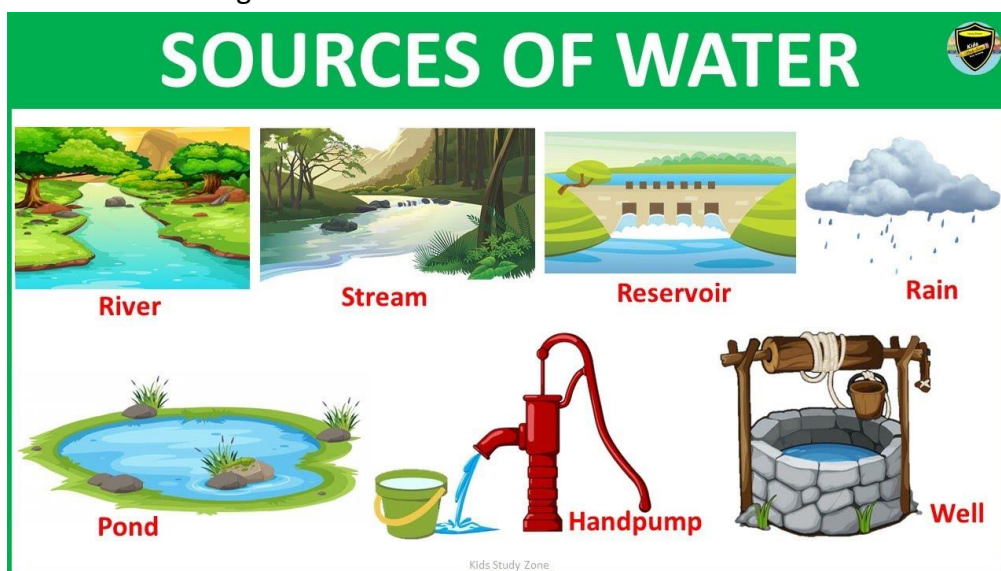


Chapter- 12

Our Water Wealth

STUDY NOTES

- All plants and animals need water.
- There will be no life without water.
- We all need water to:
 - ❖ Drink bathe
 - ❖ wash clothes
 - ❖ cook our food
 - ❖ Agriculture



Sources of water

- About three-fourths of the Earth's surface is covered with water.
- It is present in oceans, seas, rivers, lakes and ponds.
- Water is also present in Earth's surface as ground water.

Shortage of drinking water

- we still have a shortage of water in our cities and villages. This is because of the following reasons.
- The water in seas and oceans is salty. It cannot be used for drinking, or by farmers for watering their crops.
- Our main source of water is rain.
- However, it rains only for two or three months in India. In fact, in several places, it hardly rains at all.

- Rivers are full of water during the monsoon months. There are often floods during these months. But, most of this water simply flows into the sea. During the hot summer months
- many of our rivers dry up.



Providing Water

- Water resources are unevenly distributed on the surface of the Earth, Humans access this water in different ways.
- People who live near rivers, take water from the rivers.
- Some people have to walk for miles to get a pot of drinking water.
- Some draw it from wells.
- Some pump out the water from the well.



River Water

- In places where there are rivers, the river water is cleaned and supplied as drinking water.
- It is also used for irrigation.

Wells and Tube Wells

- In places where sufficient groundwater is available, wells are dug. Tube wells are wells in which pumps are installed.
- The pumps run on electricity or diesel.
- They are commonly used in farms to provide water for irrigation.
- Hand pumps are worked by hand to draw water from deep inside the Earth.



Irrigation Canals

- Irrigation canals are dug to take water from rivers to regions where shortage of water.
- The Indira Gandhi canal in Rajasthan takes water from the Satluj river to the north-west areas of Rajasthan.



Dams

- Dams are built on rivers to hold back the water in a reservoir behind the dam.
- The reservoir fills up during the monsoon months.
- This controls floods in the rivers.
- This water is used for irrigation and shortage of water.
- The force of the water, as it flows down from the reservoir, is used to generate electricity.
- Electricity generated from the force of water is called hydroelectricity. Since dams are useful
- in so many different ways, they are called multipurpose projects.

