

Water

Water is all around us and is essential for all living things. The earth, plants, animals, and humans need water to survive. Earth needs water to ensure the balance of nature and regulate the temperature. Plants need water so that they can grow through photosynthesis. Animals and humans need water to regulate their body temperature and to be able to carry out the necessary functions and operations in the body.

Around 66% of the human body is made of water. The brain consists roughly of 75% water, whereas the blood is around 83% water. The organs store water so that they can perform important functions. Water is important for the body to perform some of the following functions:

1. Regulate body temperature
2. Ensure that food is transported to the different organs
3. Help get rid of extra salt in the body
4. Help the body digest food
5. Help the body move oxygen from the lungs to the other organs

Most of the earth's surface is made of water. The total amount of water is around 344 million cubic miles. The surface of water on earth is around 70 to 75%. There are different types of water. There is saltwater and freshwater. 97% of Earth's water is saltwater that is stored in oceans, and around 3% is freshwater. The majority of freshwater is found in glaciers and polar ice caps. Other freshwater sources are to be found under the ground, in lakes, rivers, and streams.

Water is a molecule that is composed of three atoms: two hydrogen and one oxygen. It is referred to as 'H₂O.' Water is colorless and odorless. It is found naturally in three forms: solid (in the form of ice), liquid (in the form of water), and gas (in the form of water vapor).

There is the same amount of water on earth that there has always been. The water keeps moving around forming a cycle that is called the water cycle. The main parts of the water cycle are:

- Evaporation: this happens when the sun heats up the water and turns it into steam or vapor. This vapor or steam leaves and goes up into the air.
- Condensation: the water vapor in the air gets cold and then is transformed back into liquid forming clouds.

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Water (Cont'd)

- Precipitation: takes place when there is so much condensed water that it is too heavy for the air to hold. The clouds get heavy and the water goes back down in the form of rain, snow, hail, or sleet.

- Collection: when the precipitation goes back on land, then either the water becomes part of groundwater, which is used by plants and animals; or it goes over the surface and is collected in the rivers, streams, and oceans. Then the cycle will start again.

Name _____

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Water Questions

Multiple Choice:

1. Water is a molecule that consists of:
- a. Two oxygen atoms and one hydrogen atom
 - b. Two hydrogen atoms and one oxygen atom
 - c. Three hydrogen atoms
 - d. Two oxygen atoms and two hydrogen atoms

Matching

- | | |
|-----------------------|--|
| ____ 1. Evaporation | a) takes the form of snow, rain, sleet or hail |
| ____ 2. Condensation | b) happens when precipitation goes back on land and into the ground or goes over surface and collects in oceans and rivers |
| ____ 3. Precipitation | c) sun heats up water and turns it into steam |
| ____ 4. Collection | c) water vapor in the air gets cold and then is transformed back into liquid forming clouds |

List 3 functions of water in the body:

5. _____
6. _____
7. _____

True or False:

- ____ 8. Water is essential to plants so that they can grow through photosynthesis.
- ____ 9. The majority of freshwater is found in glaciers and polar ice caps.
- ____ 10. There is more freshwater on earth than saltwater.

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