**Water** is a transparent and nearly colorless [chemical substance](https://en.wikipedia.org/wiki/Chemical_substance) that is the main constituent of Earth's [streams](https://en.wikipedia.org/wiki/Stream), [lakes](https://en.wikipedia.org/wiki/Lake), and [oceans](https://en.wikipedia.org/wiki/Ocean), and the [fluids](https://en.wikipedia.org/wiki/Fluid) of most living [organisms](https://en.wikipedia.org/wiki/Organism). Its [chemical formula](https://en.wikipedia.org/wiki/Chemical_formula) is **H2O**, meaning that its [molecule](https://en.wikipedia.org/wiki/Molecule) contains one [oxygen](https://en.wikipedia.org/wiki/Oxygen) and two [hydrogen](https://en.wikipedia.org/wiki/Hydrogen) [atoms](https://en.wikipedia.org/wiki/Atom), that are connected by [covalent bonds](https://en.wikipedia.org/wiki/Covalent_bond). Water strictly refers to the [liquid](https://en.wikipedia.org/wiki/Liquid) state of that substance, that prevails at [standard ambient temperature and pressure](https://en.wikipedia.org/wiki/Standard_ambient_temperature_and_pressure); but it often refers also to its [solid](https://en.wikipedia.org/wiki/Solid) state ([ice](https://en.wikipedia.org/wiki/Ice)) or its [gaseous](https://en.wikipedia.org/wiki/Gas) state ([steam](https://en.wikipedia.org/wiki/Steam) or [water vapor](https://en.wikipedia.org/wiki/Water_vapor)).

[Glaciers](https://en.wikipedia.org/wiki/Glacier), [ice packs](https://en.wikipedia.org/wiki/Drift_ice) and [icebergs](https://en.wikipedia.org/wiki/Iceberg), [clouds](https://en.wikipedia.org/wiki/Cloud), [fog](https://en.wikipedia.org/wiki/Fog), [dew](https://en.wikipedia.org/wiki/Dew), [aquifers](https://en.wikipedia.org/wiki/Aquifer),

It also occurs in nature as [snow](https://en.wikipedia.org/wiki/Snow),

Atmospheric [humidity](https://en.wikipedia.org/wiki/Humidity).

Water covers 71% of the Earth's surface.[[1]](https://en.wikipedia.org/wiki/Water" \l "cite_note-1) It is vital for all known forms of [life](https://en.wikipedia.org/wiki/Life#Range_of_tolerance). On Earth, 96.5% of the planet's crust water is found in seas and oceans, 1.7% in groundwater, 1.7% in glaciers and the ice caps of Antarctica and Greenland, a small fraction in other large water bodies, and 0.001% in the [air](https://en.wikipedia.org/wiki/Atmosphere) as [vapor](https://en.wikipedia.org/wiki/Vapor), [clouds](https://en.wikipedia.org/wiki/Cloud) (formed of ice and liquid water suspended in air), and [precipitation](https://en.wikipedia.org/wiki/Precipitation_%28meteorology%29).[[2]](https://en.wikipedia.org/wiki/Water#cite_note-b1-2)[[3]](https://en.wikipedia.org/wiki/Water#cite_note-3) Only 2.5% of this water is [freshwater](https://en.wikipedia.org/wiki/Freshwater), and 98.8% of that water is in ice (excepting ice in clouds) and [groundwater](https://en.wikipedia.org/wiki/Groundwater). Less than 0.3% of all freshwater is in rivers, lakes, and the atmosphere, and an even smaller amount of the Earth's freshwater (0.003%) is contained within biological bodies and manufactured products.[[2]](https://en.wikipedia.org/wiki/Water#cite_note-b1-2) A greater quantity of water is found in the earth's interior.

Water on Earth moves continually through the [water cycle](https://en.wikipedia.org/wiki/Water_cycle) of [evaporation](https://en.wikipedia.org/wiki/Evaporation) and [transpiration](https://en.wikipedia.org/wiki/Transpiration) ([evapotranspiration](https://en.wikipedia.org/wiki/Evapotranspiration)), [condensation](https://en.wikipedia.org/wiki/Condensation), [precipitation](https://en.wikipedia.org/wiki/Precipitation_%28meteorology%29), and [runoff](https://en.wikipedia.org/wiki/Surface_runoff), usually reaching the sea. Evaporation and transpiration contribute to the precipitation over land. Large amounts of water are also chemically combined or [adsorbed](https://en.wikipedia.org/wiki/Adsorption) in [hydrated minerals](https://en.wikipedia.org/wiki/Mineral_hydration).

Safe [drinking water](https://en.wikipedia.org/wiki/Drinking_water) is essential to humans and other life forms even though it provides no [calories](https://en.wikipedia.org/wiki/Food_energy) or [organic](https://en.wikipedia.org/wiki/Organic_compound) [nutrients](https://en.wikipedia.org/wiki/Nutrient). Access to safe drinking water has improved over the last decades in almost every part of the world, but approximately one billion people still lack access to safe water and over 2.5 billion lack accesses to adequate [sanitation](https://en.wikipedia.org/wiki/Sanitation). There is a clear correlation between access to safe water and [gross domestic product per capita](https://en.wikipedia.org/wiki/Gross_domestic_product_per_capita). However, some observers have estimated that by 2025 more than half of the [world population](https://en.wikipedia.org/wiki/World_population) will be facing water-based vulnerability.[[7]](https://en.wikipedia.org/wiki/Water#cite_note-7) A report, issued in November 2009, suggests that by 2030, in some developing regions of the world, water demand will exceed supply by 50%.