

Name _____ Date _____ # _____

WATER, WATER EVERYWHERE

Learning Goal: You will learn about humidity, relative humidity, condensation, evaporation and precipitation.

Have you ever felt sticky and wet when you were outside? You are feeling the water vapor that is in the air. Water is in the air all the time.

The amount of water vapor in the air is called humidity. The heat from the sun evaporates (changes from liquid to a gas) water from streams, rivers, lakes and oceans, drawing it up into the atmosphere.

When the news reports the weather, the meteorologist may tell you the relative humidity. Relative humidity is the amount of water in the air compared to the most water it can hold. Hot air holds more water, so that means that hotter temperatures can cause higher readings of relative humidity.

As warm air rises, it expands and cools, forming clouds made up of tiny water droplets. After a while, the air gets so cold that it can't hold any more water, so it condenses, or changes back from a gas to a liquid. As condensation occurs, precipitation begins. Precipitation is drops of water or ice that falls out of the air, or in other words, rain or snow. In most of North America, precipitation starts as ice crystals, but by the time it reaches the earth, it is rain. In the tropics, most precipitation starts as raindrops. Dew or frost forms when water touches a cold surface. Sleet is a mix of rain and snow. Snow is made up of ice crystals that fall from clouds with very cold temperatures.

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1. The amount of water vapor in the air is called -
 - a. relative humidity
 - b. humidity
 - c. condensation
 - d. precipitation

2. When the sun heats the earth, water evaporates. This means -
 - a. it measures the amount of humidity in the air
 - b. it changes from a liquid to a gas
 - c. it changes from a gas to a liquid
 - d. drops of water fall out of the air

3. Relative humidity is -
 - a. the amount of water in the air when the temperatures are very cold and a cool front is blowing in from the north
 - b. drops of water or ice that fall out of the air and turn into rain or snow
 - c. the amount of water in the air compared to the most water it can hold
 - d. when dew or frost forms as water touches a cold surface

4. When water condenses, it -
 - a. turns from a gas to a liquid
 - b. turns from a liquid to a gas
 - c. turns from a solid to a liquid to a gas
 - d. turns from a liquid to a gas to a solid

5. Precipitation is -
 - a. water turning from a liquid to a gas
 - b. water evaporation and moving up
 - c. the amount of water vapor in the air
 - d. drops of water or ice that fall out of the air