

Water's Loop Route

Trace water as it travels in a repeating loop.

S4E3.b "Develop models to illustrate multiple pathways water may take during the water cycle (evaporation, condensation, and precipitation)."

NAME _____

DATE _____

1 LABEL THE MODEL _____ Word bank below

Write one word-bank process in each numbered box. Follow the arrows around the loop to show how water moves from one stage to the next.

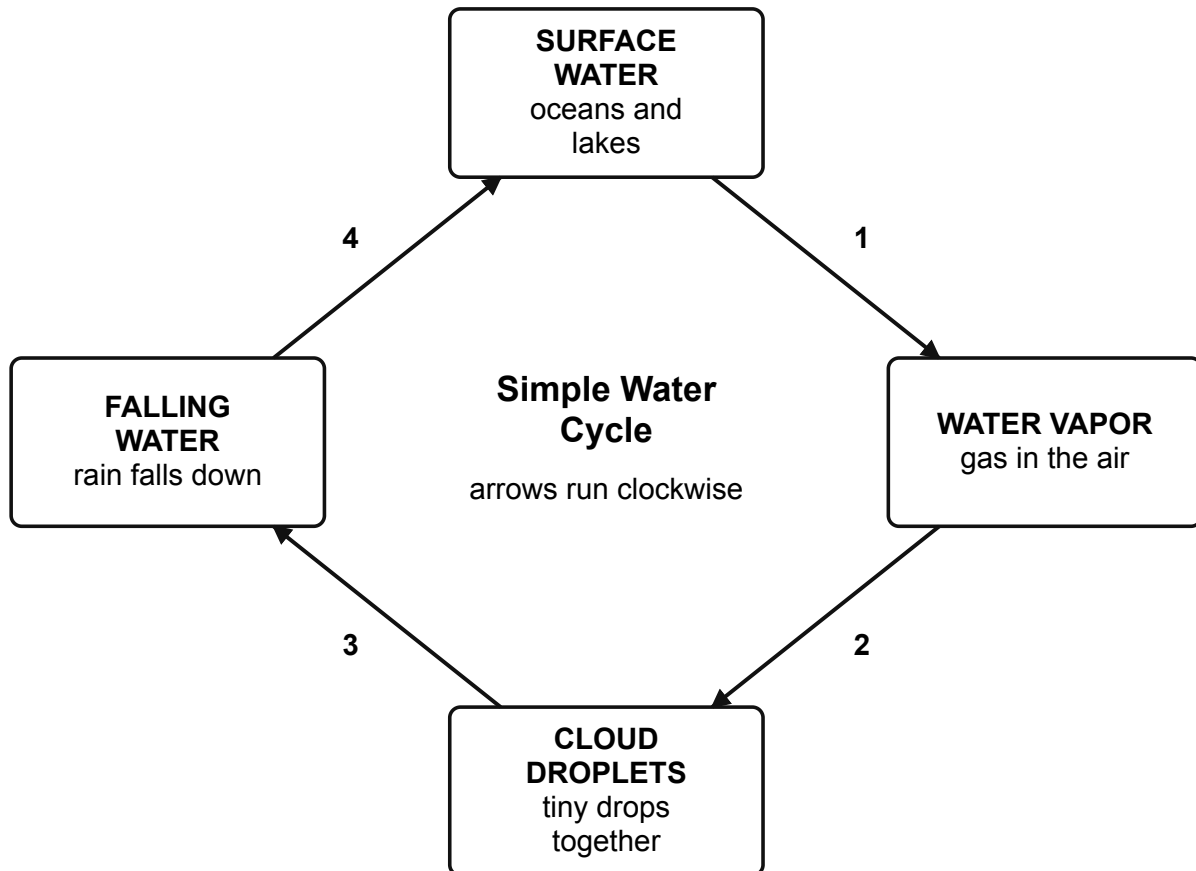
WORD BANK

Collection

Condensation

Evaporation

Precipitation



Arrow numbers match the response boxes on the next student section.

Label the arrows

Use the word bank to write the process for each numbered arrow.

