**DIRECTIONS:**

1. Table 1 contains the average temperature readings at various altitudes in the Earth’s

atmosphere. Plot this data on the graph on the worksheet, and connect adjacent points

with a smooth curve. Be careful to plot the negative temperature numbers correctly.

This profile provides a general picture of temperature at any given time and place;

however, the actual temperature may deviate from the average values, particularly in the

lower atmosphere.

2. Label the different layers of the atmosphere and the separating boundaries between

each layer.

3. You should place eight words on your graph in the correct locations: troposphere, thermosphere mesosphere, stratosphere, mesopause, stratopause, tropopause, and ozone layer.

**QUESTIONS:**

1. What is the basis for dividing the atmosphere into four layers?

2. Does the temperature **increase** or **decrease** with altitude in the:

troposphere? \_\_\_\_\_\_\_\_\_\_\_\_\_

stratosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

mesosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_

thermosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. What is the approximate height and temperature of the:

Height Temperature

tropopause: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

stratopause: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

mesopause: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

4. What causes the temperature to increase with height through the stratosphere, and

decrease with height through the mesosphere?

5. What causes the temperature to decrease with height in the troposphere?