Name _____

Daily Science
Big Idea 3
WEEK 1

Day 1

Weekly Question

Do we really drink the same water that dinosaurs did?

Earth is often called the Blue Planet. That's because almost three fourths of Earth's surface is covered by water. Most of that water is salt water found in the world's oceans. Salt water contains dissolved minerals and is not drinkable. Less than 3% of all the water on Earth is fresh water, the kind we drink.

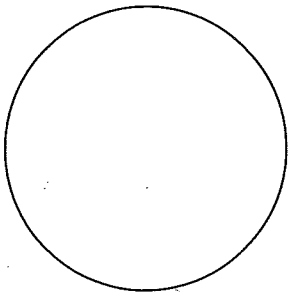
Although you might think that most of the fresh water on Earth is found in lakes and rivers, in fact, only a small fraction can be found in these places. Most of the fresh water is frozen in polar ice caps and glaciers. The rest exists in the atmosphere as gas or clouds, or is located underground. Even though water is found in different places and in different forms, all of the water on Earth is constantly interacting. Water travels from oceans to air to land and back to sea in a continuous process called the **water cycle**.

Vocabulary

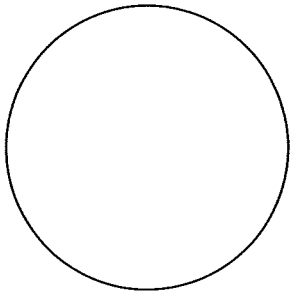
water cycle
WAH-ter SY-kul
the continuous movement of water on, above, and below Earth's surface

A. Fill in the two circles below to create pie charts, one showing the percentage of water on Earth, and one showing the percentages of salt water and fresh water.

Percentage of Earth's surface covered by water



Percentage of salt water vs. fresh water



B. Write *true* or *false*.

1. Fresh water can occur as a gas, liquid, or solid. _____
2. A small fraction of fresh water is frozen in polar ice caps. _____
3. Water from the ocean can end up in the air or on land. _____
4. Three quarters of Earth's water is salt water. _____

C. If all of Earth's water was represented by 100 milliliters, how many milliliters of fresh water would there be? _____

Name _____

Day 2

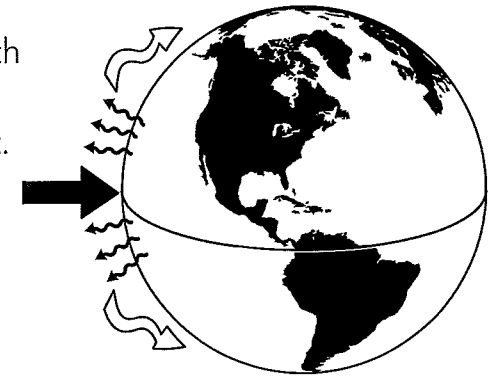
Weekly Question

Do we really drink the same water that dinosaurs did?

Daily Science Big Idea 3 WEEK 1

The movement of water between the ocean, air, and land is powered by the sun. Energy from the sun heats liquid water and causes it to **evaporate**, or change into an invisible gas called **water vapor**. Water vapor enters the atmosphere, where it mixes with other gases. We describe the amount of water vapor in the air in terms of **humidity**. When there is more moisture in the air, the humidity is higher.

Most of the evaporation on Earth is from oceans close to the equator, where heating by the sun is greatest. Warm, humid air from the equator then moves long distances, traveling by wind and weather to anywhere in the world.



Vocabulary

evaporate
ih-VAP-ur-AYT
to change from a liquid into a gas

humidity
hew-MID-ih-tee
the amount of moisture in the air

water vapor
WAH-ter VAY-per
the gaseous form of water

A. Number the steps below in the correct order to show how water evaporates in the water cycle.

____ Wind transports water vapor to other parts of the world.

____ Water evaporates and turns into water vapor.

____ Sun heats the water.

____ Water vapor mixes with other gases to become part of the atmosphere.

B. Use the vocabulary words to complete the sentences.

1. Heating by the sun causes water to _____.
2. The more _____ in the air, the higher the _____.

Name _____

Daily Science
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WEEK 1

Day 3

Weekly Question

Do we really drink the same water that dinosaurs did?

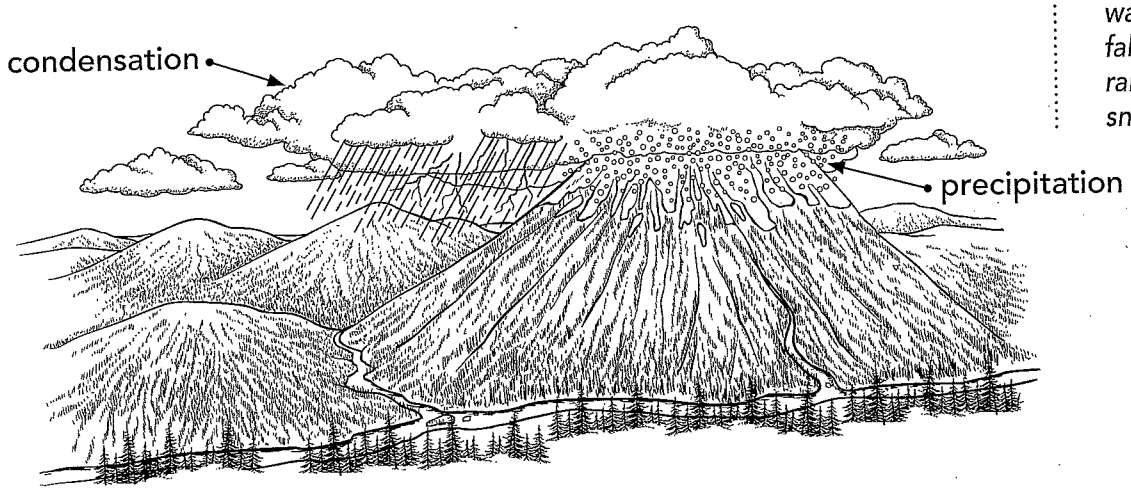
When water vapor is transported to cooler regions—either away from the tropics or higher up into the atmosphere—it cools. As water vapor cools, it gives up its heat energy and changes back into a liquid. We call this process **condensation**. In the atmosphere, condensation takes the form of tiny droplets of water. We see condensation as clouds in the sky or fog near the ground.

