

# INFOGRAPHICS

## Water Circulation

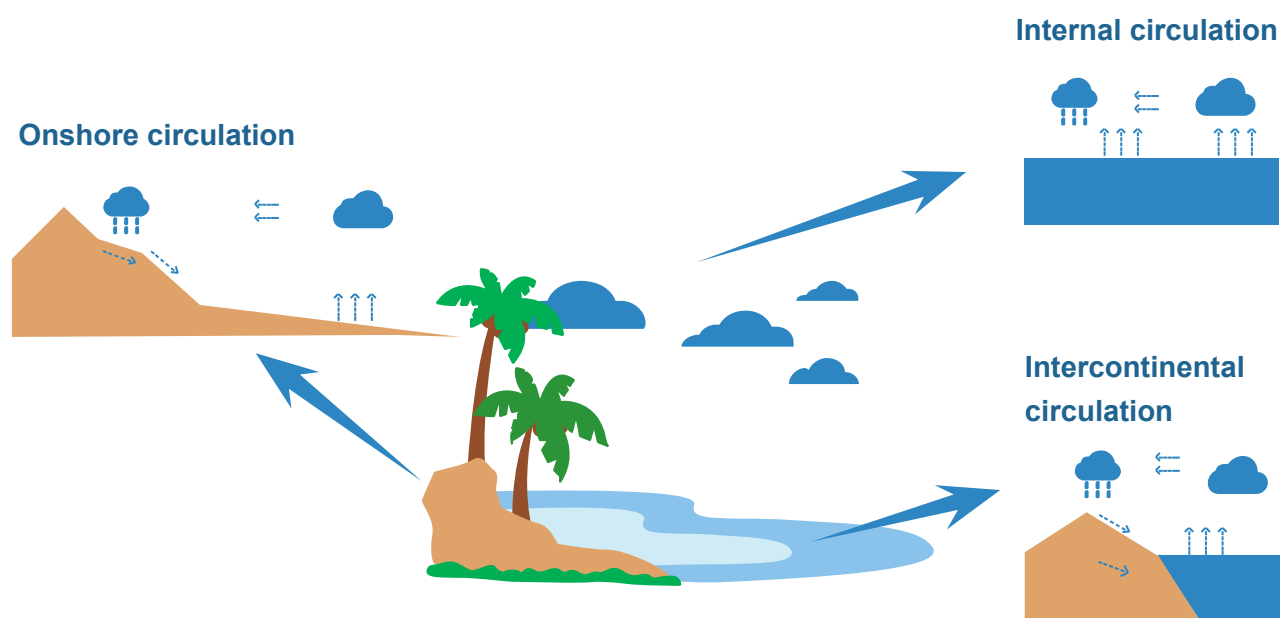
The water cycle refers to the water in different places on earth, and by absorbing the energy of the sun, it changes the state to another place on the earth.

### Causes of Water Circulation

#### Classification

Water in various forms of the earth's surface is constantly transformed, and the water cycle is the process of continuous circulation between land, sea and atmosphere in the form of gas, liquid and solid. the water on the earth's surface is transformed by form and migrated to the surface and its adjacent space (troposphere and subsurface layer).

Water cycle can also be divided into



Formation water cycle of the external cause is the solar radiation and gravity, it provides the water cycle water energy state of physical change and movement, cause of formation water is the water in normal environment under the condition of gaseous, liquid, solid three forms of mutual transformation between easy features.

### Water Cycle

In the link of the water cycle is more natural process, global water cycle involving evaporation, atmospheric moisture transmission, surface water and groundwater circulation and various forms of water storage storage precipitation, evaporation and runoff is three main links in the process of water cycle, this three constitutions of water cycle way determines the global water balance, also decides the total water resources of a region.



#### Evaporation

Evaporation is one of the most important parts of the water cycle. Water vapor produced by evaporation enters the atmosphere and moves with the atmosphere. The global atmospheric water exchange cycle is 10 days. Water vapor transmission is one of the most active parts in water circulation.

#### Precipitation

The water vapor above the ocean can be transported over land to condense precipitation, which is called foreign water vapor precipitation; The water vapor above the mainland condensed precipitation directly, which is called internal water vapor precipitation.

