

## Lesson 4 : Air and Water

As we all know that air and water are the two primary needs for human survival. In this chapter we will study about

- \* Clean Air
- \* What pollutes the Air
- \* Water and its forms
- \* Sources of water
- \* Clean Water
- \* What pollutes the Water

### Air

Air is all around us. We need air to live. Every living thing needs air to breathe. As we all know that trees give us oxygen. Trees and plants make the air fresh and cool. We need clean air to breathe. Polluted air harms our environment.

### What Pollutes the Air?

Air pollution is a type of environmental pollution that affects the air due to human activities or natural forces. It occurs when gases, smoke or dust get into the air and make it dirty. The causes of Air pollution are:

1. Burning of fossil fuels, wood and garbage.
2. The natural factors like volcanic eruptions, dust storms and wild fires.
3. Smoke released from factories, vehicles or power plants.
4. Burning of firecrackers.
5. Cutting of trees.
6. Cigarette smoking.



## Clean Air

Clean air is very important for a healthy life. Clean air improves the lifestyle and promotes activeness. We feel more energetic by inhaling air that does not contain any toxic matter. This also benefits our respiratory system. To keep the air clean we must:

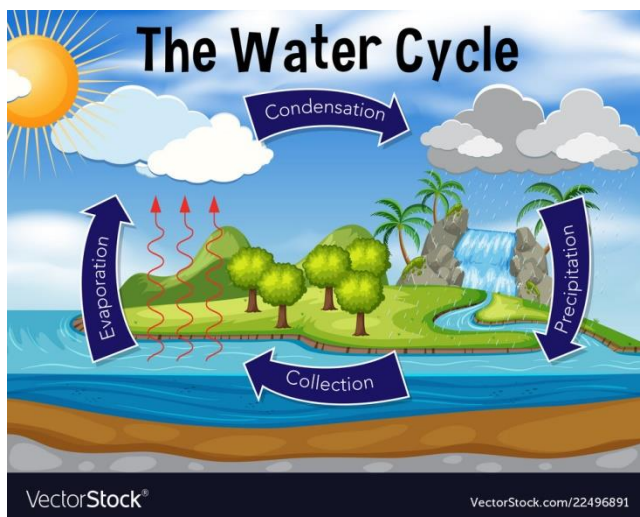
1. Grow more trees.
2. Avoid burning leaves, trash and other materials.
3. Use eco-friendly fuel.
4. Minimize the toxins released from factories.

## Water and its Forms

As we have discussed in the previous chapter that our earth is covered with 70%-75% of water. Instead of this 97% of the earth's water is found in the oceans which is too salty. So only 3% of the earth's water is fresh. We need water to live. It is used for our daily needs like cooking, washing, bathing, etc. plants and animals also need water to live. Many aquatic plants and animals live in water. It also comes in great use for farmers and industries.

**Water Cycle** (check the link given below)

<https://www.youtube.com/watch?v=s0bS-SBAgJI>



## Sources of Water

1. Rain is the most important source of water.
2. The melting of snow from the mountains form rivers.
3. The rain water is collected in lakes, ponds, rivers and streams.
4. Rainwater seeps into the earth's surface, this underground water comes out of the earth through wells, hand pumps or tubewells.

### **What Pollutes Water**

1. Dumping of litter.
2. Washing clothes and bathing of animals.
3. Fertilizers and pesticides from agricultural waste.
4. Dumping of the wastes from factories.



### **Clean Water**

Water is an important resource and clean water is vital for our life. Water purification provides clean drinking water.

Following are the steps to get purified water.

1. Boiling the water.
2. Adding chlorine tablets
3. Filtering the water.

### **Assessment Zone:**

#### **QI. Tick the correct option.**

1. Water, air
2. Rain
3. 21%
4. Breathing
5. All of these

#### **QII. Fill in the blanks.**

1. Sick
2. Fresh and cool
3. Form
4. Fish
5. Clean

**QIII. Mark the statements as True or False.**

1. True
2. False
3. True
4. True
5. False

**QIV. Answer the following questions briefly.**

1. Places where the temperature is low, the water freezes and it is found in the form of ice.
2. The World Water Day is celebrated on 22<sup>nd</sup> March every year.
3. The water in seas, rivers and ponds gets heated up by the sun and it rises up in gaseous form as vapour.
4. Water is used for cooking and drinking.
5. Polluted air makes it difficult for us to breathe as it pollutes the whole environment.

**QV. Answer the following questions.**

1. The activities that pollute the air are:
  - a. Smoke from the factories and vehicles.
  - b. Burning of wood and garbage.
  - c. Cigarette smoking.
  - d. Bursting firecrackers.
2. We can keep the air clean by:
  - a. Growing more trees.
  - b. Using eco-friendly fuel.
  - c. Avoid burning leaves, trash and other materials.
  - d. Avoid burning of firecrackers.
3. Water pollution is caused by:
  - a. Dumping of litter.
  - b. Washing clothes and bathing of animals.
  - c. Fertilizers and pesticides from agriculture waste.
  - d. Dumping of the wastes from factories.
4. The water in ponds, lakes and rivers gets heated up by the sun and rises up in the form of vapour. High up in the sky, these vapours cool down and form tiny drops of water. These tiny drops join together to form clouds. On further cooling, the drops get bigger and fall down as rain or snow. This continuous process is called water cycle.
5. We can purify water by boiling, filtering or by adding chlorine tablets.

