Water Cycle

Explain the stages of the water cycle and the energy that drives each stage

SCIENCE · YEAR 7 · 45 MIN

TODAY

What we will do

Explain the stages of the water cycle and the energy that drives each stage

1. I can name the four main stages of the water cycle: evaporation, condensation, precipitation, and collection.
2. I can explain that energy from the Sun drives evaporation.
3. I can describe what happens to water particles during condensation.
4. I can connect the water cycle to weather patterns I observe in Aotearoa.

LOOK CLOSELY

What is forming on the glass?

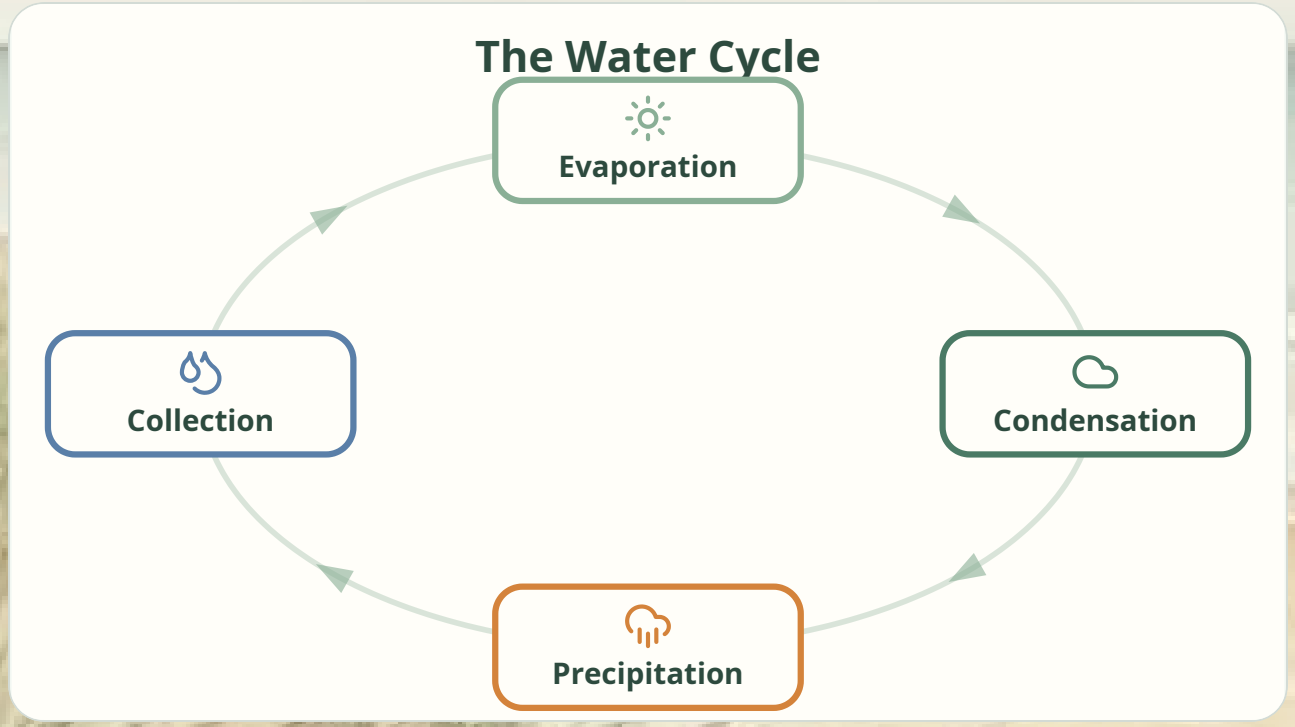
A warm tray of water sits at the front. A cold glass is held above it. Look carefully.

TALK *Where else have you seen this happen?*

THE ANSWER

Water vapour cooled and formed droplets

Warm water turned to vapour. It rose, hit the cold glass, and condensed into tiny drops.



