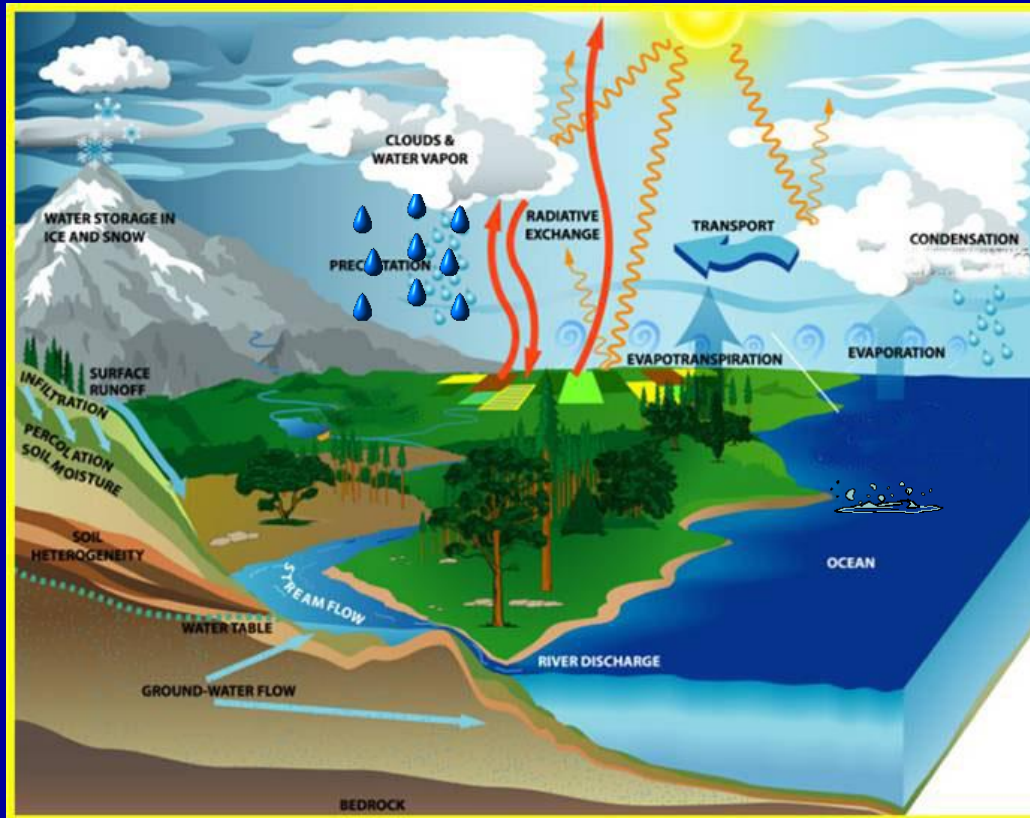


WATER CYCLE

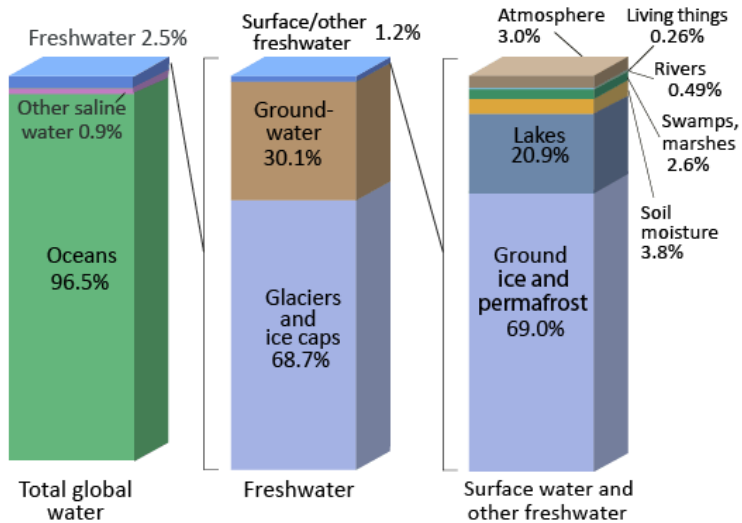


71% of Earth is covered with water



96.5% of that water is saltwater in the oceans and seas

Where is Earth's Water?



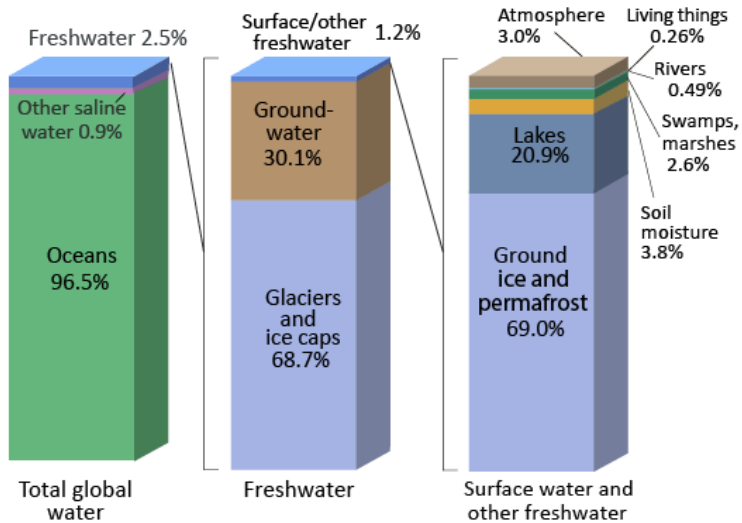
Source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*.
NOTE: Numbers are rounded, so percent summations may not add to 100.

Only 2.5% of Earth's water is freshwater.

68.7% of the freshwater is frozen in glaciers and ice caps.



Where is Earth's Water?



Source: Igor Shiklomanov's chapter "World fresh water resources" in Peter H. Gleick (editor), 1993, *Water in Crisis: A Guide to the World's Fresh Water Resources*.
NOTE: Numbers are rounded, so percent summations may not add to 100.

