Lesson #20 Atmosphere Basics

Objective: Be able to identify and describe the composition and different layers of the atmosphere.

Bell Ringer: Take out your science notebook and quietly study for five minutes.
Atmosphere: The layer of gases surrounding Earth; composed mainly of nitrogen and oxygen.
• Atmos – vapor

Sphere - ball
Importance of the atmosphere
• Keeps planet warm (Greenhouse Effect)
Natural process that warms the Earth's surface. When the Sun's energy reaches the Earth's atmosphere, some of it is reflected back to space and the rest is absorbed and re-radiated by greenhouse gases.
• Provides oxygen to breathe
• Protects us from small meteors.
- Has ozone that protects us from radiation (UV).
- Ozone is a gas made up of three oxygen atoms (O3). It occurs naturally in small (trace) amounts in the upper atmosphere (the stratosphere).
• Without atmosphere, smell, taste, sound, and combustion are not possible.
• The atmosphere is made of
• 78% Nitrogen
- 21% Oxygen
• All other gases 1%
  • *Argon
  • *Carbon Dioxide
  • Neon
  • Helium
  • Methane
  • Krypton
  • Hydrogen
  • Xenon
Layers determined by temperature
Title: Layers of the Atmosphere

- Troposphere

Layers determined by temperature
Troposphere: Weather occurs here.
Troposphere: Weather occurs here.

Life occurs here
Troposphere: Weather occurs here.

Most air travel
- Stratosphere: Ozone found here.
- Mesosphere: Meteors burn up here
• Thermosphere: Space shuttle orbited here, Aurora borealis
Exosphere: Merges with space, some satellites can be found here.