Teacher's Masters

California Education and the Environment Initiative

5

Science Standard 5.3.b.

Changing States: Water, Natural Systems, and Human Communities

California Education and the Environment Initiative
Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:
California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

Key Leadership for the Education and Environment Initiative:
Linda Adams, Secretary, California Environmental Protection Agency
Patty Zwarts, Deputy Secretary for Policy and Legislation, California Environmental Protection Agency
Andrea Lewis, Assistant Secretary for Education and Quality Programs, California Environmental Protection Agency
Mark Leary, Executive Director, California Integrated Waste Management Board
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Key Partners:
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Contents

Lesson 1 Evaporation, the Water Cycle, and Human Communities

None required for this Lesson.

Lesson 2 Factors Affecting the Evaporation Rate

None required for this Lesson.

Lesson 3 How the Water Cycle Affects Natural Systems

None required for this Lesson.

Lesson 4 The Cooling Effects of Evaporation

None required for this Lesson.

Lesson 5 The Role of Condensation in Natural Systems

None required for this Lesson.

Lesson 6 Freezing in Natural Systems and Human Communties

None required for this Lesson.

Assessments

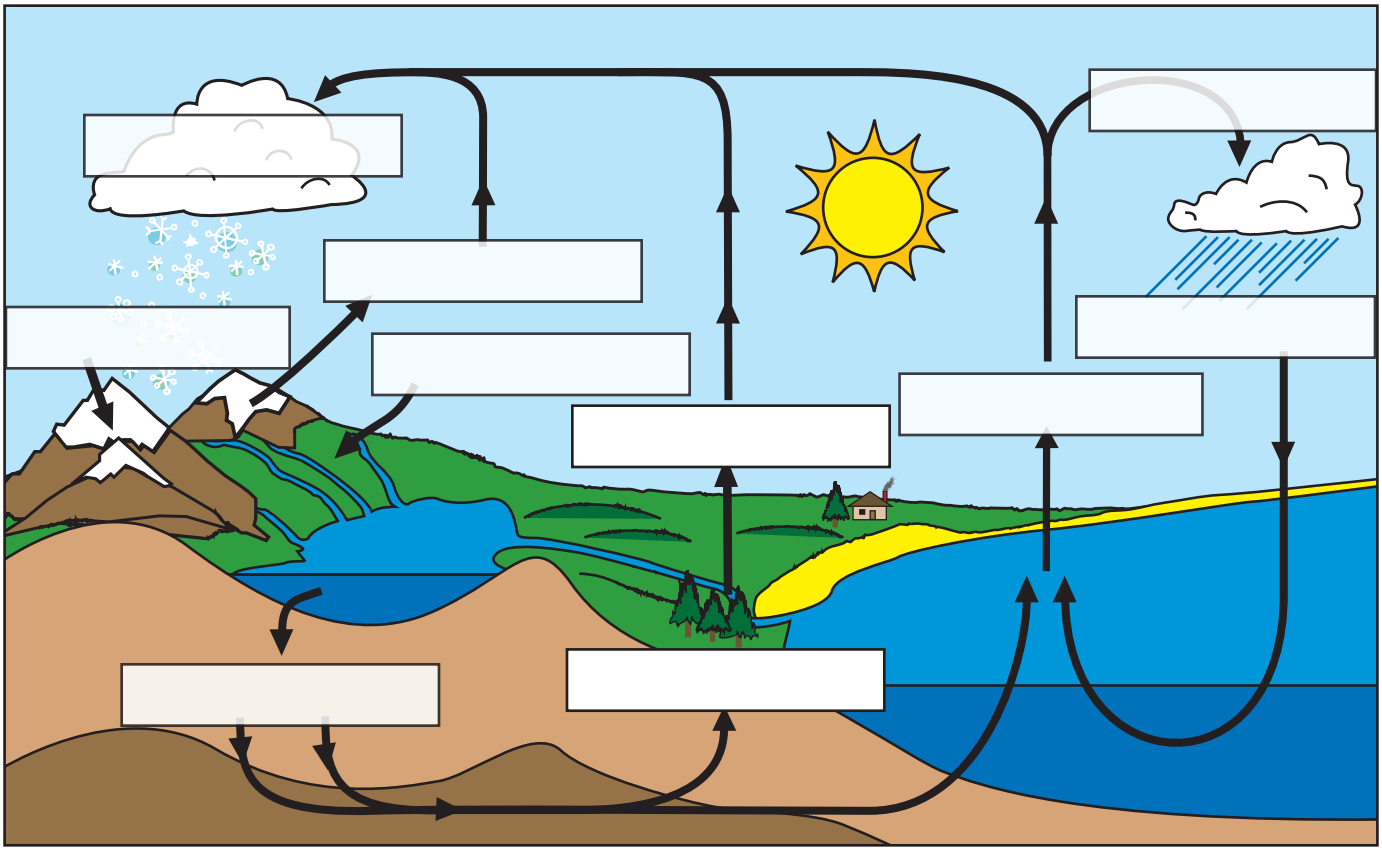
The Changing States of Water—Traditional Unit Assessment Master 2