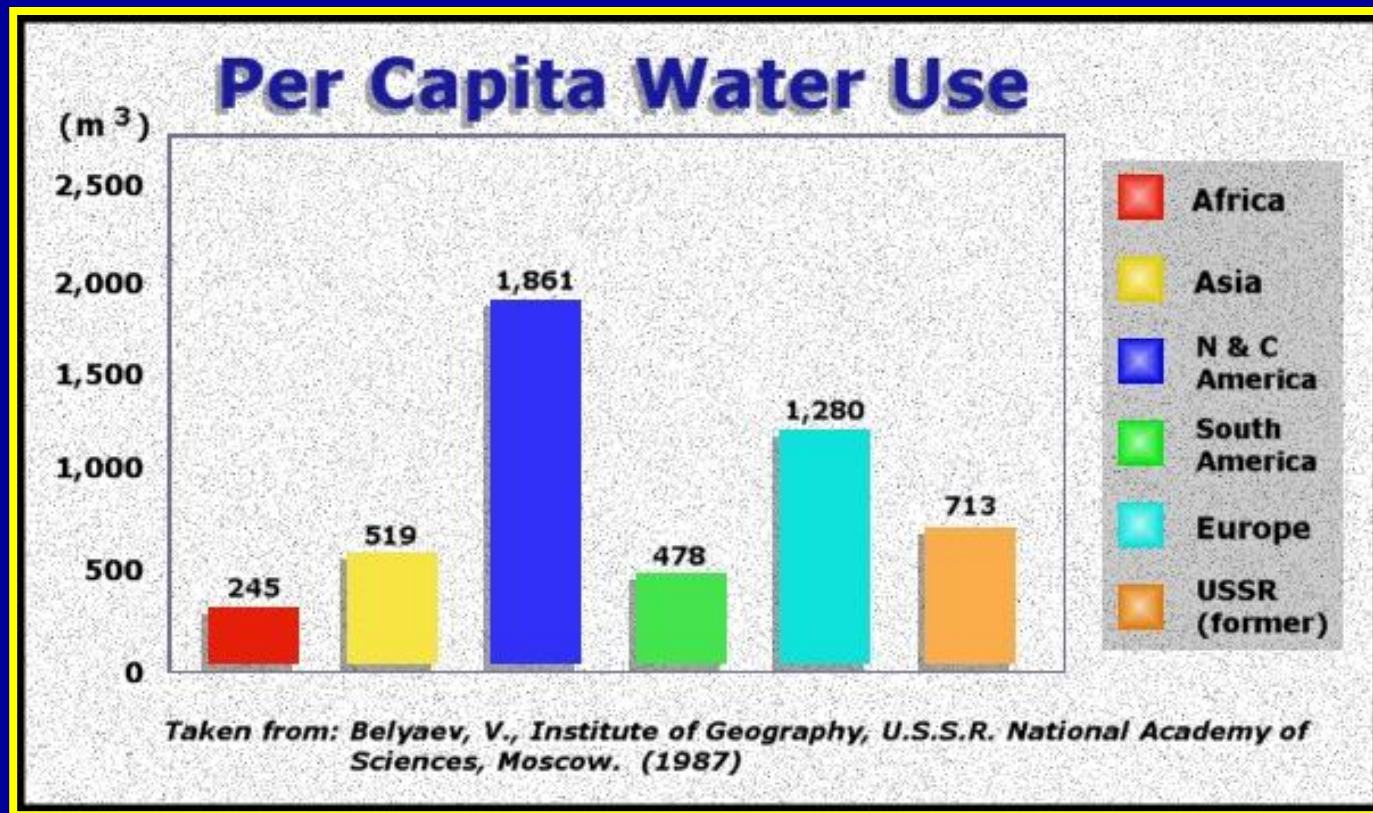
30.1% of the freshwater on Earth exists as groundwater.

Only 1.2% of all the freshwater on Earth is on the surface in streams, ponds, and lakes.



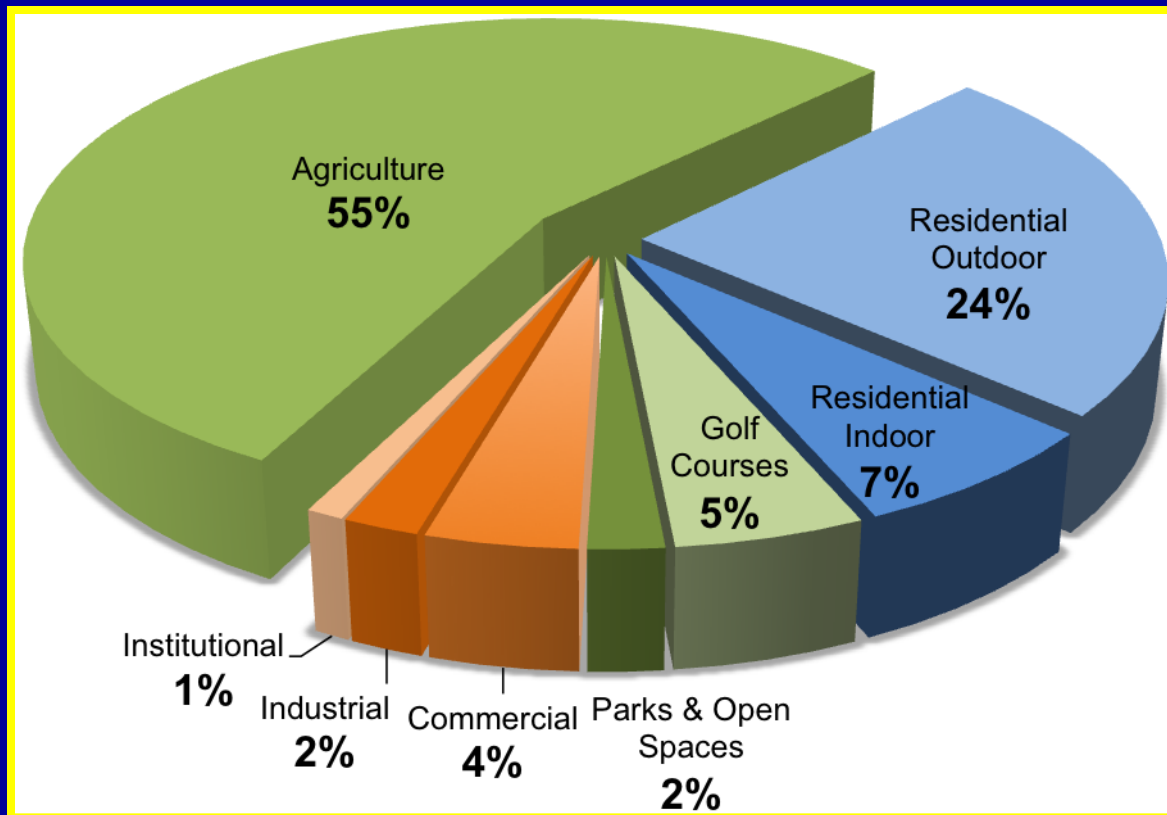
Water Use

Worldwide, the United States uses the most freshwater per capita, followed by Europe.



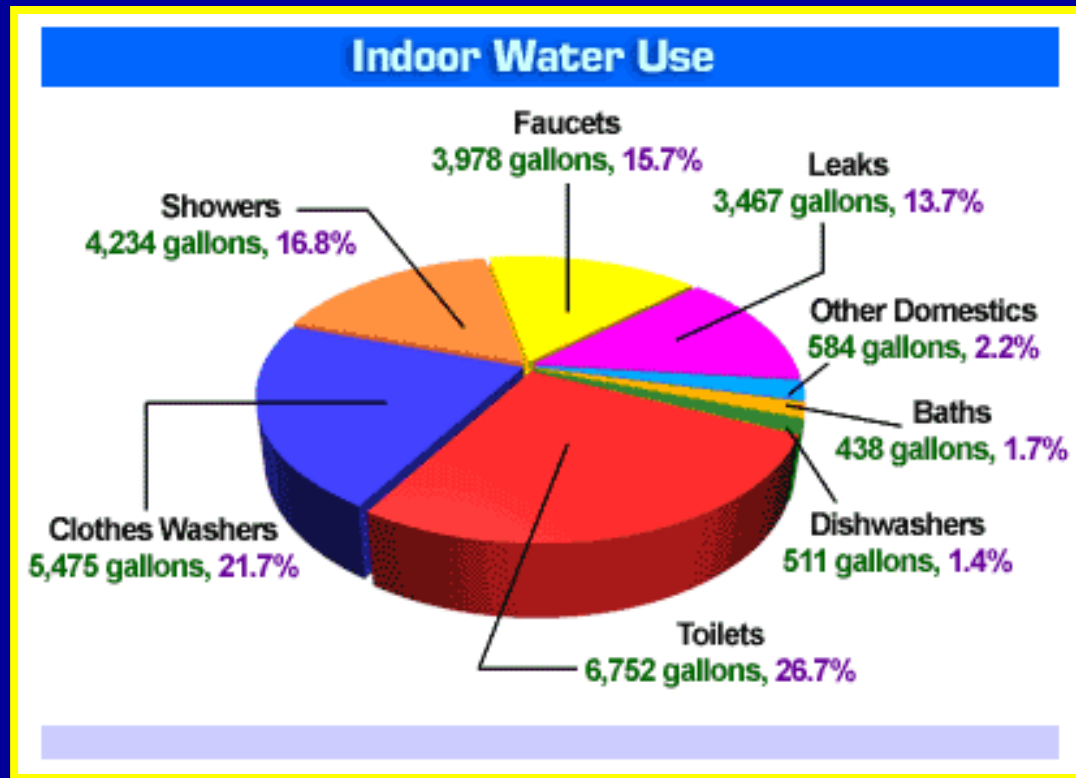
Water Use

Within the United States, over half of the freshwater used is for agriculture, followed by residential outdoor use.



