Name _____ Date_____ Period_____

Heat Transfer

Using words from the word boxes below, complete the paragraph about heat transfer.

faster	hot	less	solid	fluid
conduction	more	convection	energy	emit
warmer	matter	transfer	absorb	temperature
radiation	contact	cold	vibrate	waves

All_____has heat. Heat is a form of_____caused by particles in an object that _____. The_____the particles of an object vibrate, the_____the object will be. Because particles of an object are always moving, heat_____is always happening. Heat always flows in the same direction: from_____to_____. Heat transfer will stop once two objects reach the same_____. This is known as equilibrium.

There are three key ways that heat transfers. With_____objects, heat transfers when the objects come into direct_____with other things. This is known as_____. Liquids and gases are different. Because these two states of matter flow, or are_____, heat transfer happens when warmer,_____dense particles rise and cooler,_____dense particles sink. This ongoing process is known as a_____current. Heat can also be transferred through space (distance) in the form of _____. This process is known as_____. All objects give off, or_____, some heat. All objects also take in, or_____, heat.

Identify the method of heat transfer that takes place in each illustration. Write the method of heat transfer underneath the picture.

1.



2.



3.



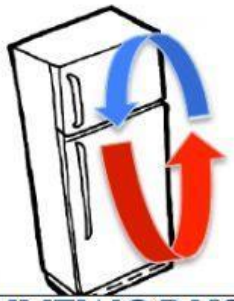
4.



5.



6.



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In each of the following situations, identify the method of heat transfer taking place. Write conduction, convection, or radiation on the line next to the statements. Choose the best answer.

1. You are stirring a bowl of hot soup with a metal spoon. The spoon starts to feel warmer because of _____.

2. You buy a lava lamp from the store. As the lamp heats up, blobs of liquid rise to the top then sink back down to the bottom. This process continues because of_____.

3. You are doing your homework at a desk that is underneath a lamp. You start to feel hotter because of _____ from the lamp.

4. Your best friend has a bunk bed. You move from the bottom bunk to the top bunk and notice that the air is warmer. The warm air rises because of_____.

5. You are in science class and want to see if the hot plates were used recently. You place your hand over the hot plate. Without touching the hot plate, your hand feels warmer. Heat is transferred toyour hand by_____.

6. You are roasting marshmallows at a campfire. The metal skewer (stick) that you're cooking your marshmallow on burns your hand because of_____.

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