Earth's Water Lesson 1

146 & 147 Water on Earth & Movement of Earth's Water

- Read this section in partners
- After reading, answer the questions.

1. Which state of matter is water vapor? gas

2. Discuss: Where is water in dry places such as the desert?

3. What happens to water vapor when it cools?

It changes its state/form to liquid

4. How is steam different than water vapor?

Steam is warmer than the air's temperature, and it is created when water boils.

Dec 3-9:27 AM

5. **Complete the Reading Check on page 146.

READING CHECK **Draw Conclusions** Early on a summer morning, the grass is wet. If it did not rain, where did the water come from? How did the grass get wet?

Sample answer: The water was in the air. At night, the air got colder, and water vapor formed water droplets on the grass.

6. What happens to the state of water as it moves through the cycle?

It changes state/form, going from water vapor to liquid water, then to ice

7. What is the importance of the water cycle?

The water cycle continuously moves water on Earth

Dec 3-9:28 AM

8. How are evaporation and condensation related?

Evaporation changes liquid water into water vapor, and condensation changes water vapor into liquid water

9. **Discuss the Write About It on page 147

Write About It In your science notebook, write what you think would happen if water did not evaporate and condense.

Dec 3-9:28 AM

148 & 149 How does water cycle on Earth?

- Read this section as a class
- After reading, answer the questions.

10. What are the four main steps of the Water Cycle?

evaporation
condensation
precipitation
runoff / groundwater

11. Complete the Tracing the Water Cycle Interactivity at Pearsonrealize.com

Tracing the Water Cycle

You are investigating which has traveled farther: you or a particle of water. Complete the lab to follow a particle of water as it changes form and location.

Dec 3-9:29 AM

12. What are the steps of the water cycle?

1. The sun heats up the surface water
2. The water evaporates (changes from liquid to gas)
3. The water vapor rises and cools
4. As the water vapor cools, it condenses (changes from gas to liquid) on dust particles
5. These liquid drops on dust particles combine to form a cloud.
6. Once the cloud becomes too heavy, the water will fall to Earth as precipitation (rain, sleet, snow, hail)
7. This water will either become runoff and return to a water source or become groundwater that eventually returns to a water source.
8. The cycle begins again.

150 Energy and the Water Cycle

- Read this section independently
- After reading, answer the questions.

14. What is the energy source for the water cycle? sun

15. List three effects listed in the text that this energy source has on the water cycle.

causes frozen water to melt
causes surface water to evaporate
causes wind to blow, moving clouds

16. List the four types of precipitation

rain snow sleet hail

Dec 3-9:30 AM

17. **Complete the Quest Connection and Lesson 1 Check on page 150

Quest Connection

How could you use the processes of the water cycle to make drinkable water?

Sample answer: I could heat dirty water and collect the water vapor that forms.

Lesson 1 Check

1. **Explain** Tran is doing an investigation about weather. He uses a rain gauge to collect precipitation. On Monday, the gauge collects 15 millimeters of rain. He fails to record the rainfall. On Friday, he remembers, but the gauge now holds 12 mm of rain. How did the water cycle directly affect Tran's experiment?

Sample answer: Precipitation produced the rain in the gauge. Evaporation reduced the amount of rain in the gauge.

2. How is the ocean connected to the water cycle?

Water from the ocean evaporates and forms clouds. Clouds are blown by the wind to other places, where the water returns back to the ground as precipitation.

Topic 4 Earth's Water

Dec 3-9:30 AM