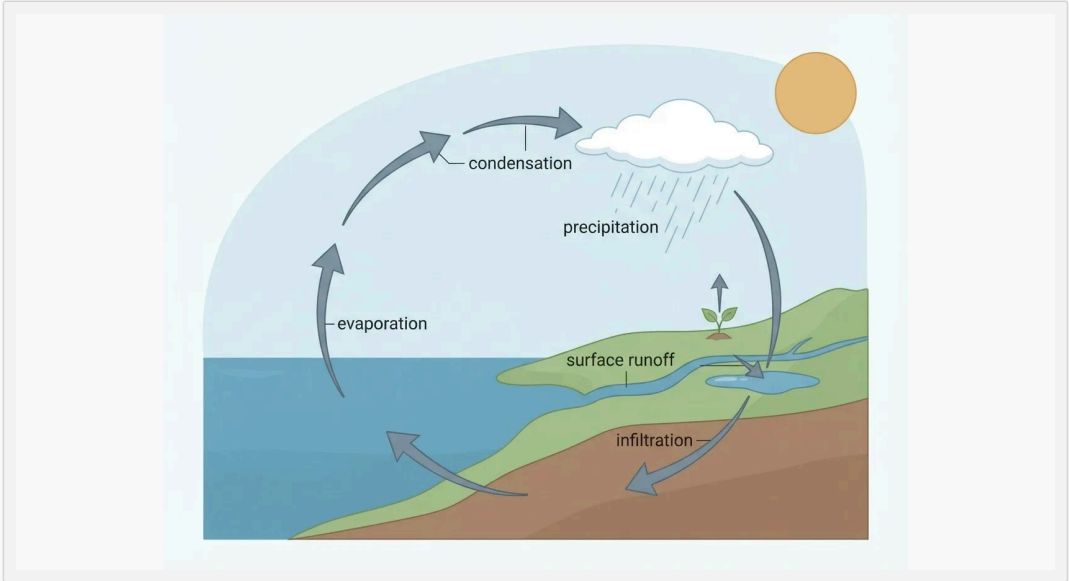


# Water on the move

You can see a cloud and the white mist above a kettle, but water vapour itself is invisible.  
*Use this sheet to recall how water moves and changes state.*



Water leaves the sea and the land as water vapour and enters the atmosphere. The atmosphere returns water to the land and to the sea as precipitation. The atmosphere holds water both as an invisible gas and inside clouds.

## The five words you need

**Evaporation** is the process by which liquid water gains enough energy to change into a gas, called water vapour, from the surface of seas, lakes and the land.

**Condensation** is the process by which water vapour in the air cools and changes back into tiny liquid droplets.

**Precipitation** is water falling from clouds as rain, snow, sleet or hail.

**Surface runoff** is water flowing across the land surface into streams and rivers.

**Infiltration** is water soaking down into the ground.

## The things people get wrong

Water vapour is an invisible gas: it cannot be seen. The white mist over a boiling kettle is not water vapour but tiny liquid droplets, so water vapour is never seen — only what it has turned into.

A cloud is not water vapour but countless tiny liquid droplets or ice crystals, and that is why a cloud can be seen.

Evaporation can happen below boiling point: it happens all day whenever liquid water at the surface gains enough energy to change into a gas.

There is no single lap of the water cycle. Water can evaporate from the sea or from the land.

### Your turn — with a pencil

On separate paper, draw the water cycle with the sea on the left and the land on the right. Label the five processes — evaporation, condensation, precipitation, surface runoff and infiltration. Then trace a route through your drawing: water evaporates from the sea, rises and condenses into a cloud, falls as precipitation onto the land, runs off the surface into a stream and then back to the sea.

*The account above is the sheet to check against. No score is given.*

| Term                  | What it means                             |
|-----------------------|-------------------------------------------|
| <b>Water vapour</b>   | Water in its invisible gas state          |
| <b>Evaporation</b>    | Liquid water changes into a gas           |
| <b>Condensation</b>   | Water vapour cools into droplets          |
| <b>Precipitation</b>  | Rain, snow, sleet or hail falling         |
| <b>Surface runoff</b> | Water flowing across the land             |
| <b>Infiltration</b>   | Water soaking into the ground             |
| <b>Cloud</b>          | Tiny droplets or ice crystals you can see |

Water vapour is an invisible gas: it cannot be seen.

Evaporation can happen below boiling point.

There is no single lap of the water cycle.