

## Procedure:

Step 1: Obtain metal sample in test tube. First add a test tube to the Lab. Select the test tube and add 100 gm of Iron Shot (Fe). Add a thermometer to the test tube so that you can record the initial temperature of the Fe.

Step 2: Prepare hot water bath and add test tube with metal. Obtain a 250 ml beaker. Add 150ml of water at room temperature to the beaker. Place test tube within beaker (select both test tube and beaker, and combine from the Arrange Menu→Combine). Now heat the combined beaker test tube arrangement by heating with a bunsen burner until the Fe shot reaches the boiling point of water 100 °C.

Step 3: Place heated metal in calorimeter with water at room temp. Add Calorimeter to Lab (select Equipment menu→Calorimeter) Add 100 ml of water at room temp 20 °C to calorimeter (select calorimeter and press water toolbar button 2x or use water dialog box). Remove test tube from beaker (by selecting beaker and using the Arrange Menu→Remove menu). Pour the heated Iron into the calorimeter and close the calorimeter (close calorimeter by selecting calorimeter and pressing the thermometer tool bar button. This will add both a thermometer and a cork top to calorimeter). Record the final temperature of the water.

Step 4: Repeat steps 1 -3 with other metals, recording final temperature and compare.