

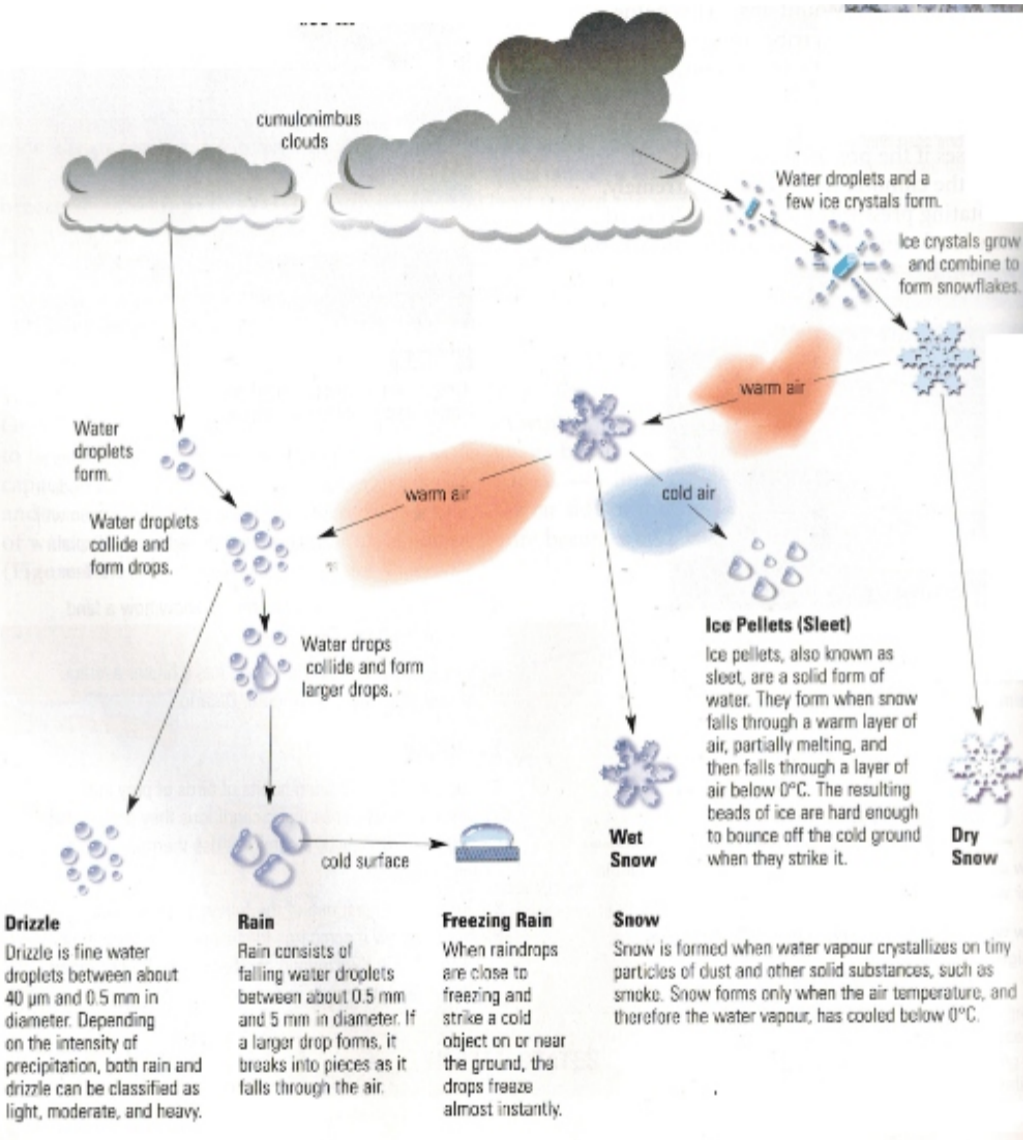


Rain Gauge

is an instrument used to measure precipitation. Its units of measure are centimeter (cm) or millimeters.

Precipitation

refers to water that reaches the ground in either a liquid or solid form. It is the stage in the water cycle that follows condensation, freezing, or sublimation. The type of precipitation depends greatly on the temperature on the ground and in the atmosphere. There are five kinds of precipitation: rain, drizzle, snow, hail and sleet. The formation of the main types of precipitation are given in the table below.



Precipitation	Description
Rain	drops of water falling from the clouds that are larger than drizzle drops and less densely together.
Drizzle	a dense, light rain with super small drops.
Snow	precipitation that remains frozen from the cloud to the ground.
Freezing Rain	droplets falling and then freezing once they contact a surface on the Earth
Hail	Frozen pieces of water that filter through clouds through an updraft. Mostly associated with strong thunderstorms.

