

Atmosphere Quiz Study Guide

Name Key
Date _____ Hour _____

Learning Goals

I can...

- describe the mixture of gases in the atmosphere.
- describe the composition of the atmosphere at different elevations and tell how they are alike and different.

Vocabulary

atmosphere

oxygen

air pressure

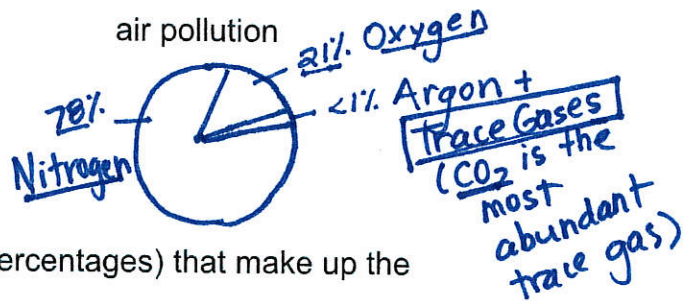
water vapor

carbon dioxide

air pollution

nitrogen

trace gases



Review Questions

1. What are the 2 main gases (and their percentages) that make up the atmosphere?

- a. Nitrogen % 78
b. Oxygen % 21

2. What are trace gases?

gases that make up a very small % of the atmosphere

3. What percent do trace gases make up of our atmosphere? <1%

4. Besides Argon,, what is the most abundant gas of the remaining trace gases?

CO₂

5. Other trace gases in our atmosphere include (list at least 3):

Neon, Helium, Water Vapor, Hydrogen...

6. How do the combinations of gases in our atmosphere make the conditions suitable for living things? (i.e. which gases are present that living things depend on?)

21% Oxygen allows animals to breathe ; CO₂ to support plant life ; low levels of toxic gases

7. What two gases were present when the earth first formed?

Hydrogen, Helium

8. How did carbon dioxide first get introduced to our planet, and then what happened to it (i.e. why isn't there as much in the atmosphere today)?

Volcanic Eruptions ; absorbed by oceans

9. How was oxygen introduced to our planet?

living things doing photosynthesis

10. What effect have human activities had on the amount of carbon dioxide in our atmosphere in recent history, and how has this affected our planet?

increased CO₂ due to factories, automobiles, etc
contributing to Greenhouse Gases / global warming

11. Which gas(es) change percentage as the elevation increases above the surface of the earth?

Water vapor

12. Which gas(es) stay the same percentage throughout the layers of the atmosphere?

Nitrogen, Oxygen, Argon

13. Which layer of the atmosphere has the most water vapor?

troposphere

14. How does the temperature change as you increase elevation (go higher) in the atmosphere?

decreases generally w/ some increase
at level boundaries

15. How does the pressure change as you increase elevation (go higher) in the atmosphere?

decreases

16. How does the density of gases change as you increase elevation in the atmosphere?

decreases

17. What is air pressure? What gives air its weight?

Effect of gravity weighing/pulling down
air molecules.