

Name _____

Date _____

1. Students use the scientific method to investigate the water cycle. A portion of a student's journal, that states the problem, is shown below.

	Problem:
	Does more evaporation take place during the day than it does at night?
	Hypothesis:

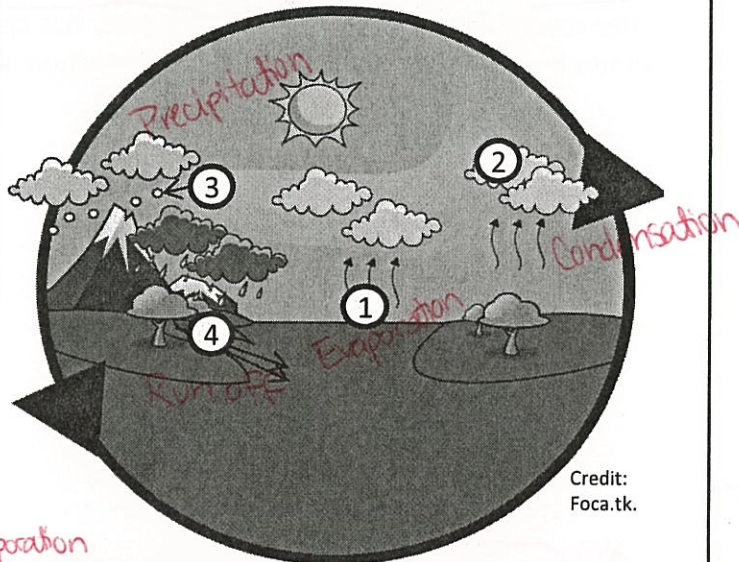
After performing an experiment, the class concludes that more evaporation takes place during the day. Which answer choice best supports this conclusion? (5.3.A)

- A. During the day there is more precipitation than at night, which increases evaporation. *rain increases evaporation*
- B. During the day, heat from the sun absorbs water from the ocean. *causes evaporation*
- C. During the day, there is less salt in the ocean which increases evaporation. *always the same*
- D. During the day more water runs off mountains, which increases evaporation. *run off increases evaporation*

2. While learning about the water cycle and evaporation, students fill two cups of the same size with equal amounts of water. They place one cup directly in the sun and another cup in the shade. When implementing an experimental investigation, it is important to test only one variable in order to make it a fair test. What is the variable in this experiment? (5.2.A)

- F. The cups. *same size*
- G. The water. *equal amounts*
- H. The location of the cups. *different*
- J. The size of the cups. *same size*

The diagram below shows the water cycle. Use your knowledge of science and the diagram to answer questions 3 and 4.



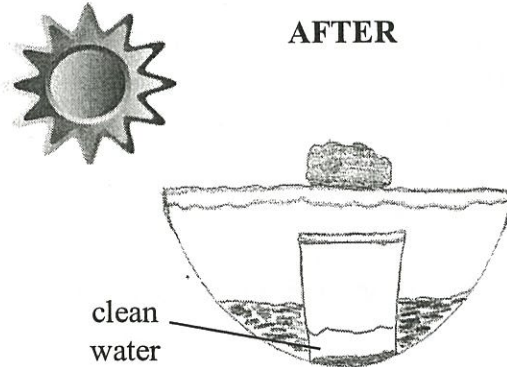
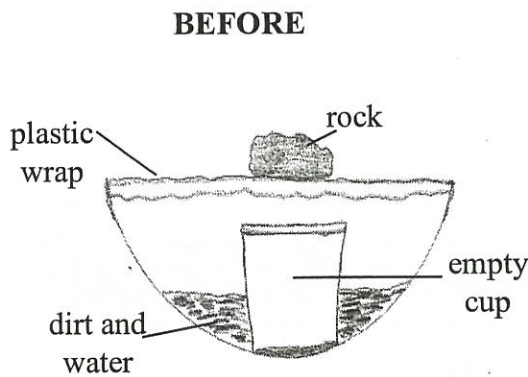
Credit: Foca.tk.

3. How will the Sun's energy affect the ocean, rivers, and lakes? (5.2.D)
- A. The ocean water will increase due to the runoff of the rivers. *run off * sun's energy*
 - B. The rivers and lakes will increase because of more precipitation. ** sun's energy*
 - C. Heat from the Sun will cause liquid water to condense and form water vapor. *cooling clouds condensation*
 - D. Heat from the Sun will cause liquid water to evaporate and form water vapor. *Heat from sun = sun's energy*
4. Number 3 represents which stage of the water cycle?
- F. Precipitation falls from the clouds as water, freezing rain, or snow.
 - G. Water vapor rises and changes from a gas to a liquid and forms clouds. *condensation*
 - H. Groundwater forms from water that does not evaporate. *soaked into soil*
 - J. Heat energy causes liquid water to evaporate.

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1. Students investigate how the water cycle helps purify and clean our water. They fill a bowl with dirt and water and place a clean empty cup in the middle of the bowl. Next, they cover the bowl with clear plastic wrap and place a rock on top, directly above the cup. The students place the bowl in the Sun and after several hours, observe that clean water has appeared inside the empty cup. The illustration below shows how the students set up their investigation along with their results. (5.2.D)



Which two processes of the water cycle are responsible for purifying the water?

- A. runoff and evaporation
 B. precipitation and runoff
 C. evaporation and condensation
 D. groundwater and evaporation

2. Which answer choice best explains how the Sun and ocean interact in the water cycle?

- F. The Sun heats the ocean and creates a warm climate for marine life. *Arctic Oceans?*
 G. The Sun heats the ocean and evaporates the water but leaves the salt behind.
 H. The Sun heats the ocean and evaporates the water and the salt.
 J. The Sun heats the ocean and creates tidal waves.

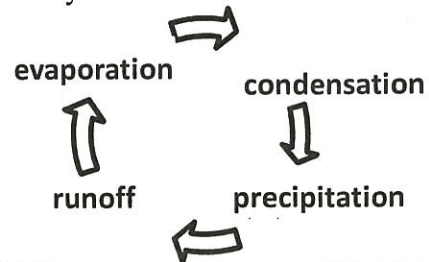
3. What happens to the water, from precipitation and runoff, that doesn't get evaporated by the Sun's energy?

- A. The water soaks into the ground and makes ground water.
 B. The water will stay on the ground forever.
 C. The water eventually creates an ocean.
 D. All the water that falls to the Earth is evaporated.

4. Which of the following events in the water cycle is a direct result of condensation?

- F. Water falls to the Earth as freezing rain. *hail*
 G. Heat energy changes liquid water to a gas. *Evaporation*
 H. Water vapor changes to tiny drops of water and forms clouds.
 J. Water flows over the Earth's surface. *Run off*

5. The water cycle is shown below.



Which part of the water cycle would be affected by a severe drought? *No rain for a long time*

- A. evaporation
 B. precipitation
 C. runoff
 D. all of the above