
Warm-up and Vocabulary

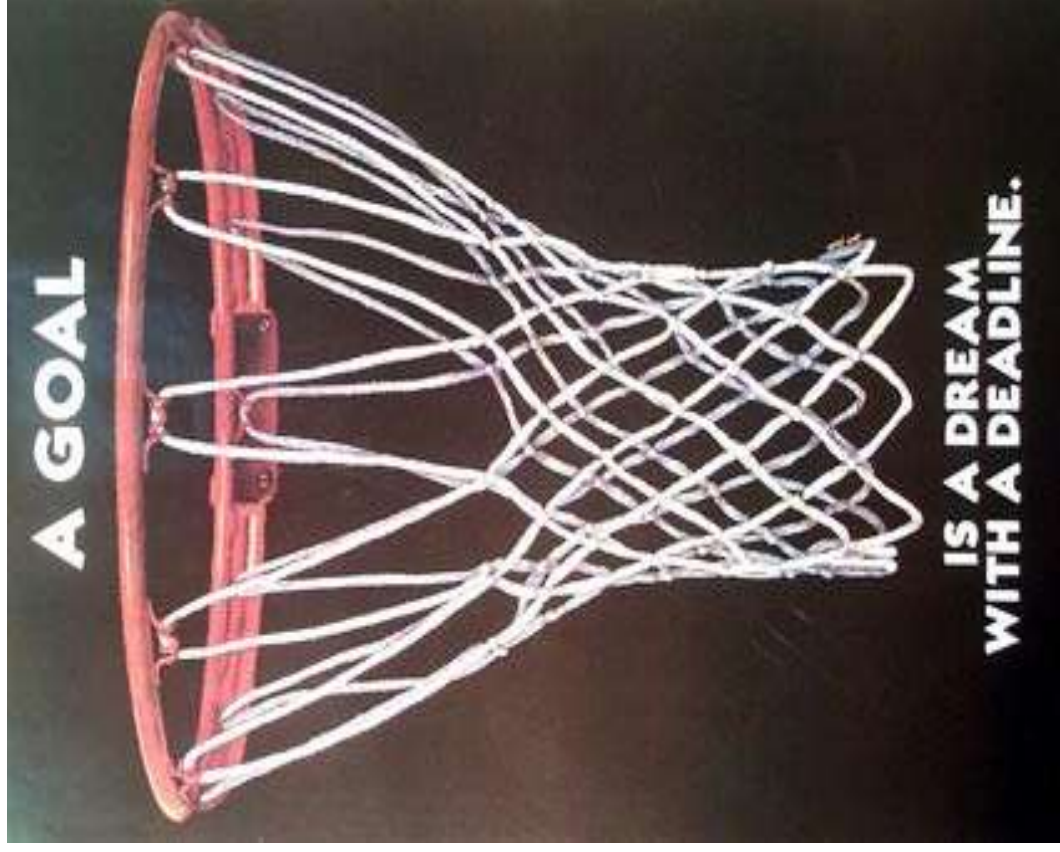
In your 5-Subject notebook, describe the weather outside, be very descriptive.

Once you finish the warm up, copy the vocabulary below into your notebook.

1. Altitude
 2. Atmosphere
 3. Troposphere
 4. Stratosphere
 5. Mesosphere
 6. Thermosphere
 7. Ozonosphere
 8. Ionosphere
 9. Exosphere
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OBJECTIVES:

- a. Describe the layers of the atmosphere.**
- b. Differentiate the layers of the atmosphere based on variation of temperature.**
- c. Explain the significance of the layers and the boundaries between them.**



Google Classroom Set Up

Get out your chromebooks, log in, and go to Google Classroom (classroom.google.com) and join your class.

The class codes are as follows:

-1A: uvih1l

-2A: l44scyz

-4A: j00tbs

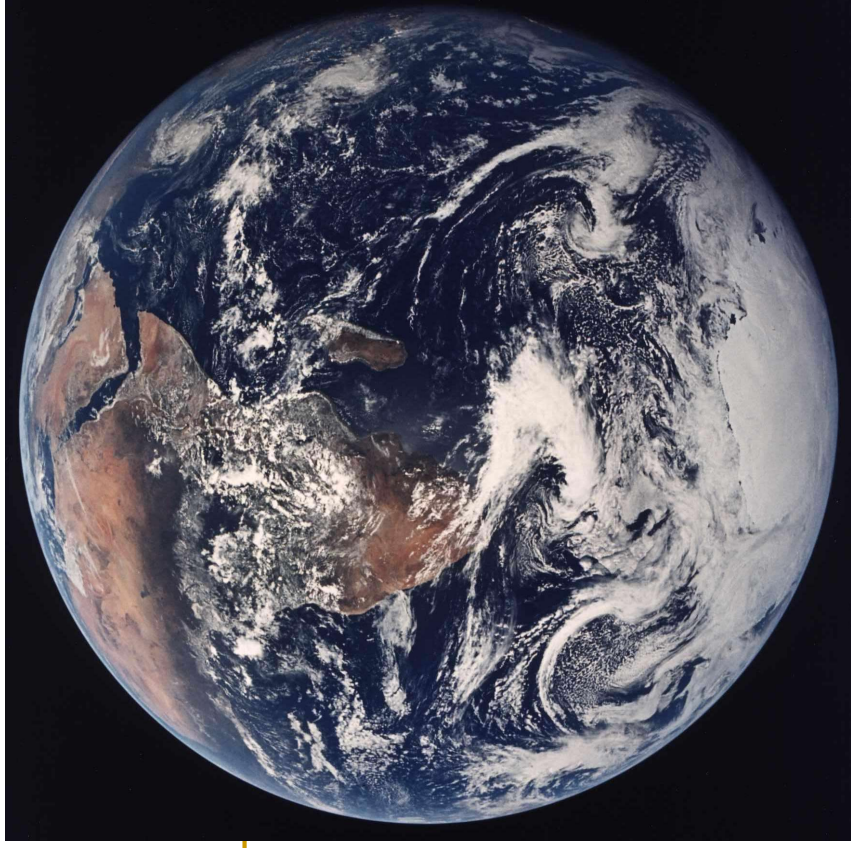
-1B: 1s498s

-2B: ra7vgxt

-4B: x4wzqn

LAYERS OF THE EARTH'S ATMOSPHERE

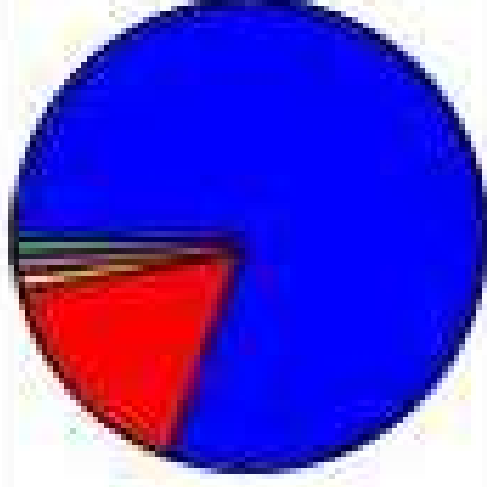
Weather vs Climate



Dry Air Expressed in Volumes

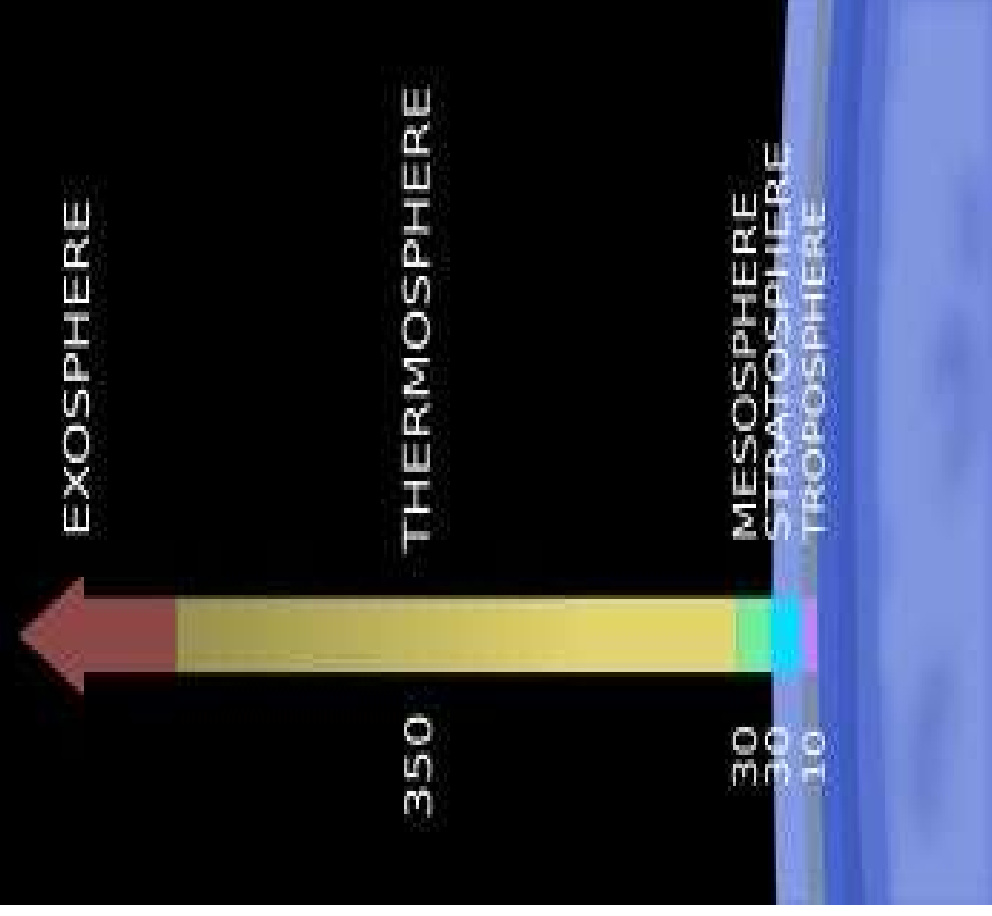
● Nitrogen (N ₂)	78.1%
● Oxygen (O ₂)	20.9%
● Argon (A)	0.9%
● Carbon dioxide (CO ₂)	0.035%
● Others	0.065%

Others : Neon (Ne)
Helium (He)
Krypton (Kr)
Hydrogen (H₂)
Xenon (Xe)
Ozone (O₃)
Radon (Rn)