WHY *This is condensation, and it is one stage of the water cycle.*

KEY WORDS

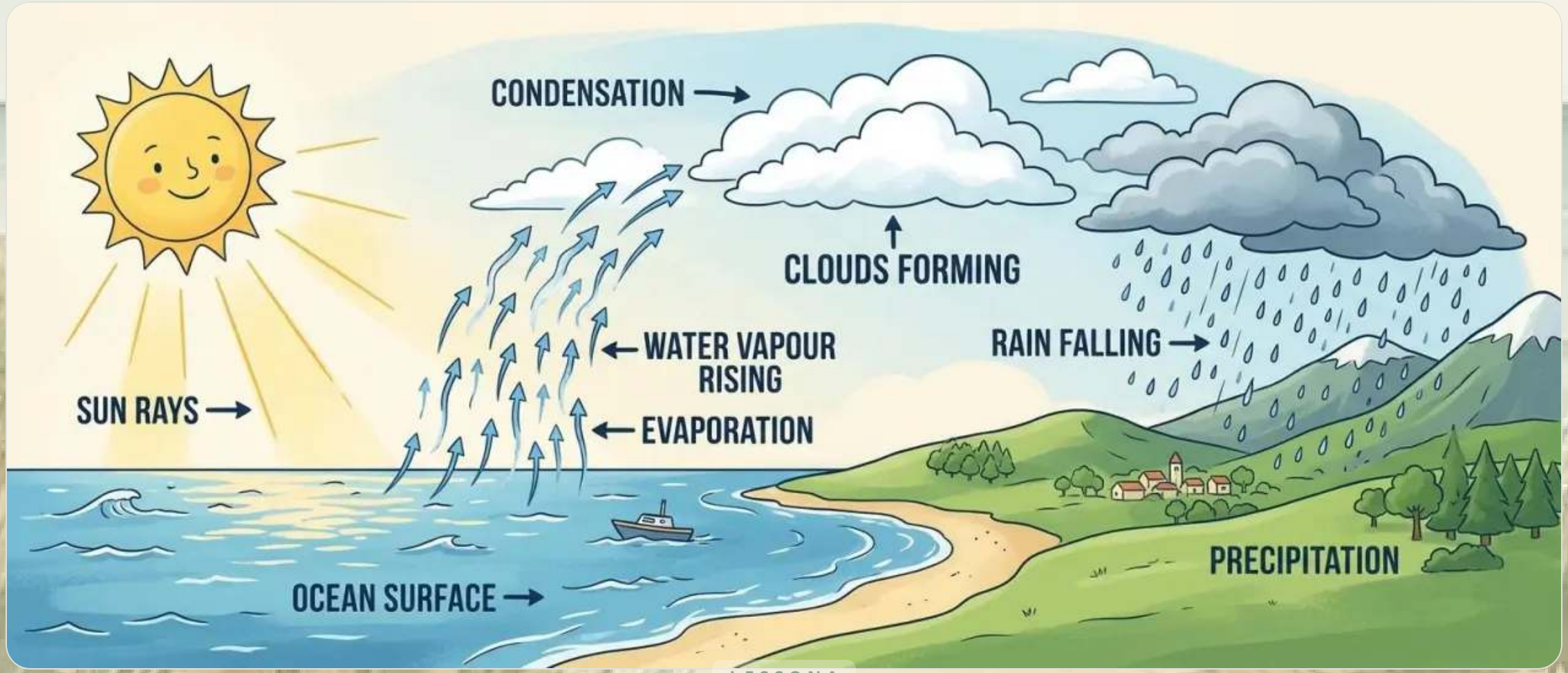
The four stages of the water cycle

Each word names what water does at that stage of the cycle.

Evaporation	Liquid water absorbs heat energy and becomes water vapour.
Condensation	Water vapour cools and clumps together to form clouds.
Precipitation	Water falls from clouds as rain, hail, or snow.
Collection	Water gathers in oceans, lakes, rivers, and the ground.