Some major dams in our Country are as follows.

- the Bhakra Nangal Dam built over the Satluj River in Punjab
- the Nagarjuna Sagar Dam over the Krishna River in Telangana and Andhra Pradesh
- the Farakka Barrage over the Ganga River in West Bengal
- the Hirakud Dam over the Mahanadi River in Odisha
- However, big dams are being discouraged all over the world now.
- Environmentalists claim that they cause environmental problems.
- They displace a large number of people living in the reservoir area of the dam.
- They also destroy animal and plant life in the area.
- Some scientists feel that large reservoirs can cause earthquakes in some areas.

Tanks and Ponds

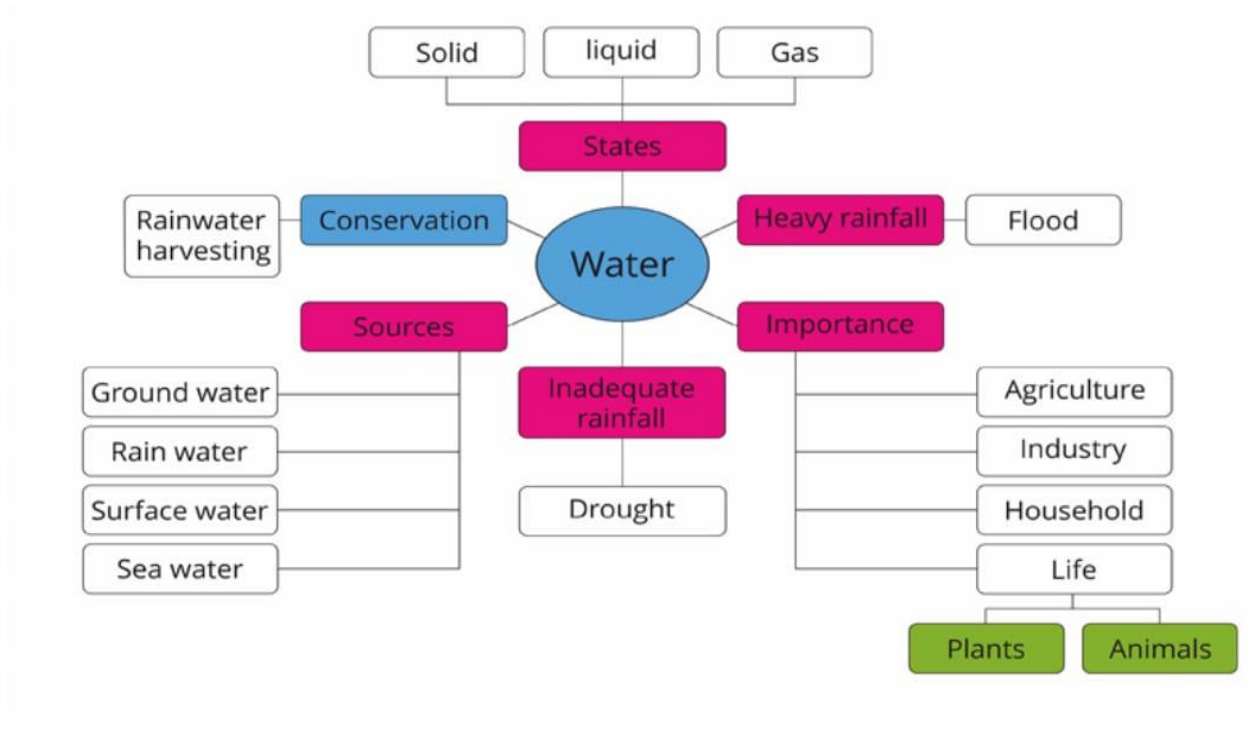
In places where it is difficult to dig wells, people often use tanks and ponds to collect rainwater.



