



TAKE CARE OF TEXAS: EDUCATOR MATERIALS

WORKSHEET

Layers of the Atmosphere Fill-in-the-Blank

Name: _____ Date: _____

Instructions: After reading and taking notes from the Layers of Atmosphere presentation, fill in the blanks with the correct missing words.

- | | | | |
|-------------|--------------|-------------|-----------------------------|
| ozone layer | oxygen | hydrogen | cold |
| exosphere | stratosphere | drop | mesosphere |
| 4,500 | helium | highest | noctilucent |
| closest | colder | rising | International Space Station |
| meteors | flying | water vapor | warmer |

The Earth's atmosphere covers the planet, keeps us warm, provides _____ to breathe, and is where all weather occurs. Earth's atmosphere has five major layers including the troposphere, _____, mesosphere, thermosphere, and the exosphere. The troposphere is the layer _____ to the Earth's surface. This layer is where most of the weather and clouds are generated and formed. It contains 99% of all _____ and aerosols. This is where you will most likely see birds and planes _____. The stratosphere is the layer where you can find the _____. Unlike the troposphere, air at the bottom of this layer is _____ and the air at the top is _____. This is the _____ layer of the atmosphere that jet airplanes can reach. The next layer is called the _____--it is between the stratosphere and the thermosphere. In this layer, there is little to no air, so as the altitude rises the temperatures begin to _____. It is here where _____ clouds can form due to such scarce water vapor. Many _____ that come into Earth's atmosphere will burn up in this layer. In the thermosphere, there is very low density of molecules which results in temperatures _____ as the altitude increases. Temperatures here can reach _____ degrees Fahrenheit. This layer is, also, where the _____ orbits. The final layer is called the _____. _____ and _____ can be found in this layer, albeit with lots of space between them. This layer is very _____ and has no air to breathe.



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Answer Key

See below for answers.

The Earth's atmosphere covers the planet, keeps us warm, provides oxygen to breathe, and is where all weather occurs. Earth's atmosphere has five major layers including the troposphere, stratosphere, mesosphere, thermosphere, and the exosphere. The troposphere is the layer closest to the Earth's surface. This layer is where most of the weather and clouds are generated and formed. It contains 99% of all water vapor and aerosols. This is where you will most likely see birds and planes flying. The stratosphere is the layer where you can find the ozone layer. Unlike the troposphere, air at the bottom of this layer is warmer and the air at the top is colder. This is the highest layer of the atmosphere that jet airplanes can reach. The next layer is called the mesosphere—it is between the stratosphere and the thermosphere. In this layer, there is little to no air, so as the altitude rises the temperatures begin to drop. It is here where noctilucent clouds can form due to such scarce water vapor. Many meteors that come into Earth's atmosphere will burn up in this layer. In the Thermosphere, there is very low density of molecules which results in temperatures rising as the altitude increases. Temperatures here can reach 4,500 degrees Fahrenheit. This layer is, also, where the International Space Station orbits. The final layer is called the exosphere. Hydrogen and helium can be found in this layer, albeit with lots of space between them. This layer is very cold and has no air to breathe.