THE WATER CYCLE · PART 5 OF 8 · AGES 11–16

Water Cycle Key Terms

The words you need to describe the water cycle precisely, each with a one-line definition.

Changes of state

Evaporation	Liquid water changing into water vapour, an invisible gas. Heat, mostly from the Sun, drives evaporation from oceans, lakes, rivers and soil.
Condensation	Water vapour changing back into liquid water as it cools. It forms cloud droplets, fog, dew and the mist on a cold window.
Freezing	Liquid water changing into solid ice. Pure water freezes at 0 °C, but tiny cloud droplets can stay liquid (supercooled) far below that.
Melting	Solid ice or snow changing into liquid water as it warms above 0 °C. Spring snowmelt feeds rivers, lakes and groundwater.
Sublimation	Ice or snow turning straight into water vapour without melting first. A wet shirt left out on a freezing day slowly dries this way.
Deposition	Water vapour turning straight into ice without becoming liquid first. Frost and snowflakes form this way.

Water on the move

Transpiration	Plants releasing water vapour from tiny pores in their leaves, called stomata, after drawing water up from the soil through their roots.
Precipitation	Water falling from clouds as rain, drizzle, snow, sleet or hail, once droplets or ice crystals grow too heavy to stay up.
Advection	Water vapour or clouds being carried sideways by the wind, such as moist air moving from over the ocean to over the land.
Surface runoff	Rain or meltwater that flows over the land surface into the nearest stream or river instead of soaking into the ground.
Infiltration	Water soaking downwards from the land surface into the soil.
Percolation	Water moving further down through the tiny gaps in soil and rock until it reaches the saturated zone, refilling groundwater.

Where water is stored

Store (pool or reservoir)	Any place that holds water for a time, such as the ocean, an ice sheet, a lake or groundwater. In everyday use, a reservoir is a lake made by a dam.
Groundwater	Water stored underground in cracks in rock and in the spaces between grains of sand, soil and gravel. It can be fresh or salty.
Aquifer	An underground layer of rock, sand or gravel that holds enough water, and lets it flow easily enough, to supply wells and springs.
Water table	The top of the saturated zone underground. Below it, all the spaces in the soil and rock are filled with water.
Glacier and ice sheet	A glacier is a mass of ice formed from years of packed-down snow that flows slowly downhill. An ice sheet is a glacier covering over 50,000 km^2.
Residence time	The average time a water molecule stays in one store: about nine days in the air, but thousands of years in the ocean or deep underground.

Learn them in pairs

Each change of state has an opposite: evaporation and condensation, melting and freezing, sublimation and deposition. The first of each pair takes in heat; the second gives it out.

NEXT IN THE SERIES
6. The Water Cycle in Everyday Life

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