

# Layers mania

## Game Rules:

(1) You must solve whatever card you pick! Teams are not allowed to peek at the problem before choosing to take the card.

(2) Your team can only work on one card at a time! Teams must finish a card and get the correct answer before choosing another card.

## Directions:

One team member picks a card and brings it back to the team. The entire team solves the problem together and agrees on the answer. Write the answer in a box below. Then have a team member take it up to the teacher and have the teacher check it. If the answer is correct, your team member turns the card in and picks another card. If not, keep trying until you get it right!

# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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# _____ Answer: _____
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Total Points Earned: \_\_\_\_\_

# **Layers of the Atmosphere Mania Game**

- 1. What is unique about the troposphere?**
- 2. The coldest temperatures occur at what altitude?**
- 3. Temperature increases in what two layers?**
- 4. Temperatures decrease in what two layers?**
- 5. The layer of the atmosphere where weather occurs is the thermosphere. T or F**
- 6. The thermosphere is the layer that contains ozone. T or F**
- 7. The troposphere is divided into two parts. T or F**
- 8. The ionosphere lies between the mesosphere and exosphere. T or F**
- 9. Which layer contains electrically charged particles that reflect radio waves?**
- 10. What is the most abundant gas in the atmosphere?**
- 11. What is the second most abundant gas in the atmosphere?**
- 12. In what layers do human beings live?**
- 13. In what layer does most weather occur?**
- 14. What are two sources of carbon dioxide in the atmosphere?**

**15. What are two processes that use oxygen?**

**16. Where is the amount of water vapor in the atmosphere most likely to be higher, above a desert or tropical rain forest?**

**17. What is the condition of the atmosphere at a particular time and place called?**

**18. What is constant in the tropopause?**

**19. How high can geese fly?**

**20. Why are clouds generally observed to form only in the troposphere?**

#### **ATMOSPHERE MANIA ANSWERS**

- 1. We live in it. All weather occurs in it.**
- 2. 80 km (approx.)**
- 3. stratosphere, thermosphere**
- 4. troposphere, mesosphere**
- 5. F**
- 6. F**
- 7. F**
- 8. T**
- 9. ionosphere**
- 10. Nitrogen**
- 11. Oxygen**
- 12. troposphere**
- 13. troposphere**
- 14. animals produce, burning of fossil fuels**
- 15. fire, animals and plants**
- 16. above tropical rain forest?**
- 17. Weather**
- 18. temperature**
- 19. about 8 km**
- 20. that's where most of water vapor is**

**Note: Run off the 20 questions on four different colors of paper. Cut the questions apart and scramble them all in the same basket. Run the Mania Question sheet off in the same four colors (if four teams) and then team draws their color cards every time.**