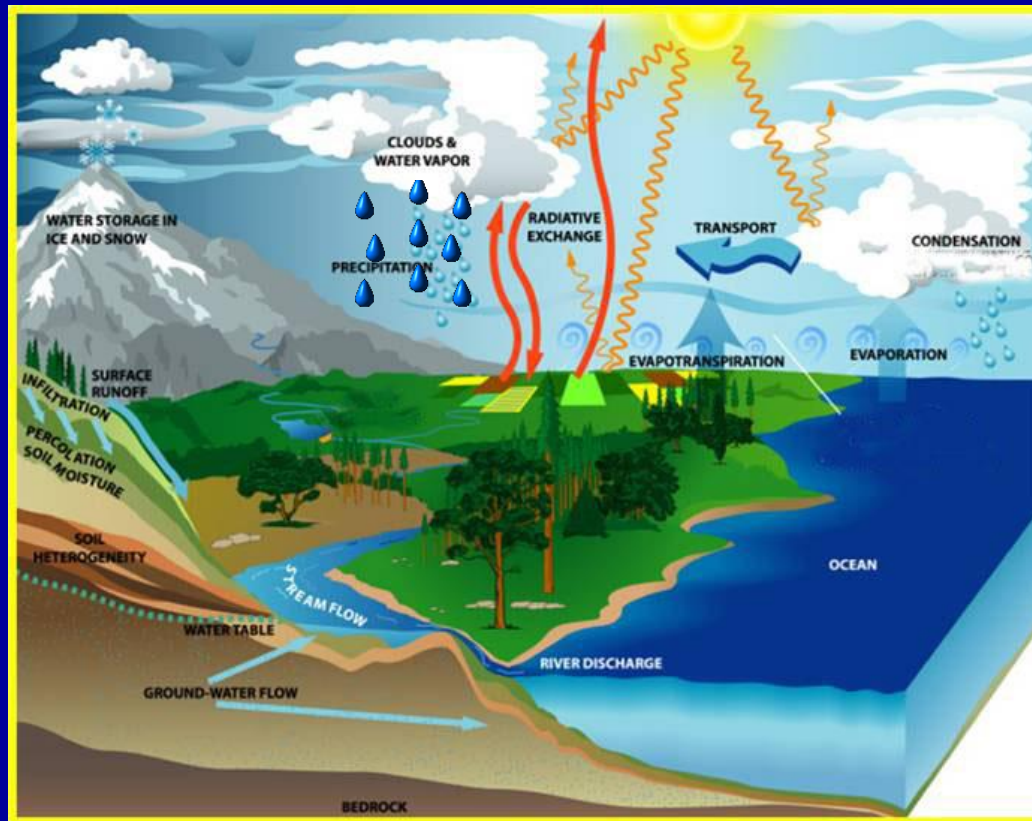
Water Use

Within an average American home, flushing toilets use the most freshwater, followed by washing clothes and taking showers.

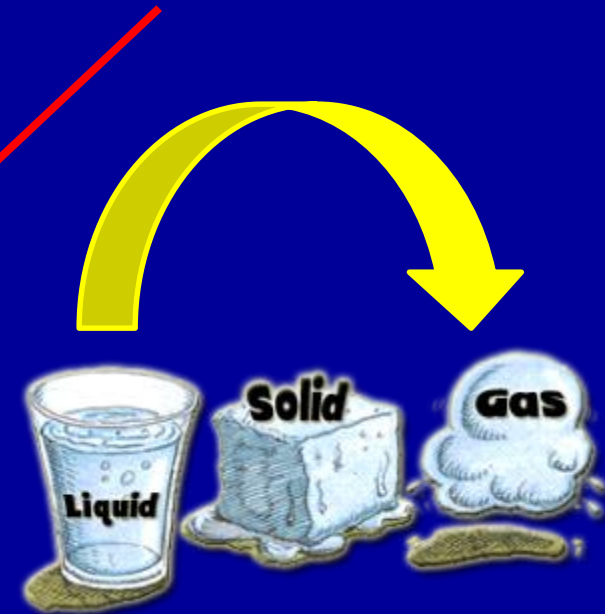
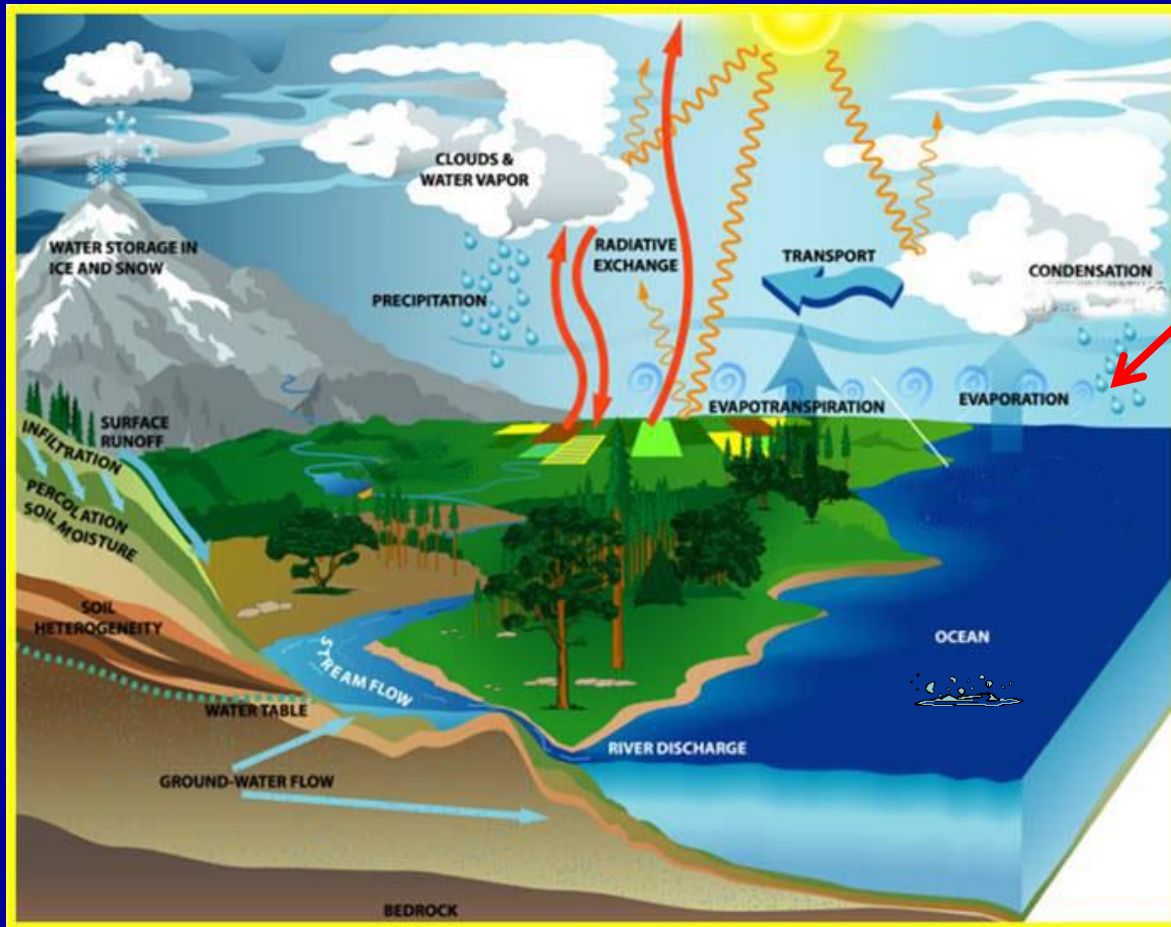


