

Earth's Atmosphere (p. 426 - 433)

I. Makeup Of The Atmosphere

1. Define the term atmosphere.

Atmosphere - Earth's air, which is made up of a thin layer of gases, solids, + liquids (Like breathing on an apple.)

2. What are three ways that the atmosphere helps the Earth?

1. Absorbs heat from the Sun.
2. Reflects light back into space.
3. Protects living things from harmful radiation

3. Determine which elements are present in the atmosphere (based on percentages).

78% = Nitrogen (Plants use NH_3 → converted)

21% = Oxygen

1% = Argon (0.93%), CO_2 (0.03%) (List the main two.)

↑ Large amounts released by oceans

4. What is smog?

Pollutants mixing with oxygen + sunlight that make a brown haze

5. What particles does air contain?

Tiny solid + liquid particles of dust, smoke, salt, + other chemicals (Light shining in at sunset)

II. Layers Of The Atmosphere

1. Match the atmospheric layer with the correct definition.

- | | |
|-----------------------------|---|
| 1. <u>D.</u> - Troposphere | A. Contains ozone layer; Site of jet streams; Extends 10 to 50 km (30 miles) |
| 2. <u>A.</u> - Stratosphere | B. Thickest & hottest layer; Site of auroras; Extends 85 to 500 km (50-300 miles) |
| 3. <u>E.</u> - Mesosphere | C. Outermost layer; Site of space shuttle & satellite orbit (+radio waves) |
| 4. <u>B.</u> - Thermosphere | D. Lowest layer; Site of weather; Extends to 10 km (5-11 miles) |
| 5. <u>C.</u> - Exosphere | E. Site of meteoroids; Coldest layer; Extends 50 to 85 km (30-50 miles) |

300 miles wide
4 miles high

2. Define the term ionosphere.

Ionosphere - layer of electrically-charged particles in the thermosphere that absorbs AM radio waves during the day and reflects them back at night

3. Why is the thermosphere so hot?

Energy from Sun strikes thermosphere first
(air converts energy into heat) → electrically-charged

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- Denver
- Botanical
Gardens

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Top

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Bottom

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75% of atmospheric gases

Eggs
Taste
Mighty
Scrumptious
Today

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