

Reinforcement

Earth's Amazing Atmosphere

Complete this worksheet after you finish reading the section "Characteristics of the Atmosphere."

The Earth's atmosphere is divided into four layers. Choose the layer in Column B that best matches the description in Column A, and write your answer in the space provided. Then, use the directions below to label the diagram of the Earth's atmosphere on the next page.

Column A

- _____ 1. the layer of the Earth's atmosphere you live in
- _____ 2. the coldest layer of the Earth's atmosphere; lies directly below the uppermost layer
- _____ 3. the uppermost layer of the atmosphere
- _____ 4. the layer that contains most of the atmosphere's ozone; above the layer that you live in

Column B

- a. troposphere
- b. stratosphere
- c. mesosphere
- d. thermosphere

- 5. Label the four layers of the atmosphere on the diagram on the next page.
- 6. There is no clear boundary between the uppermost layer of the atmosphere and space. The atmosphere becomes thinner and thinner and blends into space. At the very top of the diagram, write the word space with an arrow pointing up.
- 7. The ozone layer is the upper part of the atmospheric layer that contains most of the atmosphere's ozone. Use the symbol for ozone to draw in the ozone layer on the diagram.
- 8. The ozone layer is important because it absorbs ultraviolet radiation. Draw a wavy line coming from space to represent the UV radiation that is absorbed by the ozone layer.
- 9. Ions are electrically charged particles. When nitrogen and oxygen atoms absorb solar energy in the lower thermosphere, they become ions. This part of the thermosphere is called the ionosphere. Draw the ions in the ionosphere. Remember that the thermosphere is very thin. There are almost no ions near the top of the thermosphere.
- 10. The troposphere is the densest layer of the atmosphere. It is much denser than the other layers. Shade this layer heavily to indicate how dense it is.
- 11. The stratosphere is very thin. Shade this lightly.
- 12. The mesosphere is even less dense than the stratosphere. Shade this layer very lightly.

Reinforcement *continued*

