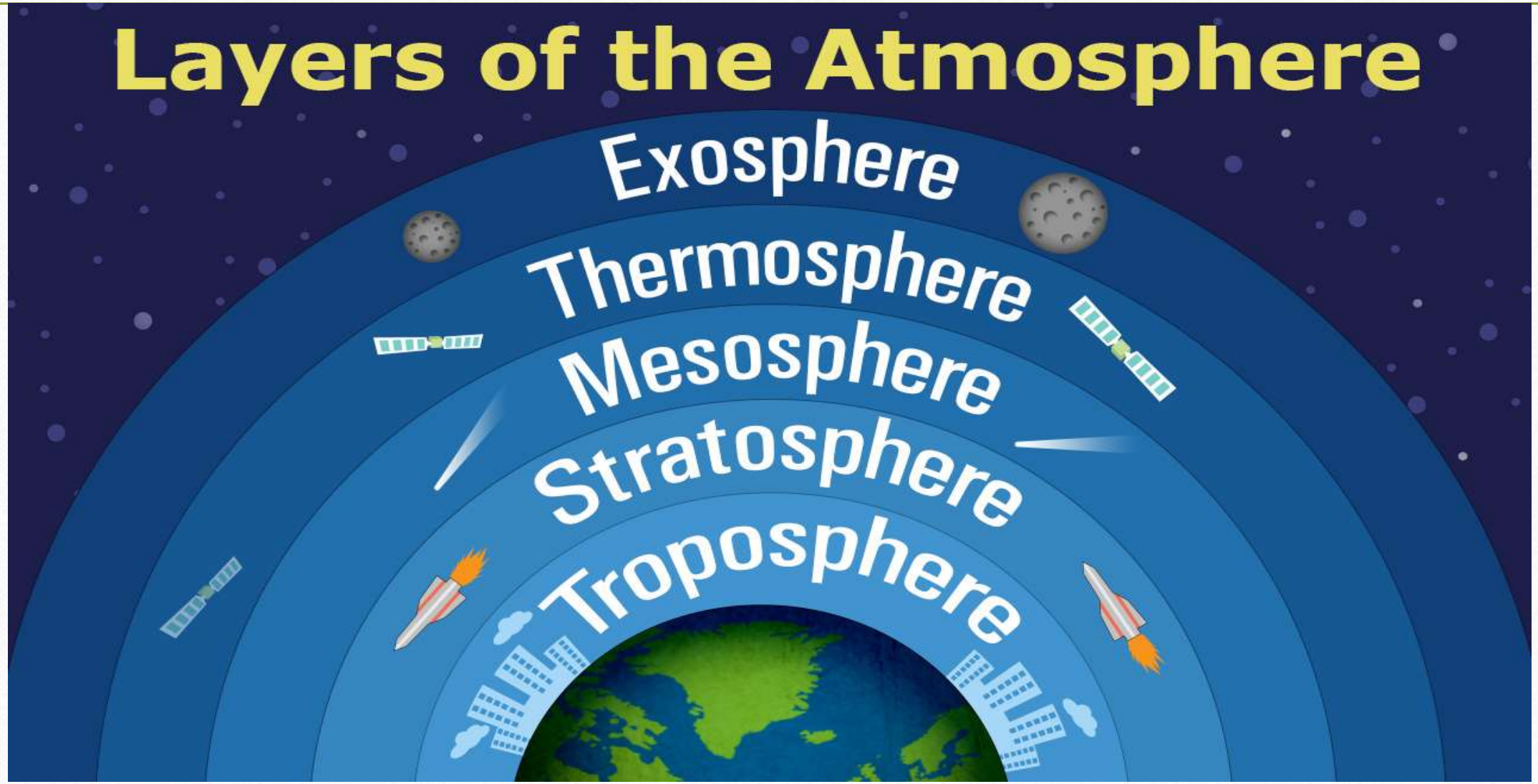
# Geography

# Composition of the atmosphere

- **Air- is a mixture of several gases.**
- **Air surrounding the earth is know as the atmosphere**
- **The atmosphere help protect us from harmful gases and maintain the suitable temperature necessary for life.**

# Layers of the Atmosphere



# COMPOSITION OF THE ATMOSPHERE

- The atmosphere is made up of different types of gases, water vapour and dust
- particles. The composition of the atmosphere is not static. It changes according to the time and place.
- **(A) Gases of the atmosphere:**
- The atmosphere is the mixture of different types of gases, including water vapour
- and dust particles. Nitrogen and Oxygen are the two main gases of the atmosphere.

