

Water Appearing and Disappearing

Changing States of Matter Cluster (Lessons 7-11)

TEACHER NOTE:

Use this assessment after teaching Lesson 11.

Naomi and Curt noticed that the water from the puddle in front of their classroom had evaporated by lunch time. Curt said the water no longer existed, but Naomi insisted that it did still exist.

Who is correct? Explain your answer.

When evaluating student answers, consider whether they include the following elements in their explanations:

- Naomi is correct.
- When the liquid water evaporates, it changes into an invisible gas in the air called water vapor.

Shawna planned a picnic one hot summer day. She poured each of her friends a cold glass of lemonade. During the picnic, Shawna noticed that although no one had spilled their drinks, there was water dripping down the outside of each glass of lemonade.

Explain where the water came from and how it got on the outside of each glass.

When evaluating student answers, consider whether they include the following elements in explanations:

- Water is in the air as an invisible gas called water vapor.
- Water vapor condensed, or changed from a gas to a liquid, on the outside surface of the glass.
- Students might also connect that condensation occurs because of the cold temperature of the glass of lemonade.

Read the statement below to help you answer questions 4 and 5.

Mrs. Sanchez boils a pot of water on the stove. After 20 minutes, most of the water in the pot is gone.

4. (Lesson 8) What happened to the water?

- a. *It evaporated.*
- b. It was absorbed by the pot.
- c. It condensed.

5. (Lesson 8) Where did the water go?

- a. It went into the pot.
- b. *It went into the air as an invisible gas.*
- c. It no longer exists.

6. (Lesson 9) A cold glass of red fruit punch was sitting on the kitchen table. Water droplets formed on the outside of the glass. Where did the water on the outside of the glass come from?

- a. the cup of red punch
- b. the glass
- c. *the air*

7. (Lesson 9) True or False? If false, rewrite the statement to make it true.

When a gas is cooled, it can turn into a liquid. _____ *true*

8. (Lesson 9) Read the following examples.

- Write the letter “E” if the example describes **evaporation**.
- Write the letter “C” if the example describes **condensation**.

Water forming on the outside of a cold glass of ice tea _____ C

A liquid changing into a gas _____ E

A gas changing into a liquid _____ C

A layer of dew on the grass in the morning _____ C

A wet towel drying on a hot summer day _____ E

Read the paragraph below to help you answer questions 9 and 10.

Tamara wants to find out if the shape of a container affects how much water evaporates in 24 hours. She decides to set up an experiment to answer her question.

9. (Lessons 10 and 11) Which variable is the only variable that Tamara should change in the experiment to keep the test fair?

- temperature of the water
- volume of the water
- shape of each container*

10. (Lessons 10 and 11) Put an “X” next to any variable that Tamara should keep the same in the experiment to keep the test fair.

volume of water in each container _____ X

temperature of the water _____ X

place where each container will sit for 24 hours _____ X

shape of each container _____