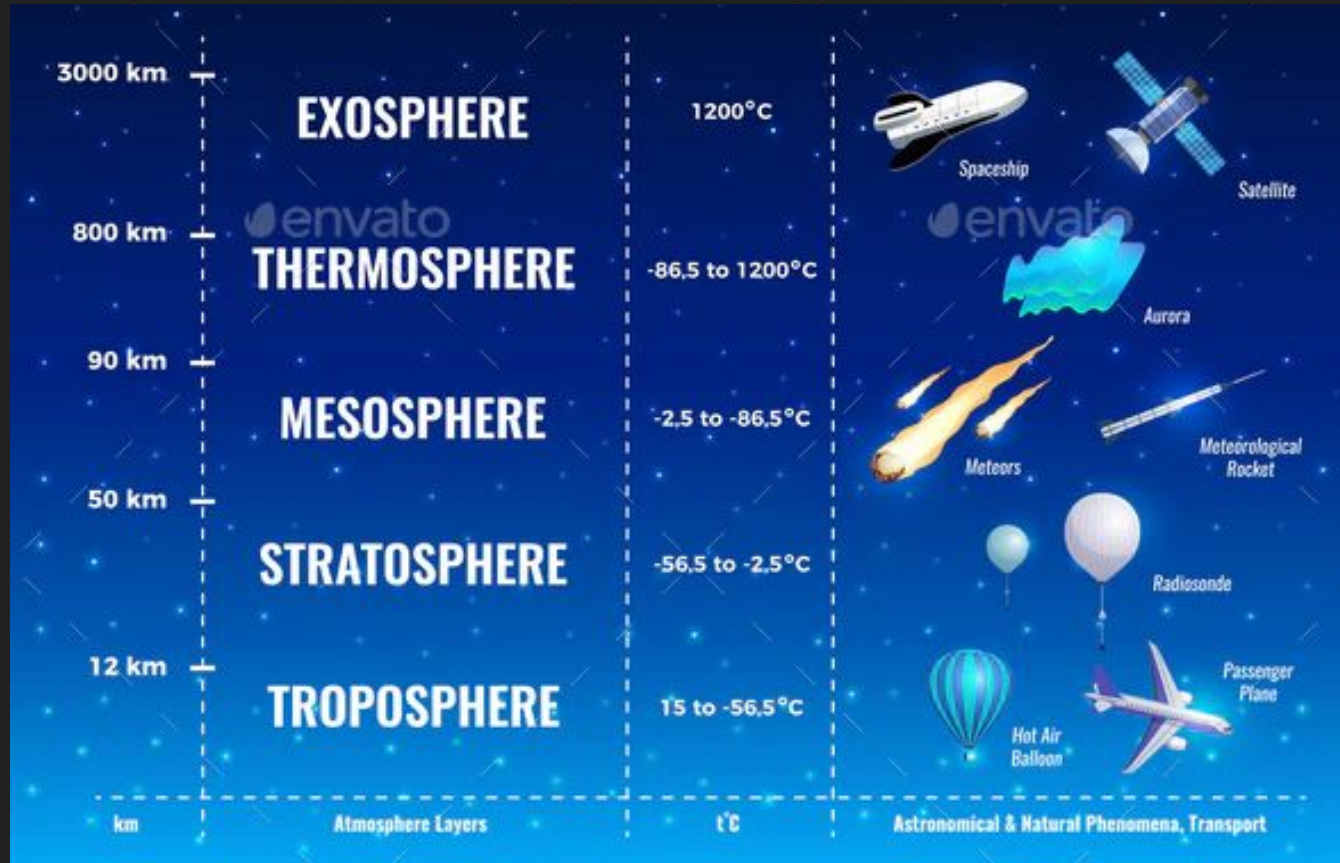


# Describe The Layers of The Earth's Atmosphere

Sgt Song



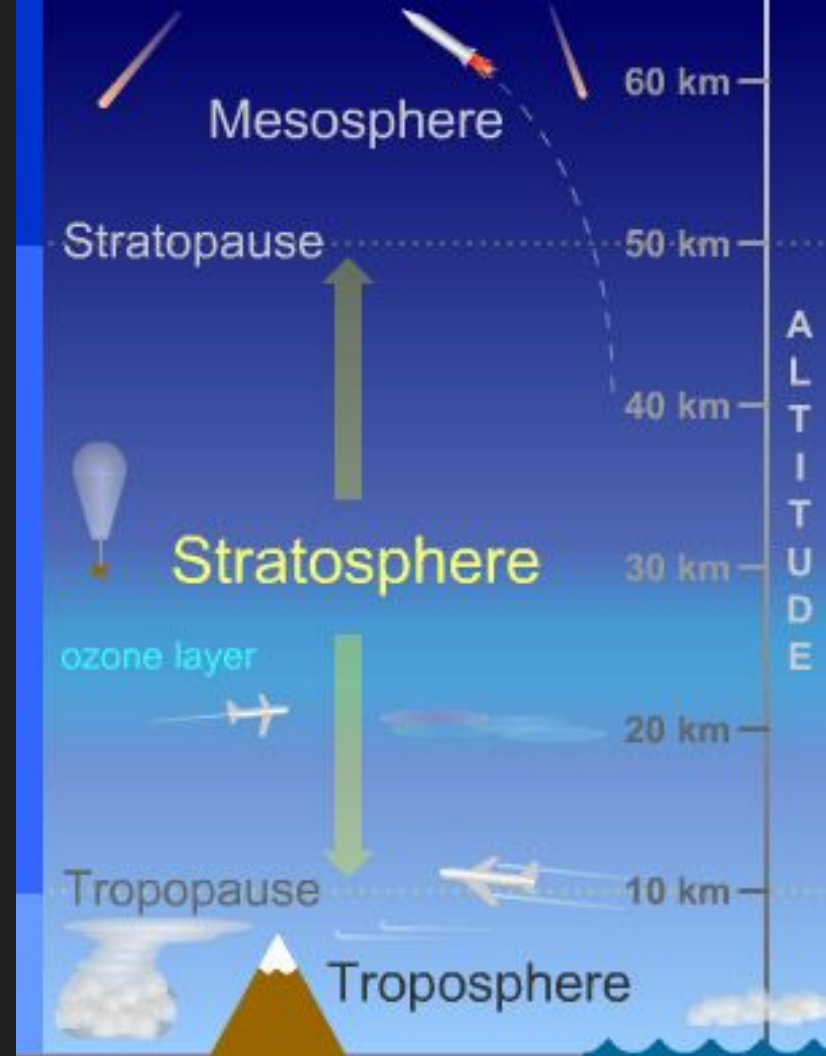
# There are 5 main layers of the Earth's atmosphere



- Extends 8 to 14.5 kilometers high
- This part of the atmosphere is the most dense, and takes up around 75% of the mass of the atmosphere.
- Almost all weather is in this region (wind, rain, etc).
- The temperature also gets colder as the distance above the earth increases,  $6.5^{\circ}\text{C} - 10^{\circ}\text{C}$  per kilometre
- Where many commercial flights take place

