

St. Andrews Scots Senior Secondary School

9th, Avenue, I.P Extension, Patparganj

Class-V Sub-Science

Session- 2025- 2026

Lesson -10 Air and Water

- **Reading of the chapter**
- **Explanation (will be done in class)**

(Textbook exercise)

- A. Tick the correct answer.
 1. 78 %
 2. Troposphere
 3. Sedimentation
 4. Stratosphere
- B.Fill in the blanks.
 1. Mesosphere
 2. Troposphere
 3. Carbon dioxide, oxygen
 4. Evaporation , distillation
- C. True or False.
 1. True
 2. False
 3. False
 4. True

- **D Guess and write.**
 - (a) Atmosphere
 - (b) Oxygen
 - (c) Mesosphere
 - (d) Distillation
 - (e) Chlorine
- Define(Learn from Pg no- 110)

(Notebook Work

New Words

Any 10 words

Short Question/Answer

1 Name the different layers of the atmosphere.

Ans. The atmosphere is divided into five layers- Troposphere, Stratosphere, Mesosphere, Thermosphere and Exosphere.

2. Define the terms:

(a) **Sedimentation-** The process of separating insoluble impurities from water by allowing them to settle down is known as sedimentation.

(b) **Decantation-** After sedimentation, the clean water in the upper layer is poured

into another beaker without disturbing the impurities. This is known as decantation.

3. List the properties of air.

Ans. The properties of air are---

- Air occupy space.
- Air has weight.
- Air exerts pressure.

4. What are the methods of purifying water at home?

Ans. At home, we may purify drinking water by boiling, using water purifiers and by chlorination.

5. What are the different components of air?

Ans. Air contains-

- Nitrogen – About 78%
- Oxygen – About 21%
- Carbon dioxide – 0.03%
- Other gases(helium, neon, hydrogen, argon, ozone etc.) – 0.97%

6. Why do mountaineers carry oxygen mask with them?

Ans. Mountaineers carry oxygen mask with them because amount of oxygen decreases as we go high up in the atmosphere.

Long Question/Answer

1. Explain why atmosphere is important.

Ans. a. Atmosphere supports life on earth with its oxygen content.

- b. It also contains carbon dioxide which plants use to make food for themselves.
- c. It protects the earth from harsh heat of the sun.
- d. The ozone layer absorbs the harmful ultraviolet rays and prevents them from reaching the surface of the earth.

2. How will you show that air occupy space?

Ans. Activity 1 (pg no- 106)

3. Mention the methods of removing soluble impurities present in water. Explain them .

Ans. The different ways to remove soluble impurities from water are:-

- a) **Evaporation** – It is the process of changing a liquid into steam (water vapour) by heating. In this method, water with soluble impurities like as salt is taken in a vessel and heated. After some time, the water in the vessel turns into vapour and the impurities are left behind.
- b) **Distillation** – It is the process of changing a liquid into its vapour and then condensing these vapour to get the purest form of that liquid.

4. Explain how water gets purified in water treatment plant.

Ans. The different steps involved in purification of water in a treatment plant are:-

- **Sedimentation** – The heavier insoluble impurities settle down at the bottom of the tank.
- **Filtration** – The water obtained from sedimentation is passed through filters made of sand, gravel, and charcoal to remove small floating suspended particles.

- **Chlorination** – Chlorine gas is passed through the clear water or chlorine tablets are put into to kill the germs.

Give Reasons

1. Why is the depletion of ozone layer a matter of concern?

Ans. The depletion of ozone layer is a matter of concern because it allows ultraviolet rays to enter the Earth's surface. These are highly penetrating rays which are harmful for us.

2 All living things use oxygen but its percentage in the air does not decrease, why?

Ans. All living things use oxygen but its percentage in the air does not decrease because plants maintain it by the process of photosynthesis.

