

Name: _____

Atmosphere and Heat Transfer Web Quest

Directions: Click on the link above each set questions to find the answers.

Layers of the Atmosphere

<http://www.windows.ucar.edu/tour/link=/earth/Atmosphere/layers.html>

1. Name the five layers of the atmosphere:

a. _____

b. _____

c. _____

d. _____

e. _____ (some scientist consider this layer to be part of space)



2. Click on the words “atmosphere” and each layer of the atmosphere to fill in the blanks below:

a. What are the two main gases found in the atmosphere?

1. _____

2. _____

b. The troposphere is the _____ region of the Earth's atmosphere and is where _____ occurs.

c. The stratosphere contains the _____ which absorbs _____. Look at the diagram: _____ and _____ can fly in the stratosphere.

d. As you go higher in the mesosphere, the temperature becomes _____. Scientists do not know much about the mesosphere, but they do know that _____ burn up in this layer.

e. The thermosphere contains a layer of charged particles called the _____ which makes communication by _____ possible and is home to the _____ (Northern Lights). This is the layer in which _____ fly.

f. In the exosphere the atmosphere is very _____ as it begins to fade into space.

<http://earthguide.ucsd.edu/earthguide/diagrams/atmosphere/index.html>

3. Look at the diagram and click “layer Names – Show It.” List the height span of each layer:

a. Troposphere _____

b. Stratosphere _____

c. Mesosphere _____

d. Thermosphere _____

4. Click “Temperatures – Show it”. What happens to the temperature in each layer (does it get hotter or colder)?

a. Troposphere _____

b. Stratosphere _____

c. Mesosphere _____

d. Thermosphere _____



Heat Transfer

http://www.wisc-online.com/objects/index_tj.asp?objID=SCE304

5. Conduction is the transfer of heat between _____.

6. Why does the hand need an oven mitt in order to pick up the pot from the stove?

7. List four good conductors and four poor conductors:

<u>Good</u>	<u>Poor</u>
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____

8. Convection is the up and down movement of _____ and _____ caused by heat transfer.

9. What happens to the air as the stove heats it?

11. What happens to the air as it gets farther from the heat source?

12. List four examples of convection:

1. _____
2. _____
3. _____
4. _____

13. When _____ travel through space it is called radiation.

14. What happens to the temperature of the house as the sun's radiant energy touches it?

15. List three examples of radiation:

1. _____
2. _____
3. _____