## Layers of the Atmosphere

TROPOSPHERE	STRATOSPHERE	MESOSPHERE	THERMOSPHERE	EXOSPHERE
Em?		<i>,</i>	www.acuweather.com/en/features/trend/photos- northem-lights-display/18642257	All Call
all weather occurs in this layer; contains most amount of water vapor	ozone layer is here	coldest layers of the atmosphere	hottest layer of the atmosphere	most satellites orbit in this layer
planes fly at the very top of this layer	weather balloons are here	meteors burn up in this layer	the northern lights (auroas) happen here	lowest amount of air pressure
layer closest to the Earth's ground; highest amount of air pressure	air temperature increase in this layer	atmosphere is very thin	the space shuttle and international space station orbit in this layer	the real beginning of outer space
all living organisms are found here	Cloud free layer of the atmosphere	middle layer of the atmosphere	very thin layer of air	lowest amount of air pressure

## Create a model of the Layers of the Atmosphere

<u>ATMOSPHERE</u>- the layer of gases that surround the Earth. It protects living organisms and helps them survive.

## **PROCEDURE**

- 1.) Tape the "Layers of the Atmosphere" graphic (attached) to an empty bottle or large graduated cylinder.
- 2.) Using colored aquarium gravel to represent each layer of the atmosphere, fill each layer accordingly using the graphic on the bottle as target points for levels. (Do not mix the gravel)
  - Troposphere (green) fill this space
  - Stratosphere (purple) fill this space
  - Mesosphere (blue)- fill this space
  - Thermosphere (brown) fill this space
  - Exosphere (white) fill this space
- 3.) Observe the differences between each layer and (on your output page) draw a model of your layered cylinder, labeling each layer.

## AFTER performing the procedure...

Directions-Record responses in the chart on the left side- output page.

- 1.) Describe what you noticed about the layers of the atmosphere.
- 2.) Describe atmospheric layers represented by the different color gravel by comparing the thickness between each layer.
- 3.) Using this model, locate where you expect to find clouds and make a personal connection by stating one type of weather you enjoy experiencing and why; and one type o weather you dislike and why.
- 4.) Using the model, locate where you would expect to find a satellite and make one personal connection by stating how a satellite impacts your daily activities.

Layers of the Atmosphere (bottle label) 10,000 km Exosphere (pink) fills to this space Exosphere Thermosphere (brown) fill to this space Thermosphere Shuttle Aurora (Kármán line) 85 km Mesosphere (purple) - fill this space Meteors Stratosphere (green) - fill to this space 50 km Dallere Weather 6 - 20 km roposphere Troposphere (yellow) - fill to this space Mount Everest