## Let's Learn



- ⊙ Clean Air
- ⊙ What Pollutes the Air
- ⊙ Water and its Forms
- ⊙ Sources of Water
- ⊙ Clean Water
- ⊙ What Pollutes the Water

**Air**

Air is all around us. We need air to live. The air we breathe should be clean. Plants and animals too need air to breathe. Trees and plants make the air fresh and cool. Polluted air harms our environment.

**Infohive**  
Our atmosphere contains only 21% oxygen.

1. Harmful gases in the smoke from factories
2. Smoke from buses, cars and other vehicles
3. Burning of wood and garbage
4. Burning firecrackers
5. Cigarette smoking

**What Pollutes the Air**

Air gets polluted due to different human activities. When air becomes too dirty or polluted it becomes uncomfortable to breathe. Breathing in the polluted air makes us sick. Activities which make the air dirty are:



Smoke from burning waste

**Brain Ticker**

Why are plants called the filters of the environment?

**Clean Air**

Clean air is essential for a healthy life. To ensure that we breathe fresh air we must:

1. Grow more trees
2. Decrease the activities causing air pollution
3. Not burn things unnecessarily

**Infohive**  
22nd March is celebrated as World Water Day.

### Water and its Forms

We need water to live. We need it to drink, bathe, cook, and wash clothes. Plants and animals also need water to live. There can be no life on earth



Ocean



River



Lake

without water. Fish live in water. Farmers need water to grow crops. Plants need water to make food. Animals need water to drink and bathe. Water is also used to put out fire. In nature, water keeps changing its form. The water in ponds, lakes, rivers, seas and oceans gets heated up by the sun. It rises in the form of water vapours. High up in the sky, these vapours cool down and form tiny drops of water. These tiny drops join together to form clouds. On

Social Studies - III

further cooling, the drops get bigger and fall down as rain. This never-ending cycle of water is called Water Cycle. Places where the temperature is low, the water freezes and it is found in the form of ice.

### Sources of Water

Water can be found in oceans, seas, rivers, ponds, lakes, etc. But we cannot drink all types of water. Rain is the most important source of water. When the snow melts in summer, water rushes down the mountains and forms rivers. Some water goes under the ground. We draw up this water from wells, tube wells and through hand pumps.



**Brain Ticker**  
What per cent of Earth's surface is covered with water?

### What Pollutes the Water

In the mountains, the river water is clean. But when it reaches the plains, it gets polluted due to the following activities:

1. Dumping of the waste of factories in rivers
2. Dumping of the domestic waste in rivers
3. Bathing of animals and their excretions

## Clean Water

Since the waste that we throw into the rivers makes them dirty, we have to make water pure before using it. This can be done in the following ways:

1. Boiling the water
2. Adding chlorine tablets
3. Filtering the water



## Recap

1. Humans, animals and plants need air and water to live.
2. Polluted air and water are unfit for everyone.
3. Plants and trees make the air fresh and cool.
4. Water keeps changing its form through water cycle.
5. Both human and animal activities pollute the water.



## Assessment Zone

### I. Tick (✓) the correct option.

1. To drink we need \_\_\_\_\_ and to breathe we need \_\_\_\_\_.  
a. rivers, ground  b. air, water   
c. oil, natural gas  d. water, air
2. Most important water source is:  
a. rain  b. lakes   
c. ponds  d. rivers
3. Our atmosphere contains \_\_\_\_\_ of oxygen.  
a. 22%  b. 20%   
c. 21%  d. None of these
4. Which of the following does not pollute the air?  
a. burning wood  b. breathing   
c. harmful gases  d. smoke from cars
5. We draw water from:  
a. wells  b. tube wells   
c. hand pumps  d. all of these

ii. Fill in the blanks.

1. Polluted air will make us \_\_\_\_\_.
2. Plants and trees make the air \_\_\_\_\_ and \_\_\_\_\_.
3. In nature, water keeps changing its \_\_\_\_\_.
4. \_\_\_\_\_ live in water.
5. River water is \_\_\_\_\_ in the mountains.

iii. Mark the statements as True (T) or False (F).

1. Both human and animal activities pollute the water.
2. Plants and trees pollute the air.
3. Water can be found in more than one place.
4. Burning wood pollutes the air.
5. Air and water are not important for living.

iv. Answer the following questions briefly.

1. How is ice formed?
2. When is World Water Day celebrated?
3. What is water vapour?
4. Name two uses of water.
5. What does polluted air do to the environment?



Save Water

v. Answer the following questions.

1. What are the activities that pollute the air?
2. How can we keep the air clean?
3. What causes water pollution?
4. What is water cycle?
5. How can we make the water pure?



Plant Trees