Name: _____

16.3 States of Matter

Question: How fast can you melt an ice cube?

1 Procedure

There are no questions to answer in part 1.

2 Analyzing your results

a. List at least three techniques used in your group to melt the ice cube.

b. Which technique was most effective? Why?

c. Using what you know about potential and kinetic energy, describe the transfer of energy which occurred as your group's best technique was executed.

3 A closer look at the melting process

Read the passage in your Investigation book.

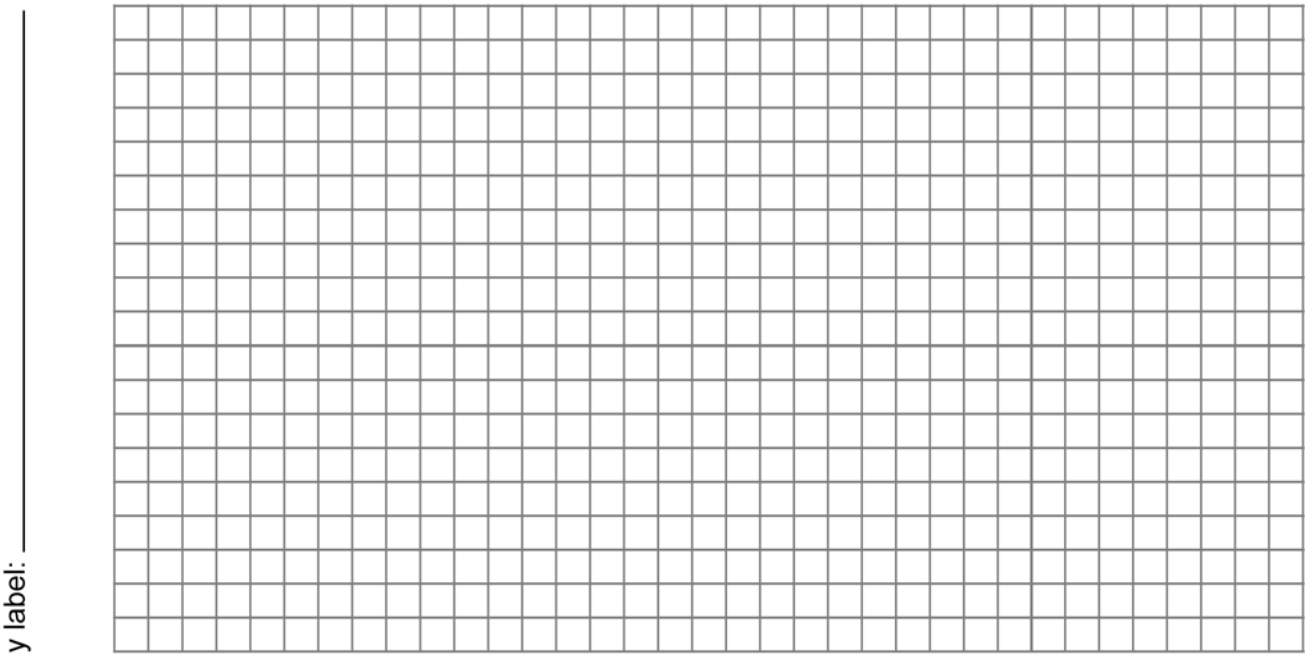
4 Procedure

Follow the steps in your Investigation book.

5 What did you learn?

a. Graph the data you collected during this procedure.

Title: _____



x label: _____

b. Where did the energy that was added to the cup of ice come from?

_____

_____

c. Did the kinetic energy of the water molecules increase at a constant rate throughout the experiment? Use your data as evidence to support your answer.

_____

_____

d. What force had to be overcome in order to change the solid to a liquid?

_____

_____

e. What happened to the energy that was added to the system while the ice was melting?

_____

_____

f. In the space below, draw a sketch of the graph you would expect to see as liquid water changes to gas.

Write two or three sentences describing the energy changes that occur during this process.