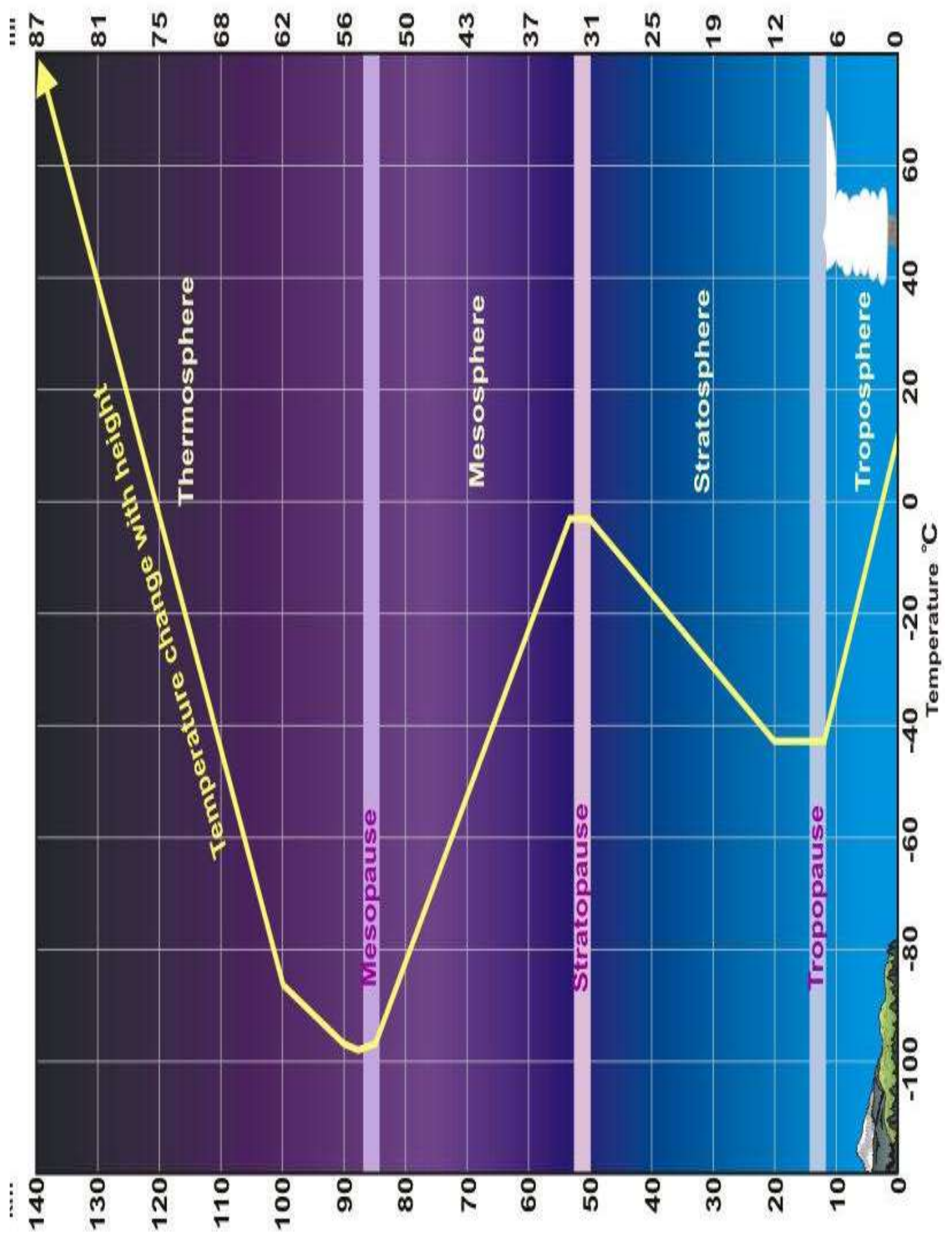


Layers of the Earth's Atmosphere

From top to Bottom

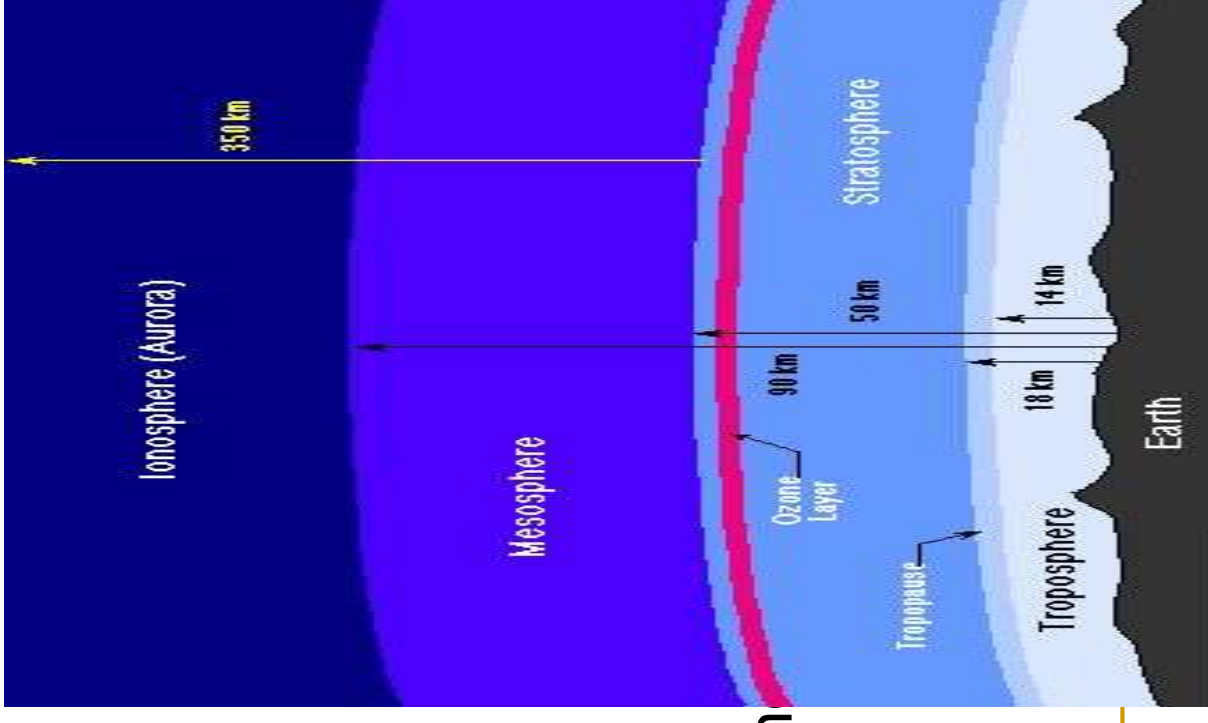


- Thermosphere
 - Mesopause
- Mesosphere
 - Stratopause
- Stratosphere
 - Tropopause
- Troposphere



TROPOSPHERE

- Lowest and thinnest layer
 - 16 km at equator, 8 km at poles
 - 90% of the atmosphere's mass
- Temperature decreases with altitude
 - 6°C per kilometer
 - Top of troposphere averages
 - -50°C
- Where weather occurs, clouds, birds...
- Boundary between the troposphere, and the stratosphere is called the tropopause

