

Name: \_\_\_\_\_

## Water and the Water Cycle

### The Earth's Water:

Water is a necessary part of life on this planet. All living things depend on water for survival.



Water covers more than three-fourths ( $\frac{3}{4}$ ) of the Earth's surface. But most of the water on Earth, 97% ( $\frac{97}{100}$ ) to be exact, is salt water found in the oceans. And we cannot drink water from the ocean or use it for crops because it is much too salty.

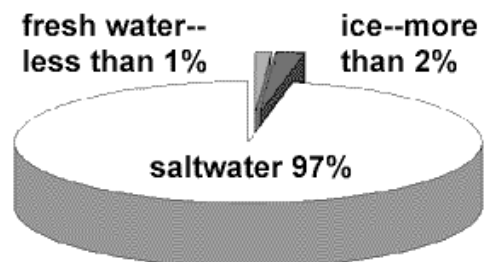
Ocean water is salty because mineral salt is continually being dumped into the ocean by rivers. The water in the rivers starts out fresh, but it picks up minerals on the way to the sea. Then, when the water evaporates from the ocean, it evaporates as pure water and leaves its mineral salts behind. This has been going on for millions of years.

We can remove salt from ocean water, but the process is very expensive.

Only about 3% ( $\frac{3}{100}$ ) of Earth's water is fresh, and  $\frac{2}{3}$  of this fresh water is frozen solid. It is found in ice caps (sheets of ice) at the north and south poles and in glaciers. Because it is so well-frozen and so far away, the fresh water in ice caps and glaciers is not readily available to us.

This leaves about 1% ( $\frac{1}{100}$ ) of all the Earth's water in a form that we can use. This fresh water is found in lakes, rivers, streams, ponds, and in the ground.

(Note: *Percent (%)* means 'out of 100'. So, a number like 1% means *1 out of 100*, or  $\frac{1}{100}$ .)



### The Water Supply:

The Earth's water is constantly being moved about and changed from one state to another. The state of water—solid (ice), liquid, or gas (water vapor)—is determined mostly by temperature.

But, although water continuously changes state as the temperature changes, the amount of water on Earth remains constant. There is as much water now as there was hundreds of millions of years ago.

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### Questions:

1. We cannot drink water from the ocean or use it for crops because it is much too salty. Why is ocean water so salty?



2. What can be done to make the ocean water usable?

If the ocean water can be made useable, what's the problem?

3.  $\frac{3}{100}$  of the earth's water is fresh. Why isn't all of this fresh water available for people to use?

4. What are the 3 states of water?

What determines what state water is in?

5. Use one of the symbols  $\{<, >, =\}$  to compare the amount of water on earth now to the amount hundreds of millions of years ago.

Amount now \_\_\_\_\_ Amount hundreds of millions of years ago