narrow portion. Make four small holes on the four sides of the bottle near its base.
- Cut a spent ball-pen refill into four pieces. Fix one piece into each of the four holes tightly.



- Fill the bottle with water.

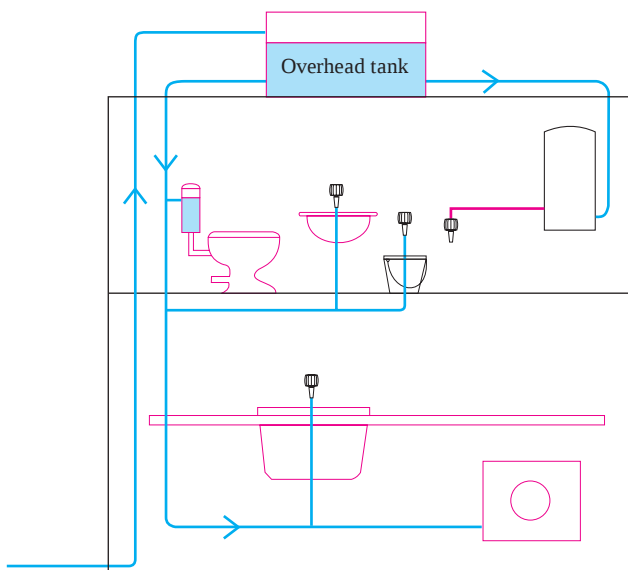
### What do you see?

- Water flows from all the four tubes.

### What does this tell us?

- Using pipes, we can distribute water stored in one place to several different places at the same time.

Large cement or plastic tanks are installed on the roofs of big buildings. Water from these tanks can be piped to the kitchens, bathrooms, toilets in these buildings. When taps are fitted on the pipes, water can be taken or shut off according to the need. This is how water from just one tank can be obtained at several places in a building at the same time.



Water supply in a house



Overhead water tanks

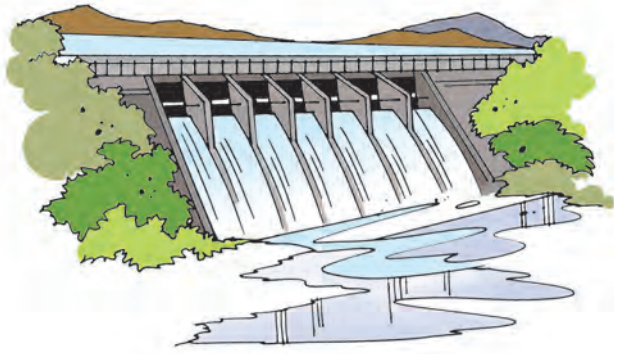


### Can you tell ?

- |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                     |
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| <ul style="list-style-type: none"> <li>• If the rule is for everyone in the house to cook for themselves, what would be –             <ol style="list-style-type: none"> <li>(1) the advantages?</li> <li>(2) the disadvantages?</li> </ol> </li> </ul> | <ul style="list-style-type: none"> <li>• If every family had to collect the water they need every day from the river, what would be –             <ol style="list-style-type: none"> <li>(1) the advantages?</li> <li>(2) the disadvantages?</li> </ol> </li> </ul> |
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## Water supply for a human settlement

Lakes, rivers, reservoirs are our sources of water. They are often at long distances from our houses. It is difficult to collect water from such distant places. Besides, we cannot be sure that the water can be used as it is for drinking.



That is why, a large water source is identified near a settlement. Water from it is brought through large pipes to a common place. There, the water is made safe for drinking. This is called purification of water. Arrangements are made to distribute this water all over the town or city. This is called distribution of water.



**Can you tell ?**

When we draw water into a spray pump from a bucket of water, in which direction does the water flow?



## Water tanks at a height

We know that water flows downwards. But, if we want to lift water upwards, we have to use some force. To do that, we need to use a machine. Machines used for lifting water are called pumps. Pumps run on diesel or electricity.

