

NOTES

CLASS 7

SCIENCE

aglasem.com
Study Material

DOWNLOAD PDF

WASTEWATER STORY

1. Waste Water

- Water that has been drained out from the sink, showers, toilet, laundries etc. is called wastewater
- It is of black brownish colour which is rich in a lather, oil, suspended impurities etc.

2. Water Our Lifeline:

- Clean water is a basic need of a person for survival.
- Earth has 71% water still there is water scarcity and clean water is not available to everyone.
- Inability to access clean water leads to many water-related diseases.
- Cleaning of water is a process of removing pollutants before it enters a water body or is reused, pollutants are substances that cause contamination.
- This process of treating wastewater to remove pollutants is usually referred to as sewage treatment.

3. What is Sewage?

- Sewage is a liquid waste produced by the community of people.
- Sewage is essentially the wastewater that is released by houses, industries, hospitals, offices and rainwater that has run down the street during a storm or heavy rainfall.
- Sewage contains disease-causing bacteria and other microbes which can spread a lot of diseases.
- Discharging of sewage into the river body contaminates our source of freshwater and leads to water scarcity and other problems.
- It is also threatening the life of aquatic animals and plants.
- Therefore, sewage should be treated before discharging into water bodies.

4. Water Freshens Up-An Eventful Journey:

- The liquid waste i.e., sewage goes to the point of disposal from the point of being produced through the network of big and small pipes called sewers.
- These sewers form sewerage.
- Manholes are a small covered opening in a paved area allowing access beneath, especially one leading to a sewer and are located at every 50 m to 60 m within the sewerage.
- Manholes are found at the junction of two or more sewers and at points where there is a change in direction.
- Wastewater through the sewerage reaches the wastewater treatment plant where it has to go through a different method of treatment.
- After treatment and purification, it is discharged into water bodies and available for use.



5. **Wastewater Treatment Plant:**

- It is a facility where physical, chemical and biological processes are used to treat the wastewater.
- In the wastewater treatment plant, firstly wastewater is passed through bar screens which removes large objects like rags, sticks, cans, plastics etc.
- Water then goes to a grit and sand removal tank. The process of removing grit and sand is known as screening.
- The water is then allowed to settle in the large tank which is sloped towards the centre to separate sludge.
- After this, the sludge is transferred to an aeration tank where it is decomposed by the anaerobic bacteria and air is pumped to assist aerobic bacteria to grow.
- Bacteria consume unwanted matter still remaining in the water.
- The activated sludge contains 97% water this water is removed by sand drying beds or machines.
- It is necessary to disinfect water chemically with chlorine and ozone to kill unwanted bacteria and microbes.

6. **Better Housekeeping Practices:**

- Sewage formation should be decreased as it leads to the pollution of water.
- We must adopt some measures such as:
- Not throwing vegetable oil and fats down the drain
- Chemicals should not be discharged into the drain as they may kill the microbes that help purify water.
- Throwing used tea leaves, kitchen wastes, soft toys, sanitary towels, etc. in the dustbin.

7. **Sanitation and disease:**

- Poor sanitation and contaminated drinking water are the major cause of the spreading of various diseases like cholera, typhoid, polio, meningitis, hepatitis and dysentery.
- Excreting in open areas leads to water and soil pollution and these untreated human excreta are harmful to our health which indirectly goes into our body.

8. **Alternative Arrangement for Sewage Disposal:**

a. **On-site sewage disposal system**

- These toilets do not require scavenging.



- Excreta from these toilets are directed into a biogas plant.
- The biogas produced is employed as a source of energy.

b. Sanitation at Public Places:

- The government has laid down certain standards of sanitation in public places.
- We all should contribute to maintaining sanitation in public places.
- We should not scatter litter anywhere as it will lead to pollution

References:-





Study Materials

aglasem.com

Model Papers

Sample Papers

Half Yearly Sample Papers

Important Resources

Periodic Table

Writing Skills / Formats

Maps of India / World



Notes

☐ [Class 6 Notes](#)

☐ [Class 7 Notes](#)

☐ [Class 8 Notes](#)

☐ [Class 9 Notes](#)

☐ [Class 10 Notes](#)

☐ [Class 11 Notes](#)

☐ [Class 12 Notes](#)

Books and Solutions

NCERT Books

NCERT Book Solutions

HC Verma Chapter Wise Solutions

RD Sharma Solutions

CGBSE Solutions

