Please be thinking of our delegates as we send eight 4-H youth and two chaperones to Washington D.C. for the 2017 Presidential Inauguration!!! Youth selected as delegates for this trip underwent a vigorous screening process and were announced at State 4-H Congress this summer. Our representatives are:

- Jeffery Feaster, Fairfield County
- T.J. Price, Saluda County
- Grey Riley, Saluda County
- MacKenzie Riley, Saluda County
- Lindsey Scott, Saluda County
- Geneffer Sweatman, Bamberg County
- Garrett Ulmer, Colleton County
- Ashlyn Whittemore, Charleston, County

Chaperones:
- Cynthia Price, Saluda County
  4-H Volunteer
- Allie Winter, Lexington County
  4-H Agent
Monthly 4-H Club Activity Idea

Candy STEM

Objective: to explore candy in a new, science-related way, allowing youth to gain confidence and interest in STEM activities.

Age Range: All ages.

Hands-on Activity: float the “m” from M&M candy.

Life Skills used: HEAD = learning to learn;
                 HEART = cooperation;
                 HANDS = team work;

Introduction

Here are some fun ways to get rid of leftover candy from the holidays without compromising New Year’s resolutions! Let’s investigate STEM with m&m’s, skittles, and more! Depending on the age range you are working with, you can incorporate more or less science-related terms.

Our goal for involving youth in hands-on STEM activities is to spark an interest and curiosity about how things work in the everyday world around us. Also, we want to give them the confidence and skill-set to put that knowledge into action to solve real-world problems. We encourage you to use the educational resource Little Bins for Little Hands (found online at littlebinsforlittlehands.com) for simple, step-by-step STEM activities using candy! Youth should discover something new about this common-place item using scientific inquiry.

More candy-related STEM activities can be found at:

- Skittles Science
- Candy Taste Test: 5 Senses Science
- 5 Candy Math Activities

Science-related terms to describe phenomenon observed in the m&m experiment:

- The colored candy coating is hydrophilic because it dissolves in water.
  - Hydrophilic substances are things that like water. Hydro- means “water”; -philic means “loving”.
  - When something dissolves in water, it breaks apart and can no longer be easily separated back out.
  - Like sugar dissolves into water, but sand does not.

- The chocolate portion of the candy is hydrophobic because it does not dissolve readily in water.
  - Hydrophobic substances are things that do not like water. -phobic means “fear of”
  - Fat-containing substances (like chocolate) do not dissolve easily in water.
  - Like oil in salad dressings separates from vinegar.
**Floating M’s Activity**

Materials:
- m&m candies
- small clear cups
- water

Put water in the cups and drop one m&m candy in each cup with the “m” facing up. Have youth make predictions about what will happen.

*Will the candy sink or float? Why?*

*What will happen to the candy as it sits in the water?*

After about 10-20 minutes, the colored candy coating should be completely dissolved and the “m” should rise to the surface.

*Why does the “m” float? (because it’s lighter than the water; it’s buoyant.)*

*What do you think the “m” is made of? (It’s actually made out of edible paper! A lot of cakes are decorated using edible paper designs too.)*

After you finish with the experiment, don’t forget to have a time of reflection and discussion.

*Why didn’t the chocolate part of the candy dissolve?*

*Is the candy still safe to eat afterwards? Do you think the “m” would taste good?*

*How do you think the candy was assembled? For instance, what order were the layers? Was the “m” on top or underneath the colored-candy coating?*

*How would water temperature affect this experiment? (Think about how the temperature of tea effects how quickly sugar will dissolve.)*

**Conclusion**

Science is put into action everyday in the things all around us. We can use it to investigate and explain all sorts of items including candy!!!

Source: Little Bins for Little Hands