Water Cycle

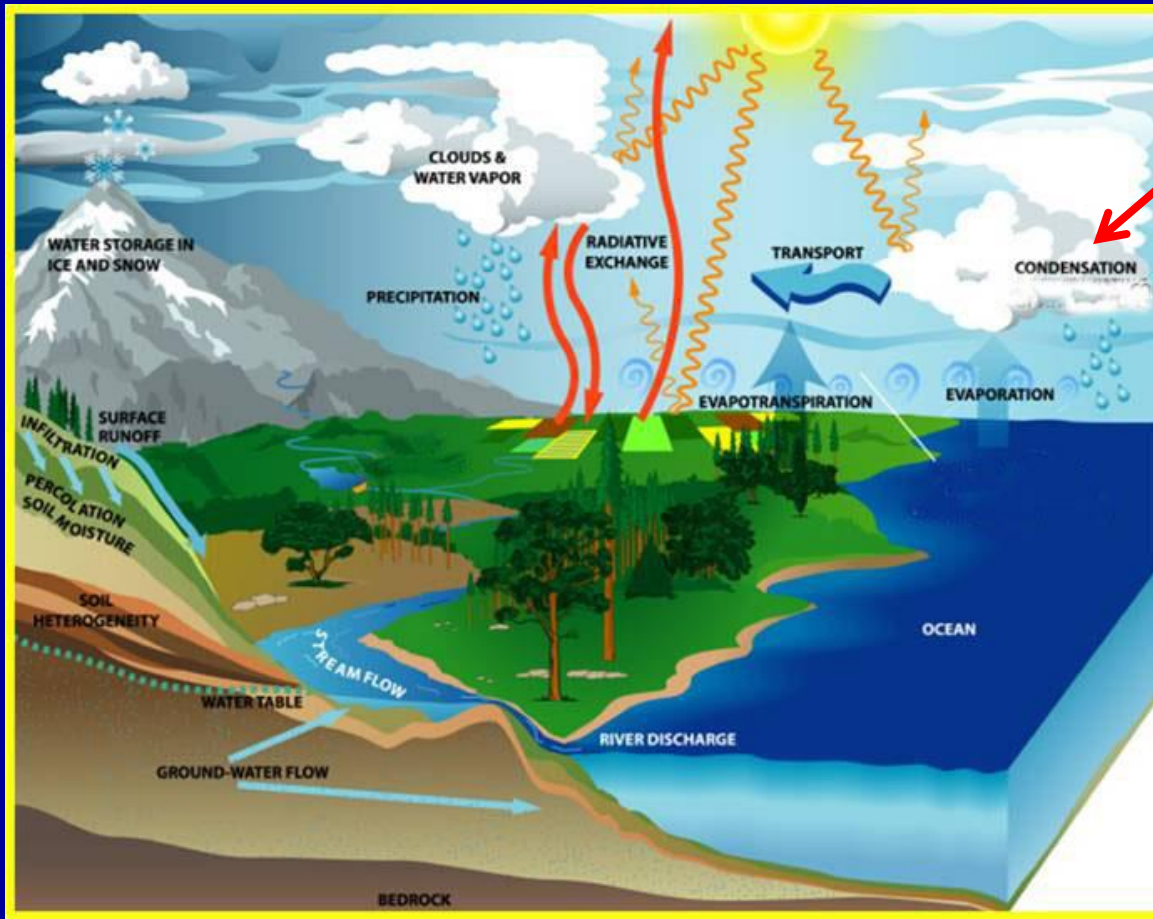
Earth's fresh water supply is continuously recycled in a process called the Water Cycle, also known as the hydrological cycle.



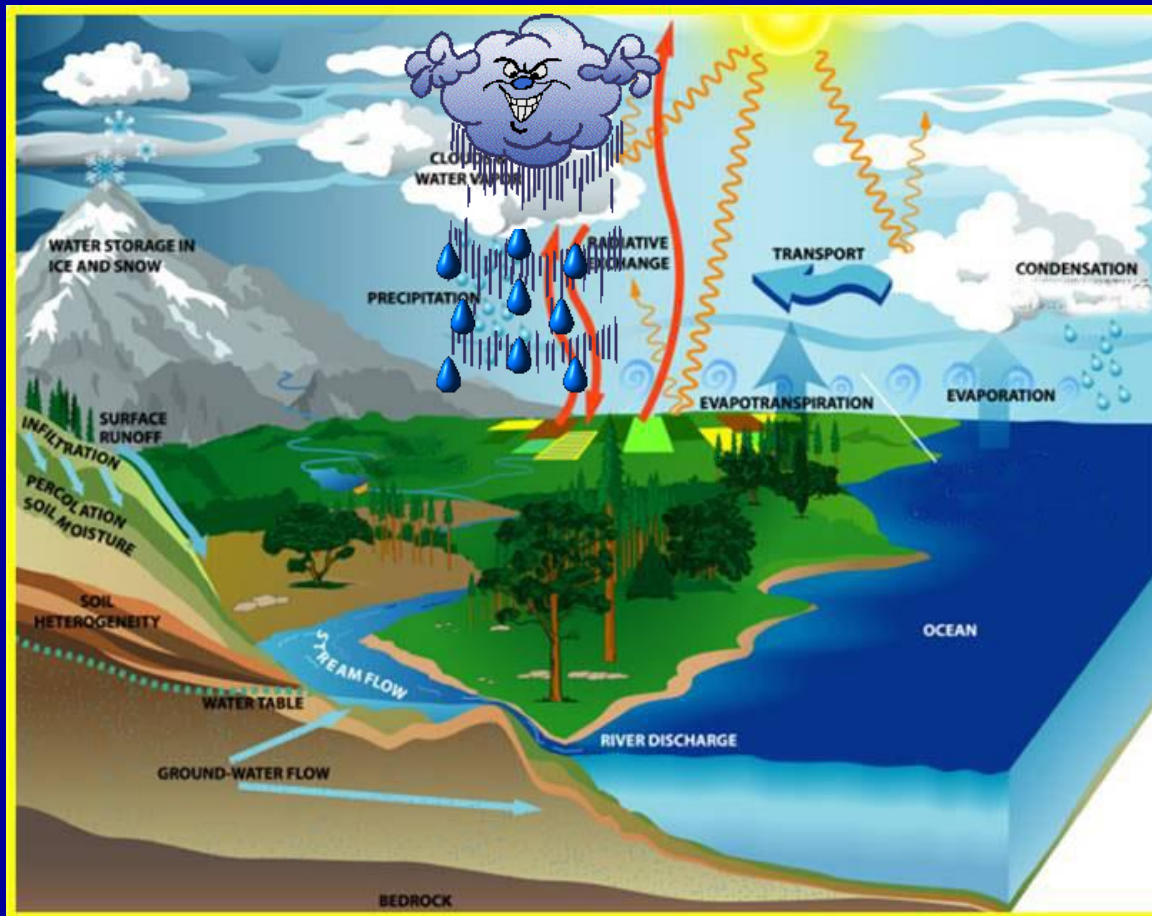
Powered by radiation from the Sun, water changes from a liquid to a gas during evaporation