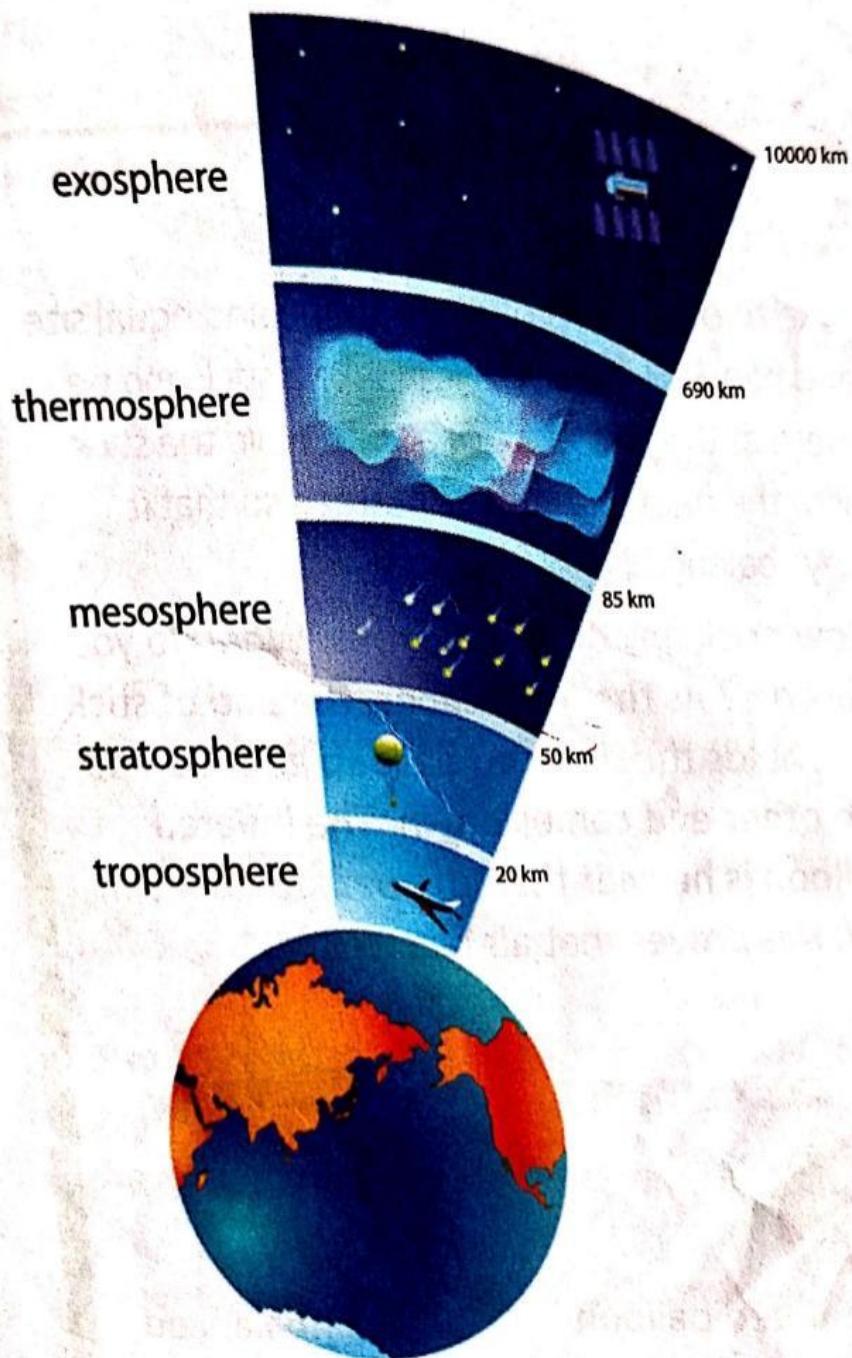
Activity

Write in detail about the method which you use at your home for purification of water in your notebook.

