

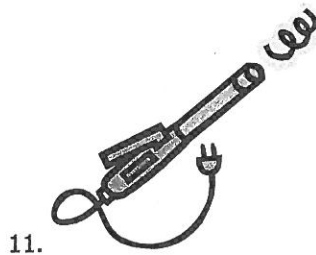
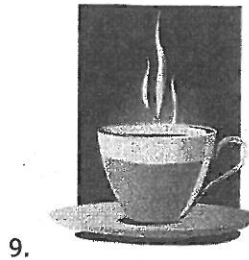
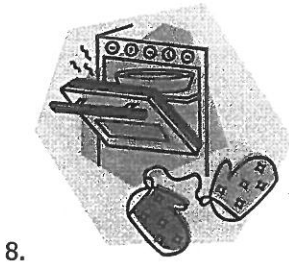
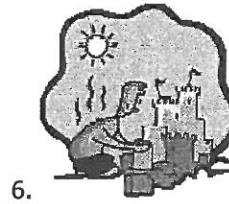
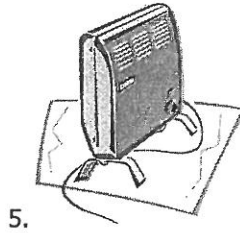
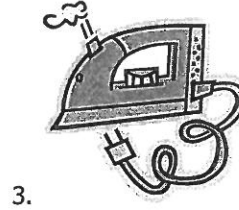
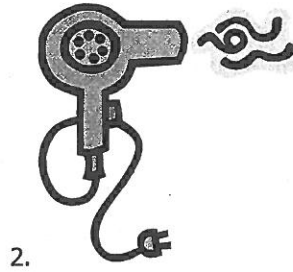
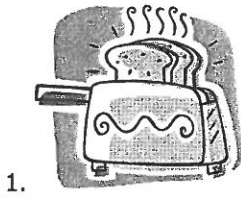
**Worksheet: Methods of Heat Transfer  
(conduction, convection, and radiation)**

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.**



Name \_\_\_\_\_

Period \_\_\_\_\_

# Heat Transfer

Conduction

Convection

Radiation

# Heat Transfer

*Cut out the boxes and sort them on the graphic organizer on the next page.  
Glue the final product in your notebook.*

Microwave

Weather

Picking up a  
hot cup of  
coffee

Hot air popper

Earth's Mantle

Putting your wet  
bathing suit on a  
floor vent to dry  
them faster

Hot  
plate/burner

Ocean or Lake  
Currents

Using a heating  
blanket to get  
warm

Transfer of heat  
through contact  
with EM waves

A person placing  
their cold hands  
over a warm fire



Transfer of heat  
through a fluid that  
moves in currents –  
hot air rises cools  
then falls

A person placing  
their hand over  
a hot burner



Transfer of heat  
through direct  
contact with heat  
source

A pot sitting on  
a hot burner



Touching a metal  
spoon that is sitting  
in a pot of boiling  
water

How the inside  
of a greenhouse  
works



Spaghetti rising and  
falling in a pot of  
boiling water

Lying out in  
the sun to get  
a tan



After completing the activity, answer these questions.

1. Define/Explain heat transfer.
2. Are heat and temperature the same?

# ANSWER KEY

## Heat Transfer

### Conduction

Hot plate/burner

Transfer of heat through direct contact with heat source

Touching a metal spoon that is sitting in a pot of boiling water

A pot sitting on a hot burner



Picking up a hot cup of coffee

Using a heating blanket to get warm

### Convection

Hot air popper

Transfer of heat through a fluid that moves in currents – hot air rises cools then falls

Spaghetti rising and falling in a pot of boiling water

How the inside of a greenhouse works

Ocean or Lake Currents

Earth's Mantle

Weather



Putting your wet bathing suit on a floor vent to dry them faster

### Radiation

Microwave

Transfer of heat through contact with EM waves

Lying out in the sun to get a tan

A person placing their hand over a hot burner

A person placing their cold hands over a warm fire



#### Questions

1. heat transfer – the movement of thermal energy (total energy of all particles in an object) from matter at a higher temperature to matter at a lower temperature
2. No.  
Heat - the total energy of the particle motion in a substance  
Temperature - the measure of the average energy of particle motion in a substance