

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 word “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 _____ layer of the Earth's atmosphere and is where _____ occurs.

c. The **stratosphere** contains the _____ it absorbs energy from incoming _____.

_____ 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** 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 click “ENTER” then click “Layer Names – Show It.” List the height of each layer in KM:

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)?

Hint: Look at the red line.

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:

Good

Poor

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. _____