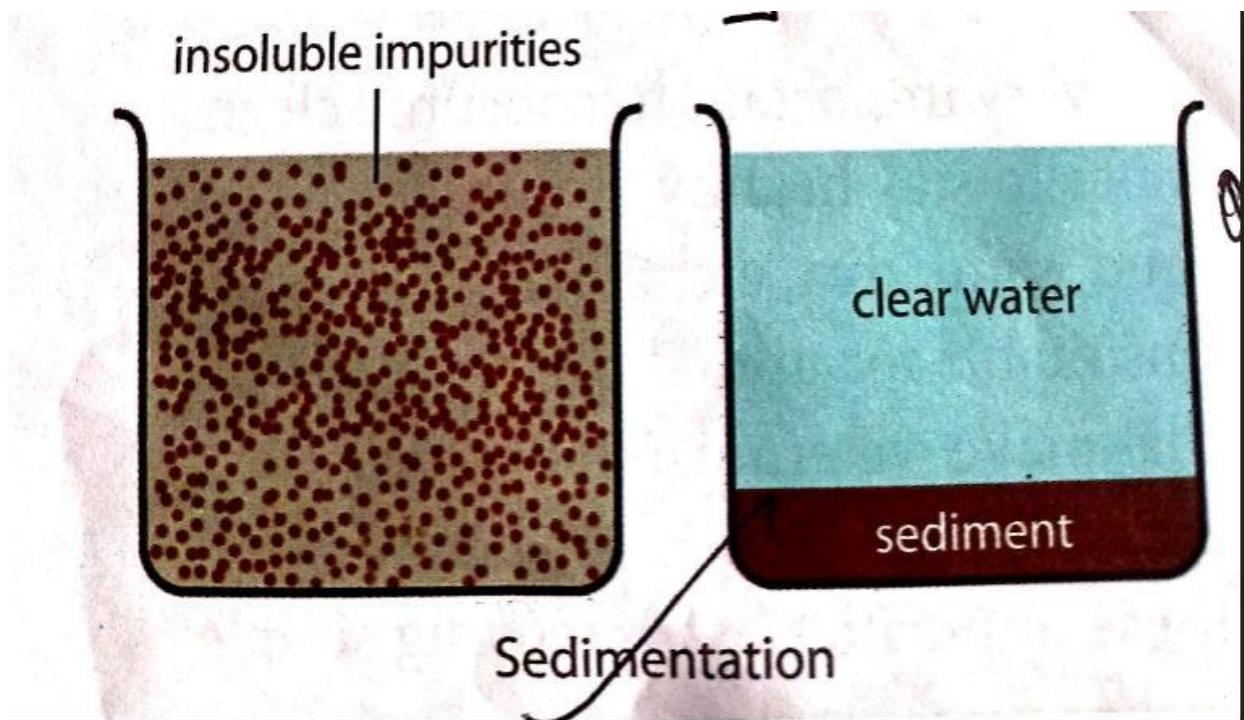
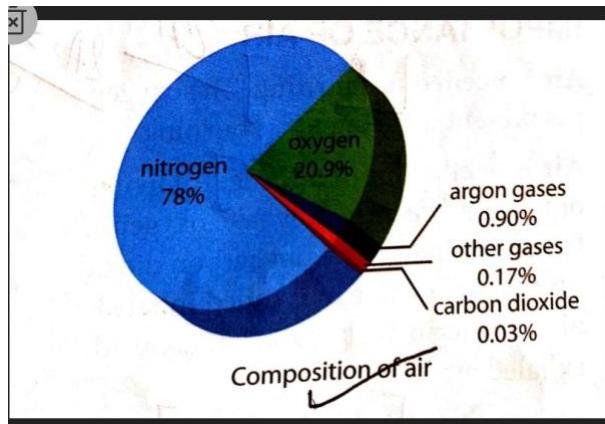
Dictation

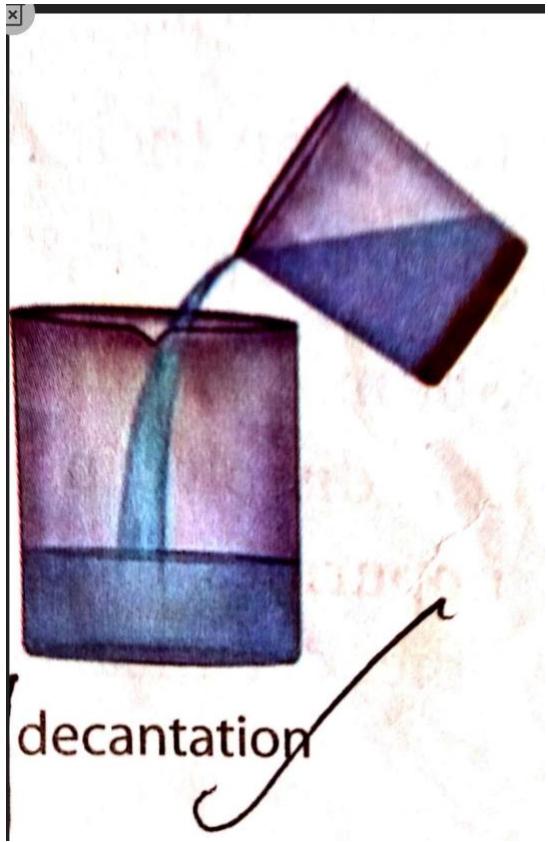
Any 10 words

Diagrams



Different layers of atmosphere





decantation



filtration

