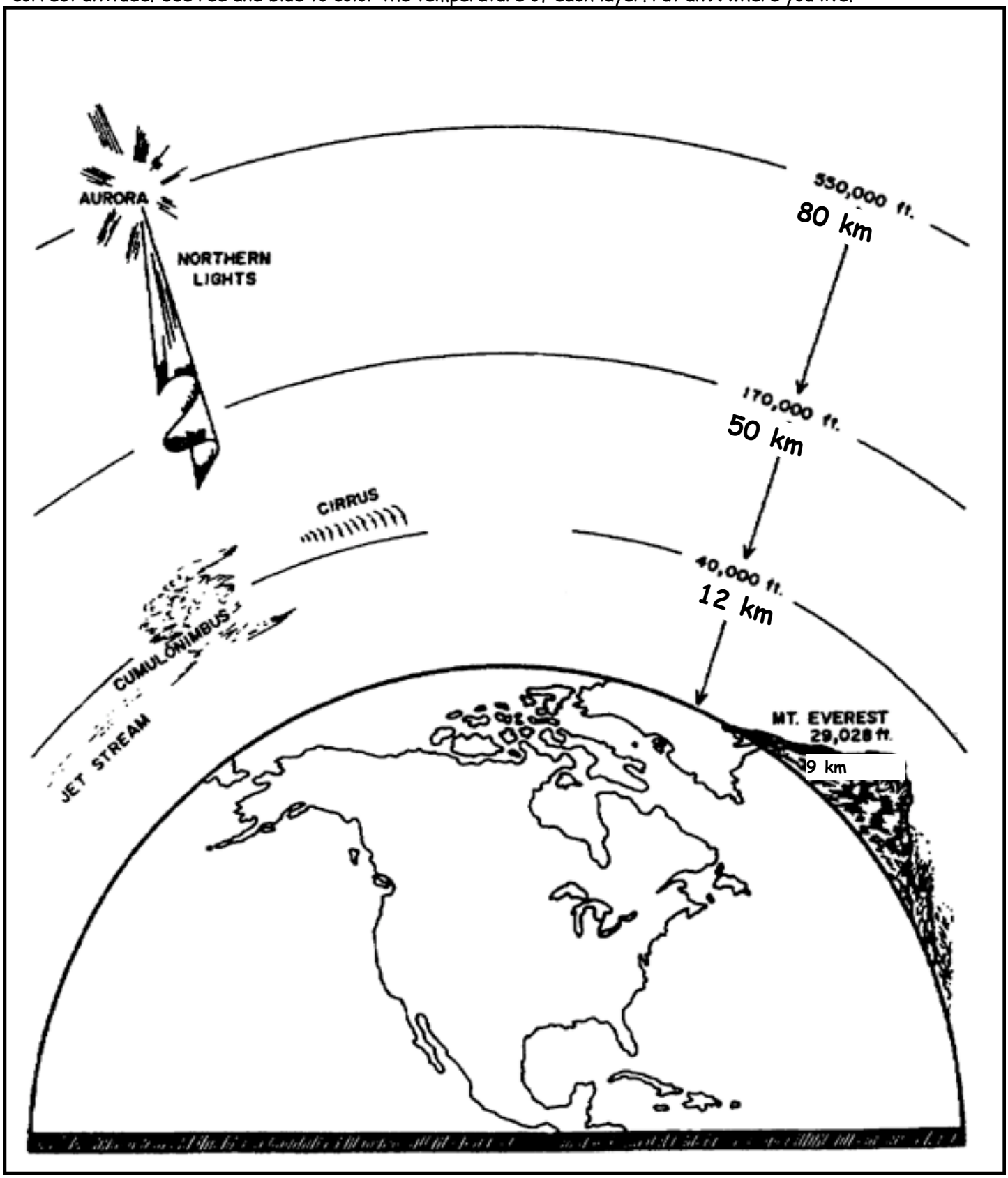
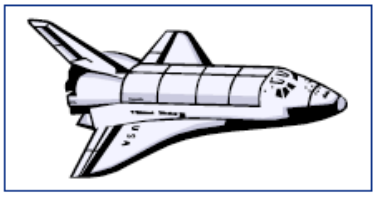
Layers of the Atmosphere Activity

Name_____ Block_____

DIRECTIONS: Paste the labels for each layer of the atmosphere on the diagram. Add the pictures at the correct altitude. Use red and blue to color the temperature of each layer. Put an **X** where you live.



