

The Water Cycle

Week 22 — Monday | Evaporation, Condensation, and Precipitation

Reading Time

Last week we learned that water moves in a never-ending loop around our planet. This week we are going to study each stage of the **water cycle** in detail. Understanding each step helps us predict the weather, explain why plants grow, and understand where rain comes from. The water cycle is one of the most important natural processes on Earth because it moves water from the oceans to the land and back again.

Evaporation is the first major step. When the sun warms water in oceans, lakes, and rivers, the water changes from a liquid into an invisible gas called **water vapor**. This water vapor rises into the air. You can see evaporation happening when a puddle disappears after a sunny day or when wet clothes dry on a line. Plants also release water vapor through their leaves in a process called **transpiration**, which adds more water vapor to the air.

Condensation happens next. As water vapor rises higher into the sky, the air gets cooler. The cool air causes water vapor to change back into tiny liquid water droplets. These droplets are so small and light that they float in the air, forming **clouds**. You can see condensation in everyday life when water droplets form on the outside of a cold drink glass or when fog covers a field in the morning. Clouds are basically huge collections of billions of tiny water droplets floating together.

Precipitation is the third step. When enough water droplets collect in a cloud, they combine to become larger and heavier. Eventually they become too heavy to stay floating in the air, so they fall back to Earth. The type of precipitation depends on how cold the air is. When the air is warm, water falls as **rain**. When the air is below freezing, water falls as **snow**. **Sleet** is rain that freezes into ice pellets as it falls through cold air. **Hail** forms inside storm clouds when water freezes into balls of ice that bounce up and down, growing larger with each trip.

Reading Questions

1. What causes evaporation?
2. Give two everyday examples of condensation that you might see at home.
3. What determines whether precipitation falls as rain or snow?
4. Describe the complete journey of a drop of water from the ocean to a cloud to the ground and back to the ocean.

Vocabulary Grid

Write a definition or draw a picture for each word.

 **Evaporation**

 **Condensation**

 **Precipitation**

 **Water Vapor**

 **Sleet**

 **Hail**

Precipitation Sort

Sort each type of precipitation into the correct column: warm weather or cold weather.

Precipitation Type	Warm Weather	Cold Weather
Rain		
Snow		
Sleet		
Hail		

Compare Precipitation Types

Fill in the chart describing each type of precipitation.

Type	What It Is	When It Falls	What It Looks Like
Rain			
Snow			
Sleet			
Hail			

Evaporation or Condensation?

Read each situation. Write E for evaporation or C for condensation.

Situation	E or C?
A puddle on the sidewalk dries up after a sunny day.	
Water droplets form on a cold juice box.	
Clouds form in the sky after a warm day.	
Wet hair dries after you take a shower.	
Fog appears over a lake in the morning.	
Steam rises from a hot cup of cocoa.	
Your mirror fogs up during a hot bath.	
An ocean wave disappears as a mist on a warm beach.	

 True or False — Circle Your Answer

- ☐ 1. Evaporation turns liquid water into invisible water vapor.
- ☐ 2. Condensation happens when water vapor heats up.
- ☐ 3. Clouds are made of tiny liquid water droplets.
- ☐ 4. Precipitation only falls as rain.
- ☐ 5. Transpiration is when plants release water vapor.
- ☐ 6. Snow falls when the air is above freezing.
- ☐ 7. Hail forms inside storm clouds.
- ☐ 8. Sleet is rain that freezes into ice pellets while falling.

 Fill in the Blanks

Word Bank: evaporation condensation precipitation water vapor transpiration snow hail sleet

- 1. When the sun heats water and it turns into gas, that is _____.
- 2. The invisible gas that rises into the air is called _____.
- 3. When water vapor cools and forms clouds, that is _____.
- 4. Water falling from clouds is called _____.
- 5. When plants release water through their leaves, it is called _____.
- 6. Frozen precipitation that falls as ice crystals is called _____.
- 7. Balls of ice that form in storm clouds are called _____.
- 8. Rain that freezes into ice pellets while falling is called _____.

 Think About It

Think about a cold day when you go outside from a warm house. Why do you see your breath? Which water cycle stage is that an example of? Explain.