Rainwater Harvesting

- Rainwater harvesting is a good method of saving rainwater from flowing away.
- Rain water falling on the roofs of buildings and the ground is allowed to flow into a deep hole dug in the ground.
- It thus adds to the groundwater.
- Clean water that we get through our taps is precious.
- We should not waste it.

MEMORY MAP



Let's Know More

I. Fill in the blanks.

1. Diarrheal disease kills one child every _____.
2. _____ is the longest river on Earth.

Let's Do

A. Fill in the blanks.

1. _____ wells use pumps run by electricity or diesel.
2. A structure made to hold back the water of a river is called a _____.
3. Electricity made using the force of water is called _____.
4. Irrigation _____ take river water to areas of water shortage.

B. Understand and Answer:

1. Why can sea water not be used for drinking or irrigation?
2. What problems occur in India because of rains occurring only in the monsoon months?
3. Why are dams called multipurpose projects?
4. What is hydroelectricity?
5. Several environmentalists are opposed to large dams. Why?
6. How are irrigation canals useful?
7. What do you mean by rainwater harvesting?

C. Multiple choice questions.

1. We need water for
 - a. drinking
 - b. washing
 - c. cooking
 - d. all of these
2. Which of these are big dams built across major rivers in India?
 - a. Bhakra Nangal
 - b. Nagarjunasagar
 - c. Hirakud
 - d. all of these
3. Irrigation canals mostly take water from which source?
 - a. sea
 - b. wells
 - c. rain
 - d. rivers
4. Which of these best describes rainwater harvesting?
 - a. harvesting crops during the rainy season
 - b. storing rainwater for later use
 - c. using rainwater to generate electricity
 - d. using rainwater to fill reservoirs built on rivers
5. Dams built on rivers are useful in
 - a. preventing floods
 - b. irrigation
 - c. producing electricity
 - d. all of these

Teacher's Note

- Draw and paint a poster on the theme 'Save Water'.

Improve Your G.k

The World Bank is helping the supporting the government's national groundwater program, the **Atal Bhujal Yojana**, to help improve groundwater management. Implemented in 9000-gram panchayats across seven Indian states, this is the world's largest community-led groundwater management program.

Answer Key

I. Fill in the blanks.

1. 60 seconds.
2. The Nile River

A. Fill in the blanks.

1. Tube
2. dam
3. hydroelectricity
4. canals

B. Understand and Answer:

1. Why can sea water not be used for drinking or irrigation?

Ans.

- a. Seawater contains a large amount of salt in it. Drinking a large amount of seawater makes a person dehydrated. Hence, it is not good for health.
- b. salinization threatens food production.

2. What problems occur in India because of rains occurring only in the monsoon months?

Ans. The problems that occur in India because of rains occurring only in the monsoon months are the problem of drought-like conditions and then flood-like conditions.

3. Why are dams called multipurpose projects?

Ans.

- a. Dams are built on rivers to hold back the water in a reservoir behind the monsoon months. This controls floods.
- b. The force of the water, as it flows down from the reservoir, is used to generate electricity.

4. What is hydroelectricity?

Ans. The force of the water, as it flows down from the reservoir, is used to generate electricity. Electricity generated from the force of water is called hydroelectricity.

5. Several environmentalists are opposed to large dams. Why?

Ans. Several environmentalists are opposed to large dams because:

- a. They displace a large number of people living in the reservoir area of the dam.
- b. They also destroy animal and plant life in the area.

6. How are irrigation canals useful?

Ans. Irrigation canals are dug to take water from rivers to regions where there is shortage of water.

7. What do you mean by rainwater harvesting?

Ans.

- a. Rain water harvesting means to saving rainwater from flowing away.
- b. Rainwater falling on the roofs of buildings and the ground is allowed to flow into a deep hole dug in the ground. It thus adds to the groundwater.

C. Multiple choice questions.

1. We need water for

- d. all of these

2. Which of these are big dams built across major rivers in India?

- d. all of these

3. Irrigation canals mostly take water from which source?

- d. rivers

4. Which of these best describes rainwater harvesting?

- b. storing rainwater for later use

5. Dams built on rivers are useful in

- d. all of these