INDIAN SCHOOL AL WADI AL KABIR		
Class: VI	**DEPARTMENT: SCIENCE 2025-26**	**DATE: 31/08/2025**
WORKSHEET NO: 4	**TOPIC: A JOURNEY THROUGH STATES OF WATER**	**NOTE: A4 FILE FORMAT**
NAME OF THE STUDENT:	**CLASS & SEC:**	**ROLL NO.**

I. OBJECTIVE-TYPE QUESTIONS

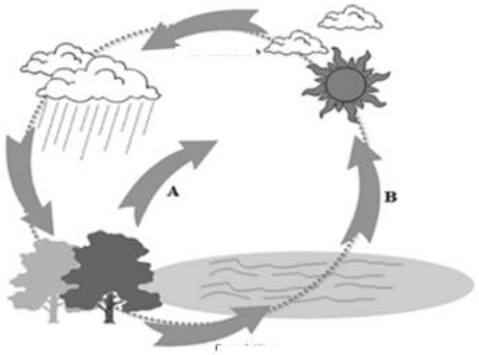
1. Which among the following conditions makes water evaporate more slowly?

a) Windy weather
b) High temperature
c) High humidity
d) Low humidity

2. Why do we feel a cooling effect when we rub sanitizer on our hands?

a) Due to the presence of water.
b) Due to the evaporation of alcohol.
c) Due to condensation.
d) Due to freezing.

3. In the given figure of the water cycle, the processes A and B denote:



a) Evaporation and Condensation
b) Evaporation and Transpiration
c) Transpiration and Evaporation
d) Condensation and Precipitation

4. In early winter mornings, we can see drops of water on the grass. This is because of:

a) photosynthesis
b) transpiration
c) condensation
d) water cycle

5. The glasses of spectacles become foggy when we breathe out on them. What is the reason?

a) water droplets from our mouths evaporated on the glasses.
b) water vapour from our mouth gets condensed on the glasses.
c) water from the atmosphere freezes on the glasses.
d) water from the atmosphere turns into water vapour.

6. What do you feel after you start sweating?
a) feel cooler due to evaporation of water droplets.
b) feel warmer due to condensation of water droplets.
c) feel cold due to freezing of water droplets.
d) feel warmer due to evaporation of water droplets.

7. Why does air containing water vapour go up in the atmosphere?

a) Water vapour is lighter than air.
b) Water is heavier than air.
c) Due to the presence of other gases.
d) Due to precipitation.

For question numbers 8-10, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below -

i) Both A and R are true, and R is the correct explanation of the assertion.
ii) Both A and R are true, but R is not the correct explanation of the assertion.
iii) A is true, but R is false.
iv) A is false but R is true

8. **Assertion (A):** An ice cream kept outside the refrigerator gets melted.
Reason (R): The process of melting involves cooling.

9. **Assertion (A):** Dew drops are formed on leaves on a cold morning.
Reason (R): Water vapour in the surroundings gets condensed and turns into a liquid state.

10. **Assertion (A)**: The process of evaporation takes place continuously, even at room temperature.
Reason (R): Evaporation causes a cooling effect.

II. VERY SHORT ANSWER TYPE QUESTIONS (2M):

1. Soon after the rain, water puddles appear in the playground. What happens to these after some time?

[Hint: Water gets absorbed by the soil on the playground. It also evaporates.]

2. Which of the two - water in an earthen pot or water in a stainless-steel pot will give cold water after being left for some time? Give a reason.

[Hint: Water in the earthen pot will be cold. It is because water from the surface of the earthen pot evaporates and imparts a cooling effect on water.]

3. Mention a few conditions that affect the process of evaporation.

[Hint: Temperature, exposed area, humidity and movement of air are some of the conditions which make the evaporation faster or slower.]

4. Define humidity. What is the relation between humidity and the evaporation of water?

[Hint: The amount of water vapour in the air is known as humidity. If the amount of water vapour in the air is high (more humidity), the water evaporates slowly.]

5. Suggest possible reasons explaining the appearance of water droplets on the outer surface of the glass tumbler containing water and ice cubes.

[Hint: Water does not come out of the glass tumbler. Water vapour in the air condenses on the outer surface of the cold glass tumbler.]

III. SHORT ANSWER TYPE QUESTIONS (3M):

1. Compare the properties of ice, liquid water and water vapour.

[Hint: The shape and volume of ice do not change when shifted from one container to another. In the case of water, shape depends on the container, but volume remains the same. In the case of water vapour, both shape and volume change. It occupies all available space.]

2. Give reasons for the following statements.

a) Clothes dry faster on a windy day.

[Hint: With the increase in the movement of air, water evaporates faster.]

b) While making dosas, we sprinkle some water on the hot pan, and it disappears.

[Hint: The water which is sprinkled on the hot pan gets converted into steam by evaporation.]

c) Coconut oil gets converted into its solid state during the winter season.