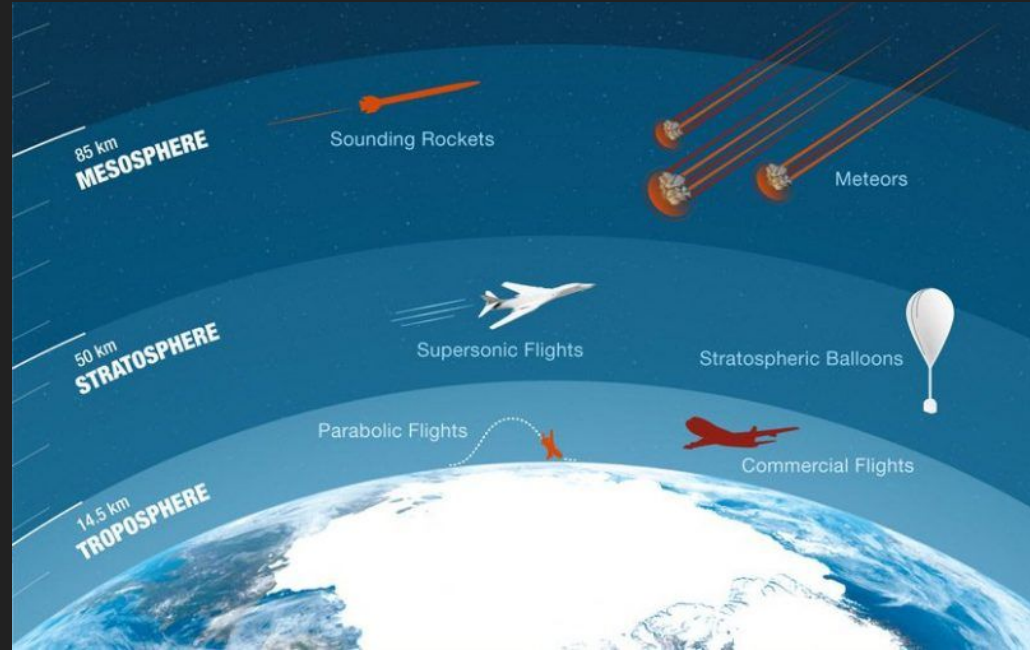


- Starts just above the troposphere and extends to 50 kilometers high
- Contains the ozone layer, which absorbs and scatters the solar ultraviolet radiation
- Jet aircraft and hot air balloons fly in the lower stratosphere to avoid the turbulence which is common in the troposphere below



# Mesosphere

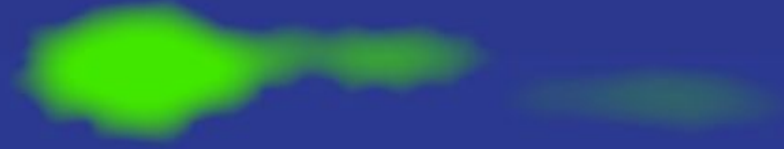
- Starts just above the stratosphere and extends to 85 kilometers high
- dense enough to make meteors burn up when they enter this layer
- This is also the height sounding rockets reach, which carry instruments to take measurements and do experiments.



- Starts just above the mesosphere and extends to 800 kilometers high
- Aurora borealis (Northern and Southern Lights) mostly occur in the thermosphere
  - caused by electrically charged particles from space entering the Earth's upper atmosphere at a very high speed
- The ISS is also in this layer