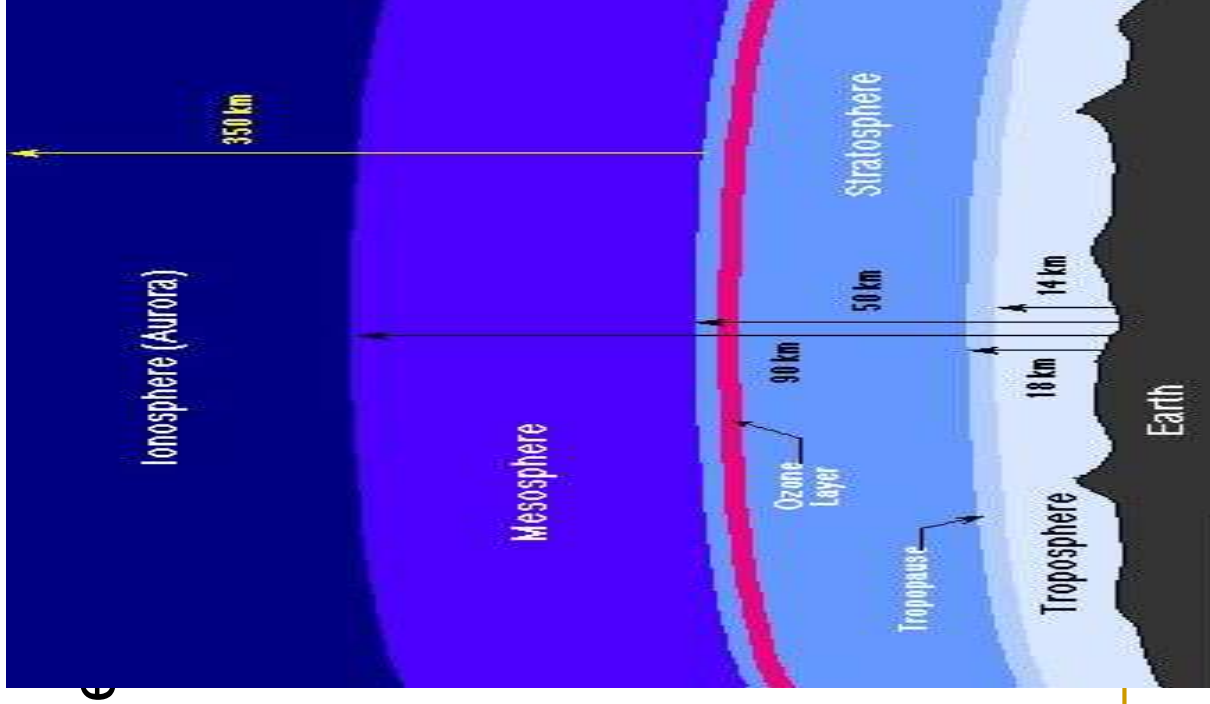


STRATOSPHERE

- Extends from 10 km to 50 km above the ground
- Less dense (less water vapor)
- Temperature increases with altitude
- Almost no weather occurrence
- Contains high level of ozone
- > ozone layer

Boeing 747 and fighter jets can fly at this altitude.