Arrow 1

Arrow 2

Arrow 3

Arrow 4

2 RUN THE MODEL _____ Use your finished diagram

1 Starting at SURFACE WATER, what are the next two processes in order?

2 Which process moves water from CLOUD DROPLETS to FALLING WATER?

3 Which stage comes after FALLING WATER in the model?



CHECK IT

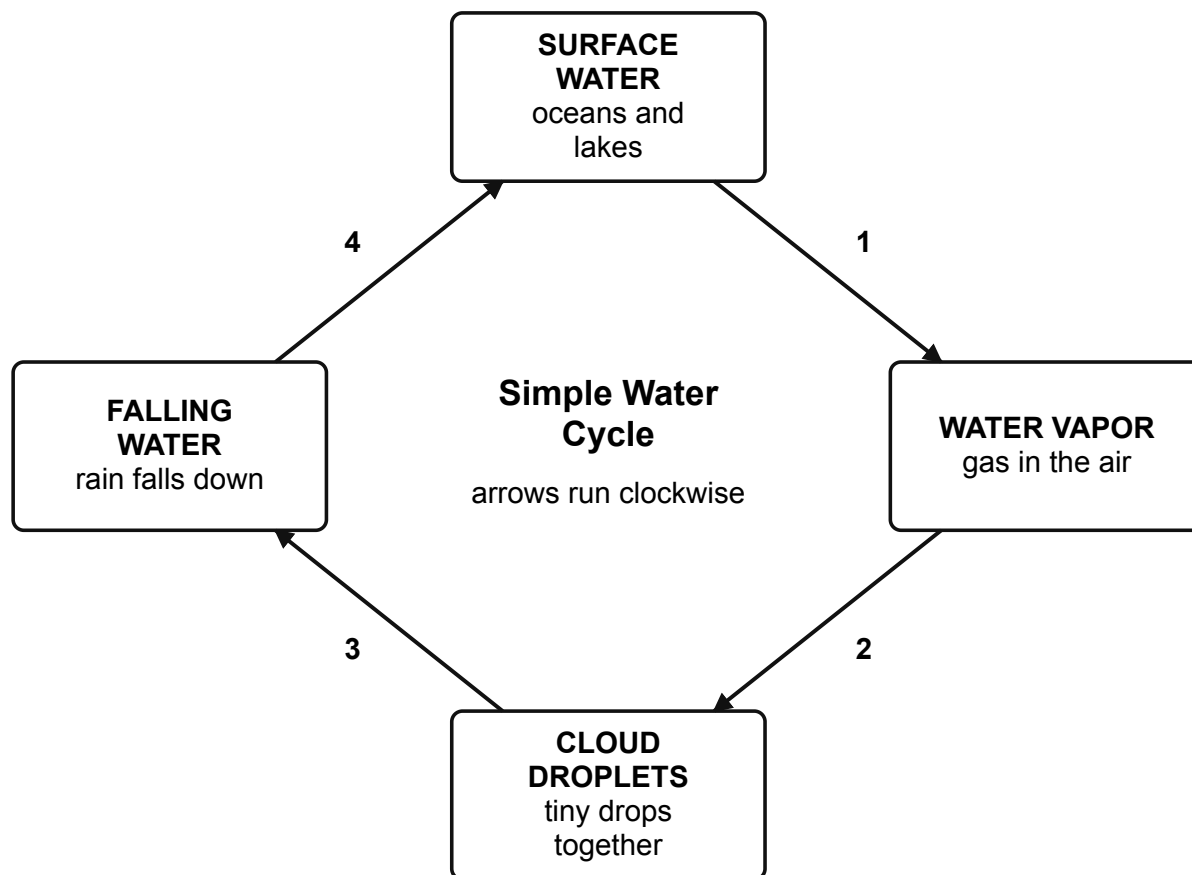
Before you turn it in

- ☐ I used each word-bank process once.
- ☐ I followed the arrows around the loop.
- ☐ I drew and traced two branching routes with labeled arrows.

TEST THE MODEL

What is one way water can move that this model leaves out? On extra paper revise the loop into a branching model: after precipitation, draw one route across land to a river/lake (runoff) and another soaking into the ground (infiltration), then moving underground back to a river/lake. Connect surface water to vapor, cloud droplets and precipitation. Label every arrow, trace both different routes and explain why there is more than one path.

PART 1 • COMPLETED MODEL

**Arrow 1**

Evaporation

Arrow 2

Condensation

Arrow 3

Precipitation

Arrow 4

Collection

PART 2 • RUN THE MODEL

1. **Evaporation, then condensation.** (Starting at SURFACE WATER, what are the next two processes in order?)
2. **Precipitation.** (Which process moves water from CLOUD DROPLETS to FALLING WATER?)
3. **SURFACE WATER.** (Which stage comes after FALLING WATER in the model?)

TEST THE MODEL (SAMPLE ANSWERS)

- Water can soak into the ground.
- Plants can release water vapor into the air.

Arrow boxes in order from SURFACE WATER are Evaporation, Condensation, Precipitation, and Collection. Accept correct lowercase spellings. Keep the original loop as a starting model, then require a learner-drawn branching model on supplied extra paper. Check arrows: surface water to vapor (evaporation), vapor to cloud droplets (condensation), droplets to falling water (precipitation); branch falling water into overland runoff returning to river/lake, and infiltration into groundwater followed by groundwater flow/discharge returning to river/lake. Require both routes and the shared atmospheric pathway, not only a written omitted process. Model is schematic, not a measured landscape. Provide colored pencils or plain pencil; oral explanation with adult scribing is acceptable while the student selects/places routes. Example route 1: lake, evaporation, vapor, condensation, cloud droplets, precipitation, land runoff, river/lake. Route 2: same atmosphere sequence, then infiltration, groundwater flow/discharge, river/lake. Not all groundwater flows immediately or directly to a surface lake; arrows show a possible pathway, with no implied equal time.