

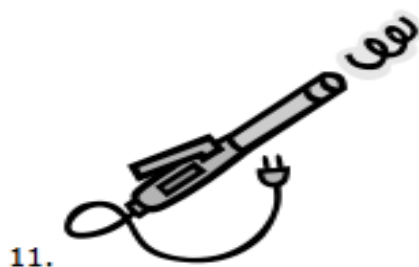
**Worksheet: Methods of Heat Transfer  
(conduction, convection, and radiation)**

Define conduction:

Define convection:

Define radiation:

**Identify the method of heat transfer that takes place in each illustration. Some illustrations may show more than one form of heat transfer.**



**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 \_\_\_\_\_.