

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Conduction, Convection, or Radiation

**Objective:** Students will know how to separate the different types of thermal energy.

**Matching:** Use these definitions to help you with the rest of the worksheet.

_____ Radiation	A. Heat transfer from a heat source through a solid.
_____ Convection	B. Infrared heat waves like in the Electromagnetic spectrum
_____ Conduction	C. Heated gas or liquid particles rise.

**Label each example** with the appropriate type of heat transfer: **radiation, convection, or conduction.**

Explain why you think so for each example (**hint:** use the definitions above to help you).

1. \_\_\_\_\_ Heat we feel from the sun.

a. Why? \_\_\_\_\_

2. \_\_\_\_\_ The heat you feel when you touch a hot stove.

a. Why? \_\_\_\_\_

3. \_\_\_\_\_ Heat you feel when you put your hands above a fire.

a. Why? \_\_\_\_\_

4. \_\_\_\_\_ My spoon is hot after leaving it on the pot that was on the stove.

a. Why? \_\_\_\_\_

5. \_\_\_\_\_ This is responsible for making macaroni rise and fall in a pot on the stove.

a. Why? \_\_\_\_\_

6. \_\_\_\_\_ The heat my snake feels from the heat lamp above him.

a. Why? \_\_\_\_\_

7. \_\_\_\_\_ Transfer of heat by the actual movement of the warmed matter (i.e. gas or liquid).

a. Why? \_\_\_\_\_

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8. \_\_\_\_\_ The reason heating vents are usually placed on the floor of a home.

a. Why? \_\_\_\_\_

9. \_\_\_\_\_ Insulation is used to prevent this type of heat transfer.

a. Why? \_\_\_\_\_

10. \_\_\_\_\_ This type of heat transfer is trapped by green houses.

a. Why? \_\_\_\_\_

11. \_\_\_\_\_ Why the dog lays down next to the wood stove.

a. Why? \_\_\_\_\_

12. \_\_\_\_\_ Why the cat sits on a stove above the stove.

a. Why? \_\_\_\_\_

13. \_\_\_\_\_ Why the kettle on the stove gets hot.

a. Why? \_\_\_\_\_

14. \_\_\_\_\_ Why you use a pot holder when getting the cookie sheet out of the oven.

a. Why? \_\_\_\_\_

15. \_\_\_\_\_ Heat you feel when you sit next to a campfire.

a. Why? \_\_\_\_\_

16. \_\_\_\_\_ Heat you feel from your electric blanket.

a. Why? \_\_\_\_\_

17. Give two examples each not given above or in the lesson.

[illegible]

### Examples of Heat Transfers From Your Life

Conduction	Convection	Radiation

18. Draw an example of each type of heat transfer: **convection, conduction, and radiation listed in 17.**