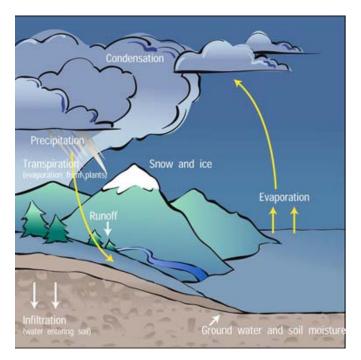


Earth's Water Cycle



The water cycle Click on image for full size (300 Kb) Copyright University Corporation for Atmospheric Research Water is always on the move. Rain falling where you live may have been water in the ocean just days before. And the water you see in a river or stream may have been snow on a high mountaintop.

Water can be in the atmosphere, on the land, in the ocean, and even underground. It is recycled over and over through the water cycle. In the cycle, <u>water changes state</u> between liquid, solid (ice), and gas (water vapor).

Most water vapor gets into the <u>atmosphere</u> by a process called <u>evaporation</u>. This process turns the water that is at the top of the <u>ocean</u>, rivers, and lakes into water vapor in the atmosphere using energy from the Sun. Water vapor can also form from snow and ice through the process of sublimation and can evaporate from plants by a process called <u>transpiration</u>.

The water vapor rises in the <u>atmosphere</u> and cools, forming tiny water droplets by a process called <u>condensation</u>. Those water droplets make up <u>clouds</u>. If those tiny water droplets combine with each other they grow larger and eventually

become too heavy to stay in the air. Then they fall to the ground as <u>rain</u>, <u>snow</u>, and other types of <u>precipitation</u>.

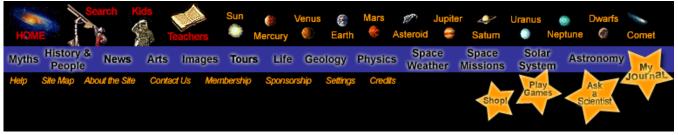
Most of the precipitation that falls becomes a part of the <u>ocean</u> or part of <u>rivers</u>, <u>lakes</u>, and streams that eventually lead to the ocean. Some of the snow and <u>ice</u> that falls as precipitation stays at the Earth surface in <u>glaciers</u> and other types of ice. Some of the precipitation seeps into the ground and becomes a part of the <u>groundwater</u>.

Water stays in certain places longer than others. A drop of water may spend over 3,000 years in the ocean before moving on to another part of the water cycle while a drop of water spends an average of just eight days in the atmosphere before falling back to Earth.

Water Cycle Diagrams from the USGS

Water (The Hydrosphere!)

The Earth System



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