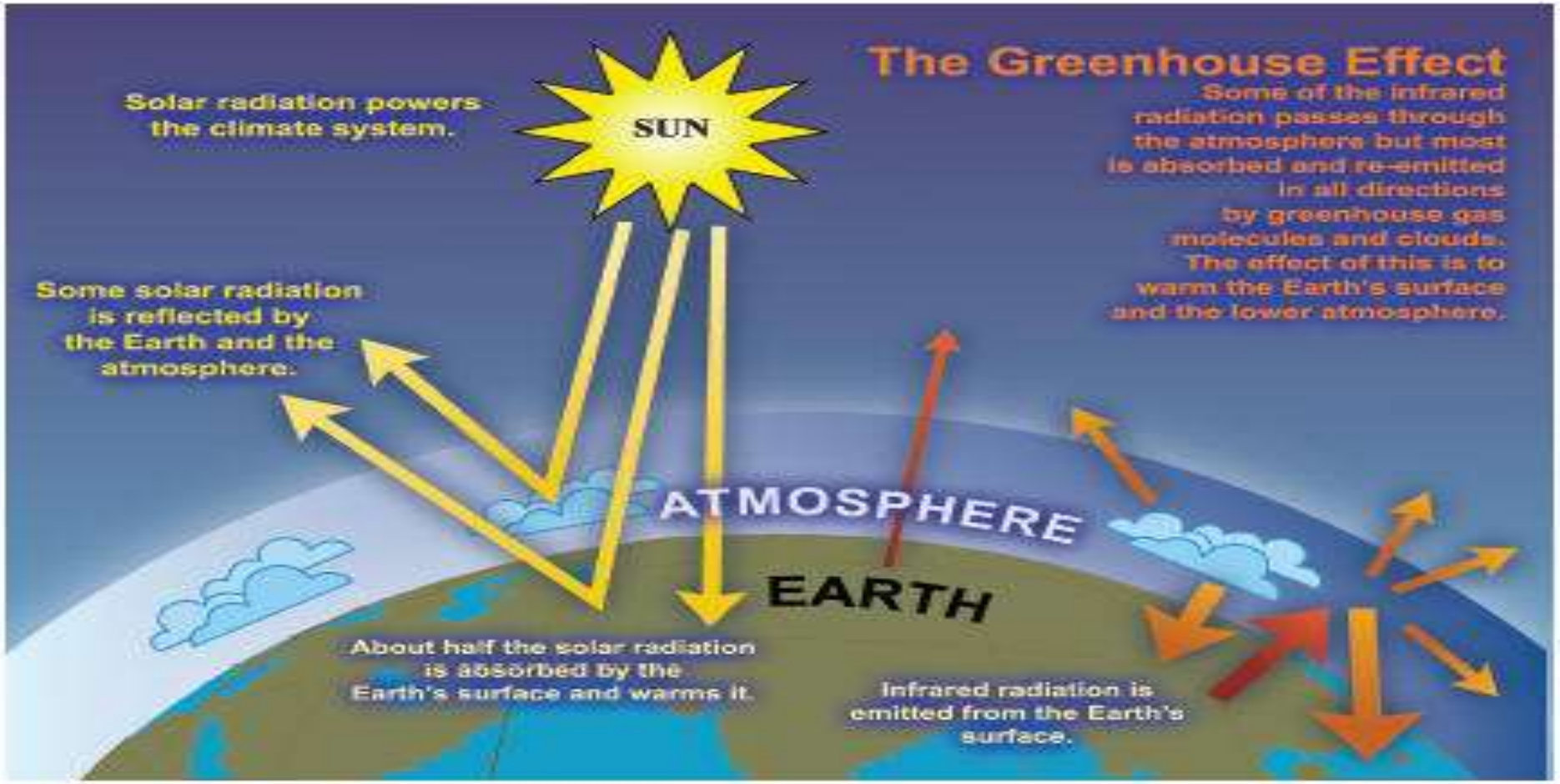
# Ozone Gas

- The amount of ozone gas in the atmosphere is very little. It is limited to the ozone
- layer but it is very important. It protects the living beings by absorbing the
- ultraviolet rays of the sun. If there was no ozone gas in the atmosphere, there would not have been existence of living beings and plants on the earth surface

## Table :- Amount of gases in the dry and air of the atmosphere

| *Serial No.* | *Gas* | *Amount (in percentage)* |
|---|---|---|
| 1 | Nitrogen | 78.1 |
| 2 | Oxygen | 20.9 |
| 3 | Organ | 0.9 |
| 4 | Carbon Dioxide | 0.03 |
| 5 | Hydrogen | 0.01 |
| 6 | Neon | 0.0018 |
| 7 | Helium | 0.0005 |
| 8 | Ozone | 0.00006 |

