

Melting the Ice

Procedure

- 1. Experiment** Fill the large and small containers with hot tap water. Leave a little room in each container. Use the thermometers to measure the temperature in each container. Record your measurements below.

- 2. Observe** Choose two ice cubes that are about the same size. Carefully place one ice cube into each container at the same time and start the stopwatch. On the line below, record how long each cube takes to melt in its container.

- 3. Measure** Measure the temperature of the water in each container immediately after its cube has completely melted. Record the time and temperature.

- 4. Use Numbers** Calculate the change in temperature for each container. Subtract the temperature of the water after the cube melted from the original temperature of the water.

Conclusion

Write the answers to the questions below.

1. **Analyze Data** Explain the difference in the temperature changes in the two containers.

2. **Infer** What can you infer about the amount of thermal energy in each container before the cubes were added?

3. **Predict** How would the temperature change if you used a much larger container of water?

Investigate More!

Design an Experiment Investigate what happens if you use two ice cubes or half as much water in each container. Compare your results with the results of this investigation.