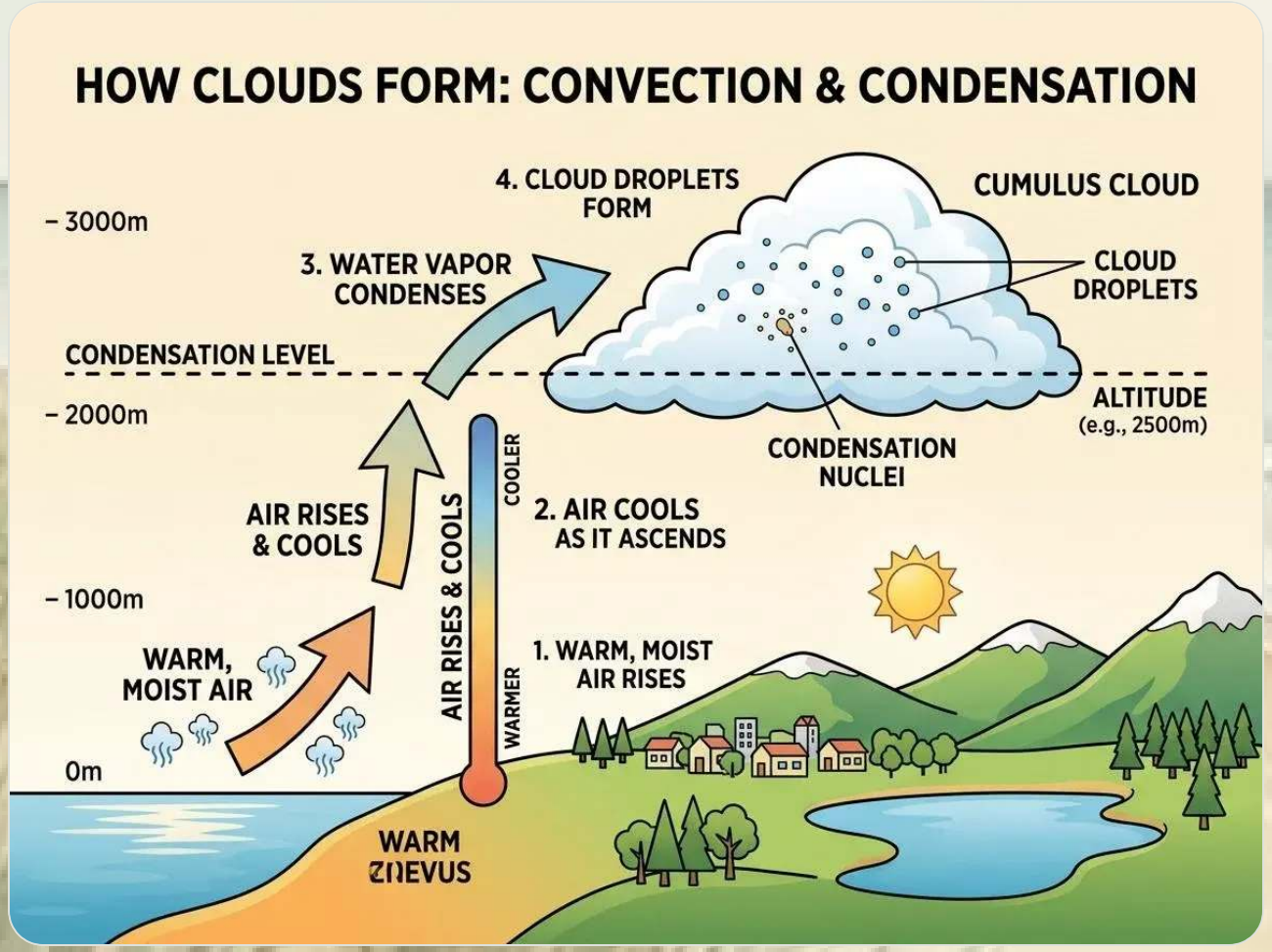
The Sun powers the whole cycle

Energy from the Sun heats liquid water. Particles escape as vapour and the cycle begins.



Cooling causes water vapour to clump

When warm water vapour rises and cools, particles slow down and stick together, forming clouds.



EXAMPLE

Clouds form when warm humid air rises to cooler heights in the atmosphere.

WATCH OUT

Condensation is NOT water appearing from nowhere. The vapour was already in the air.

IN AOTEAROA

The water cycle shapes our weather

Each region of New Zealand shows a different stage of the cycle at work.

WEST COAST

High rainfall all year

Moist air from the Tasman hits the Southern Alps and rises, cooling to form heavy rain.

CENTRAL PLATEAU

Snow in winter

Cold temperatures turn precipitation to snow. It melts and feeds rivers in spring.

HARBOURS AND ESTUARIES

Evaporation on sunny days

Sun heats shallow coastal water. Evaporation feeds moisture back into the atmosphere.

YOUR TURN

Label the water cycle diagram

Cut out the four stage labels. Place them on the correct part of the diagram.

The Sun's energy enters the cycle at the _____ stage.

During condensation, water vapour _____ and forms _____ .

Precipitation can be rain, _____, or _____ depending on temperature.

YOU WILL NEED

diagram printout | label cutouts | scissors | pencil

THINK AND SHARE

Talk it through with your partner

Which stage is driven directly by the Sun?

What happens to water particles during condensation?

Where does precipitation go after it falls in Aotearoa?

Which success criteria can you tick off right now?

SENTENCE STARTER *I think the Sun drives.. Because..*

TODAY WE LEARNED

Three things to remember

I can name the four stages: evaporation, condensation, precipitation, and collection.

I can explain that the Sun's energy drives evaporation and the whole cycle.

I can connect the water cycle to weather patterns I see in Aotearoa.