# Importance of the Atmosphere:

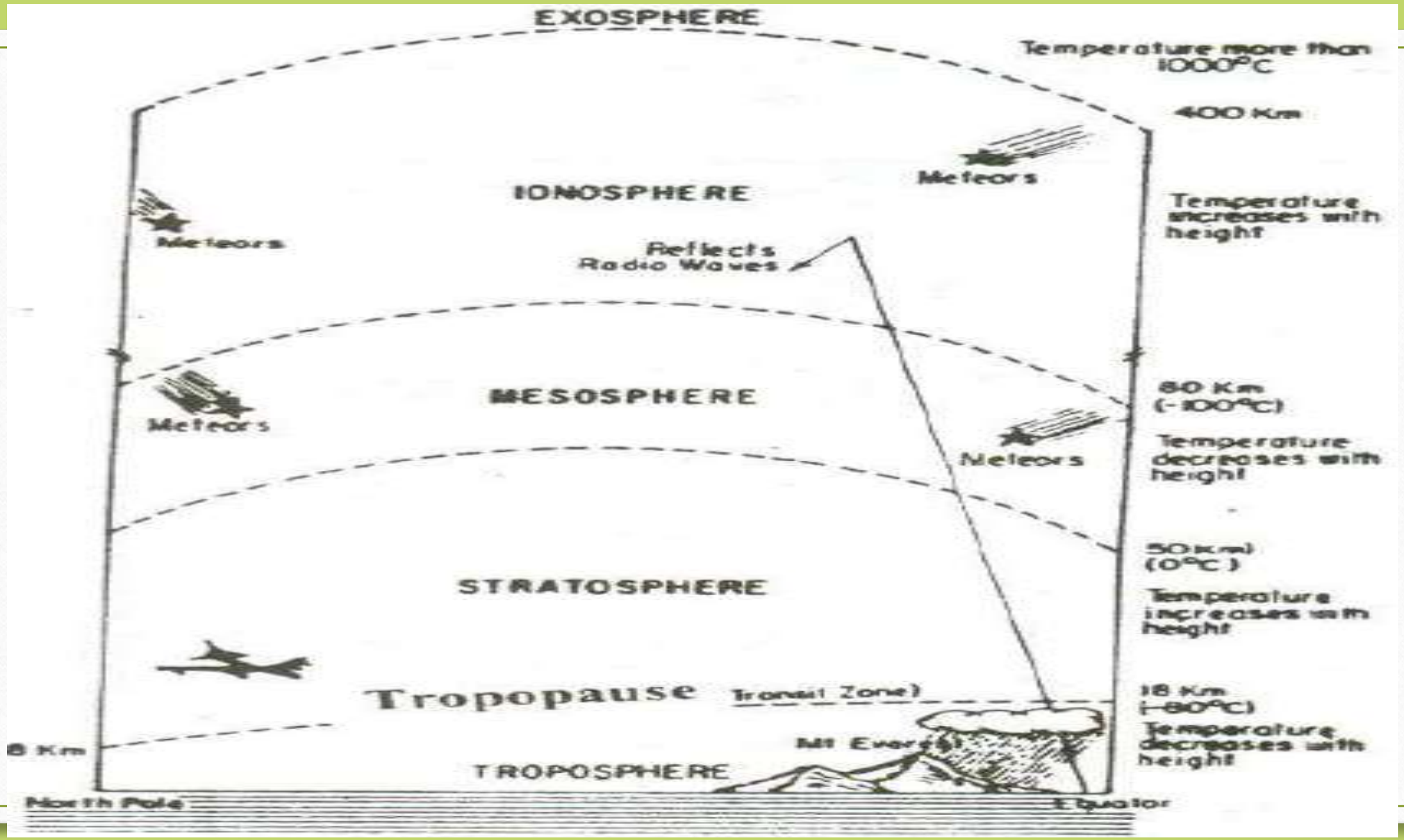



FAQ 1.3, Figure 1. *An idealised model of the natural greenhouse effect. See text for explanation.*

# Atmosphere

The atmosphere can be divided into four distinct zones:

1. *Troposphere*
2. *Stratosphere*
3. *Mesosphere*
4. *Thermosphere*


EXOSPHERE
Temperature more than 1000°C
400 Km
Meteors
IONOSPHERE
Temperature increases with height
Meteors
Reflects Radio Waves
MESOSPHERE
80 Km (-100°C)
Meteors
Temperature decreases with height
50 Km (0°C)
STRATOSPHERE
Temperature increases with height
Tropopause
Transit Zone
18 Km (-80°C)
Temperature decreases with height
8 Km
TROPOSPHERE
North Pole
Equator

