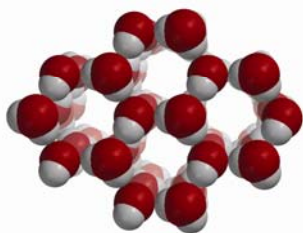


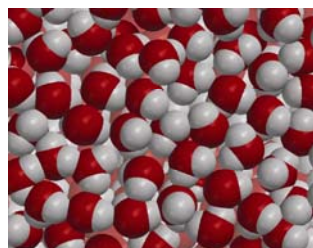
## Chapter 2, Lesson 5 Activity Sheet Answers

1. The energy that melted the ice is in the black metal and foam squares which are both at room temperature. The metal is a better conductor than the foam so energy is transferred from the metal to the ice faster than from the foam to the ice.
2. When the ice is heated, the water molecules in the ice move faster.
3. Experiments will vary. Some groups may put ice in water, some might hold ice in their hand or use some other heat source.

4.

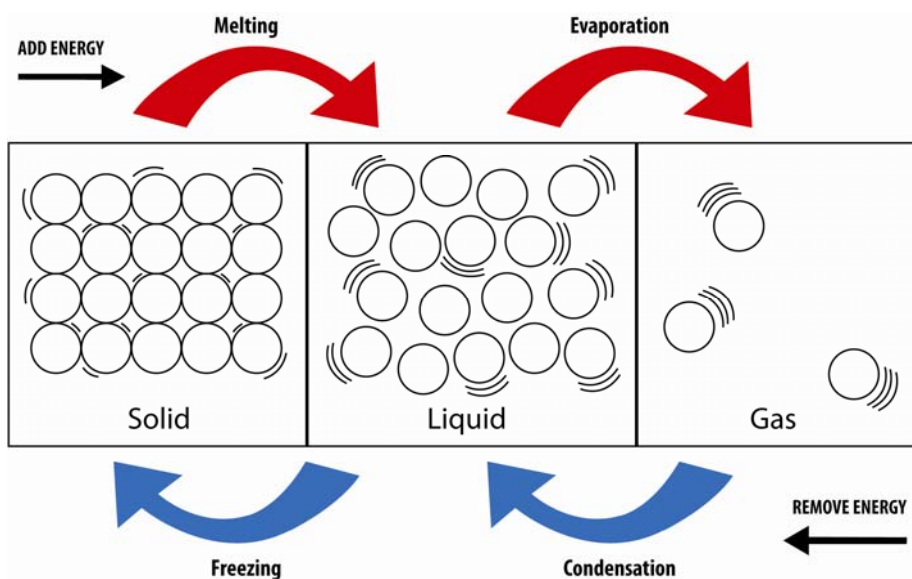


Energy causes the molecules to move faster. Eventually their motion overcomes the attraction keeping them in fixed positions and the crystal structure of the ice collapses.



As liquid water, the molecules are closer together and able to slide past each other.

5.



6. The state change from solid to liquid in water is similar to most other substances in some ways but different in others. When energy is added, molecules of the solid change from being in fixed positions to being able to move past one another.

7. Regular ice made from water changes from a solid to a liquid by melting. But dry ice made from carbon dioxide does not change from a solid to a liquid. It changes from a solid directly to a gas. This is called *sublimation*. You can tell because it doesn't leave any wet spot on a paper towel.
8. Dry ice changes from a solid to a gas (sublimates) when energy is transferred to it. More energy is transferred to dry ice in hot water than in room temperature water so it changes to a gas faster.