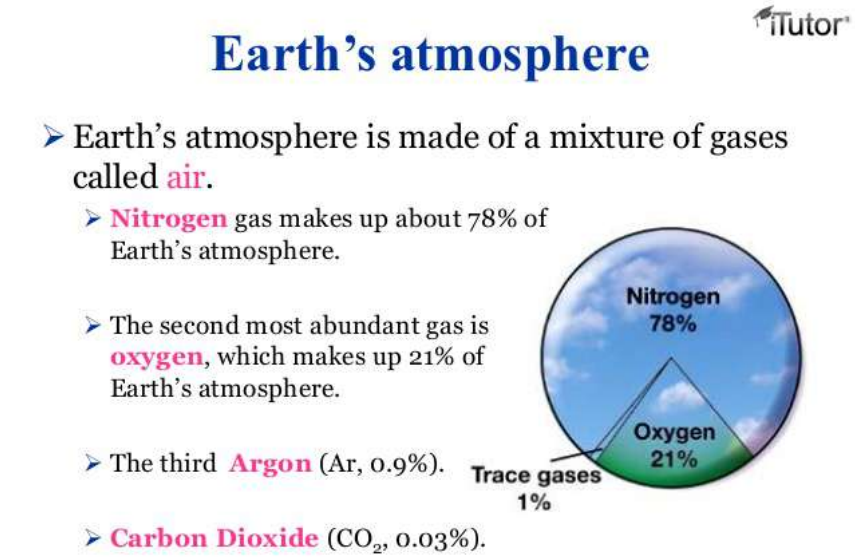
The Earth's Atmosphere

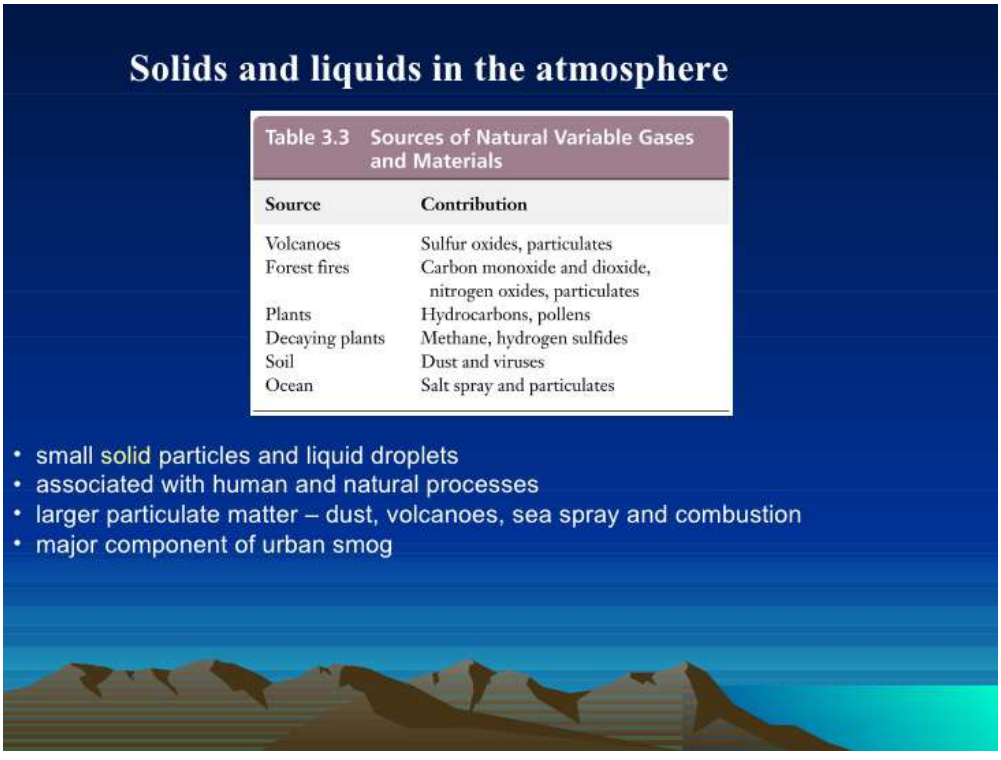
Definition: The envelope of *gases* that surrounds the planet.

