

Water Cycle

A. **Water Cycle:** Water moves continuously through the earth and atmosphere.

* Where is water found on the earth?

Liquid Water: The earth is unique because it has liquid water on it's surface

...but not all liquid water is drinkable!!!

Oceans (salt water) 97%

Freshwater 3%

• Ice/Snow 2%

• Lakes, streams, rivers, and underground 1%

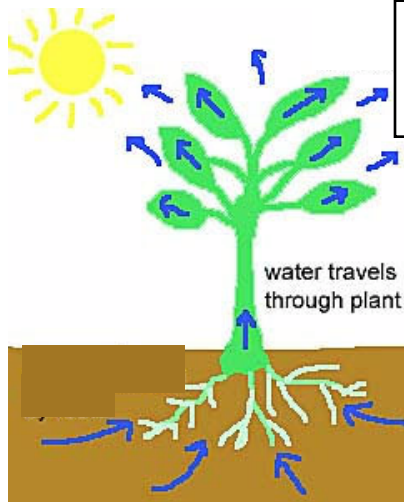
B. **Processes that make up the water cycle:**



1. **Evaporation:** Liquid water turns into gas water.

• The sun's energy heats up surface water in rivers, lakes, and oceans causing water to evaporate.

• Clean Water? -When water turns from a liquid to a gas, impurities are left behind. Ex: distilled water



2. **Transpiration:** Water Evaporates from the leaves of plants.

3. **Plant Uptake:** Water is Absorbed from the ground by the roots.

4. **Condensation/Clouds:** As gas water cools, it turns into liquid water to form

clouds.



-Is it clean? -Water condenses into droplets only when there are small dust particles in the air around which the droplet can form.



a. **Fog:** a cloud at or near the Earth's surface.

b. **Dew:** Water droplets condenses from the air onto cool surfaces.

5. **Transportation:** Clouds and fog are pushed by wind.

6. **Precipitation:** Water moves from the clouds back down to the surface of the Earth.



- **Heavy Water:** When droplets of water in clouds get too big and heavy, they fall.



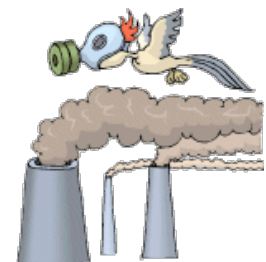
-Forms of Precipitation: Rain, Sleet, Hail, Snow



* **Acid Rain:** Factories, cars, and homes put pollution in the air that mixes with the clouds causing rain to be acidic.

* Impact:

- plant growth and health decreases
- decreased fish populations
- buildings erode
- people/animals getting sick



7. **Surface Runoff:** Water moves down hill into streams, rivers, ponds, and lakes.



a. **Water Shed:** The land area from which the water drains to a given point.

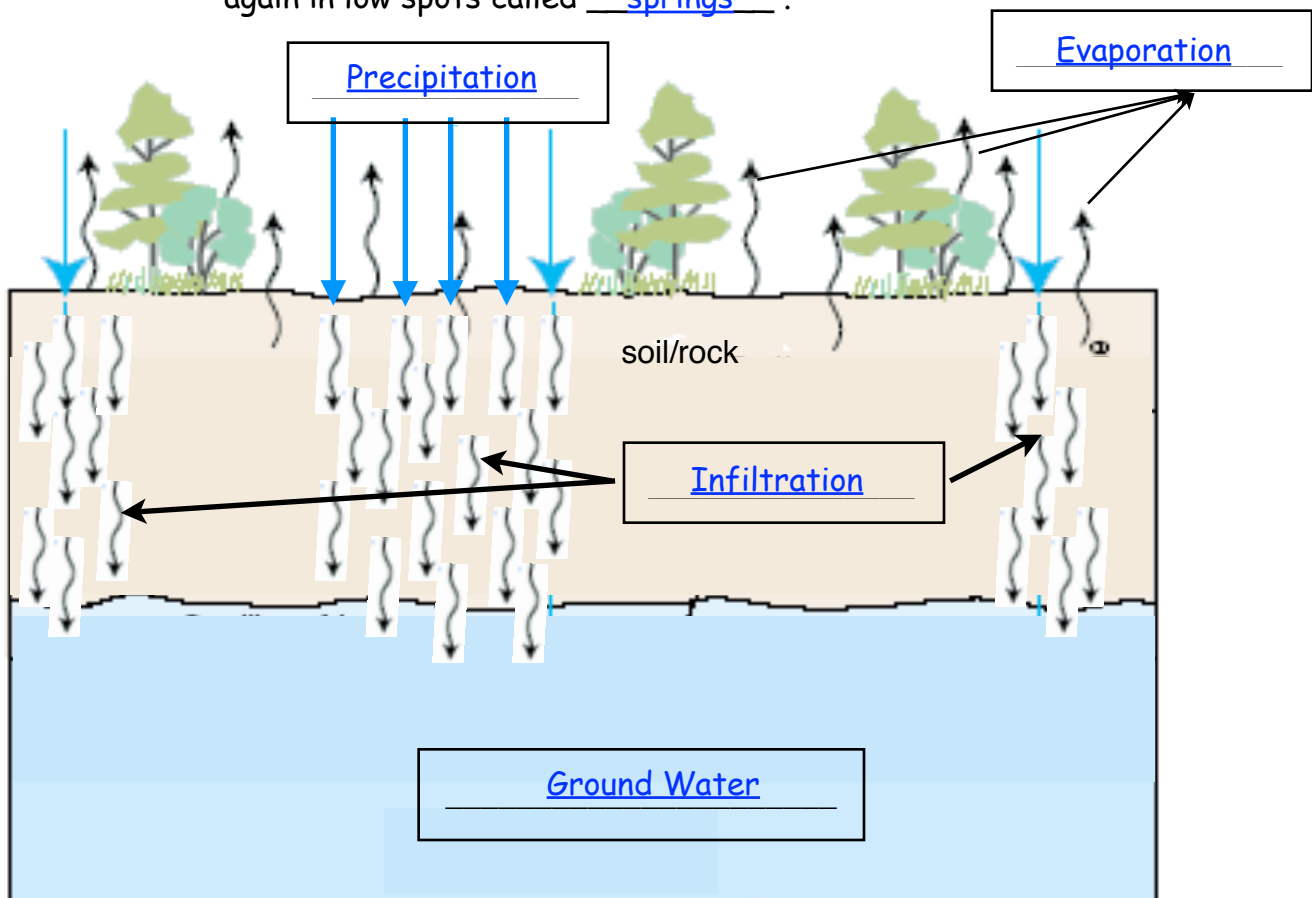
• Small streams flow into larger streams, then into rivers, and eventually the water flows into the ocean.

8. **Infiltration:** Water moves (soaks) into the ground through the process of infiltration.

* Clean Water? -as water infiltrates through the soil and rock, many impurities are filtered out.

9. **Ground Water:** Water that remains underground is called ground water.

***Subsurface Runoff:** Ground water moves slowly and can reach the surface again in low spots called springs.



10. **Aquifers:** An underground layer of water within permeable rock, gravel, silt, clay, and/or sand where ground water is naturally stored.

