

Facilities for
aquaculture
FISH5630



Hydrology

The Hydrologic Cycle

The hydrologic cycle is a very important scientific process. Without it, there would not be precipitation (rain, snow, sleet, etc.). Without precipitation, plant life would not grow and produce oxygen. And without oxygen, humans could not live.

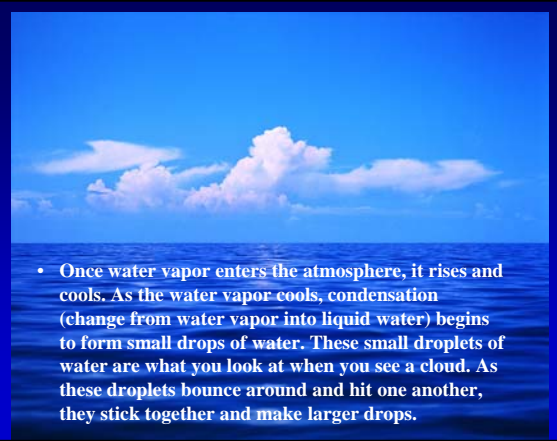


Here's how the hydrologic process works:

- Water vapor enters the atmosphere by **evaporation** and **transpiration**.
 - Evaporation is the process of water (oceans, lakes, rivers, etc.) changing into water vapor
 - Transpiration is the discharging of water vapor into the atmosphere from living vegetation such as leaves, grass, etc.



- Once water vapor enters the atmosphere, it rises and cools. As the water vapor cools, **condensation** (change from water vapor into liquid water) begins to form small drops of water. These small droplets of water are what you look at when you see a cloud. As these droplets bounce around and hit one another, they stick together and make larger drops.



When the drops of water become too heavy to be held up, they fall back to the earth. Depending on the temperature, it can fall as rain, snow, sleet, and many other forms of precipitation.



- Once the precipitation hits the ground, it begins to seep into the ground. This process is called **infiltration**. But the soil can hold only so much water.



- And when the ground becomes saturated, the excess water drains into lakes, rivers, oceans, etc. This excess water is called **runoff**. Then the hydrologic cycle starts all over again.

