

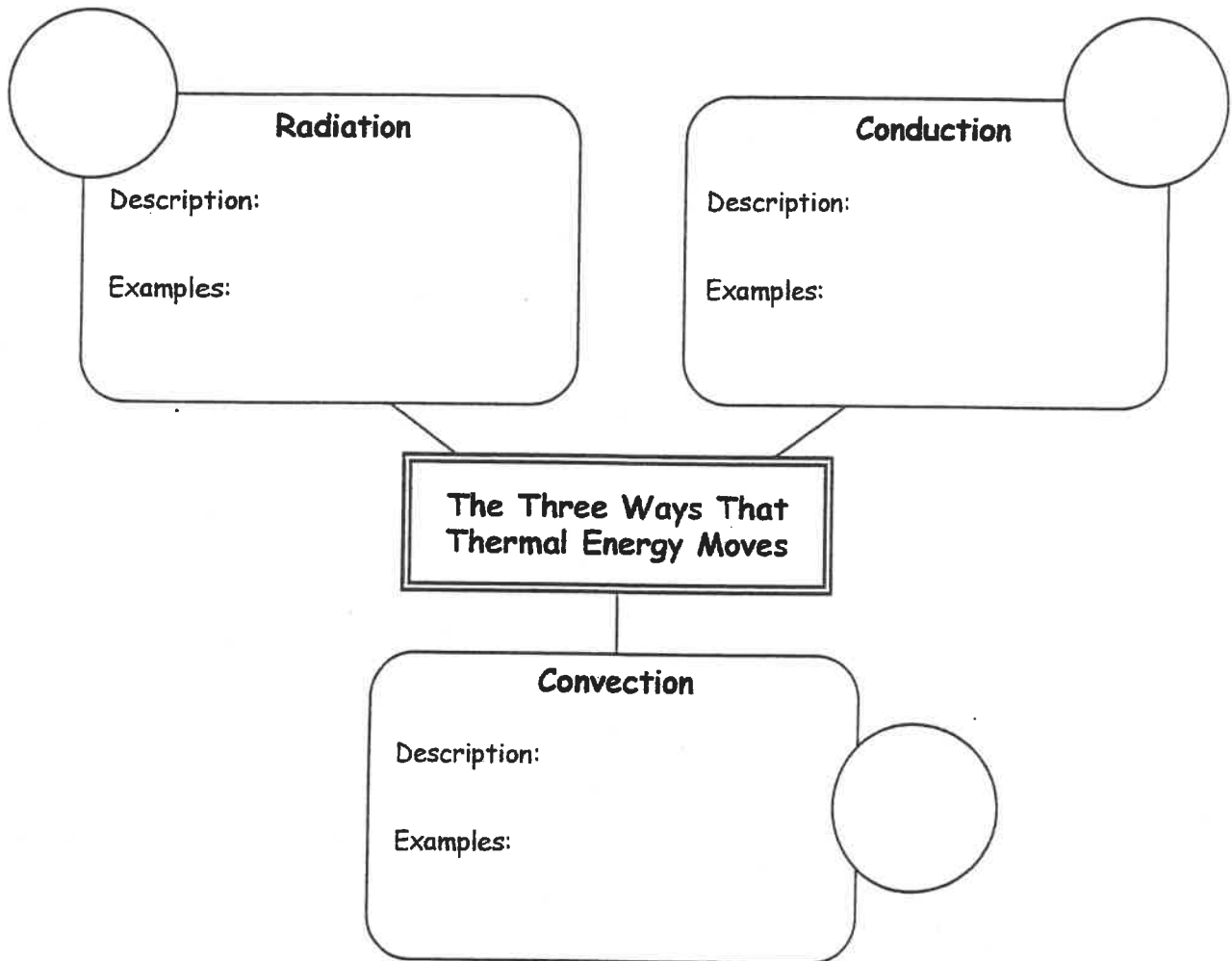
Name _____ Date _____

Student Activity Sheet

PS-5: Energy Transfer

Introduction: Thermal energy is the total amount of energy in the atoms in something. It is the sum of its potential energy and its kinetic energy. Thermal energy is always moving all around you, and it affects your life in very important ways. Changes in the weather, the fact that your food is cooked, the way heating and air conditioning make your home and school comfortable—all result from thermal energy on the move. This sheet will help you learn about the three ways in which thermal energy is transferred.

• **Directions:** Use your notes, textbook, and other appropriate resources to complete the graphic organizer.



Please do these:

- ★ **Responding to Your Work:** What symbol could you create to represent each type of energy transfer? Sketch them in the circles.
- ★ **Extending Your Learning:** What examples of thermal energy and thermal energy transfer can you see around you right now?

1.

2.



Name _____

Use with Lesson 2: pages 162-167

**Science
Skills****Heat Transfer**

A. Heat moves in three ways— conduction, convection, or radiation. Decide how heat moves in each example. Write conduction, convection, or radiation on each line.

1. Heating of a metal pan's handle _____
2. Getting warm by a campfire _____
3. Hard-boiling eggs in water _____
4. Frying an egg _____
5. Heat from the sun _____
6. Baking bread in an oven _____
7. Making popcorn in a microwave oven _____
8. Feeling warmth from a sick child's forehead _____
9. Stepping on a hot sidewalk with bare feet _____
10. Touching a bowl containing hot soup _____
11. Main way heat moves through the atmosphere _____
12. Heating of air touching a hot surface _____
13. Heating of upper atmosphere by sunlight _____

14. How do the three types of heat transfer work together in the atmosphere?

In radiation

conduction

convection