



# SPECIFIC HEAT OF SOLIDS

## Guide Questions

**40% of the Written Report (Group Report) grade**

1. Name two unwanted heat loss and/or gain that might have affected the results of your experiment.
2. List the materials used (aluminum, copper, lead, and water) according to their specific heat, from lowest to highest.
3. What does it mean when a certain material has a high specific heat? a low specific heat?
4. How does the quantity of heat transferred depend on specific heat, mass, and initial temperature of the sample? Assuming the mass of cold water is the same for each trial.
5. **Application question:** A king decreed that there be made three equally massive coffee mugs, one made of gold for him, one of iron for his army chief and one of aluminum for the court jester. The king always complains that his coffee is too hot while the jester complains his is too cold. Can you think for an explanation for this? The mugs hold equal volumes of coffee.