

LAYERS OF OUR ATMOSPHERE



Clue Card One

- The troposphere is the layer closest to the Earth.
- The average temperature at the base of the troposphere is 18 degrees Celsius.
- The temperature falls steadily from about zero degrees at the bottom of the mesosphere to -90 degrees at the top. The mesopause is the region between the two highest layers.
- The blue Unifix cube represents the highest layer.



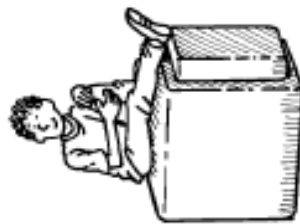
Clue Card Two

- Each Unifix cube equals 10 km of altitude.
- The red Unifix cube represents the thinnest layer.
- The tropopause is the region between the troposphere and the stratosphere.
- The thermosphere is the highest layer.
- The temperature in the stratosphere is a constant -60 degrees for 10 km then rises steadily for the next 30 km till it reaches 0 degrees Celsius at the stratopause.



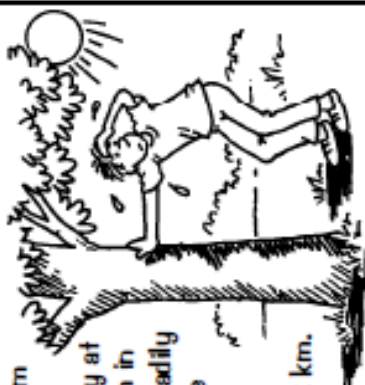
Clue Card Three

- The yellow Unifix cube represents the layer above the troposphere.
- The average temperature at the top of the troposphere is -60 degrees Celsius. The temperature drops steadily with altitude.
- The stratopause is the region between the mesosphere and the stratosphere.
- The highest layer is about 40 km thick.
- There are four layers of the atmosphere: the troposphere, the stratosphere, the mesosphere, and the thermosphere.



Clue Card Four

- The atmosphere is about 120 km thick.
- The stratosphere is about 40 km thick.
- The temperature remains steady at -90 degrees for the first 10 km in the thermosphere and rises steadily to 90 degrees at the top of the layer.
- The height of the troposphere extends to a height of about 12 km.



LAYERS OF OUR ATMOSPHERE

Two-Dimensional Model



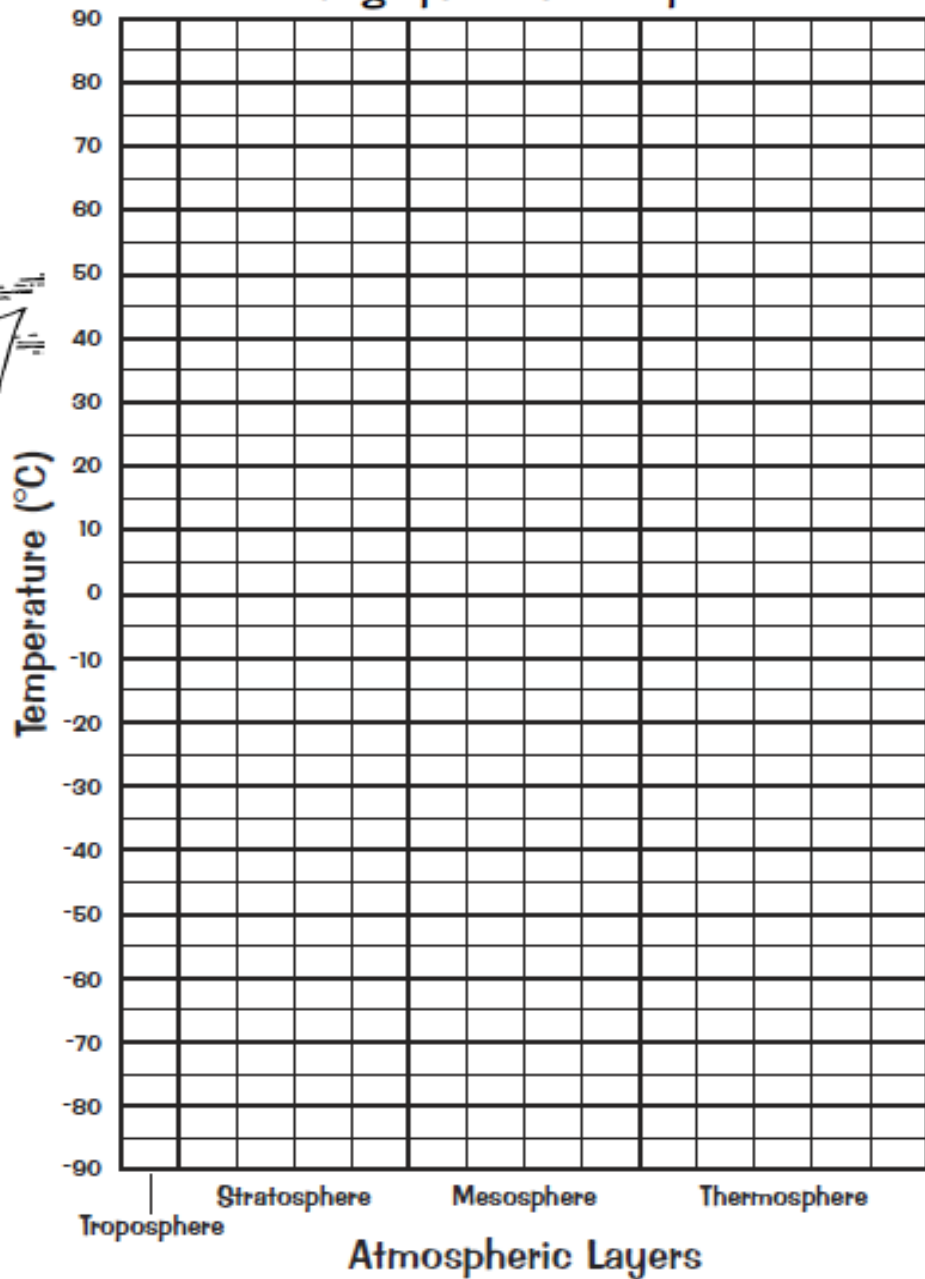
1. Color the cubes to illustrate your atmospheric model.
2. Draw lines to separate the layers.
3. Label the layers. Label the following regions: tropopause, stratopause, and mesopause.
4. Include the thickness and label the temperature at the top and bottom of each layer.



Illustrate below how this representation would appear around a sphere—our Earth.

LAYERS OF OUR ATMOSPHERE

Make a line graph of the temperature data.



On the back of this paper tell the temperature story as illustrated by the graph.