

Name: \_\_\_\_\_ Class: \_\_\_\_\_

### Heat Transfer Web Quest

**Directions:** Click on the corresponding website link and read the page to answer each set of questions.

**PART ONE: HEAT TRANSFER – Go to the website below.**

<http://www.wisc-online.com/Objects/ViewObject.aspx?ID=SCE304> Scroll down and click on the begin button.

1. Conduction is the transfer of heat between \_\_\_\_\_.

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

\_\_\_\_\_

3. List four good conductors and four poor conductors:

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

4. Convection is the up and down movement of \_\_\_\_\_ and \_\_\_\_\_ caused by heat transfer.

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

\_\_\_\_\_

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

\_\_\_\_\_

7. List four examples of convection:

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_

8. When \_\_\_\_\_ travel through space it is called radiation.

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

\_\_\_\_\_

10. List three examples of radiation:

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_

**PART TWO:**

11. Which picture is showing conduction, radiation, and convection?



A. \_\_\_\_\_ B. \_\_\_\_\_ C. \_\_\_\_\_

**PART THREE:**

Look at the website page below for ideas on how heat transfer is seen in our everyday lives.

[http://www.lowes.com/cd\\_Understand+Heat+Transfer+and+Insulation\\_974680410](http://www.lowes.com/cd_Understand+Heat+Transfer+and+Insulation_974680410)

12. After you read this web page, list 5 ways in which you can protect your home from escaping heat or from too much heat coming in during the summer.

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_
- E. \_\_\_\_\_

**PART FOUR:** Go to this website: [http://www.pnm.com/save/energy\\_tips\\_all\\_year.htm](http://www.pnm.com/save/energy_tips_all_year.htm)

List at least 10 ways in which you can save heat energy in different rooms in your home. Explain how each way can actually save heat energy.

**WAYS TO SAVE HEAT ENERGY**

**HOW CAN THIS METHOD SAVE HEAT ENERGY?**

- |          |       |
|----------|-------|
| A. _____ | _____ |
| B. _____ | _____ |
| C. _____ | _____ |
| D. _____ | _____ |
| E. _____ | _____ |
| F. _____ | _____ |
| G. _____ | _____ |
| H. _____ | _____ |
| I. _____ | _____ |
| J. _____ | _____ |