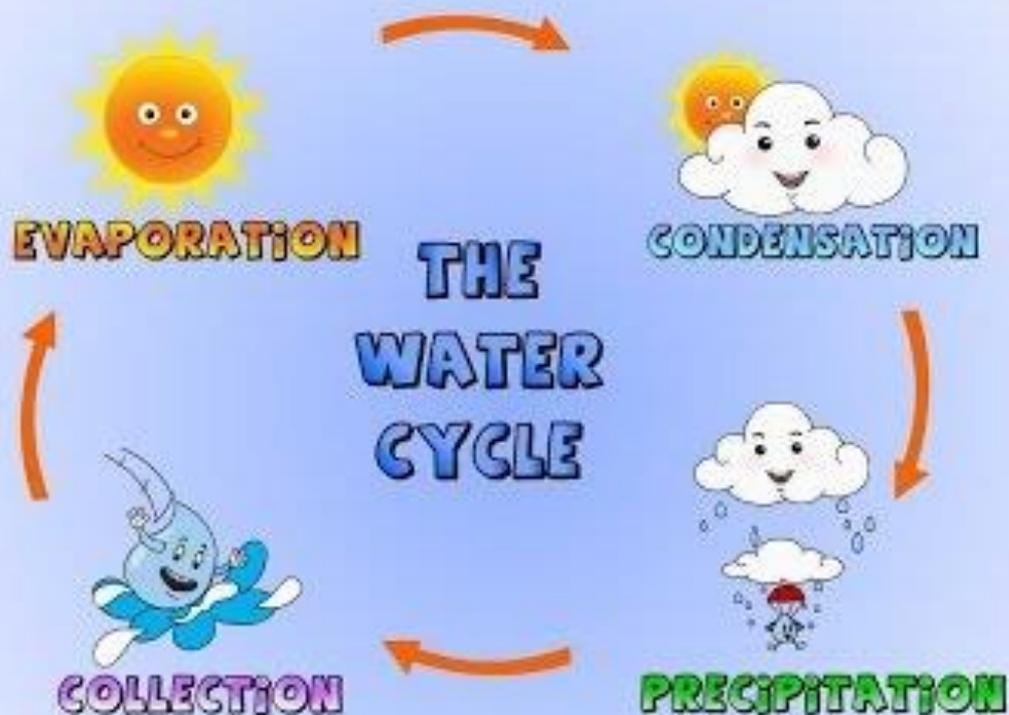


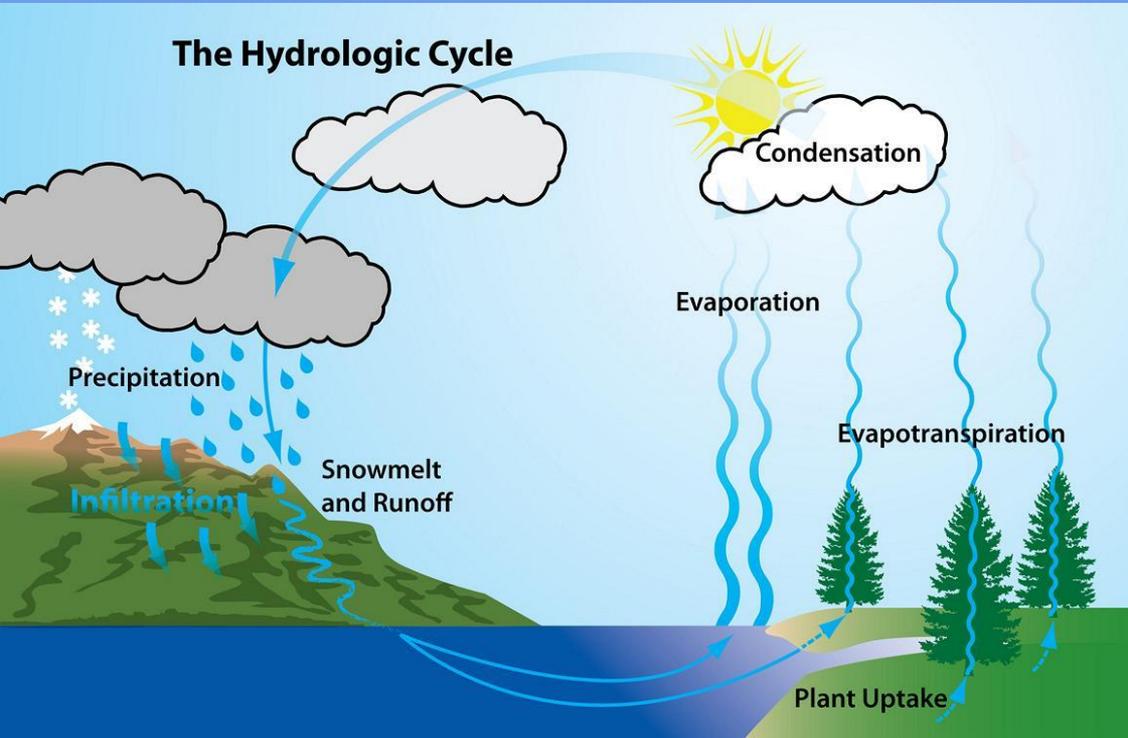
The Water Cycle

Why is the water cycle important to us?





Water Cycle or Hydrologic Cycle?



- Essentially they are the same!
- The cycle involves the continuous circulation of water in the atmosphere



Evaporation



- The process where water at the surface turns into water vapors. The water absorbs heat from sunlight which allows water to change forms. Oceans, lakes and rivers are the main source of evaporation.



Condensation

- As water vaporizes into water vapor, it rises up in the atmosphere. Because of the low temperature at high altitudes, the water vapor changes into tiny particles of water droplets



Sublimation



- Sublimation also contributes to water vapor in the air. Sublimation converts ice directly into water vapor, bypassing the liquid phase.
