5th Grade - Lesson 1.2 **Name:** _____

Activity Sheet

Dissolving an M&M **Date:** _____

Safety: Wear safety glasses or goggles, and be sure to follow all safety instructions given by your teacher. Wash your hands after completing the activity.

ACTIVITY

Question to investigate:

What happens to an M&M when it is placed in water?

Materials

- Different colored M&Ms
- Room-temperature water
- 2 small plastic plates

Procedure

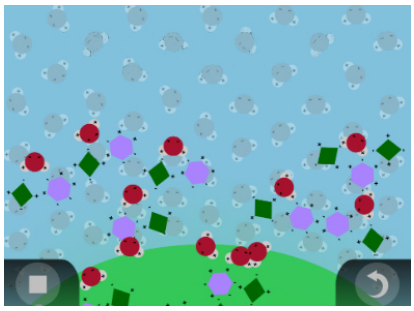
1. Place enough water in the plate so that it will cover an M&M.
2. Place 1 M&M in the center of the plate. Do not swirl or stir.
3. Observe for about 2 minutes.

WHAT DID YOU OBSERVE?

1. When you put an M&M in water, what did you observe?

EXPLAIN IT WITH ATOMS AND MOLECULES

2. You saw an animation of water dissolving the M&M's coating. Describe how the water molecules make the sugar and coloring on the M&M coating dissolve.



Water Dissolving M&M Coating

ACTIVITY

Question to investigate:

Will an M&M's coating dissolve as well in a sugar solution as it does in plain water?

Materials

- 2 small white plastic plates
- 2 M&Ms of the same color
- Sugar
- Tablespoon
- 2 Cups
- Room-temperature water

Procedure

1. Make a sugar solution by dissolving 1 tablespoon of sugar in ¼ cup of water.
2. Pour the sugar solution in one plate and an equal amount of fresh (plain) water in a second plate.
3. At the same time, place one M&M in the center of each plate.
4. Observe the M&Ms for 1 to2 minutes.

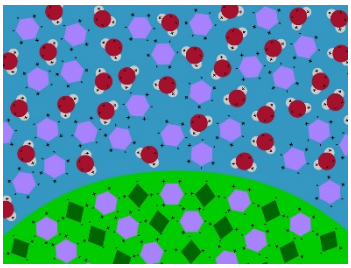
WHAT DID YOU OBSERVE?

3. When you looked at the M&M in the water and in the sugar water, what did you observe?

4. In the investigation to compare how well an M&M dissolves in fresh water and sugar water, why did you use the same color M&M in your investigation?

EXPLAIN IT WITH ATOMS AND MOLECULES

5. Thinking about your observations, the animation, and the illustration, explain why you think the sugar solution doesn't dissolve the M&M's coating as well as fresh water does?



M&M in sugar solution

TAKE IT FURTHER

Question to investigate:

What happens when two or more M&Ms are in the same plate of plain water at the same time?

Procedure

1. Place enough water in a plate to cover an M&M.
2. Place 3 or 4 M&Ms of different colors near each other in the water as shown.
3. Observe for 2 to 3 minutes.

WHAT DID YOU OBSERVE?

6. When you looked at the M&Ms in the water, what did you observe?

7. Based on what you saw when you tried to dissolve an M&M's coating in a sugar solution, why do you think the colors formed a kind of "line" when they met?