

In each of the following situations, identify the method of heat transfer taking place (conduction, convection, radiation). More than one process may be occurring.

1. Hot coffee is stirred with a spoon, the spoon gets hot due to _____.
2. A chair is placed several feet from a fire in a fireplace. The fireplace has a glass screen. The side of the chair facing the fireplace gets warm because of _____.
3. A certain type of decorative lamp contains colored liquids. These liquids form globs that break off and rise to the top of the liquid. The globs rise due to _____.
4. Near the ceiling of a room the air is warmer. The warm air rises because of _____.
5. A college student holds the back of his hand near an iron to see if it is hot. Heat is transferred to his hand by _____.
6. A heater is placed under one corner of a water bed mattress. Warm water moves throughout the mattress because of _____.
7. A certain type of stainless steel cookware has a layer of copper applied to the bottom to help it heat evenly. The copper transfers heat to the pan by _____.
8. In a swimming pool, the water near the surface is slightly warmer. The warm water rises because of _____.
9. One end of a copper rod is placed in a flame of a Bunsen burner. Small pieces of wax placed along the rod melt at progressively larger distance from the flame. Heat is transferred through the rod by _____.
10. A house burns down. On the house across the street, all of the vinyl siding is twisted and warped by the heat. The heat was transferred across the street by _____.
11. Warm air over the beach rises while cooler dense air from the ocean rushes in due to _____.
12. The metal skewer gets so hot that you drop your marshmallow in the campfire because of _____.
13. A huge rock at the state park gets so hot during the day that you can't sit on it from _____.
14. You lay on that same rock at night so that you can keep warm by _____.
15. A fireman feels a door and it is hot from the fire on the other side due to _____.
16. The cause of weather systems on earth is _____.
17. You are in the top bunk of a bunk bed and you want to turn the air conditioner on while your friend on the bottom bunk is fine is caused by _____.

In the boxes below, draw an example of each type of heat transfer. Explain how heat is being transferred in your example.

Conduction	Convection	Radiation
Explanation: _____ _____ _____ _____ _____	Explanation: _____ _____ _____ _____ _____	Explanation: _____ _____ _____ _____ _____

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 to your 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 _____.