Extension Worksheet 1

Name: _____ Class: _____ Date: _____

1. Read the information and answer the questions.

In a laboratory, two students put a cup of cold water into a container of hot water. Then they measured the temperature of the water in the cup and in the container every three minutes. The results are shown in the table below.

Time (min)	Temperature of the Water in the Container (ºC)	Temperature of the Water in the Cup (°C)
0	70	5
3	50	7
6	35	9
9	28	11
12	23	13
15	19	14
18	15	15
21	15	15

a. What happened to the temperature of the water in each container?

_____

b. Why does the water in both containers reach the same temperature at some point?

_____

c. At what temperature is thermal equilibrium reached?

_____

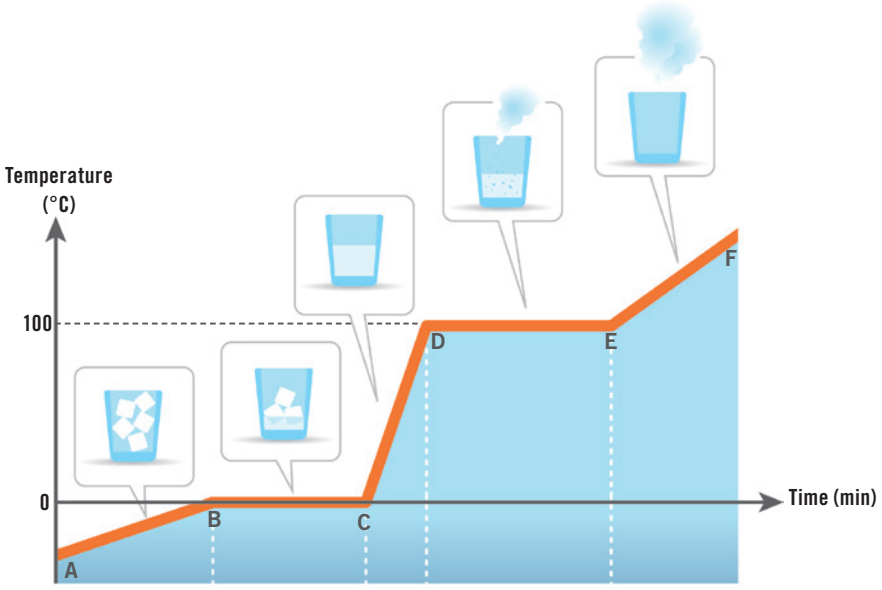
d. Between what bodies does heat transfer occur in general?

_____

Extension Worksheet 2

Name: _____ Class: _____ Date: _____

1. Explain what happens in each section of the heating curve of water.



a. Line AB

_____

b. Line BC

_____

c. Line CD

_____

d. Line DE

_____

e. Line EF

_____

2. Make a graph of the cooling curve of water using the following information.

Line AB

When the temperature of water vapor decreases, its particles lose kinetic energy and its volume quickly contracts.

Line BC

The water is in a liquid and gaseous state. Temperature remains constant.

Line CD

A majority of the water vapor has condensed. As the temperature decreases, the condensation of water vapor continues until it reaches the temperature of solidification.

Line DE

Solidification occurs. The water can be seen in a liquid and solid state, and the temperature remains constant.

Line EF

Water is found only in a solid state—in other words, as ice.