The Science of Color

In this Remarkable Idea students will learn about and use the Scientific Method to conduct an experiment involving colors.

This activity addresses:

- Choice making
- Social skills
- Cause and effect
- Alternative methods of access

What you need:

- All-Turn-It Spinner
- LITTLE Step-by-Step or BIG Step-by-Step
- TalkingBrix 2
- Blue2 FT
- Ice cube tray
- Clear cups or jars
- Food coloring (red, blue, yellow)

Preparation:

1. Dye water with the red, blue, and yellow food coloring, place into ice cube trays, and freeze. At least four of each color will be needed.

2. Write your vocabulary words in a place where all students can see them.

3. Record definitions of “hypothesis” and “conclusion” to TalkingBrix 2.

4. Record the colors purple, green, and orange onto the LITTLE Step-by-Step or BIG Step-by-Step.

5. Record the steps of the scientific method onto a LITTLE Step-by-Step or BIG Step-by-Step
   - Ask a question
   - Construct a hypothesis
   - Test with an experiment
   - Analyze data and draw a conclusion
   - Communicate the results

6. After the vocabulary definitions are no longer needed, record “correct” and “incorrect” to the TalkingBrix 2 so students can share their results.

What to do:

1

Have a student activate the a LITTLE Step-by-Step or BIG Step-by-Step to share the steps of the scientific method with the class so you can discuss them. When you come to one of the vocabulary words, have your "Word Whiz" define them using the TalkingBrix 2.

2

One student can be assigned the extra duty of "Lab Assistant" to take photos of the experiment in progress with the camera app on an iPad/iPod using a Blue2 FT. The resulting pictures could be made into a bulletin board with the results of the experiment so students can present their findings with more people.

3

Allow students to choose a hypothesis using the All-Turn-It Spinner and complete a hypothesis using the LITTLE Step-by Step or BIG Step-by-Step.

- When the yellow cubes melt and mix with the blue cubes, I hypothesize the water will turn the color _____.
- When the blue cubes melt and mix with the red cubes, I hypothesize the water will turn the color _____.
- When the red cubes melt and mix with the yellow cubes, I hypothesize the water will turn the color _____.

4

Label the cups/jars and place 2 ice cubes of 2 colors (2 red + 2 blue, 2 blue + 2 yellow, 2 yellow + 2 red) into each corresponding cup/jar and allow to melt. Place the cups/jars in the sun or near a heat source to speed up the melting process if you don't want to wait overnight.

- To add another level of difficulty, use different amounts of ice cubes in cups or all colors and challenge students to think about what will
- happen with those cups.
- Another fun addition would be to create a time-lapse video of the ice cubes melting. This can be done with an iPad with iOS 8 or digital
- cameras.

5

Once the ice cubes have all melted, students can record their data, and use the TalkingBrix 2 to tell the class if their hypothesis was correct or incorrect. Remind students that having a wrong hypothesis is not a bad thing, many scientists have had wrong hypotheses.