Water vapor rises in the atmosphere, collects to form clouds, and cools back into liquid water during condensation

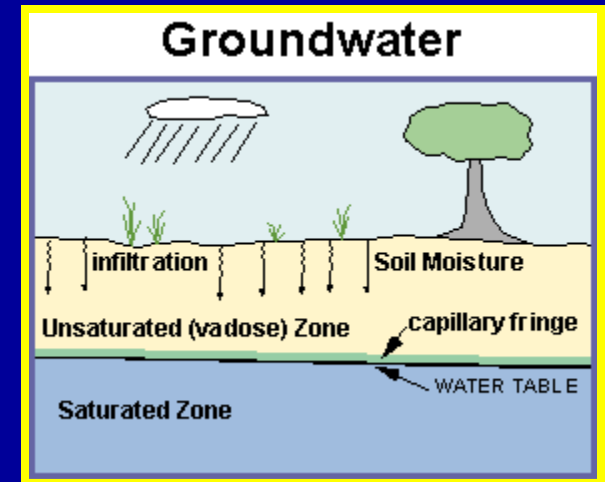
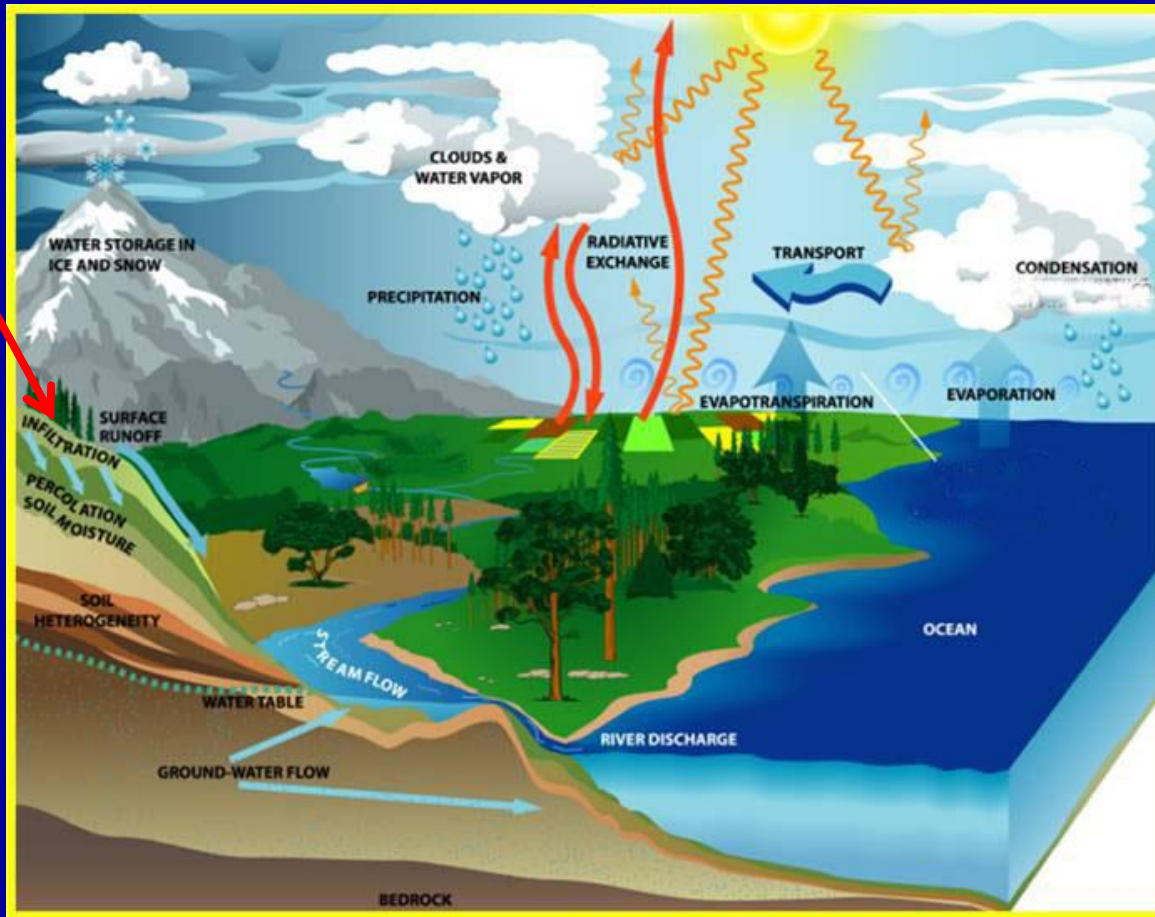


Once enough water condenses in the clouds, water and falls back to Earth as precipitation