- Upper boundary is called stratopause



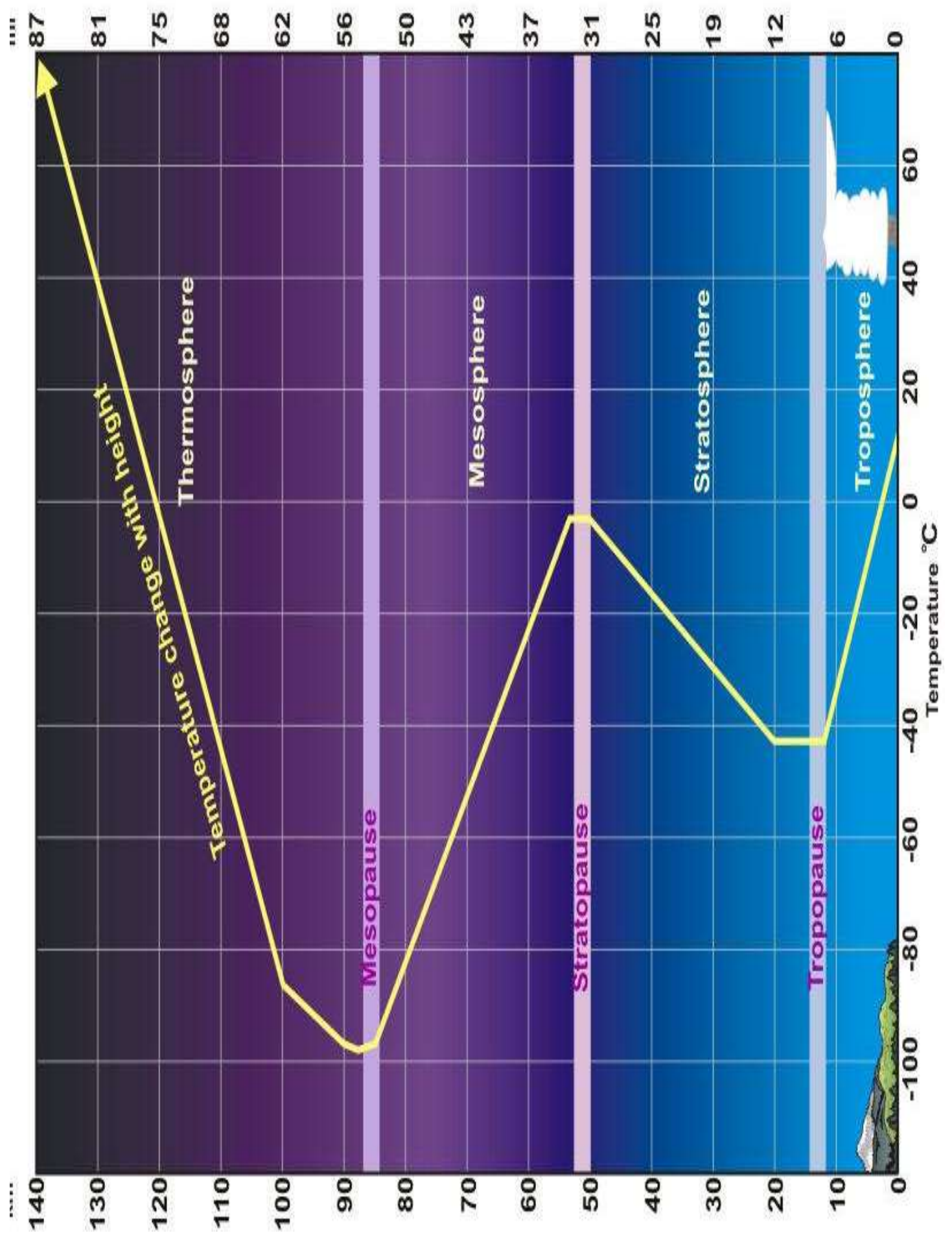
Structure of Atmosphere

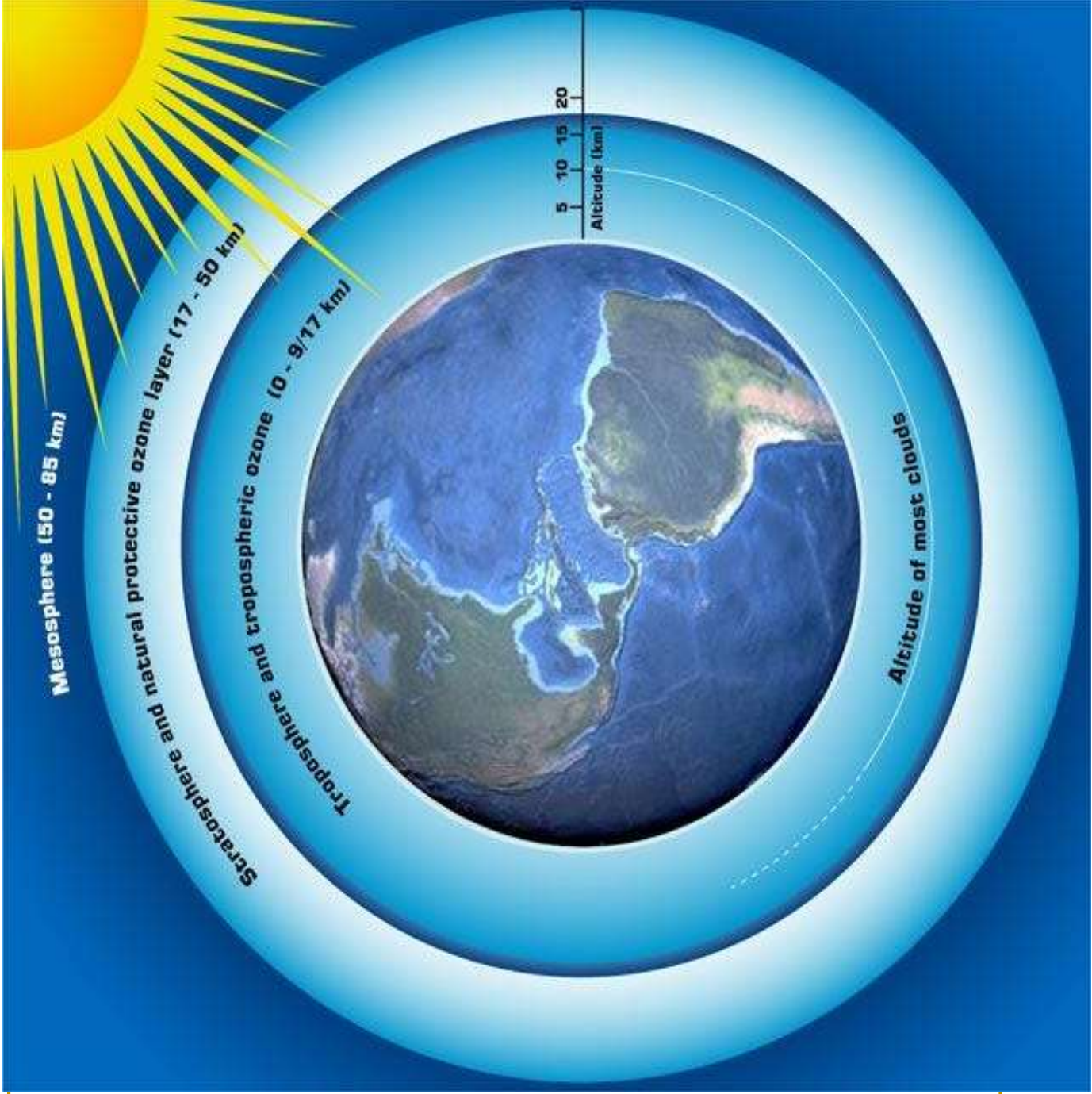
Stratospheric ozone is good ozone

- protects Earth from harmful UV radiation
- depletion is detrimental to life

Tropospheric ozone is bad ozone

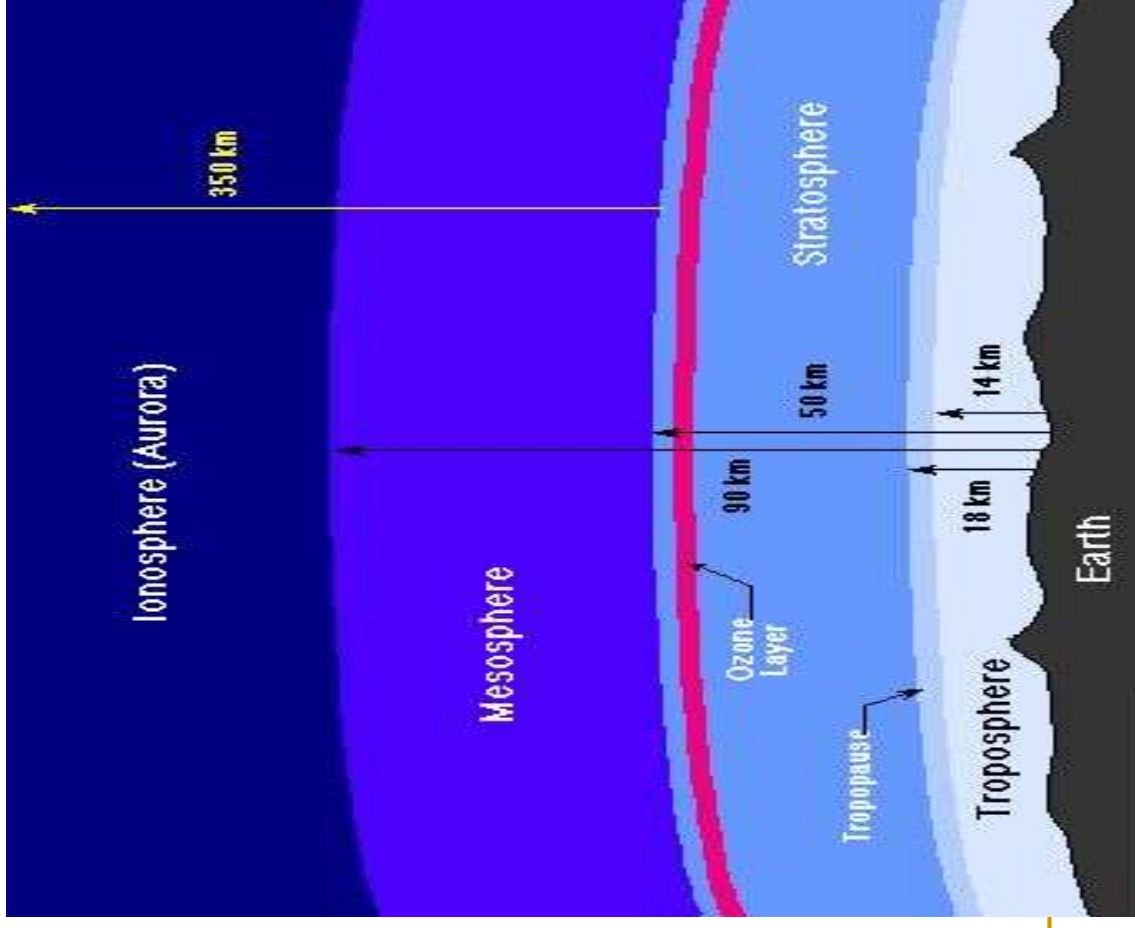
- In the troposphere, ozone is a pollutant .
- CFCs (pollutant)