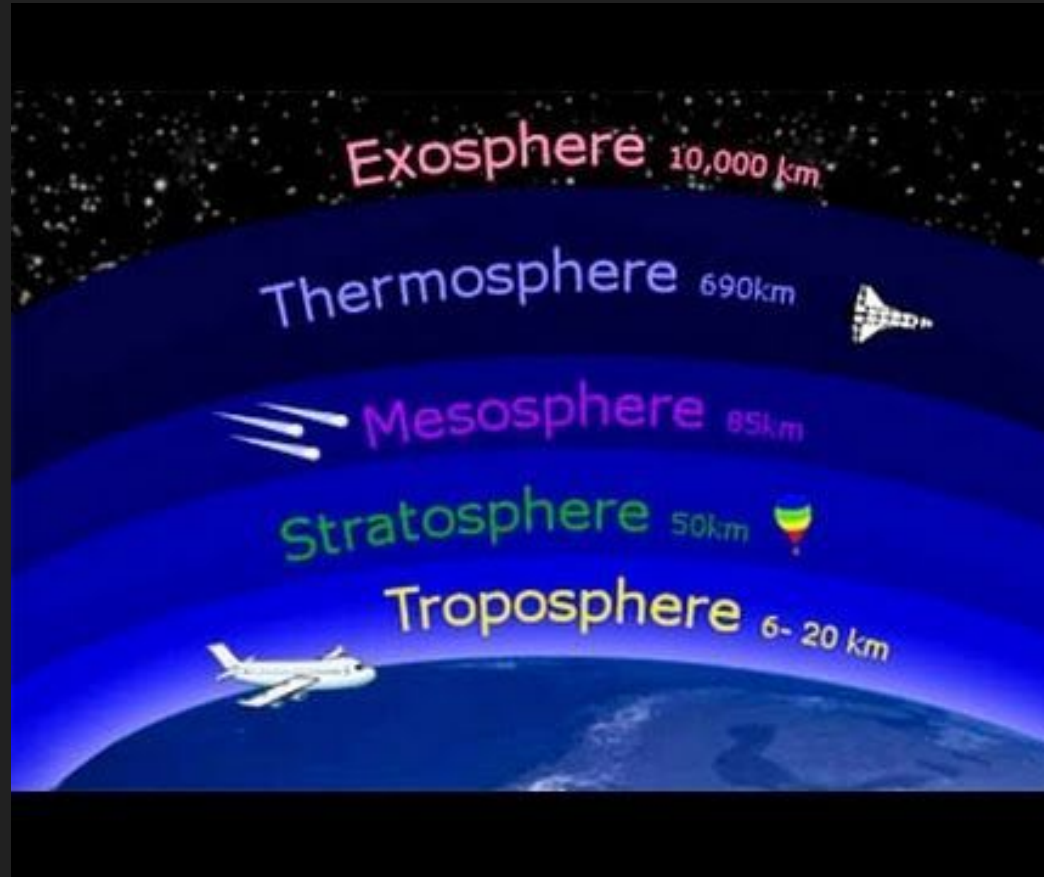


# Thermosphere

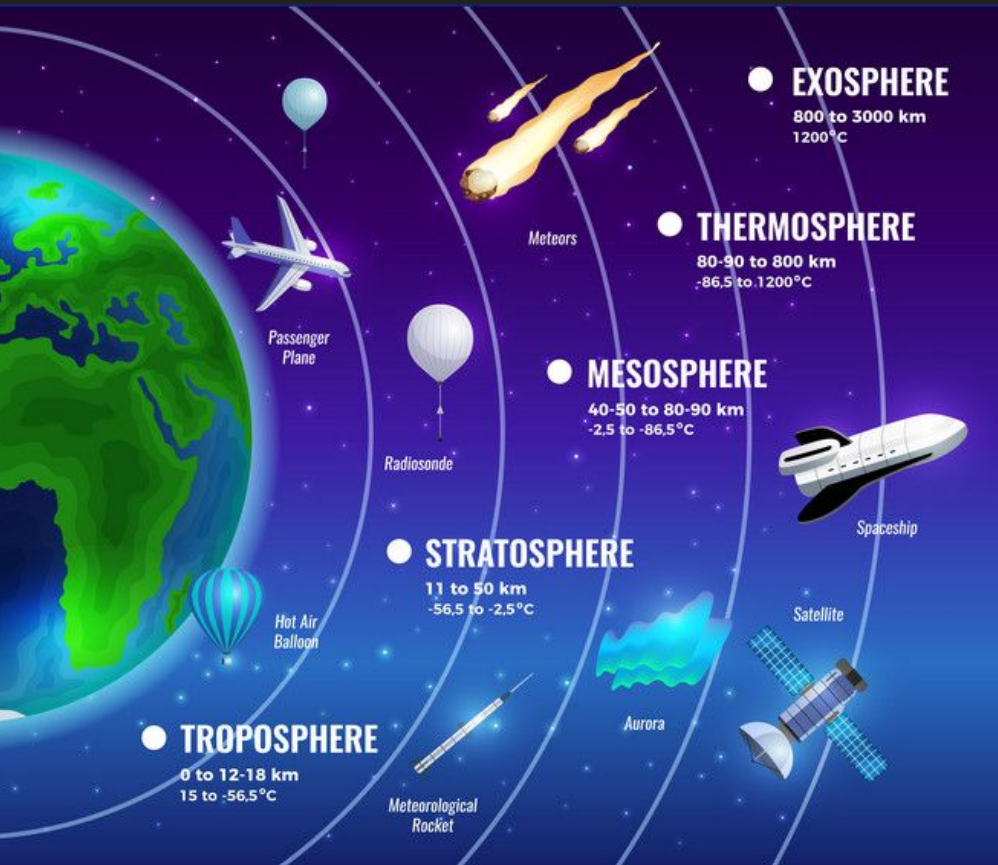


# Exosphere

- The upper limit of our atmosphere, extends up to 10 000 km
- Very few molecules in this area
- Nothing much except for the occasional satellite and spaceship leaving the earth's orbit



# Quick Confirmation



## **Troposphere:**

Is where most weather takes place, and takes up about 75% of the atmosphere's total mass. Extends 8-14 km high

## **Stratosphere**

Extends to 50 km high. Contains the ozone layer and is where hot air balloons and some jets fly to avoid turbulence

## **Mesosphere**

Extends to 85 km high. Is where meteors burn up and sounding rockets reach to do experiments and measurements.

## **Thermosphere**

Extends to around 800 km high, and is where the Aurora borealis occurs. There are also some satellites depending on the function

## **Exosphere**

Almost no air, and it extends up to 10 000 km. Nothing manmade goes there regularly, just occasional satellites and rockets on route for outer



# Crossword (Includes vocabulary from last lesson)

<https://www.proprofsgames.com/ugc/crossword/astronomy-17/>