

This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.

The water cycle continuously moves water between the atmosphere, land and living organisms. It is driven by solar energy and gravity.

- Evaporation: water evaporates from oceans, lakes and rivers → water vapour rises.
- Transpiration: plants release water vapour through stomata → adds to atmospheric water vapour.
- Condensation: water vapour cools as it rises → condenses into water droplets → forms clouds.
- Precipitation: water falls from clouds as rain, sleet, snow or hail.
- Runoff: water flows over land surface into rivers and back to the sea.
- Infiltration: water soaks into the ground → replenishes groundwater → flows slowly to rivers and sea.
- ★ **HT Transpiration pull:** water is absorbed by roots → moves up xylem → evaporates from leaves → drives water uptake from soil.

Key Terms

Evaporation	Conversion of liquid water to water vapour — driven by solar energy
Transpiration	Evaporation of water from plant leaves through stomata
Condensation	Conversion of water vapour to liquid water droplets — forms clouds
Precipitation	Water falling from clouds — rain, snow, sleet, hail

■ **Exam Tip:** The water cycle is driven by SOLAR ENERGY (evaporation) and GRAVITY (precipitation, runoff). All processes should be linked: evaporation → condensation → precipitation → runoff → evaporation again. Know all stages in order.