The Changing States of Water Study Cards —
Alternative Unit Assessment Master 5

Name: _____

Instructions: Complete the diagram below.

1. Write the name of the following water cycle processes in the spaces on the diagram. Some of them may be written more than once, and some spaces may be left blank: evaporation, condensation, plant uptake, and transpiration. (12 points)



Instructions: Complete the statements below. (3 points each)

2. Evaporation is important to people because it

3. Condensation is important to people because it

Name: _____

4. Transpiration is important to people because it

5. The Sun is an important part of the water cycle because it

6. Clouds are important to people because they

Instructions: Select the best answer and circle the correct letter. (1 point each)

7. One way to separate salt from saltwater is:
   - a. transpiration
   - b. evaporation
   - c. freezing
   - d. condensation

8. When water is a gas it is called:
   - a. water vapor
   - b. ice crystals
   - c. frost point
   - d. dew point

9. When water evaporates, its molecules:
   - a. disappear
   - b. slow down
   - c. cling together
   - d. take in heat

10. Evaporation speeds up when:
    - a. temperatures go up
    - b. there is no more water
    - c. temperatures go down
    - d. there are more clouds

11. Water vapor becomes a liquid during:
    - a. transpiration
    - b. condensation
    - c. melting
    - d. evaporation

Name: _____

Instructions: Use the words in the Word Bank to fill in the blanks below. (1 point each)

Word Bank

dew	evaporation	condensation	transpiration
solid	clouds	frost	

11. Through the process of _____, water vapor becomes part of Earth's atmosphere.
12. Water vapor that condenses and then freezes is called _____.
13. Water vapor condenses to a liquid called _____.
14. During _____ plants give off water vapor into the air.

Instructions: Answer the following question in one or more paragraphs. (4 points)

15. How is the water cycle important to people and other living things on Earth?

Name: _____

Instructions:

1. Carefully cut apart your set of **The Changing States of Water Study Cards**.
2. Answer the questions on each card in the space provided. (10 points each).
3. You may use your work from the unit to answer the questions.
4. Work individually to write your answers, but you may review your answers with a partner when you are finished.
5. Turn in your cards when you are finished.

fold

Question	Answer
1. What happens when water evaporates?	1.

Question	Answer
2. What happens when saltwater is heated?	2.

Question	Answer
3. Name three factors that affect the rate of evaporation.	3.

Name: _____

fold

Question	Answer
4. How can frost affect California's economy?	4.
Question	**Answer**
5. How does water vapor become a liquid?	5.
Question	**Answer**
6. How can plants help to cool city areas?	6.
Question	**Answer**
7. How does transpiration help plants?	7.

Name: _____

fold

Question	Answer
8. What is dew?	8.
Question	**Answer**
9. When does condensation occur?	9.
Question	**Answer**
10. In what form do water molecules have the least heat energy?	10.

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