Transferring Heat Lab

Name: Hour: Date:

You must wear goggles at all times. They must be covering your eyes. Show all work!

1. Add 150 mL of cold water to a Styrofoam cup. Record the temperature. \_\_\_\_\_\_\_\_oC
2. Using lab tongs, grab a metal cylinder from the beaker of boiling water (up front)

to the cold water. Stir the water with a stirring rod and record the temperature

when it stops rising. \_\_\_\_\_\_\_\_oC

1. Using lab tongs, grab the metal cylinder from the Styrofoam cup and place it on a paper towel. Dry the cylinder and weigh it on a balance. \_\_\_\_\_\_\_\_g
2. List the type of metal that was used. \_\_\_\_\_\_\_\_
3. Determine the heat gained by the water \_\_\_\_\_\_\_\_ J
4. Determine the heat lost by the cylinder \_\_\_\_\_\_\_\_J
5. Dump out the water from the cup. Repeat steps 1-6 with a different type of metal and record the answers for steps 1-6 below.
6. \_\_\_\_\_\_\_ oC 2. \_\_\_\_\_\_\_oC 3. \_\_\_\_\_\_\_g 4. \_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_ oC 6. \_\_\_\_\_\_\_oC

1. Which metal has a higher specific heat? How do you know this?