Composition: made of liquids (water vapor+), gases & solids

Liquids other than water vapor can come from volcanic eruptions (Ex: sulfuric acid erupts and can help produce spectacular sunsets due to the chemicals in the atmosphere).

Solids can be pollen (from plants), dust, even salts (from the spray of the ocean, close to the ground areas in the lower troposphere)



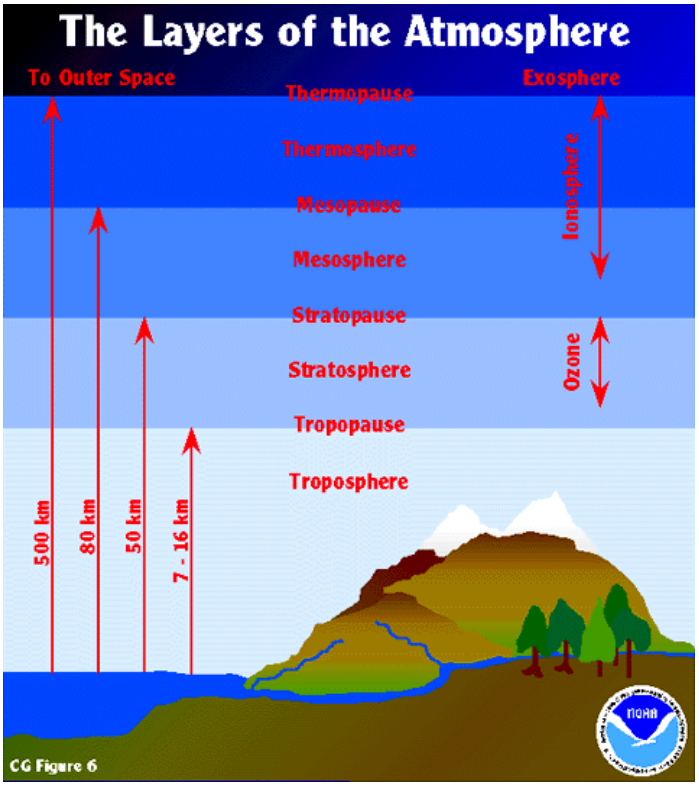


Why is the atmosphere so important to us? Makes suitable living conditions for humans, animals & plants, contains Oxygen, warmth & liquids, helps maintain a balance of temps – not too hot or too cold, traps some UV (heat) & reflects some UV radiation back into space. Protects from some meteors & asteroids.

Factors influencing air pressure: Air pressure is greater at sea level & at troposphere, altitude (distance from earth's surface) & gravity affect air pressure.

Layers of the atmosphere:

Information Link: http://hubpages.com/education/What-Elements-Make-Up-the-Earths-Atmosphere



Exosphere: exo means "outer", extends from 400km outward, exiting the atmosphere, communication satellites here

Ionosphere: from 80 km-400km, ions (electrically charged) reflect radio waves back to earth, the auroras are found here (aurora or australis borealis – "northern lights")

Thermosphere: means "heat" or "high temps", from 80km → outwards to space, hot, thin air, broken in to 2 parts

Mesosphere: means "middle", begins 50km above earth's surface, protects Earth from being hit by most meteoroids (we see "shooting stars" as meteors burn through this layer) & asteroids, drop in temp marks the beginning

Stratosphere: means "layer" or "spread out", from 12km-50km, contains the ozone layer – has 3 oxygens, absorbs UV radiation, getting smaller due to smog & chemicals (CFCs) in aerosols spray cans there is a hole found over Antarctica

Troposphere: means "turning" or "changing", from earth's surface to 12km, weather & clouds takes place here, we live here, contains 99% of all water vapor & 75% of atmospheric gases, weather balloons & hot air balloons fly here, the thinnest layer

Atmosphere Slide Show Information:

http://www.slideshare.net/beaudry2011/structure-and-composition-of-the-atmosphere?next_slideshow=1