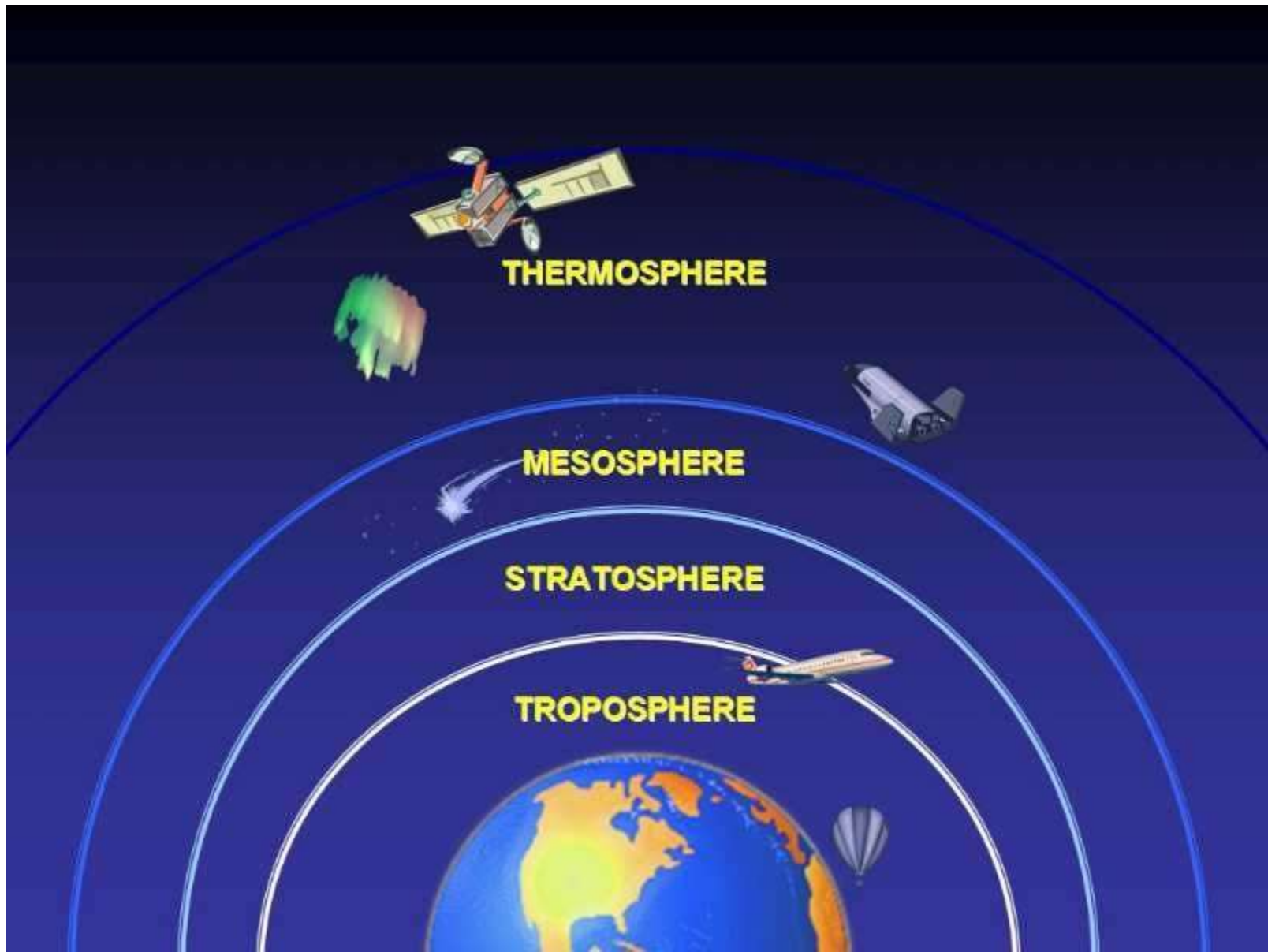


Layers of Earth's atmosphere



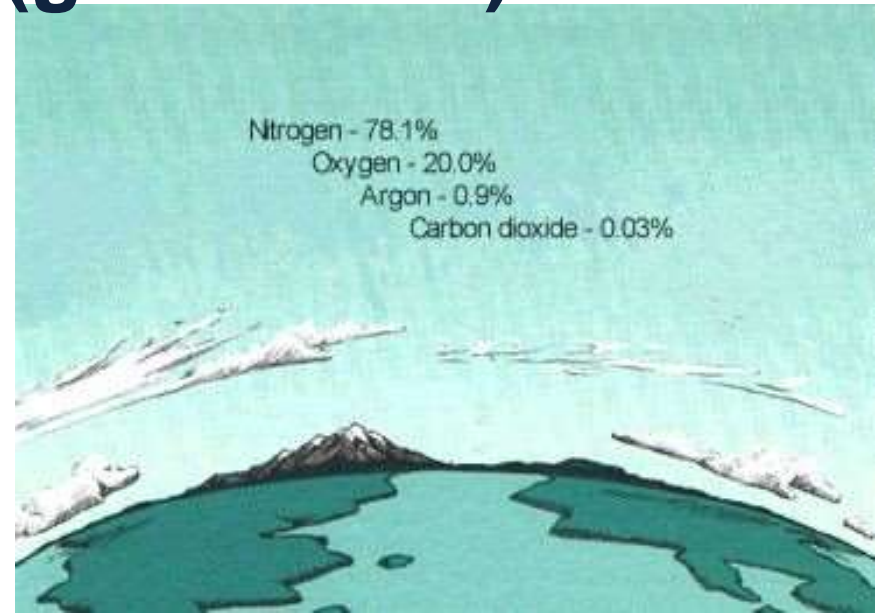
How was the atmosphere formed?

- Atmosphere has changed (evolved) over time.
- Gases are held near the surface by gravity.
- Earth's early atmosphere was "outgassed" from the interior through release of gases and volcanic eruptions.
- Many factors, such as solar radiation and photosynthesis, help the atmosphere to develop into what we enjoy today.



Troposphere

- Layer closest to the earth
- People, plants & animals exist here
- Clouds, storms, precipitation are in this layer
- Temperature decreases (gets colder) as altitude increases



Stratosphere

- Starts at top of troposphere to about 50 km
- Where most jets fly
- Ozone layer is found here
- Temperature increases (gets warmer) with altitude because ozone absorbs UV rays which warm the air



Mesosphere

- 50-80 km above the earth's surface
- Coldest layer of the atmosphere
- Temperature decreases with altitude
- Meteors burn at this layer

Thermosphere

- **Temperature increases with altitude**
- **Hottest layer - 1000+ degrees**
- **Air is so thin that temperature cannot be measured with a thermometer...but as motion of the few particles that are there.**
- **Divided into two sublayers: Exosphere
Ionosphere**

Exosphere

- Top of the thermosphere
- Satellites orbit here



Ionosphere

- Auroras occur here
- Radio waves are reflected back to Earth from this layer
- Sun's energy breaks apart atoms into IONS at this level