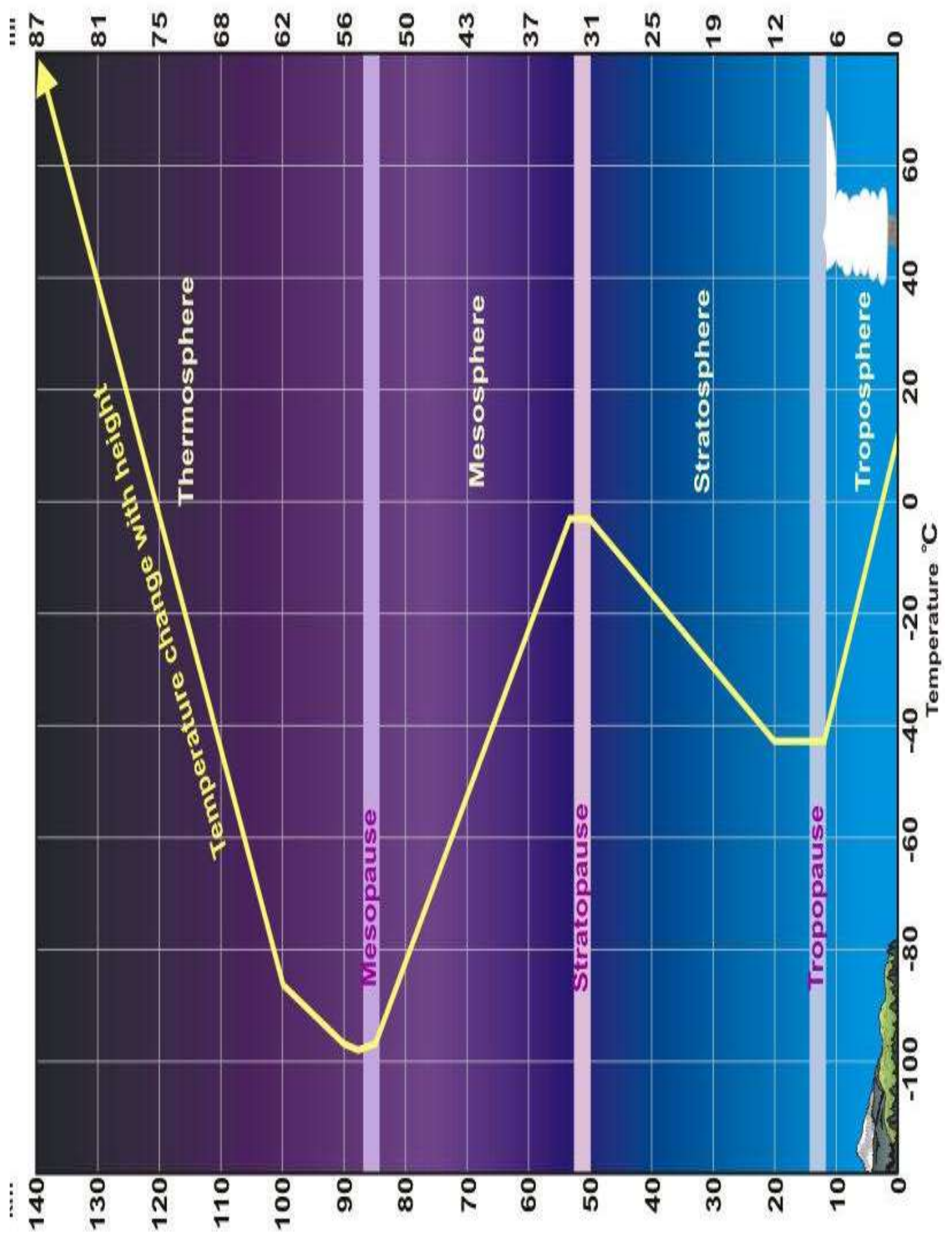




MESOSPHERE

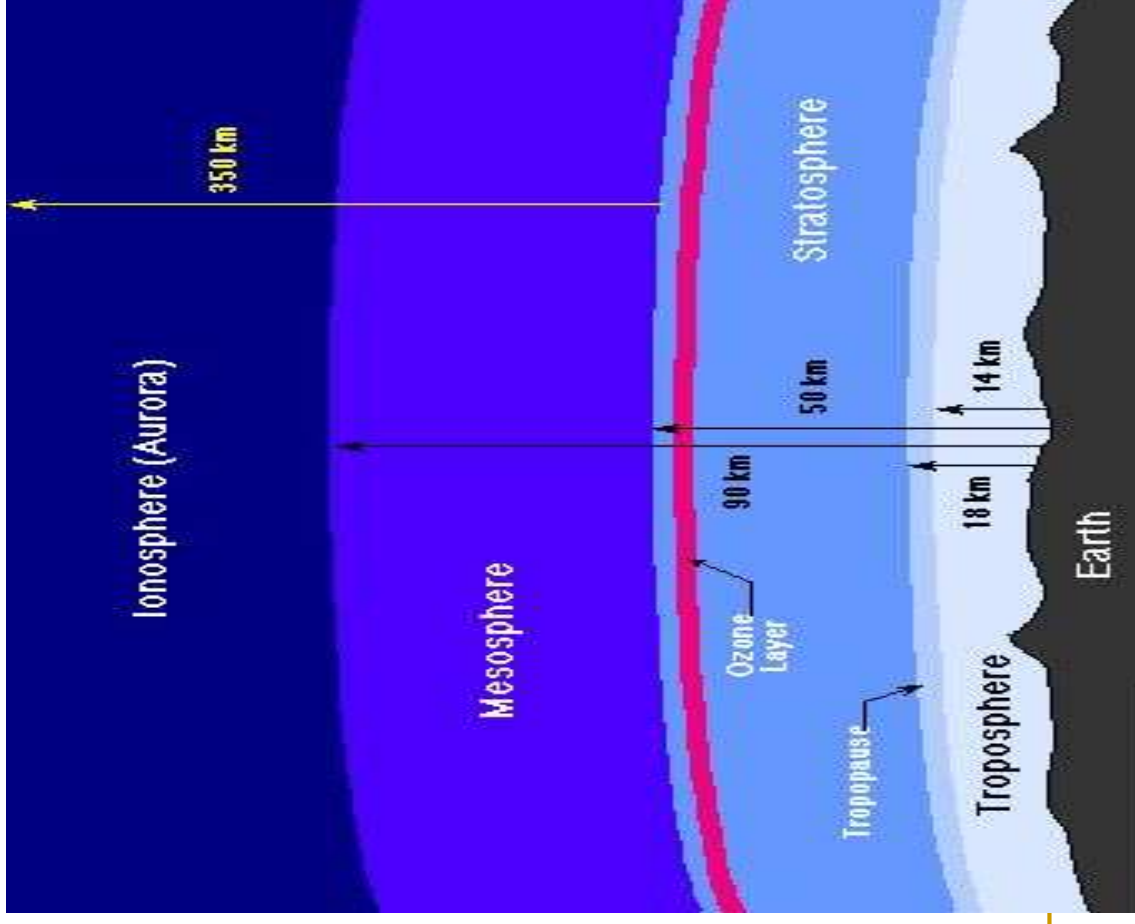
- Extends to almost 80 km high
- Gases are less dense.
- Temperature decreases as altitude increases.
- Gases in this layer absorb very little UV radiation.
- You would find meteors here.

