

The Water Cycle

The water cycle is the continuous journey that water makes as it moves between the Earth's surface and the atmosphere. It has no beginning or end, and it is powered mainly by energy from the sun.

The cycle begins with evaporation. The sun heats water in oceans, seas, rivers and lakes, causing it to change from a liquid into water vapour — an invisible gas — which rises into the atmosphere. Plants contribute to this process too, releasing water vapour through their leaves in a process called transpiration. Together, evaporation and transpiration are sometimes called evapotranspiration.

As water vapour rises, the temperature drops. The vapour cools and turns back into tiny liquid droplets through a process called condensation. These droplets gather around tiny particles of dust and form clouds.

Inside clouds, droplets continue to merge and grow heavier. When they become too heavy to remain suspended, they fall as precipitation — rain, snow, sleet or hail — depending on the temperature.

Once precipitation reaches the ground, it follows several paths. It may run across the surface as surface run-off, flowing into streams and rivers. It may soak into the ground through a process called infiltration, where it is stored as groundwater. It can also be absorbed by plant roots.

Eventually, water returns to the oceans and seas, and the cycle continues.

Questions

1. What is the water cycle?
2. What is the main source of energy that powers the water cycle?
3. What happens to water during evaporation?
4. What is transpiration?
5. What causes water vapour to turn back into liquid droplets in the atmosphere?
6. What do water droplets gather around to form clouds?
7. What is precipitation?
8. Name four forms that precipitation can take?
9. What is infiltration?
10. Why do you think water vapour rises upwards into the atmosphere rather than staying close to the ground?



Text C Quiz



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