#### Runoff

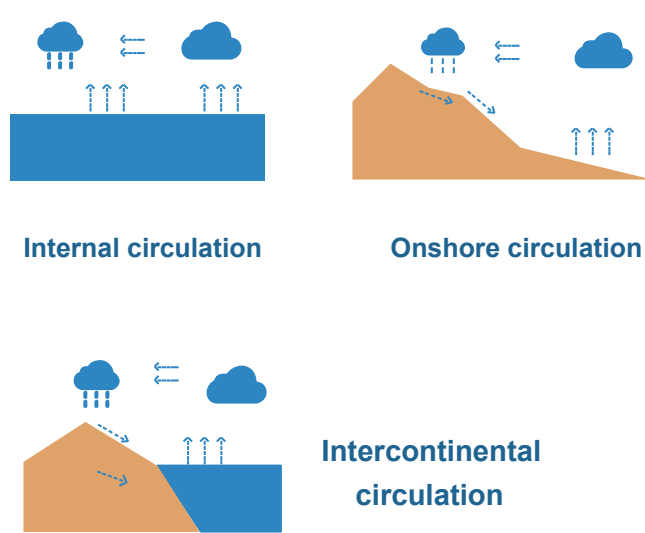
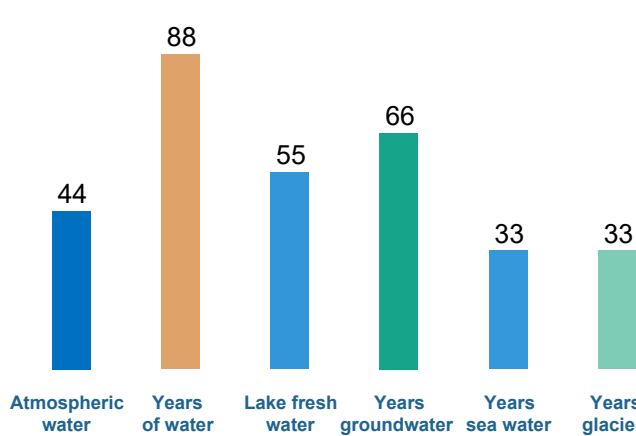
Runoff is the difference between precipitation and evaporation in a region (basin). However, the geographical distribution of precipitation and evaporation is uneven in both the sea and the land, and the difference is most obvious in different latitudes.

#### Cycle

The water cycle updates all forms of water on earth in different cycles or speeds. This cyclic recovery of water can be expressed by alternating periods of water. Due to different forms of water storage in different forms, the exchange cycles of various types of water are not consistent.

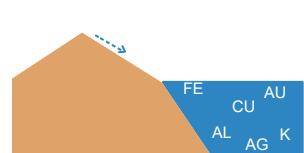
Accordingly, when studying water circulation, the research area can be large to the whole world, a certain river basin, or small to a certain region of soil or underground aquifer water circulation, the time can also be short.

#### Water circulation bar chart

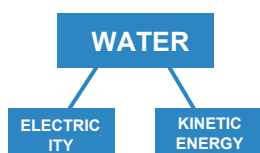


### The Role of Water

The total amount of water is about  $1.4 \times 10^9$  km cubed, of which 96.5% is in the ocean, covering 70% of the total area of the earth. Water on land, in the atmosphere, and in living organisms is a small fraction.



Water is the medium of all nutrients, and the circulation and water circulation of nutrients are inextricably linked.

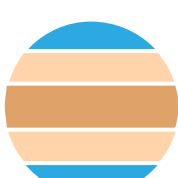


Water is a good solvent for substances, which plays an important role in energy transfer and utilization in the ecosystem.



The loss of mineral elements in one place, and mineral deposition in another place is usually done through the water cycle.

Natural factors mainly include meteorological conditions and geographical conditions. Human factors have direct or indirect effects on water circulation.



Changes in atmospheric circulation caused by time and space distribution of precipitation, stretching the migration and changes of air temperature, air humidity.



Human activities constantly change the natural environment, and more and more strongly influence the process of water circulation. The air pollution and heat island effect in cities and industrial and mining areas can also change the water circulation situation in the region.