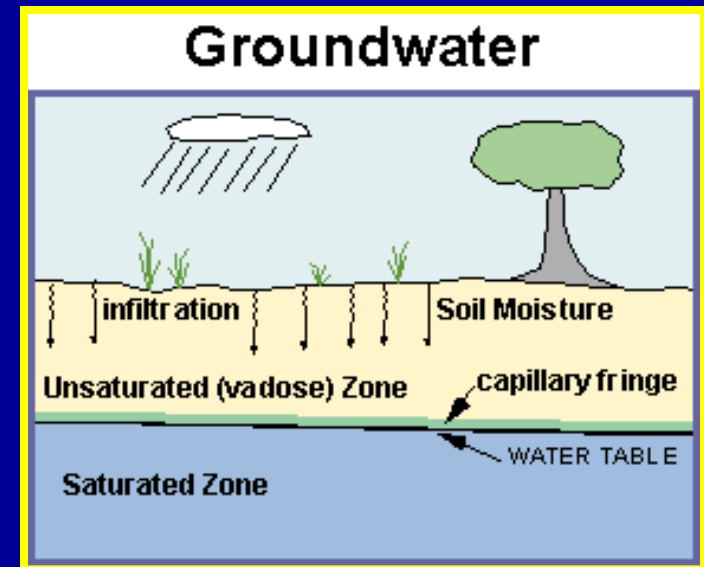
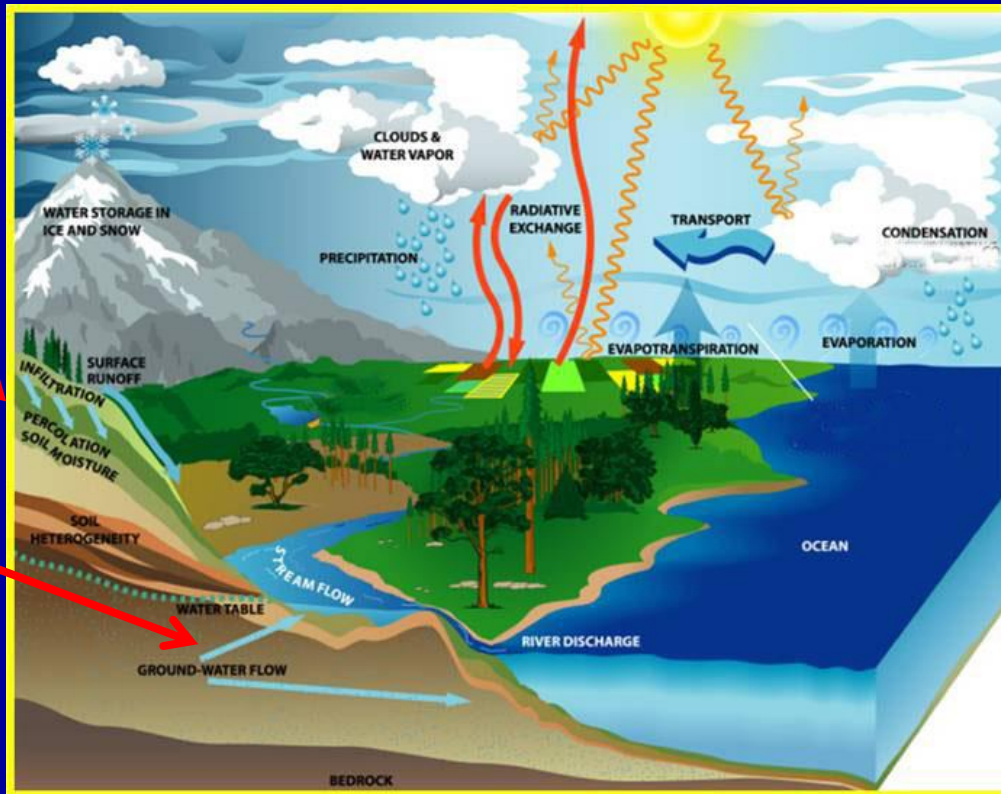


Rain
Sleet
Snow
Hail

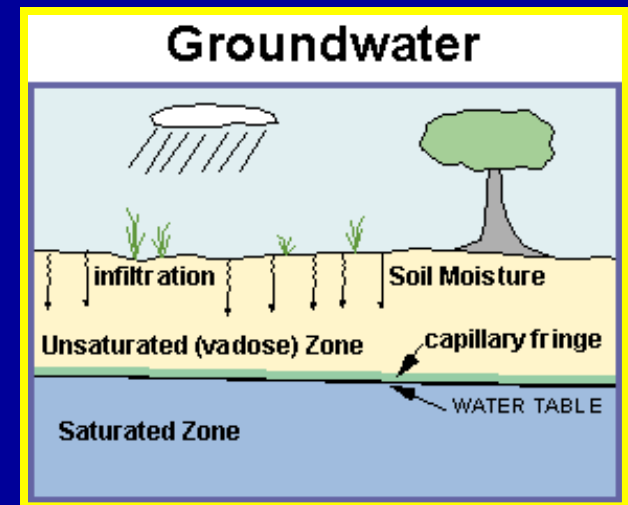
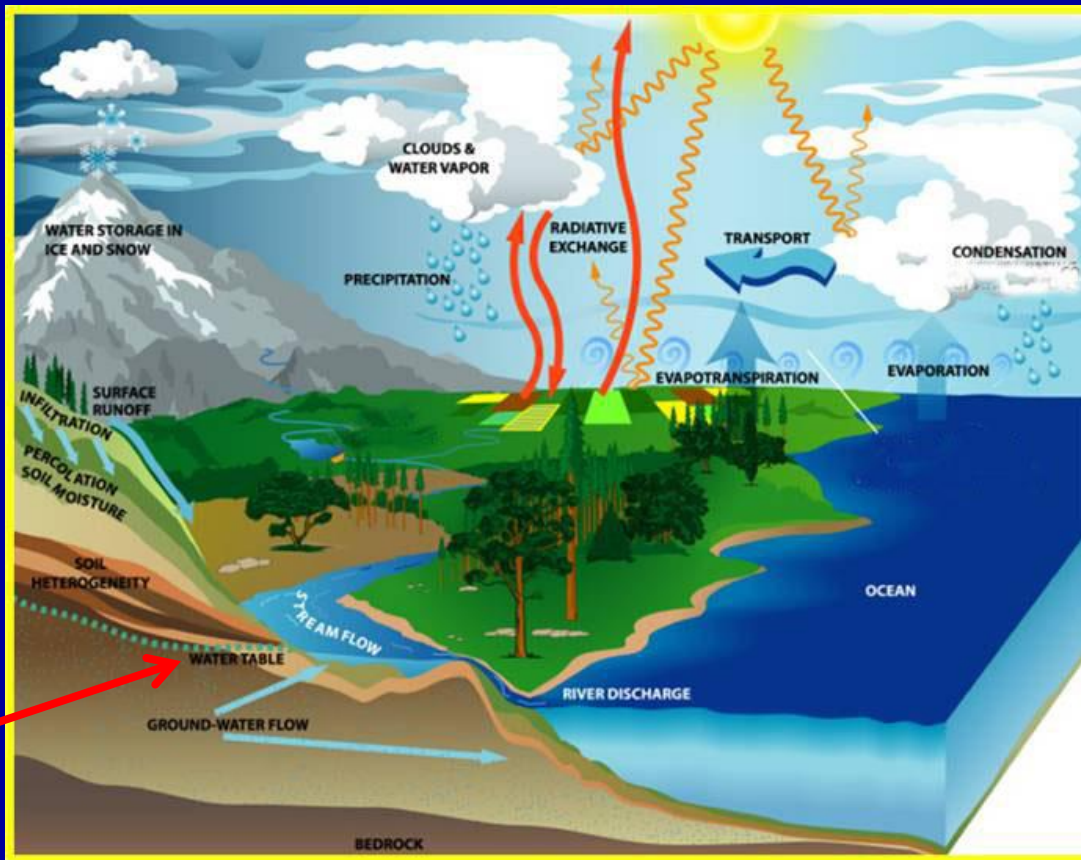
When precipitation reaches the ground, some of the water soaks into the ground through infiltration



