

# 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<sup>2</sup>.

### 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