

Name _____ Period _____

Earth's Atmosphere:

Part 1: The Atmosphere

<http://www.pbs.org/wgbh/nova/balloon/science/atmosphere.html#troposphere>

1. What is the atmosphere? _____

2. How high does the atmosphere extend from the earth? _____

3. What are the five layers of the atmosphere?

1. _____

2. _____

3. _____

4. _____

5. _____

4. What are the three main gases that make up the atmosphere? Be sure to list the percentages for each gas.

1. _____

2. _____

3. _____

5. In which layer of the atmosphere does weather occur? _____

6. Does the temperature rise or drop in the troposphere? _____

Does the temperature rise or drop in the stratosphere? _____

Does the temperature rise or drop in the mesosphere? _____

Does the temperature rise or drop in the thermosphere? _____

Part 2: "The Ozone Layer"

http://www.ducksters.com/science/environment/ozone_layer.php

Scroll down to the section titled “Atmospheric Processes” and answer this question.

7. What is ultraviolet radiation? _____

8. Where is the ozone layer located? _____

Part 3: “Layers of the Atmosphere”

<http://www.srh.noaa.gov/jetstream/atmos/layers.htm>

This should be the National Weather Service website. Answer the following questions.

10. In what layer do space shuttles fly? _____

11. Which layer of the atmosphere is the coldest? _____

Which layer of the atmosphere is the hottest? _____

12. Click on the ionosphere link. Where is the ionosphere located? _____

13. What important quality does the ionosphere have? _____

14. What is the exosphere? _____

15. What is the boundary between the troposphere and stratosphere called? _____

What is the boundary between the stratosphere and mesosphere called? _____

What is the boundary between the mesosphere and thermosphere called? _____

16. In what layer do weather balloons fly? _____

17. Where do planes and jets fly? _____

18. Why do meteors burn up in the mesosphere? _____

19. Where do the auroras occur? _____

20. Where do space shuttles fly? _____

Part 4: “Global Warming”

<http://climatekids.nasa.gov/greenhouse-effect/>

This should take you to a page titled “What is the Greenhouse Effect?” - Answer the following questions.

21. What is the greenhouse effect? _____

22. Is the greenhouse effect always a bad thing? What could make it a bad thing? _____

23. Are humans causing the increase in greenhouse gases? How? _____

24. What can we do to stop this? _____

Part 5: “Introduction to the Atmosphere”

http://www.ucar.edu/learn/1_1_1.htm

Scroll down to the section titled “Atmospheric Processes” and answer this question.

25. There are several factors that help heat energy from the equator move around the earth. Name them. _____

** Next, scroll down to the section titled “Energy Heat Transfer” and answer these questions.

26. Where does the earth get its energy? _____

27. What is conduction? _____

28. What is convection? _____

29. What is radiation? _____

30. This website gives you a picture of these three types of energy transfer. Identify an example of conduction, convection, and radiation. _____