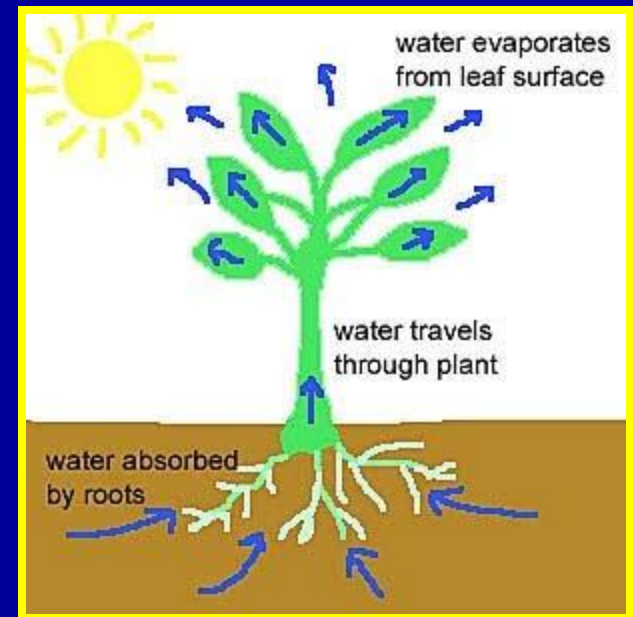
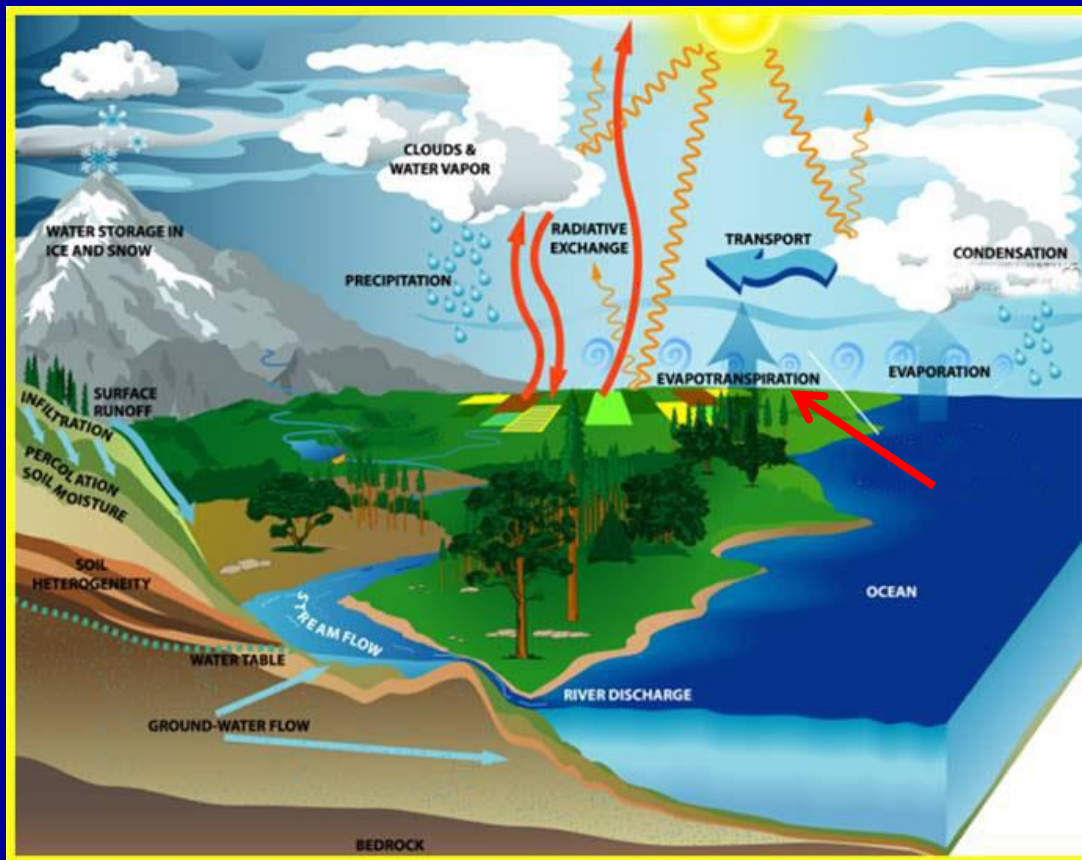
While the infiltrated water percolates through the ground, it is filtered, cleaned, and purified, before it becomes part of the groundwater.



The top of the groundwater supply is called the Water Table. Whenever the water table reaches the surface of the ground, a spring is formed and the water flows out into streams, lakes, or the ocean.



Some of the infiltrated water is taken up by plants during photosynthesis. On hot days, a lot of the water in plants, evaporates out through the leaves during a process called transpiration.

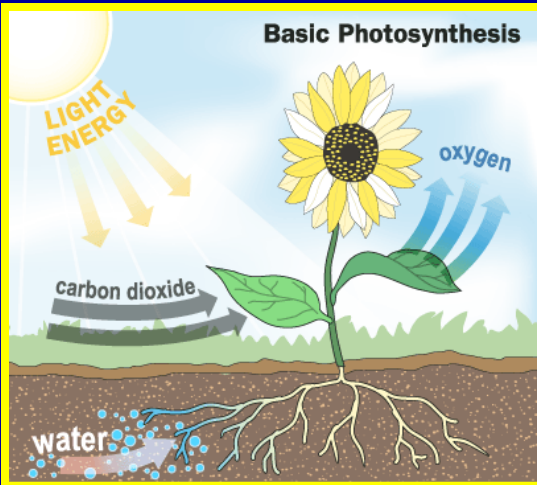


Water Path Through a Plant as Part of Transpiration

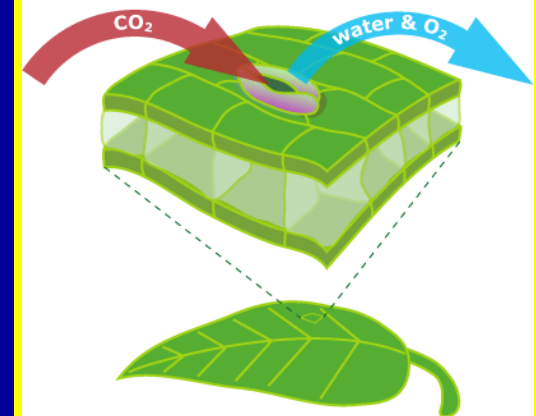


During photosynthesis, carbon dioxide flows into openings in the leaves of plants, called stoma, while oxygen and water vapor flows out.

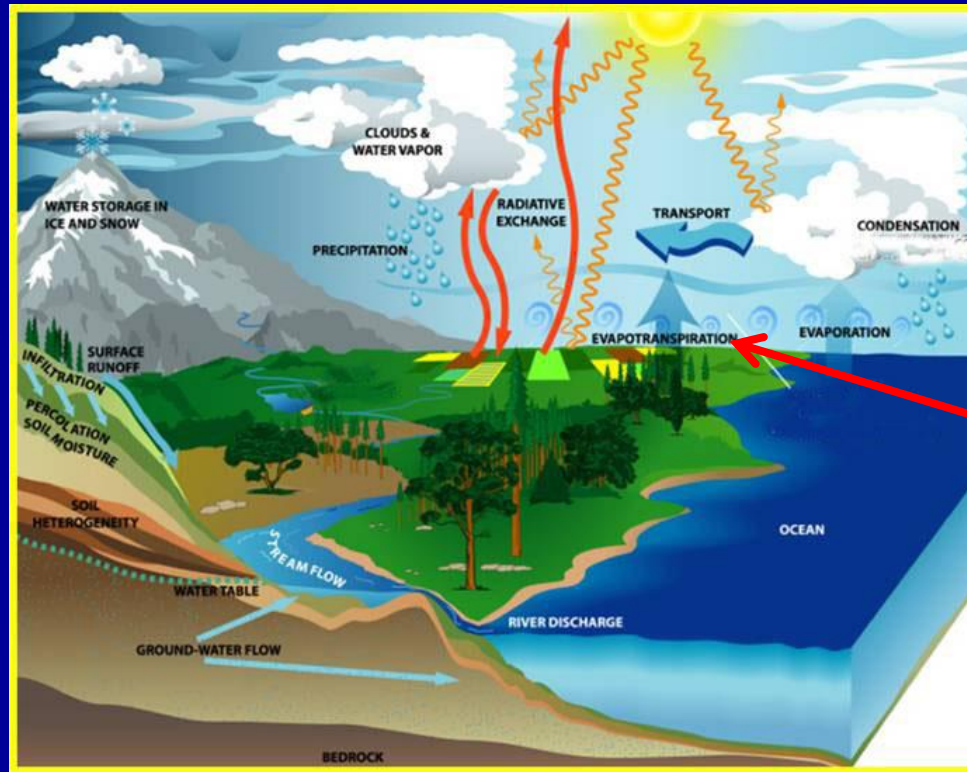
Basic Photosynthesis



Carbon dioxide enters, while water and oxygen exit, through a leaf's stomata.

