

NAME: _____



What Is Fresh Water?

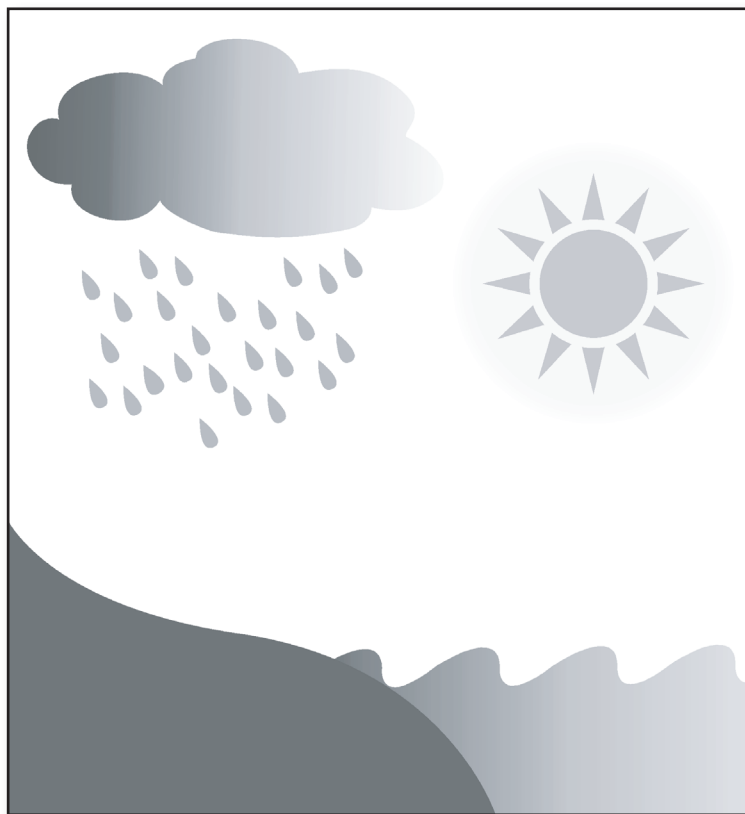


3. Answer the questions in complete sentences. Fresh water is present on Earth in each of the three states of matter. Name each of the three states in which fresh water can exist. After the name of each state, describe one place on, under, or above Earth's surface where fresh water exists in that state.

- a) _____
- b) _____
- c) _____

Extensions & Applications

An unlabeled diagram of the water cycle is shown below.



Show the processes in the water cycle by completing the diagram.

- a) Draw the arrows that show the movement of water in the water cycle.
- b) For each arrow, write the name of the process indicated by the arrow.



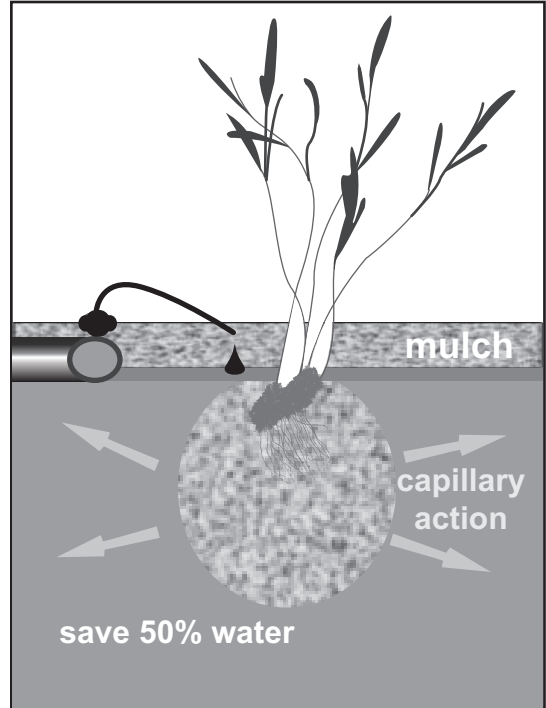
Conservation: What We Can Do

There are many things that can be done to help solve the problem of the shortage of fresh water. None of these will probably be a solution by itself. First we will look at water **conservation**. It is often possible to get the same benefit from a smaller amount of water. The only thing we can't do is drink less water, and that is a very small part of the world's water need.

