



Class: 4

Subject: Science

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Weather

Lesson-: 10: Air, Water and

I. Key words:

- | | |
|---------------|-------------------|
| 1. Invisible | 6. Temperature |
| 2. Misty | 7. Condensation |
| 3. Atmosphere | 8. Dew |
| 4. Revolution | 9. Frost |
| 5. Humidity | 10. Precipitation |

II. Pre activity: What happens when you hold your breath for long time?

III. Name the following.

Q.1. Name any two factors responsible for weather changes.

Ans- Revolution of Earth, Rotation of Earth

Q.2. Name any two forms of precipitation.

Ans. Hail, Rain

Q.3. Name the process by which rainfall or snowfall occurs.

Ans- Condensation, Precipitation

Q.4. What is the factor affecting weather in costal areas?

Ans- Heat (Sea and Land Breeze)

IV. Short answers questions.

Q. 1. What is atmosphere?

Ans- Atmosphere is the mixture of gases that surrounds the earth.

Q. 2. What is humidity?

Ans: The amount of water vapour which is present in the air is called humidity.

Q. 3. What is land breeze?

Ans: At night, when the Sun's heat is minimum, the land and the air above it cool quicker than the sea. Warm air above the sea rises upwards and cool air from the land rushes to take its place. This is called land breeze.

Q. 4. What is wind?

Ans: Moving air is called wind.

Q.5.What is portable water?

Ans. Water purified to make it fit for drinking is called potable water.

V. Long answers questions.

Q.1.Describe in brief all the factors responsible for the changes in weather.

Ans- The weather conditions are largely dependent on the Sun.

- i) The Earth revolves around the Sun. This is called revolution of the Earth.
- ii) The half that is closer to the Sun experiences summer with hotter and longer days.
- iii)The half farther away from the Sun experiences winter with cooler and shorter days.
- iv)The rotation of the Earth on its axis causes day and night.
- v) During the day the rays of the Sun fall straight, making the place hot. But during morning and evening, the same place receives slanting rays of the Sun.
- vi)The Sun's heat causes humidity and rainfall.

Q.2. Differentiate between hail, frost and dew ?

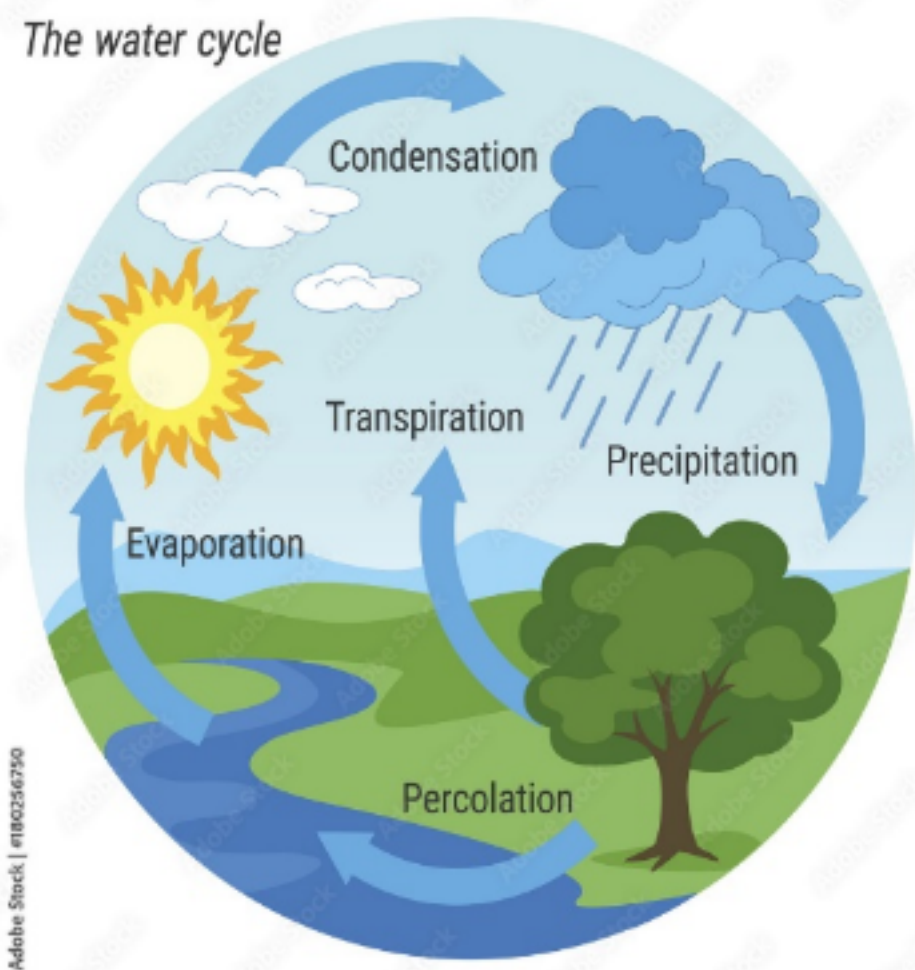
Ans-

Dew	Hail	Frost
Water vapour present in the air condenses and forms droplets of water on surfaces. These droplets of water are called dewdrops and this phenomenon is called dew.	In very cold places, as rain falls to the ground, it changes into ice. The ground then receives ice droplets as rain. This is called hail. Hail is bad for the soil and for crops	In very cold places, during the night when it is extremely cold, dewdrops freeze and form ice on surfaces, like windows and poles. This is called frost

Q.3. Explain the water cycle and draw a rough diagram naming all the processes.

Ans-i)The water cycle is a continuous process. Sunlight heats up water in oceans, lakes and rivers, causing it to evaporate through process of evaporation.

- ii]When water evaporates, it turns into water vapor and rises up into sky.
- iii]The water vapor forms clouds in a process called condensation.
- iv]When clouds cools down further it returns to its liquid form through the process of precipitation.
- v]And it falls down upon the ground in the form of rain.
- vi]This rain gathers in water bodies and then entire cycle repeats itself. This cycle is called the water cycle.



Q.4. What is the role of the sun in the process of evaporation and condensation?

Ans-i) Water evaporates with the heat of the Sun. Water changes to water vapor .

ii) As water vapor is lighter than water, it rises upwards and mixes with the air.

iii) The upper layers of the atmosphere are cooler.

iv) Hence, the water vapour that rises up condenses to form water droplets which come together to form clouds.

v) Clouds move with air currents and combine with more droplets of water to form bigger clouds.

vi) Saturated clouds get rid of excess water and falls on the Earth as precipitation (through rainfall or snowfall).

Q.5. Differentiate between weather and climate.

Ans-

Climate	Weather
The condition of the atmosphere at a particular place over a long period of time is called climate.	The condition of the atmosphere at a particular place over a short period of time is called weather

Hots:

1. Why is there a scarcity of water on the Earth?

Ans- There is scarcity of water on Earth because only very little water is fit for drinking or portable water.

2. We see droplets of water on the glass windows during early morning hours. What process would have taken place to make this happen? Can you think of ways for keeping the windows free from these droplets?

Ans- This happens due to the process of condensation. Water vapour present in the air condenses and forms droplets of water on surfaces. These droplets of water are called dewdrops and this phenomenon is called dew.

Post-activity-

Draw the diagram of Water Cycle.

Subject Teacher

H.O.D.

Coordinator

Principal