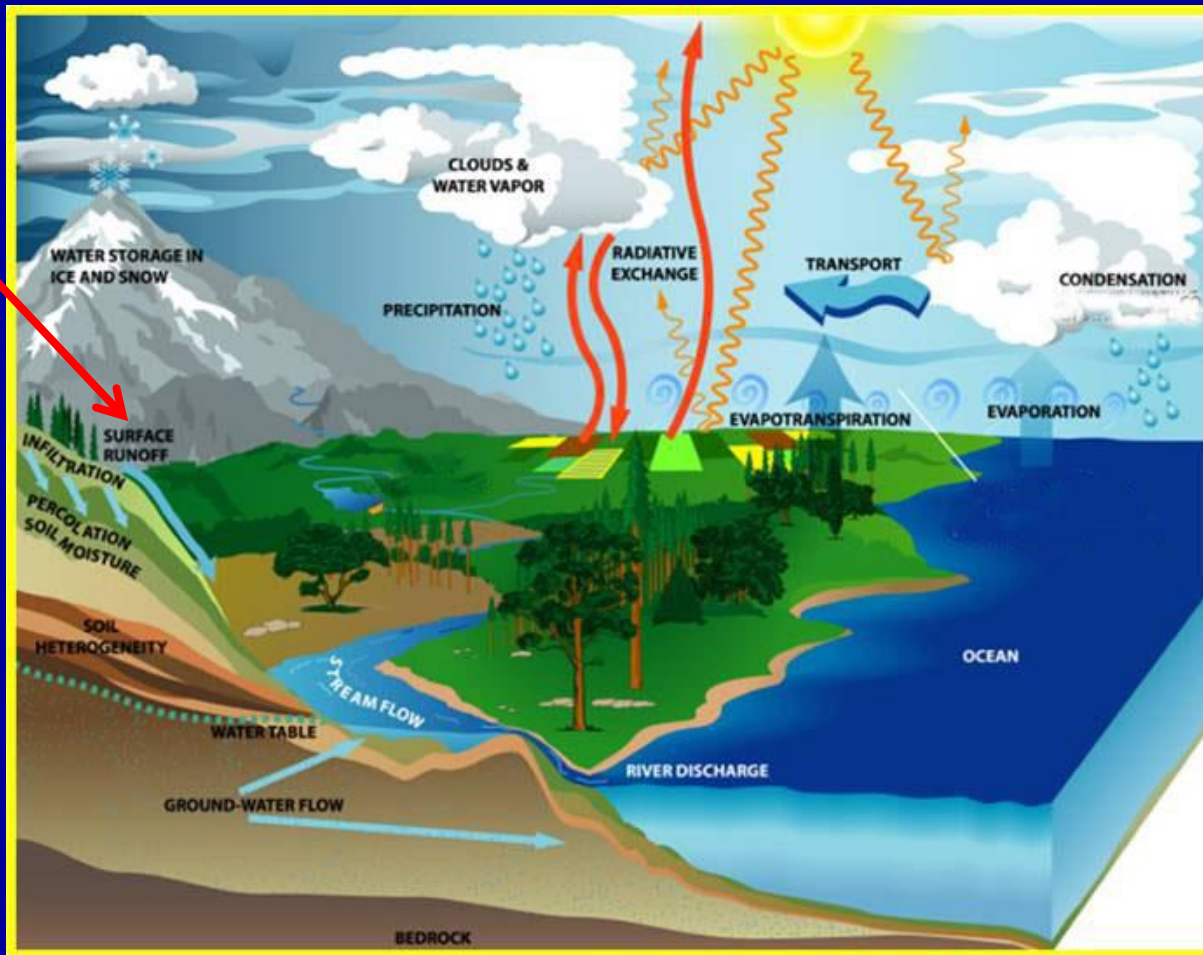


At the same time, some of the infiltrated water evaporates out of the soil.

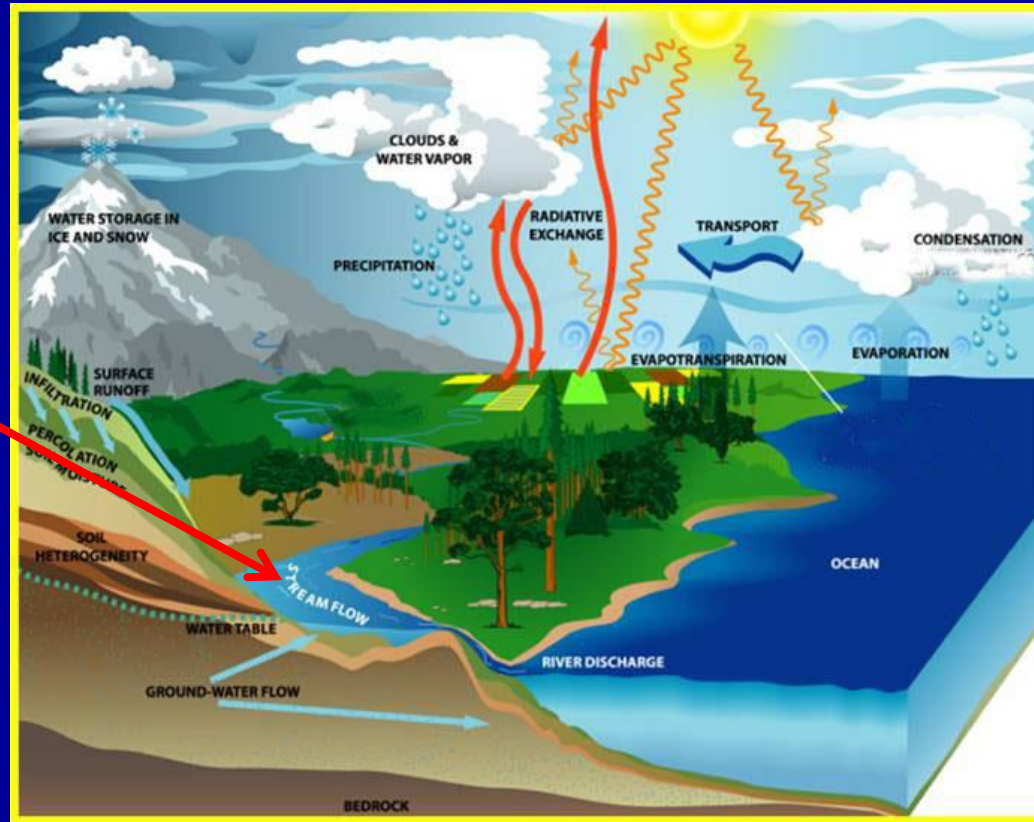


The combination of transpiration and evaporation from the soil is called evapotranspiration.

Water that does not soak into the ground through infiltration flows over the surface of Earth as Surface Runoff



Surface runoff water makes its way into streams that eventually flow into lakes and the ocean.



Once the water is in lakes and the ocean, the process begins all over again.

The End