1. Precipitation is usually expressed in which of the following units?
 - (A) m^3
 - (B) g/m^2
 - (C) ml
 - (D) mm

2. What instrument is used to measure the amount of precipitation?
 - (A) rain gauge
 - (B) thermometer
 - (C) barometer
 - (D) anemometer

3. Any form of water that falls from the air to the Earth's surface is called _____.
 - (A) humidity
 - (B) precipitation
 - (C) rain
 - (D) sleet

4. Which of the following is not a form of precipitation?
 - (A) rain
 - (B) snow
 - (B) sleet
 - (C) dew

5. What term is used to describe when water changes from a gas to a liquid it ?
 - (A) warms up
 - (B) condenses
 - (C) evaporates
 - (D) rises

6. When water droplets in a cloud combine, become too heavy, and fall to the ground as rain, snow, sleet or drizzle, we are experiencing _____.
 - (A) transpiration
 - (B) condensation
 - (C) evaporation
 - (D) precipitation

7. Four kinds of precipitation are _____.
 - (A) snow, ice, hail and rain
 - (B) snow, sleet, hail and fog
 - (C) rain, snow, sleet, and fog
 - (D) rain, snow, sleet, and hail

8. How does sleet differ from snow?
 - (A) It is not a form of precipitation.
 - (B) It is liquid and not ice.
 - (C) It starts as rain and freezes in the air.
 - (D) It starts as water vapor and changes to a solid.

9. Which statement about hail is correct?
 - (A) It is rain that falls through a layer of freezing air.
 - (B) It may be sent up into the clouds many times.
 - (C) It forms in winter in low stratus clouds.
 - (D) It is a liquid form of precipitation.

10. What is the most common form of precipitation?

- (A) sleet.
- (B) rain.
- (C) hail.
- (D) snow.

11. What role does runoff play in the water cycle?

- (A) It is the process in which liquid turns to water vapor.
- (B) It carries water from precipitation into oceans.
- (C) it takes water out of the water cycle.
- (D) It is not part of the water cycle.

Part B: Written Response

1. Which is more important in classifying precipitation, the form of water in the atmosphere or the form that reaches the ground? Choose an example to illustrate your answer. [4]

2. Name the forms of precipitation that are [2]

a) Solid

b) Liquid

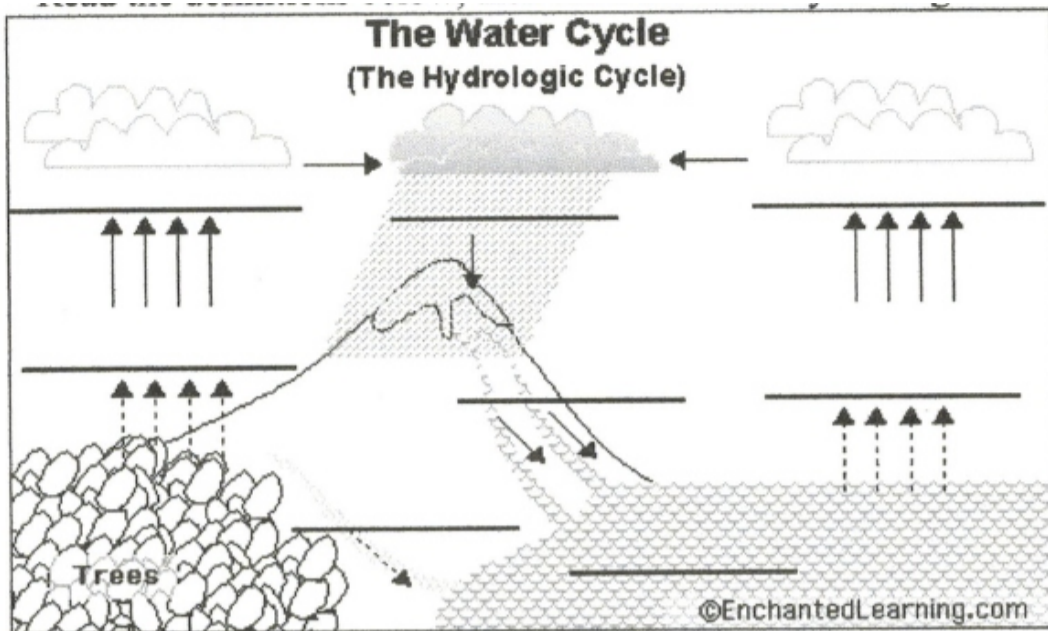
3. Complete the sentence with the choices below. [15]

- | | | |
|--------------------|----------------|------------|
| heavier | hail | freezing |
| drizzle | cloud | rising air |
| drop | above freezing | snow |
| fall to the ground | rain | larger |
| sleet | precipitation | |

1. A _____ is made up of billion of droplets of water.
2. Droplets are held in the air by _____.
3. When droplets collide they become _____ in size.
4. About one million droplets make up a _____.
5. Drops are much _____ and _____ than droplets
6. Drops _____.
7. Water in any form that falls back to earth is called _____.
8. There are five kinds of precipitation. They are 1) _____
2) _____ 3) _____
4) _____ 5) _____
9. It rains or drizzles when the temperature is _____
10. It hails, sleet, or snow when the temperature is _____

4. Read the definitions below, then label the water cycle diagram.

[8]



Accumulation - The process in which water pools in large bodies (like oceans, seas and lakes)

Condensation - the process in which water vapour (a gas) in air turns into liquid

Evaporation - the process in which liquid water becomes water vapour (a gas). Water vaporizes from the surface of oceans and lakes, from the surface of land, and from melts in snow fields.

Precipitation- The process in which water (in the form of rain, snow, sleet, hail and drizzle) falls from clouds in the sky.

Subsurface Runoff- rain, snow melt, or other water that flows in underground streams, drains, or sewers.

Surface Runoff - rain, snow melt, or other water that flows in surface streams, rivers, or canals.

Transpiration - The process in which some water within plants evaporates into the atmosphere. Water is first absorbed by the plants roots, then later exits by evaporating through the pores in the plant.