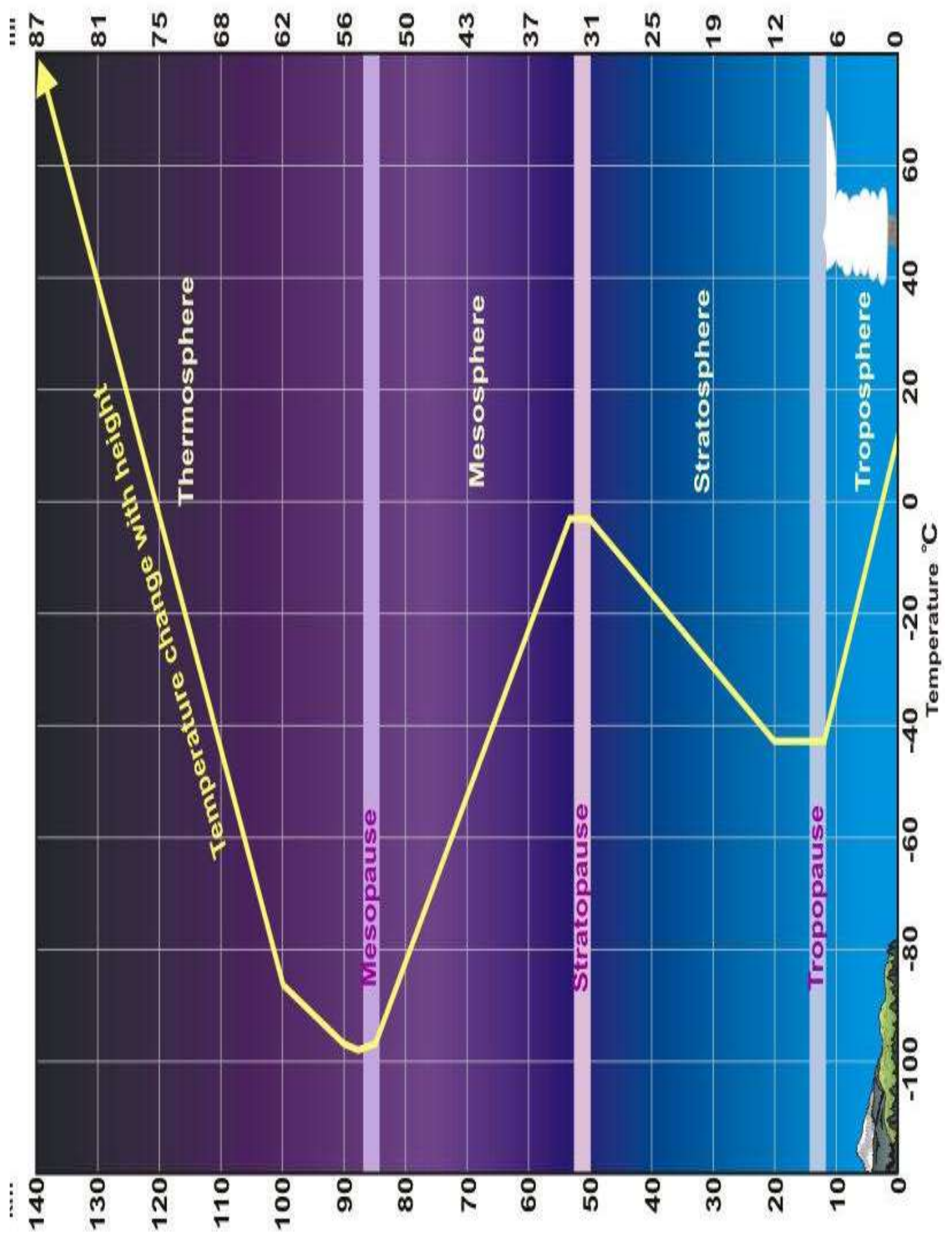


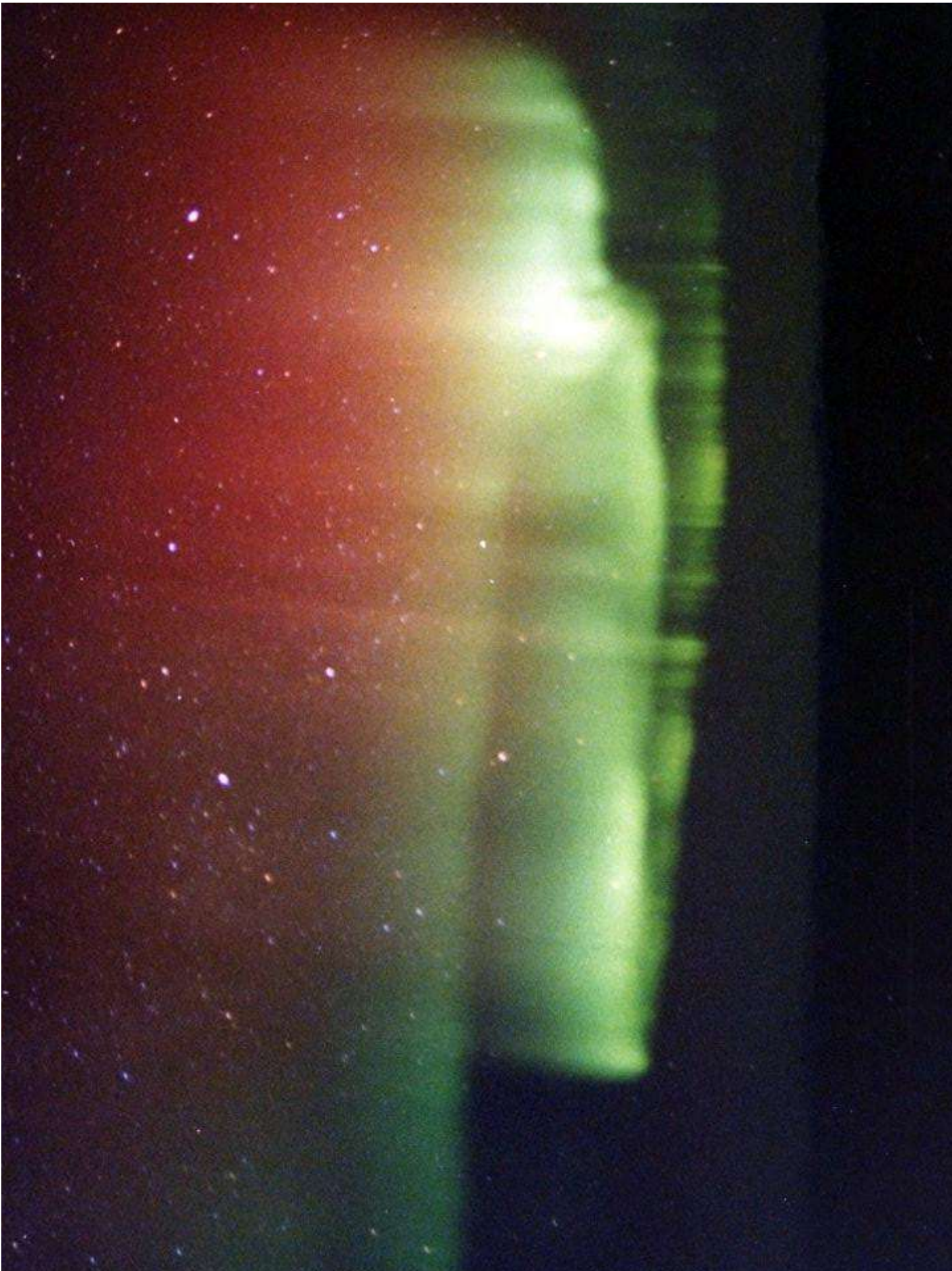


THERMOSPHERE

- Above the mesosphere and extends to almost 600 km high
- Temperature increases with altitude
- Readily absorbs solar radiation
- Temperature can go as high as 1,500 °C
- Reflects radio waves
