

CHAPTER 8

A JOURNEY THROUGH STATES OF WATER

VEDA
ACADEMY

CLASS 6TH

NCERT EXERCISE AND SOLUTIONS - SCIENCE



P1



P2

Q. 1. Which of the following best describes condensation?

- (i) The conversion of water into its vapour state.
- (ii) The process of water changing from a liquid into gaseous state.
- (iii) The formation of clouds from tiny water droplets.
- (iv) The conversion of water vapour into its liquid state.

ANSWER:-

- (iv) The conversion of water vapour into its liquid state.

Q. 2. Identify in which of the given processes, evaporation is very important-

- (i) Colouring with
 - (a) crayons
 - (b) water colours
 - (c) acrylic colours
 - (d) pencil colours
- (ii) Writing on paper with
 - (a) pencil
 - (b) ink pen
 - (c) ball point pen

ANSWER:-

- (i) Colouring with (b) water colours
- (ii) Writing on paper with (b) ink pen

Q. 3. We see green coloured plastic grass at many places these days. Space around natural grass feels cooler than space around the plastic grass. Can you find out why?

ANSWER:-

Natural grass feels cooler because it releases moisture through **transpiration and evaporation**, which absorbs heat and cools the air. **Plastic grass** lacks this ability, so it does not provide the same cooling effect.



Q. 4. Give examples of liquids other than water, which evaporate.

ANSWER:-

Examples of liquids other than water that evaporate:

Alcohol (e.g., rubbing alcohol) – Evaporates quickly at room temperature.

Acetone (nail polish remover) – Has a very high evaporation rate.

Petrol (Gasoline) – Evaporates rapidly when exposed to air.

Perfume – Contains volatile liquids that evaporate easily.

Ether – Used in laboratories and evaporates quickly.

Q. 5. Four students used a laboratory thermometer to measure the temperature of water as shown in Figure:

ANSWER:-

Fans help dry wet clothes by increasing air circulation, which speeds up evaporation. They move humid air away from the clothes and bring in drier air, allowing moisture to evaporate faster.

Q. 6. Usually, when sludge is removed from drains, it is left in heaps next to the drain for 3-4 days. Afterward, it is transported to a garden or a field where it can be used as manure. This approach reduces transportation cost of the sludge and enhances the safety of individuals handling it. Reflect upon it and explain how.

ANSWER:-

Leaving sludge in heaps for 3-4 days helps water evaporate, reducing its volume and weight for easier transport. Drier sludge is also safer to handle and less likely to spread contaminants.

Q. 7. Observe the activities in your house for a day. Identify the activities that involve evaporation. How does understanding the process of evaporation help us in our daily activities?

ANSWER:-

Examples of activities involving evaporation include drying clothes, boiling water while cooking, sweating, and using hand sanitizers. Understanding evaporation helps in optimizing these processes, like spreading clothes for faster drying or using fans to speed up evaporation.

Q. 8. How is water present in the solid state in nature?

ANSWER:-

Water exists in solid form in nature as:

- **Ice:** Found in glaciers, ice caps, and icebergs.
- **Snow:** Seen in mountains and cold regions.



- **Hail:** Ice pellets formed during storms.
- **Frost:** Thin ice layer on surfaces in freezing temperatures.

Q. 9. Reflect on the statement “Water is our responsibility before it is our right.” Share your thoughts.

ANSWER:-

This statement highlights the need to conserve and use water responsibly. While everyone has the right to clean water, it is our duty to protect and preserve it for future generations.

Q. 10. The seat of a two-wheeler parked on a sunny day has become very hot. How can you cool it down?

ANSWER:

To cool down a hot two-wheeler seat on a sunny day:

- **Cover with a wet cloth:** The water evaporates, absorbing heat and cooling the seat.
- **Sprinkle water:** Evaporation helps lower the temperature.
- **Use a sunshade or cover:** Prevents direct sunlight from heating the seat.
- **Park in the shade:** Reduces heat exposure and keeps the seat cooler.

