

The Atmosphere

Subunit: Atmospheric composition and layers

Objective 7.e.1.1 Compare the composition, properties and structure of Earth's atmosphere to include: mixtures of gases and differences in temperature and pressure within layers.

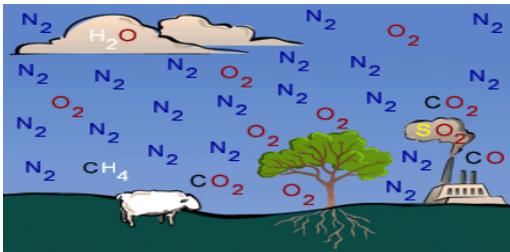
What is atmosphere, and what are atmospheric gasses?

Atmosphere: a _____ of air or (_____) surrounding the earth. This air is made up of

- _____ (78%) _____ (less than 1%)
- _____ (21%) _____ (less than 1%) and others
- _____ are also a part of the atmosphere.
- The atmosphere is _____ to our _____ and _____ on earth.

What is the most abundant gas in our atmosphere? _____.

To remember the composition of the gasses in the atmosphere.



Remember! **Never open canned worms**

Never (_____)

Open (_____)

Canned (Carbon Dioxide)

Worms (Water vapor)

How earth's atmosphere compares to others

How is the atmosphere divided?

The atmosphere is divided into _____ distinct layers.

From closest to earth the layers are

_____ (THE)

_____ (SAND)

_____ (MAN)

_____ (TOOK)

_____ (ELMO)

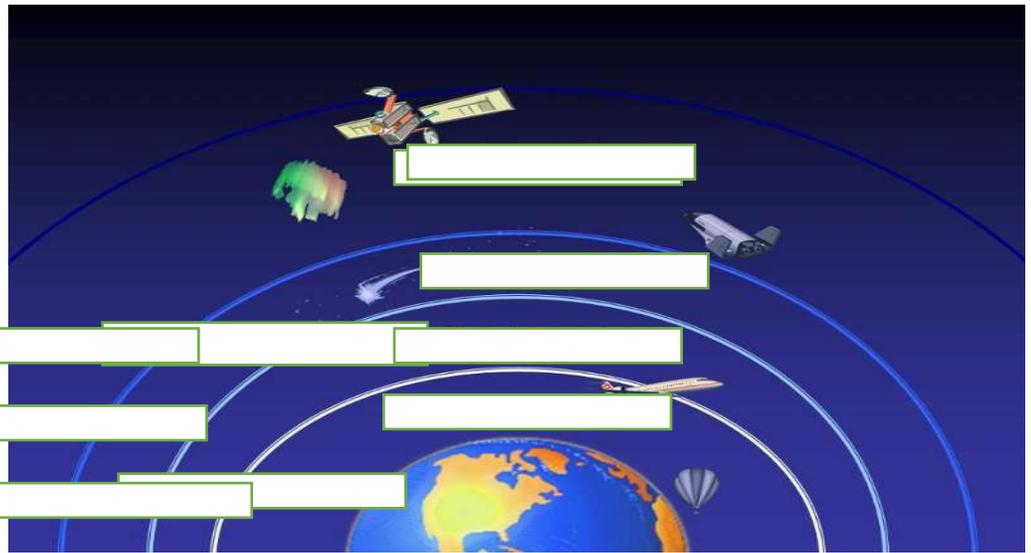
The outermost layer is known as the _____ and extends beyond the _____ to include space

We do _____ know where the exosphere ends. Each layer is separated by a line known as a _____.



To remember the layers of the atmosphere Remember! **The Sand Man Took Elmo**

Label the Layers and pauses below



TROPOSPHERE

- This is the _____ level of the atmosphere
- Contains _____ and buildings
- All _____ occurs in this layer
- It extends to about _____ above _____
- The temperature ranges from about _____ °C to _____ °C
- This layer ends at the _____. Bad ozone is found in this layer

STRATOSPHERE

Contains: _____ (The good ozone) layer which is a _____ layer that absorbs _____ light from the sun

- Flying _____ and _____ Balloons
- Here you are _____ the _____ only the largest thunderstorms reach up here
- This layer ends at the _____

MESOSPHERE

- "Meso" means _____ (a.k.a- it is the middle layer)
- Outer parts of Mesosphere are the _____ parts of the entire Atmosphere
- Meteors burn up in this level, often giving off the look of a shooting star.
- The mesosphere is one of Earth's _____ layers. It ends at the _____



THERMOSPHERE

- Air is very _____ - Low Density
- _____ Layer (1800°C) due to the sun's heat
- The Ionosphere is found within this layer. _____ waves bounce off ions in this layer
 - Aurora Borealis- _____ glow from ions and sunlight
 - The layer ends at the _____

EXOSPHERE

Begins at the thermopause Some _____ orbit here
 For example _____ and _____ signals are sent this high
 Where does it end? There is no clear line that says okay you are in space now. We don't know!