- This process only occurs when the temperature is very low or the pressure is extremely high.
- Sublimation can occur in the North and South pole from ice caps or ice sheets.

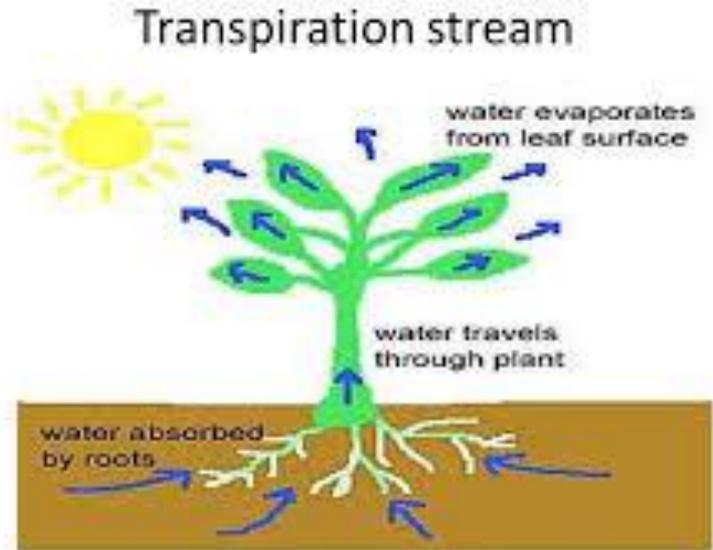


Precipitation

- Precipitation occurs when the water vapor in the air (clouds) change temperatures again and transform back into liquid water.
- Precipitation can occur as rain, snow, sleet, or hail depending on changing temperatures and pressure



Transpiration



- As water is precipitated, some is absorbed by the soil. This water enters the process of transpiration.
- Transpiration is similar to evaporation. The roots of plants absorb water and push it toward leaves where it is used for photosynthesis. The extra water is moved out of leaves through tiny openings as water vapor and then enters the biosphere and exits the gaseous phase

