INDIAN SCHOOL AL WADI AL KABIR		
Class: VI	**DEPARTMENT: SCIENCE** **2026-2027**	**DATE: 01/09//2026**
WORKSHEET NO: 5	**TOPIC: A JOURNEY THROUGH STATES OF WATER**	**NOTE: A4 FILE FORMAT**
CLASS & SEC:	**NAME OF THE STUDENT:**	**ROLL NO.**

I. OBJECTIVE-TYPE QUESTIONS

1. What is the term for the process where water converts into its vapour state?

(a) Condensation
(b) Freezing
(c) Evaporation
(d) Melting

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

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

3. Under which of these conditions will water evaporate the fastest?

(a) From a small bottle cap in a shaded area.
(b) From a large plate in a shaded area.
(c) From a small bottle cap kept in direct sunlight.
(d) From a large plate kept in direct sunlight.

4. The amount of water vapour present in the air is known as:

(a) Evaporation
(b) Condensation
(c) Humidity
(d) Rain

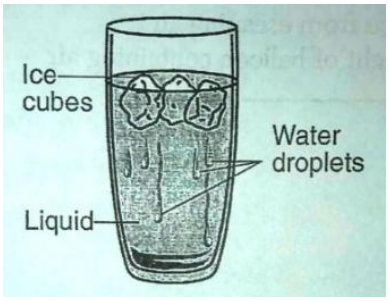
5. A student notices that during a cold winter morning, her breath forms a "mini-cloud" in front of her face. Which processes from the water cycle are occurring here in sequence?

(a) Melting followed by Freezing.
(b) Evaporation of water followed by Condensation in the cold air.
(c) Condensation followed by Evaporation.
(d) Freezing followed by Melting.

6. In the figure below, 'A' represents the Solid state (Ice) and 'B' represents the Liquid state (Water). Which processes are represented by the arrows labelled '2, 3, and 4'?

(a) Freezing, Evaporation and Condensation.
(b) Melting, Evaporation and Condensation.
(c) Evaporation, Freezing and Condensation.
(d) Condensation, Freezing and Evaporation.

7. In the Figure given below (a glass tumbler with ice cubes), where do the "tiny droplets" appearing on the outer surface of the glass actually come from?



(a) They seep through the microscopic holes in the glass walls.
(b) They are formed by ice cubes jumping out and melting.
(c) They come from water vapour in the air that condensed upon touching the cold surface.
(d) They are a result of water splashing over the rim.

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 (A), (B), (C) and (D) as given below -

(A) Both A and R are true, and R is the correct explanation of the assertion.
(B) Both A and R are true, but R is not the correct explanation of the assertion.
(C) A is true, but R is false.
(D) A is false, but R is true

8. **Assertion (A):** Water vapour is visible in the air.
Reason (R): Water vapour is actually invisible, but the presence of tiny liquid water droplets in steam makes it visible.

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 the liquid state.

10. **Assertion (A)**: Wet clothes dry much slower on a rainy day than on a hot, sunny day
Reason (R): Humidity, which is the amount of water vapour in the air, is higher on rainy days, and high humidity slows down the evaporation of water.

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

1. Soon after 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 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 four factors 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. How does the humidity affect the evaporation process? (WBQ)

[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. What happens to the temperature of water and its surroundings when water evaporates? (WBQ)

[Hint: When water evaporates, the temperature of water and the temperature of its surroundings decrease, leading to a cooling effect.]

6. How is melting different from evaporation? (WBQ)

[Hint: Melting is the process where a substance changes from its solid state to its liquid state (for example, ice turning into water).

Evaporation is the process where a substance changes from its liquid state to its gaseous state (for example, water turning into water vapour)]

III. SHORT ANSWER TYPE QUESTIONS (3M):

1. Write two differences between solid, liquid and gas. (WBQ)

[Hint: Shape:

- **Solid: A solid (like ice) retains its fixed shape regardless of the container it is placed in.**
- **Liquid: A liquid (like water) does not have a fixed shape; it takes the shape of the container it is kept in.**
- **Gas: A gas (like water vapour) does not possess a fixed shape and instead fills the entire available space.**

Flow and Spreading Behaviour:

- **Solid: Solids do not flow or spread.**
- **Liquid: Liquids can flow and spread while keeping their volume constant.**
- **Gas: Gases exhibit the property of spreading out to fill 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.

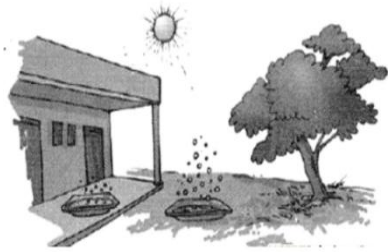
[Hint: Liquid oil changes into solid on cooling.]