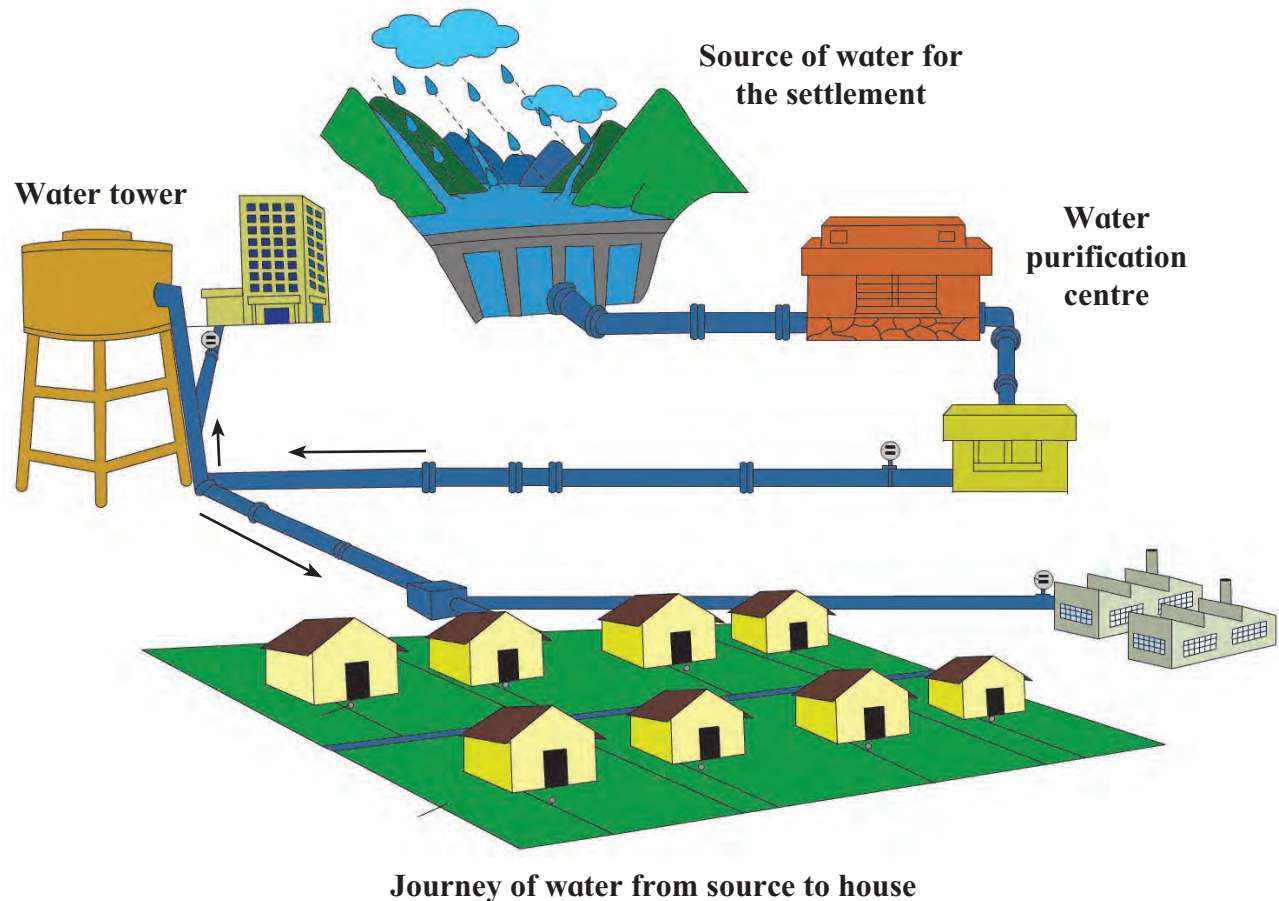
Before electricity was discovered, it was not possible to raise water to very great heights. But electric pumps can help us do so. Hence, water can be filled in tanks at a height (water towers) and supplied from there to towns and cities.



**Water tower**

Such tanks are used to store the water that leaves the water purification plant. According to need, water is released from these tanks through big pipes. This pipe branches out into many smaller pipes which lead the water to different areas around the large water tank. In a particular area, the pipe branches out into smaller and smaller pipes which take water to every house.

In some places, there are two or three common taps for the whole area. People living in that area come there to fill water for their families.



### Do you know ?

Human beings cannot live without water. Hence, it is necessary to have a source of water as close as possible to where we live.

That is why, in olden days, cities grew on the banks of big rivers. There are many such cities in our country. Delhi is the capital of our country. It is situated on the banks of the river Yamuna in north India. Patna, on the banks of the Ganga in Bihar and Nashik in Maharashtra on the banks of the Godavari are other examples of such ancient cities.

