Student activity sheet
Activity 1.6

Name: _____

M&M's in different sugar solutions

Does the amount of sugar already dissolved in water affect how fast an M&M coating dissolves?

1. You've seen that when an M&M coating dissolves in water, the sugar and color dissolve, sink, and then move along the bottom of the container through the water. Do you think the sugar and color will dissolve and move as freely in water that already has some sugar dissolved in it? _____

2. What makes you think that?

_____

_____

_____

Look at the procedure written on the next page as you answer the following questions about variables.

3. Which is the variable that is different in each plate?

_____

_____

4. How does the procedure control the other variables? In other words, what is purposely kept the same in each plate?

_____

_____

_____

Conduct the experiment and then answer the following questions.

5. Does having sugar already dissolved in water affect how fast an M&M coating dissolves? _____

   What makes you think that?

_____

_____

Student activity sheet
Activity 1.6

Name: _____

M&M's in different sugar solutions (*continued*)

Try the following procedure to find out how the sugar and color from an M&M dissolve and move in sugar water. In this procedure you will use water with different amounts of sugar dissolved in it.

Procedure

1. Use small pieces of paper to label each of three cups and three plates **no sugar**, **1 teaspoon sugar**, **3 teaspoons sugar**.

2. Pour ¼ cup of water into each cup.

3. Add 1 teaspoon of sugar to the cup labeled **1 teaspoon sugar** and 3 teaspoons of sugar to the cup labeled **3 teaspoons sugar**. Stir until the sugar in each cup dissolves.

4. Pour the water and the sugar solutions into their labeled plates. The water should be deep enough that an M&M would be completely submerged in the water.

5. At the same time, place the same-color M&M in the center of each plate. Wait about 1 minute.

6. What do you observe about the coloring on the M&M and in the water? Describe your observations with basic illustrations and captions.

no sugar | 1 teaspoon sugar | 3 teaspoons sugar