3. What is the significance of water vapour in the atmosphere, and how does it affect weather patterns? (WBQ)

[Hint: Water vapour is the invisible gaseous state of water that is always present in the air around us. Because it is lighter than air, it rises into the atmosphere, where it plays a central role in driving weather patterns through the following processes:

- **It condenses to form clouds, leading to rain and other forms of precipitation.**
- **It helps regulate temperature by absorbing and retaining heat in the atmosphere.**
- **The amount and movement of water vapour influence humidity, cloud formation, rainfall, and storms.]**

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 is evaporated. 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 are different. On a plate, the area exposed to air is larger compared to the bottle cap. Therefore, water on 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.]

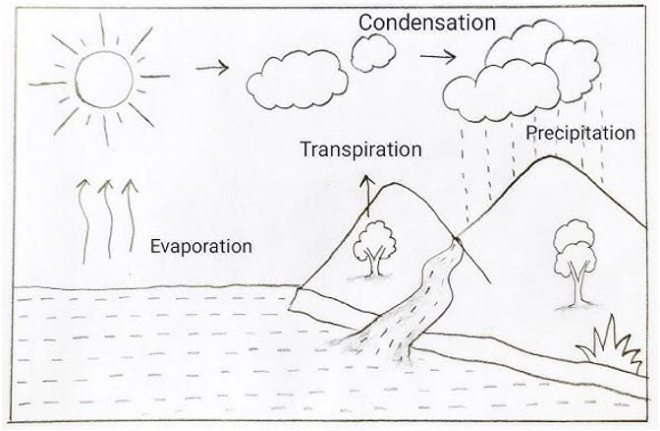
IV. LONG ANSWER TYPE QUESTIONS (5M):

1. Explain the water cycle and its significance in the Earth's water distribution. Draw a neat labelled diagram. (WBQ)

[Hint: The water cycle is the continuous circulation of water between the Earth's surface and the atmosphere. This journey involves water changing between its solid, liquid, and gaseous states through several key stages:

- **Evaporation: Water from the oceans and other parts of the Earth's surface turns into water vapour and rises into the atmosphere. This process of conversion into a gaseous state is called evaporation and happens continuously.**
- **Condensation (Cloud Formation): As water vapour rises higher, the air becomes cooler. At certain heights, the vapour turns back into tiny liquid droplets, usually forming around dust particles. These droplets float in the air and group together to form clouds.**
- **Precipitation: When these tiny droplets join to form bigger, heavier drops, they fall back to the Earth as rain, hail, or snow.**

Ultimately, this water flows back into the oceans and other water bodies, starting the process all over again.



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

Read the passage and answer the following questions:

Water is a unique substance that can be observed in three different states in our daily lives: the solid state (ice), the liquid state (water), and the gaseous state (water vapour). The continuous process of liquid water turning into its vapour state is known as evaporation. This process is influenced by various environmental conditions; for instance, water evaporates faster when its exposed surface area is larger, such as when water is spread out on a plate rather than kept in a small bottle cap. Additionally, water evaporates more quickly on hot, sunny, or windy days.
When water vapour present in the air comes into contact with a cold surface, it undergoes a process called condensation, where it is converted back into its liquid state as tiny droplets. These droplets are often seen on the outside of a cold glass or as clouds in the sky. Together, these processes drive the water cycle, which is the continuous circulation of water from the Earth's surface into the atmosphere as vapour and its return as rain, hail, or snow.

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) Why does water evaporate faster from a plate than from a bottle cap?
[Hint: Water evaporates faster from a plate because the area exposed to the air is larger.]

iii) Under what condition does condensation occur?
[Hint: Condensation occurs when water vapour present in the air comes into contact with a cold surface.]

iv) What is the "water cycle"?
[Hint: The water cycle is the continuous circulation of water between the Earth's surface and the atmosphere]

ANSWERS FOR OBJECTIVE TYPE QUESTIONS 1 - 10

1. (c) Evaporation.

2. (b) Due to evaporation of alcohol.

3. (d) From a large plate kept in direct sunlight.

4. (c) Humidity

5. (b) Evaporation of water followed by Condensation in the cold air.

6. (c) Evaporation, freezing, and Condensation.

7. (c) They come from water vapour in the air that condensed upon touching the cold surface.

8. (D) A is false, but R is true

9. (A) Both A and R are true, and R is the correct explanation of the assertion.

10.(A) Both A and R are true, and R is the correct explanation of the assertion.

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