[Hint: Liquid oil changes into a solid on cooling.]

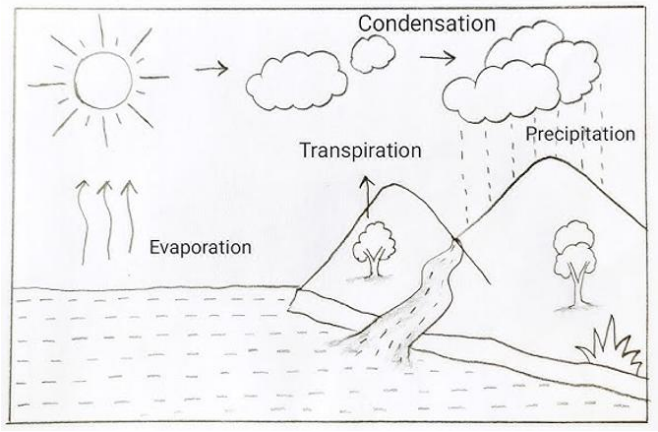
3. Describe the water cycle. Draw a neat labelled diagram.

[Hint: The circulation of water between the earth's surface and atmosphere is known as the water cycle. The processes involved in the water cycle are evaporation, condensation and precipitation.

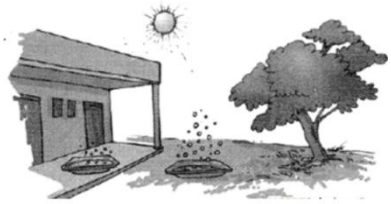
<u>i) Evaporation</u> - The sun heats water on land, in rivers, lakes and seas and turns it into water vapour. Plants also release water vapour into the air by transpiration. The water vapour rises into the air.

<u>ii) Condensation</u> - Water vapour in the air cools down and changes back into tiny drops of liquid water, forming clouds.

<u>iii) Precipitation</u> - The clouds get heavy and water falls back to the ground in the form of rain, hail or snow.



4. The given picture illustrates evaporation of water in sunlight and in shade. Answer the questions given below.



a) Water kept in sunlight gets heat from the sun and evaporates. But how does water kept under the shade also get evaporated? Explain.

[Hint: Air around us gets heated from sunlight. This warm air provides heat for evaporation of water kept in the shade.]

b) What is evaporation?

[Hint: The process of changing water into water vapour on heating is called evaporation.]

c) Which one evaporates faster – water in a plate or in a bottle cap? Justify your answer.

[Hint: The exposed area of water in the bottle cap and the plate is different. On a

plate, the area exposed to air is larger compared to the bottle cap. Therefore, water in a plate evaporates faster.]

5. What will happen to the mass of cold water kept on the digital weighing balance? Explain.

[Hint: Water vapour from the air comes in contact with the cold surface of the glass tumbler and gets converted into water droplets on the glass tumbler through condensation. So the mass of water increases, showing an increase in the reading on the digital weighing balance.]

IV. LONG ANSWER TYPE QUESTIONS (5M):

1. Define the term condensation. Condensation plays a significant role in the process of bringing evaporated water back to the Earth's surface. How does this happen?

[Hint: The process of conversion of water vapour into its liquid state is called condensation. When air moves higher above the Earth's surface, it becomes cooler and cooler. At certain heights, the air gets so cool that the water vapour in it turns into droplets , which are generally formed around dust particles. These small droplets float in the air and form clouds. Many droplets join together to form bigger drops of water. Some drops get so heavy that they start falling. These falling water drops are called rain. Under very cold conditions, it might also fall as hail or snow.]

V. CASE STUDY- BASED QUESTIONS/PASSAGE-BASED QUESTIONS:

1. Read the passage and answer the following questions:

We can see that water and other substances change their states on heating or cooling. The process of conversion of a solid into a liquid state is called melting. If we have to change ice into water, and water into water vapour, we have to supply heat to it. The process of conversion of liquid into a solid state is called freezing. If we want to change water into ice, what should be done? It can be done by placing water in a cold environment, such as a freezer. Water freezes and is converted into ice. If we take the ice out of the freezer, it melts and is converted back into water.

i) What are the different states of water?

[Hint: The three different states of water are solid ice, liquid water and gaseous water vapour.]

ii) How does water change its state from solid to liquid and from liquid to gas?

[Hint: In the solid state, water exists as ice. On heating, the ice melts and gets converted into its liquid state. On further heating, water gets converted into its gaseous state.]

iii) Differentiate between melting and freezing.

[Hint: The process of conversion of a solid into a liquid state is called melting, whereas the process of conversion of a liquid into a solid state is called freezing.]

ANSWERS FOR OBJECTIVE TYPE QUESTIONS 1 - 10

1.(c) 2. (b) 3. (c) 4. (c) 5. (b) 6. (a) 7. (a) 8. (iii) 9. (i) 10. (ii)

Prepared by: *Ms Neena Alex*	*Checked by:* *HOD Science*