Even today, in some places, water is drawn from wells or borewells for use at home. But, it needs to be ensured that the water is potable. If it is not, then it should be boiled for the purpose of drinking, so that it will not endanger our health. In some places, water is supplied by transporting it by means of tankers.



**Can you tell ?**

- How much water is required in your house every day?
- Who fills this water?



**Try this.**

Take an empty bucket. Lift it to get an idea of its weight.

Now half fill it with water and see how much heavier it becomes. It must be quite a hard chore to carry a bucketful of water from one place to another, don't you agree ?



Remember how much water you need in your house ?

Now you can understand how much work is done to fill that much water.



**Can you tell ?**

Which fuel is used to run the following machines ?

- The hand-pump that lifts water from a borewell.
- The pump used to store water in the water tower.
- The tanker that brings water to a certain area.

Many people are engaged in the work of water purification, storage and distribution. Electricity or diesel are used to run the machines for these purposes. A lot of money is spent for this work. Hence, potable water proves to be an expensive substance. We must take care of water just as we take care of our other valuables.

We must not allow stored tap water to be wasted or become contaminated.

### **What can we do to use water without wastage ?**

- If the water you have taken in a mug to wash your face is left over, will you throw it away or keep it to use later ?
- While you brush your teeth, do you keep the tap running, or do you turn it off in between ?
- Do you throw away the water used for washing vegetables, fruits, etc., or do you water your plants with it ?
- When rinsing things under a tap do you turn it on fully or just enough ?



**Use your brain power !**

The garden is to be watered. Tap water and well water are both available. What will you use ?



**What we have learnt –**

- We need water continually. So we store water at home.
- A lid and tap on a water container help to keep the water clean and make it easier to use.
- If drinking water is not potable, it can cause diseases. Therefore, special care must be taken of drinking water.
- Cities and towns have water purification centres and distribution systems.
- If we use water from other sources, we should ensure that it is potable.
- Obtaining potable water involves labour as well as expense.
- Water should be stored properly and used carefully.



**Always remember –**

**Water is valuable. Take good care of it.**



## Exercises

### (A) What's the solution ?

- The common tap in the locality is seen dripping all the time.

### (B) Use your brain power !

- What can you do to ease the work of filling and storing water in your house ?

### (C) Right or wrong?

1. Sameer drank water from the pot and left the lid beside it.
2. Nisha waters her plants with the water she has used for cleaning the dishes.
3. When water comes in the tap, Sai empties her pot and fills it again.
4. Reshma carries drinking water with her when she goes for a picnic.

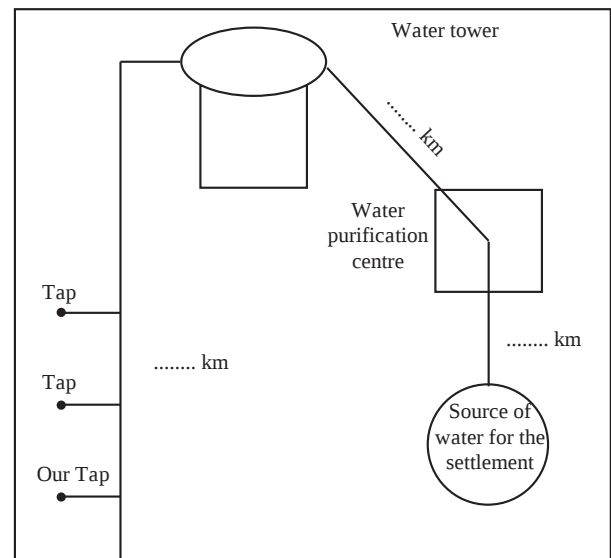


## Activities



### (1) Find out :

- Which is your city's common source of water ? Where is it located ?
- Where is the water purification plant ?
- Where is the water tower which supplies water to your area ?
- What are the distances between these places ?
- How far is your house from the water tower ?
- Write these distances in the diagram given alongside.
- Add all these distances to find out the total distance that water travels from the water source to your home.



### Total distance travelled by water

= ..... km + ..... km + ..... km  
 = ..... km.

- (2) Meet the person who is in charge of distributing water from the tank to different parts of your locality. Ask him to explain the work they do. To which parts does he supply water every day ? How does he ensure that all parts will get enough water ?

