Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Layers of the Atmosphere Notes**

[**Layers of the Atmosphere**](https://www.youtube.com/watch?v=BlDqJUjh38Q)

1. Bottom most layer is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Second band is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. 3rd layer is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. 4th layer is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. What is at the top of the stratosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. The ozone layer is responsible for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ most of the ultraviolet light that comes from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Why is the stratosphere hottest at the top?

8. **Troposphere** – Why does the troposphere get colder farther from the earth’s surface?

9. “Tropos” means \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Bottom of troposphere is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, hot air rises up, cools, resulting in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

11. **Stratosphere** – it has a temperature inversion. (cooler at bottom, hottest at top).

12. **Mesosphere** – What burns up here? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. It gets \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as you go up in altitude.

14. **Thermosphere** – Temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as you increase in altitude.

15. Air is very thin here – very few atoms.

16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ also hang out in the thermosphere.

17. \*\*Ionosphere is part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. What are created in the ionosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19. These are a result of interactions between ions and the sun’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Questions to consider?**

Why is the Troposphere hot at the bottom and cooler at the top?

Why is the stratosphere cooler at the bottom and hotter at the top?

Why is the ozone layer so important to the Earth?

**Some Atmosphere Density/Mass/Weight Facts for you to consider…..**

1. At SEA LEVEL Air weighs 14.7 pounds per square inch.
   1. How much air is stacked up on your textbook?
2. In Denver, at about 5000 ft above sea level, 85% of our atmosphere is above us. 12.5 lbs per square inch.
   1. How much air is stacked up on your text book?
3. On top of Mt. Everest, above 29,000 ft, only about 30% of the atmosphere is above us. 4.4 lbs per square inch.
   1. How much air is stacked up on your book?