# Atmospheric Criterion

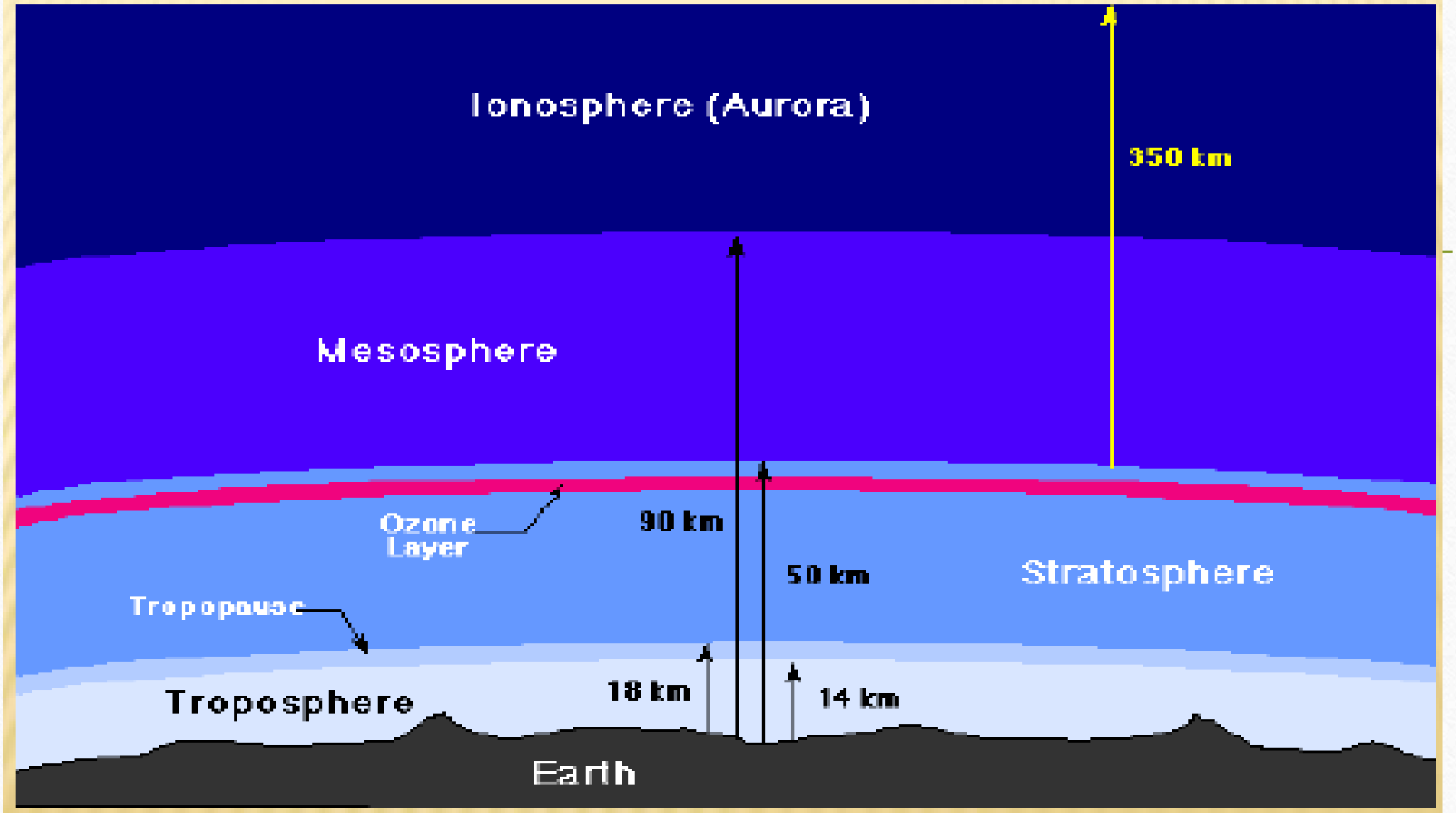
- ***Thermosphere***

- 80km out to 480 km
- Upper limit is the themopause (pause means to change)

# Atmospheric Criterion

**Mesosphere**

- 50km to 80km
- Mesopause is the coldest portion of atmosphere. There's a low density of molecules


Ionosphere (Aurora)
350 km
Mesosphere
Ozone Layer
90 km
50 km
Stratosphere
Tropopause
Troposphere
18 km
14 km
Earth

# Atmospheric Criterion

- ***Stratosphere***
- 18km to 50 km
- Temperature increase with through out the stratosphere. Stratosphere is the location of the ozone layer

# Atmospheric Criterion

## ***Troposphere***

Final layer encountered by incoming solar radiation. It surges through the surface. It is the region of principal weather activities


Atmosphere Layers
THERMOSPHERE
MESOSPHERE
STRATOSPHERE
TROPOSPHERE
80
50
30
7
Sea level
Lower pressure
Higher pressure

# References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