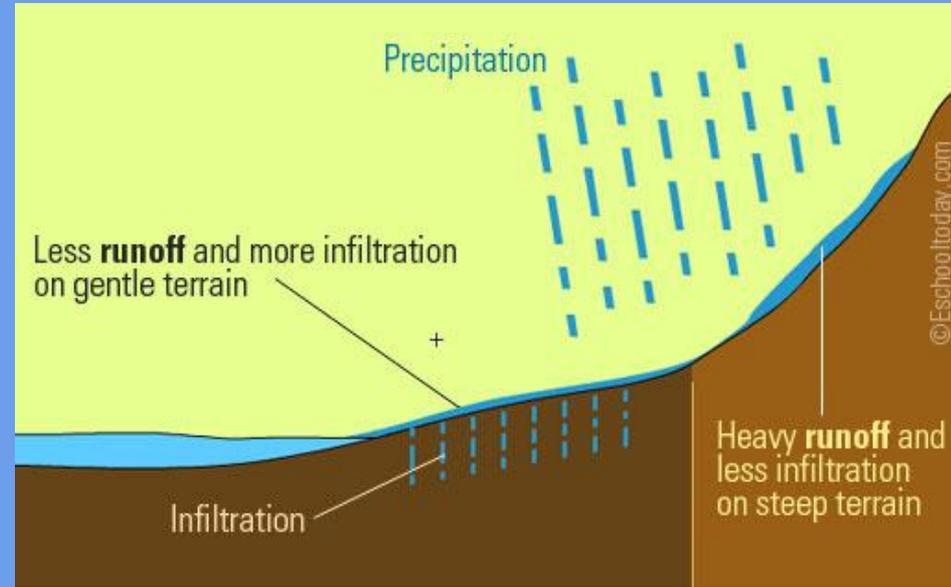
Runoff



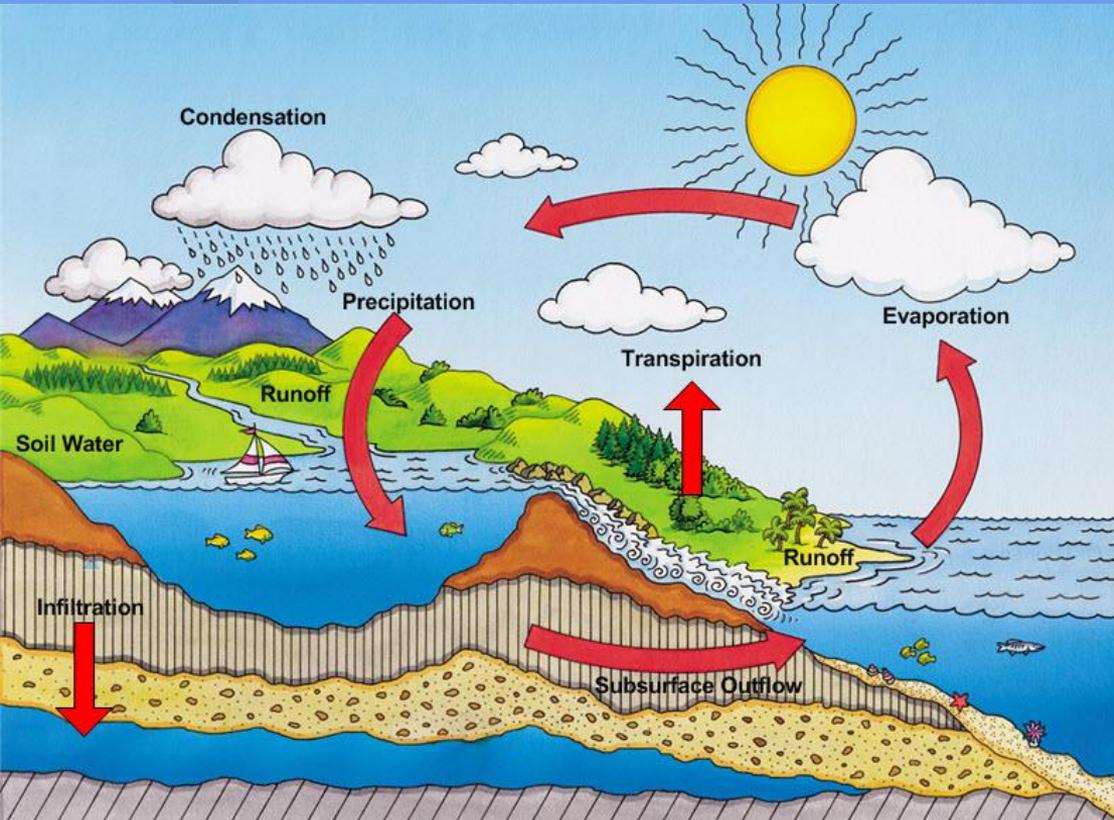
- The water that pours down from precipitation contributes to run off. Runoff is the process where water runs over the Earth.
- Water displaces topsoil and moves minerals along with the stream. The runoff combines with streams and other channels to enter lakes and oceans.

Infiltration

- Some of the water that precipitates does not runoff into the rivers and is absorbed by the plants or gets evaporated. It moves deep into the soil and this is called infiltration.



Why is the water cycle important?



- The water cycle ensures availability of water for all living organisms and regulates the weather patterns on the planet
- If water did not recycle itself naturally, we would run out! And clean water is essential to our lives!

What OCWA is doing to impact the Water Cycle?



- OCWA takes water collected as runoff or precipitation from Otisco and Ontario Lakes and treats it so that it can be used safely by Central New Yorkers.
- OCWA supplies clean and safe water to five Central New York counties including Onondaga, Oswego, Madison, Cayuga, and Oneida counties.

How Does OCWA get New York residents their clean water?