When water droplets get so big that air currents can no longer support them, they fall to Earth's surface as rain. This rainfall is called **precipitation**. If the air is cold enough, condensation of water vapor results in freezing, and snowflakes form. Snow is another form of precipitation, as are hail and sleet.

Vocabulary

condensation
KON-den-SAY-shun
the change from a gas into a liquid

precipitation
prih-SIP-ih-TAY-shun
water droplets that fall to the ground as rain, hail, sleet, or snow



A. What is the difference between *condensation* and *precipitation*? Use both words in your answer.

_____

_____

B. Which one of these scenarios is *not* an example of condensation?

- ❒ frost on the window
- ❒ fog forming in a valley at night
- ❒ dew on the grass in the morning
- ❒ boiling water

Name _____

Daily Science

Big Idea 3

WEEK 1

Day 4

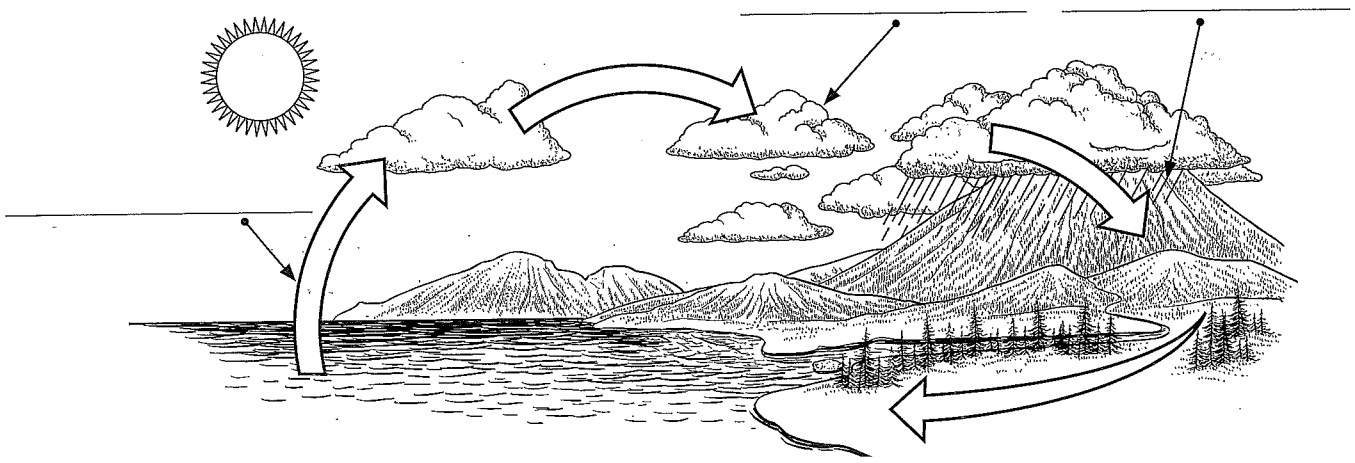
Weekly Question

Do we really drink the same water that dinosaurs did?

Once water returns to Earth's surface as precipitation, some of it soaks into the ground, and the rest may collect in streams, rivers, lakes, and seas. Water runs downhill, and ultimately much of the water that falls as precipitation returns to the ocean. From there, the water is evaporated, and the water cycle starts again. However, if precipitation falls as snow in a cold place, it may remain frozen there until temperatures change and the snow or ice melts.

The processes of evaporation, condensation, and precipitation have recycled the water on our planet for billions of years. In fact, every living thing is composed of water, and is thus a part of the water cycle, too. That means that not only do we drink the same water that dinosaurs drank, we also might be made up of the same water they were!

A. Label the stages of the water cycle in the diagram below, using the words *evaporation*, *condensation*, and *precipitation*.



B. When seawater evaporates, the salt is left behind. You might think this would make the remaining water saltier. But in fact, overall, the ocean is not getting saltier. Why do you think that is?

_____

_____

Name _____

Day 5

Weekly Question

Do we really drink the same water that dinosaurs did?

A. Use the words in the box to complete the paragraph.

evaporate	**condensation**	**water cycle**
water vapor	**precipitation**	**humidity**

All of the water on Earth is constantly recycled in a process called the _____. First, the sun heats the water and causes it to _____. This changes the water from a liquid into gas, or _____, which mixes with other gases in the atmosphere. You can measure the amount of moisture in the atmosphere as _____. As the vapor moves to cooler areas, it cools and changes back into liquid in a process called _____. When the water droplets get too big, they fall to the ground as _____.

B. If a dinosaur once lived in Mexico, and you now live in Arkansas, could you still be drinking the same water as the dinosaur did? Explain why or why not.

_____

_____

_____

_____