Seventy per cent of fresh water is used to irrigate crops. Only the roots of plants need water, but when plants are watered by flooding the fields or by spraying with sprinklers, much of the water either misses the roots or evaporates.

Drip irrigation can prevent much of this loss by carrying water in hoses to each plant and dripping it just above the roots from small outlets. Fertilizer can also be added to the drip water, reducing hazardous runoff into streams. Some farmers further prevent evaporation loss by covering the ground with sheets of plastic that has holes for the plants to grow out of.

Fresh water use in homes accounts for only about 15% of the total, but conserving this water can also make a difference. Many people now use "low-flow" toilets, shower heads, faucets, and other appliances. In general, these devices work just as well as the older kind and use about half as much water or even less.



Explain briefly how drip irrigation saves water.

It is also possible to recycle household water that has been used for bathing, laundry, and dishwashing. This water, called "**graywater**," is less contaminated than water containing sewage. It can be purified more easily than sewage-containing water and



Activity Two

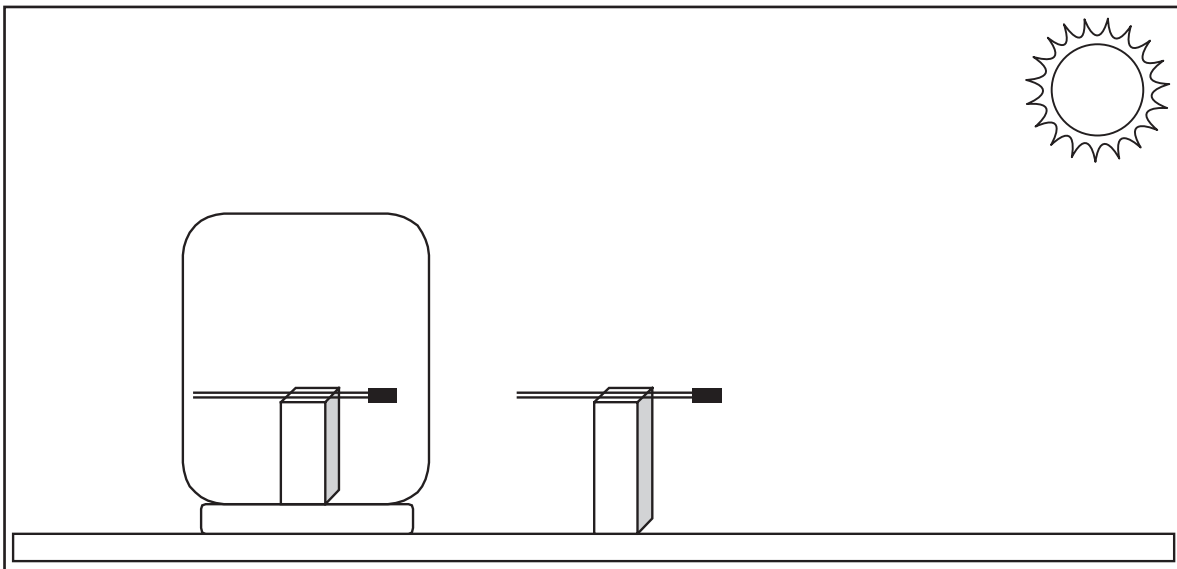
Build a Greenhouse

For this activity you will need:

- A large glass jar, a glass goldfish bowl, or a glass aquarium.
- Two thermometers
- Any two flat-topped objects about half as high as the jar, bowl, or aquarium.

This is what you will do:

1. Take all your materials outside on a sunny day.
2. Read and record the temperature on one of your thermometers.
3. Arrange your experiment as shown below.



4. Read the thermometers every 15 minutes for two hours.

How did the temperatures inside and outside the glass container compare?

Explain your observations in terms of the greenhouse effect.