- Aurora Borealis, Intl. space station, and satellites.

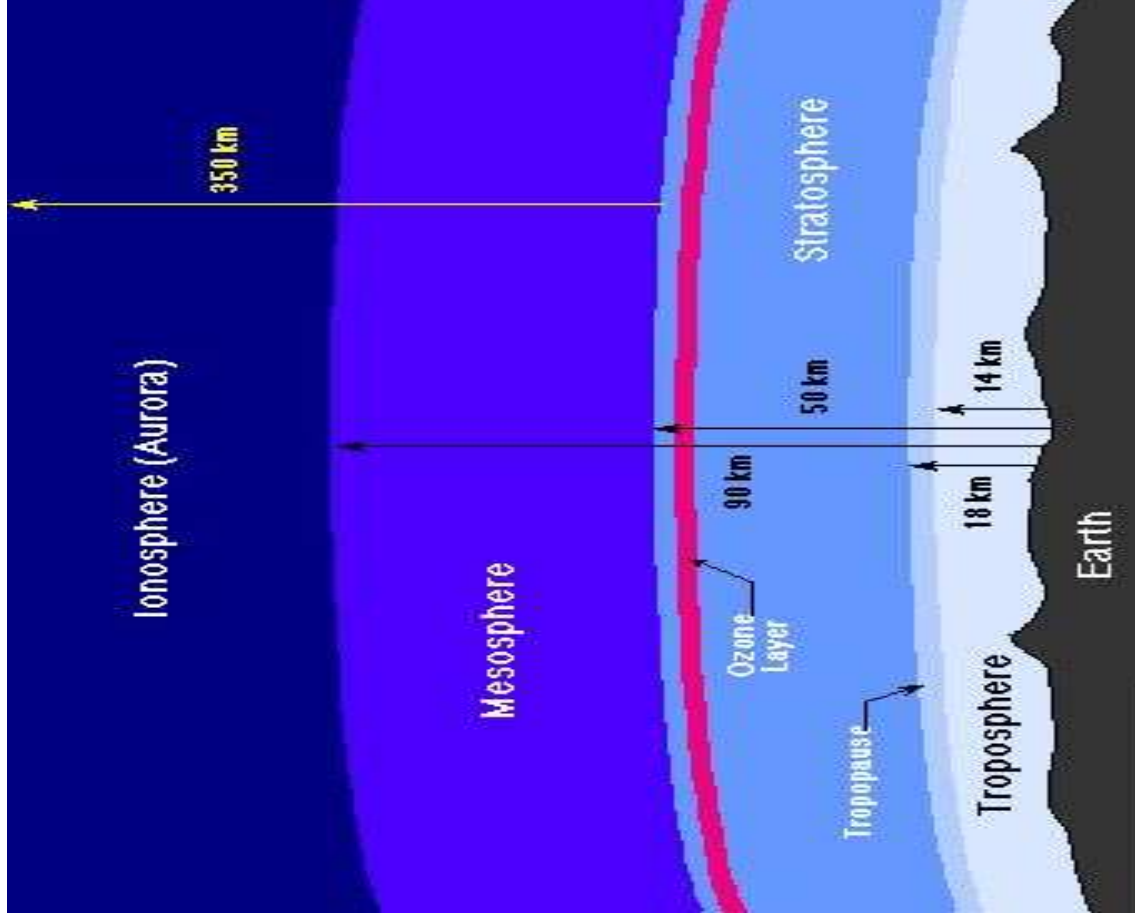






EXOSPHERE

- The interface between Earth and space.
- Atoms and molecules can escape to space.



Assignment/homework

Quizzes

Video

Make a flap book with the layers of the atmosphere using the information in your notes.
