

NCERT QUESTIONS WITH SOLUTION

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.

Ans. (iv)

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

Ans. (b)

- (ii) Writing on paper with
 - (a) pencil
 - (b) ink pen
 - (c) ball point pen

Ans. (b)

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?

Ans. Natural grass cools the surrounding area through the process of transpiration and evaporation, which removes heat from the air. Plastic grass does not have this cooling effect as it does not allow for the evaporation of water.

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

Ans. Examples of liquids that evaporate include alcohol, acetone, petrol, and perfume.

5. Fans move air around, creating a cooling sensation. It might seem strange to use a fan to dry wet clothes since fans usually make things cooler, not warmer. Normally, when water evaporates, it requires heat, not cold air. What do you think about this?

Ans. Fans help to dry wet clothes faster by increasing air circulation, which helps to remove the humid air near the wet clothes and replace it with drier air, thereby enhancing the rate of evaporation.

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.

Ans. Allowing the sludge to dry before transportation reduces its weight and volume, which decreases transportation costs. Drying also helps to reduce the risk of spreading pathogens and makes the sludge easier and safer to handle.

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?

Ans. Activities involving evaporation include drying clothes, boiling water, mopping floors, and sweating. Understanding evaporation helps us to optimize these processes, such as drying clothes faster by placing them in a windy or sunny area.

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

Ans. Water is present in the solid state as ice in glaciers, ice caps, icebergs, and snow.

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

Ans. This statement emphasizes the importance of conserving and responsibly managing water resources. Water is essential for life and ensuring its availability and quality for future generations is a collective responsibility. Mismanagement and wastage can lead to scarcity and environmental degradation.

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

Ans. To cool down a hot seat, you can pour water over it and allow the water to evaporate, which will absorb heat and cool the seat. Alternatively, covering the seat with a wet cloth or moving the vehicle to a shaded area can also help.