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**Independent Work Composition of the Earth’s Atmosphere: A Graphic Model**

The Earth’s atmosphere is made up of a mixture of gases, liquids and solids. However, the largest part, by far, consist of those substances that usually found as gases. One exception is water. Water is nearly always present in the atmosphere as a solid, liquid or gas. When water exists in the air as a gas it is called water vapor. The amount of water vapor in the air (atmosphere) is different from place to place and from one time to another but is always less than 3%. Most of the gases that make up the rest of the atmosphere are found in nearly unchanging amounts by percent in any particular location.

In this activity you will construct a bar graph that illustrate the amounts of those gases that make up more than 99% of the Earth’s atmosphere. Examine the data table from the American Meteorological Society. This table lists the percentage amounts of the four gases that make up most of the Earth’s atmosphere.

Using the information in the data table, construct a bar graph of the four gases that make up most of the Earth’s atmosphere. Each gas should be represented by a different colored bar. Label each column with the name of the gas on the bottom of the bar, and the % amount on the top of the bar. Make sure you add a title to your graph. When you are finished with the graph, answer the questions on the back of this page.

Percentage of Gases in the Atmosphere

|  |  |
| --- | --- |
| **Gases** | **Percentage in the Atmosphere** |
| Argon | 0.9 |
| Carbon Dioxide | 0.1 |
| Nitrogen | 78.0 |
| Oxygen | 20.9 |

After completing the bar graph, answer the following questions. They do not need to be typed.

1. What is the most abundant gas in the atmosphere? What is its percentage (%)?
2. List the four most abundant gases, with their percentages in the atmosphere, from the most to the least.

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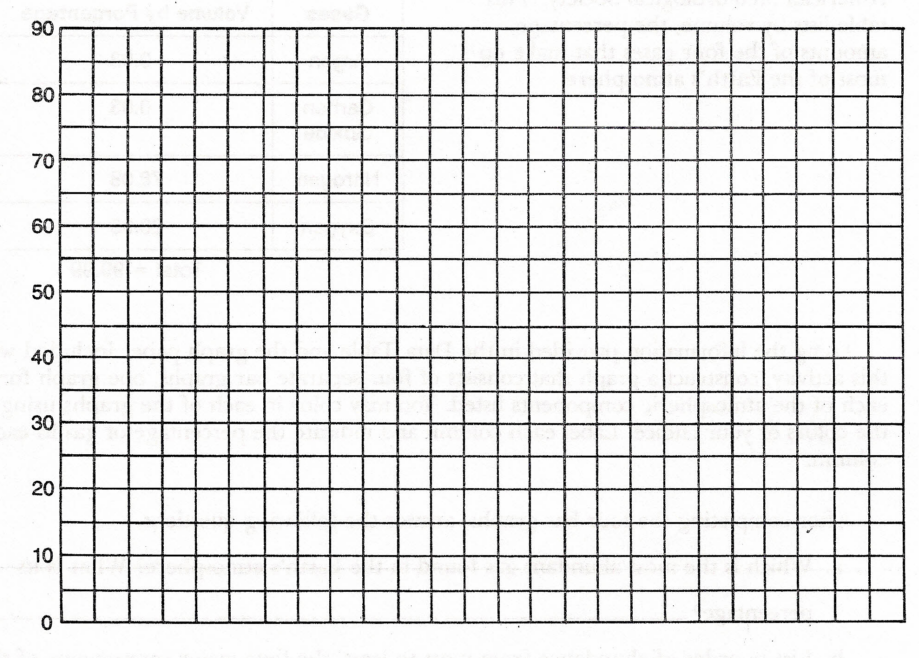
1. What is the probable reason for the fact that water vapor was not included in the data table even though it is often present in amounts far greater than either argon or carbon dioxide (CO2)?

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1. What percentage (%) of the gases in the Earth’s atmosphere is left? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Percentage of gases