

Chapter 6, Lesson 4 Activity Sheet Answers

1. The chemical reaction is happening faster in the glow stick that was in hot water. The production of more light is evidence that the reaction is happening faster. If warming the reactants makes the reaction happen faster, cooling the reactants makes the reaction happen more slowly so the glow sticks last longer. Warming the reactants increases the rate of other chemical reactions. If the reactant molecules are moving faster there are more molecules that hit hard enough to react.
2. In the reaction between baking soda solution and calcium chloride solution, the temperature of the solution does affect the rate of the reaction. The reactants that were warmed bubbled much faster than the reactants that were cooled.
3. The warm solutions react faster than the cold solutions because in the warm solutions more reactant molecules are moving fast enough so that when they collide they can react.
4. When the reactants were mixed they just sat there and nothing happened. But then a little wick that was stuck into the mixture and lit. The heat from the flame gave the reactants enough energy to react. The reaction itself gave off enough heat to keep the reaction going.