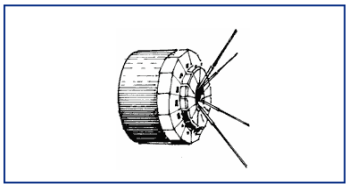


11 km

6 km

3 km

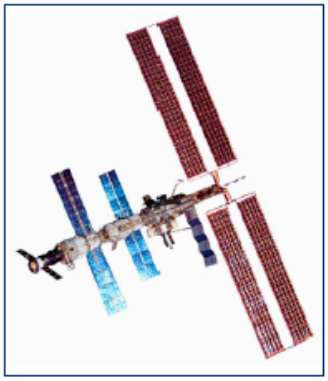
20 km



600 km

<1 km

surface



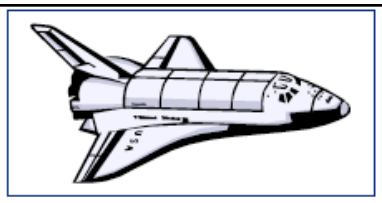
400 km

80 km

Troposphere **Tropopause** **Stratosphere** **Stratopause**

Mesosphere **Mesopause** **Thermosphere** **Thermopause**

Exosphere **Ozonosphere** **Ionosphere**

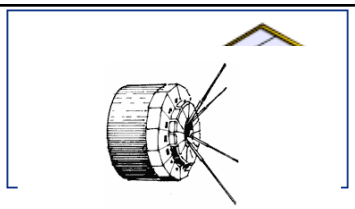


11 km

6 km

3 km

20 km

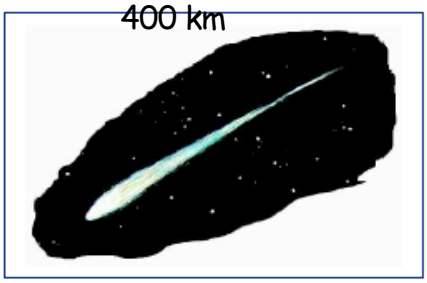


600 km

<1 km

surface

400 km



80 km

Troposphere **Tropopause** **Stratosphere** **Stratopause**

Mesosphere **Mesopause** **Thermosphere** **Thermopause**

Exosphere

Questions:

1. List the four main layers(*) of the atmosphere and calculate their thicknesses:

_____ _____

_____ _____

_____ _____

_____ _____

2. Which of the four main layers is the thickest? _____

The thinnest? _____

3. The four main layers(*) of the atmosphere are separated by thinner layers called "**Pauses**." Describe the change that occurs in the pattern of atmospheric temperatures at the "**Pauses**."

_____

4. At what elevation does the coldest temperature occur?_____

What name is given to this point in the atmosphere? _____

What is the temperature of this region? _____

5. At what elevation does the hottest temperature occur?

What name is given to this point in the atmosphere? _____

What is the temperature of this region? _____

6. Why are clouds generally observed to form only in the troposphere?

_____

_____

Teacher Note:

Project this image and have the students add to the first page. They could use red for increasing temperature, blue for decreasing temperature, and another color (green? orange?) for the Pauses. This will help answers some of the questions. I taught my students that the lines went diagonally left & up - straight up - diagonally right & up - straight up - diagonally left & up - straight up - diagonally right & up-up-up. Have them trace this in the air. You do it with them, backwards, of course, so they see you doing it correctly from their perspective.