Name \_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_\_\_\_

1. Match situations A, B, C with the correct form of heat transfer.

(convection, conduction, radition)

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Label the following as forced convection or natural convection

A  B

For more information, visit www-personal.umich.edu/~ajyshih/egg/

Basic Questions:

1. Which method do you think will cook the egg the fastest? (Baking, Steaming, Boiling) Why?
2. Which method do you think will cool the egg the fastest? (Ice, running water, air/counter) Why?
3. What type of heat transfer are we dealing with here in each cooking and cooling scenario? (convection, conduction, radiation)

Concept Questions:

1. What type of heat transfer is associated with the following scenarios?
	1. Why it hurts when your finger touches a stove?
	2. Heat you feel from the sun?
	3. The heat a snake feels from the lamp above it?
	4. Why a candle flickers?
	5. The heat you feel when your hands are above a fire
	6. Microwave heating up food
	7. Why you use a potholder when getting cookies out of the oven
2. Which has a higher heat capacity of the following?
	1. Metal such as Gold or Iron
	2. Water
3. Given the Heat Capacity of egg yolk is 2.7 J/gK and egg white is 3.7 J/gK which would cook faster if you had the same amount?