**Activity Sheet Name Chapter 2, Lesson 5**

**Changing State—Melting Date**

# DEMONSTRATION

1. **You watched a piece of ice melt. Where do you think the energy came from to melt the ice?**
2. **What do you think happened to the speed of the molecules in the ice when it was heated?**

# ACTIVITY

Work with your group to design a way to make ice melt faster. You will need to show that your method really does make ice melt faster, so be sure to use a control.

1. **Write down the steps in your procedure under “Procedure” below. Check with your teacher before conducting your experiment.**

Question to investigate:

Will make ice melt faster?

**Procedure**

1. **Does your method make ice melt faster?**

**How do you know?**

# EXPLAIN IT WITH ATOMS AND MOLECULES

1. **Write a caption underneath each picture to explain how the motion and arrangement of the water molecules changes as ice melts.**

1. **Look at the diagram below representing the motion and arrangement of the molecules of a substance (not water) when it is a solid, a liquid, and a gas. Write the name of the state change that takes place on each curved arrow.**



1. **The following diagram uses the space-filling model of water to represent the arrangement of water molecules when it is a solid, liquid, and a gas.**



**a. How are the state changes of water similar to the state changes in most other substances?**

**b. How are state changes of water different from the state changes in most other substances?**

# TAKE IT FURTHER

1. **Do regular ice and dry ice melt in the same way?**

**How do you know?**

1. **You saw that the dry ice sublimates very quickly in water. Why does it sublimate even faster in hot water?**