

Wilton Making Natural Food Colors

Objective: Children will learn how to color icing with natural ingredients and compare the color and taste to Wilton Gel Icing Colors.

Recommended Ages: 9 years old and up

Time required for project: 1 hour

Overview

This project is designed to introduce children to tinting icing using natural ingredients like fruit, spices and vegetables as an alternative to prepared food colors. The project leader will show them how to make natural food colors and then compare the results with Wilton Gel Icing Colors. Children will explore basic color theory by mixing primary colors to make secondary colors and then spatula ice cookies to compare colors and taste. Leaders should determine ahead of time how many adult helpers are needed. Depending on the age of the group, 1 adult for every 8 - 10 children should be enough.

Note: A kitchen stove or a portable cooktop is recommended for this activity

Supplies

Wilton Items Needed:

- ✓ 1 – Blue Gel Icing Color
- ✓ 1- Red Gel Icing Color
- ✓ 1- Yellow Gel Icing Color
- ✓ Creamy White Decorator Icing, 4 lb. tub – optional
- ✓ Naturally Flavored Warm Vanilla Icing, 16 oz. – optional
- ✓ 9" Straight Spatula – 1 per child – optional

Provided by Leader to Make Natural Colors - Shared:

- ✓ 2 cups shredded red cabbage
- ✓ 1 teaspoon ground turmeric
- ✓ ¼ cup cooked or canned beets, round purplish variety
- ✓ ½ cup beet juice
- ✓ 2 cups of water
- ✓ Measuring cup
- ✓ 3 – ¼ teaspoon measuring spoons, one for each natural color
- ✓ Small food processor
- ✓ 2 small metal screened strainers
- ✓ 3 small bowls
- ✓ 2 saucepans
- ✓ 1 teaspoon of baking soda

Additional Kitchen Supplies (either leader can provide, or children can bring their own):

- ✓ Parchment or waxed paper, approximately two 8 in. x 10 in. sheets per child
- ✓ Butter knife, 1 per child if not using spatulas
- ✓ Containers for mixing icing colors, 6 per child (can use bowls, disposable cups, whipped topping containers, etc.)

- ✓ Container to transport iced cookies
- ✓ 1 one-gallon plastic storage bag per child to transport dirty tools home
- ✓ Scissors
- ✓ Paper towels
- ✓ Toothpicks
- ✓ Un-iced sugar cookies, 4-6 per child
- ✓ If not purchasing Wilton Buttercream Icing, make icing using the recipe on pg. 7 thinned to medium consistency, approximately 1 1/2 cups per child

Project Outline

1. Introduction
2. Make Natural Food Colors
 - a. Blue from Cabbage
 - b. Yellow from Turmeric
 - c. Red from Beet
3. Tint Icing
 - d. Natural Colors
 - e. Wilton Gel Icing Colors
4. Color Theory
 - a. Mix Primary Colors to Make Secondary Colors
5. Spatula Ice Cookies
6. Clean-up/Wrap-up

INTRODUCTION

Provide quick overview of project

ICING COLORS - Explain the difference between natural food colors and prepared Gel Icing Colors

Natural food colors

- Used when people are allergic to Wilton Gel Icing Colors or to nut, egg or soy products processed in the same facilities
- Colors can be extracted from bright colored foods such as fruit, vegetables and spices, cocoa and coffee
- Because the source of color is from real food, a small amount of flavor will remain in the icing
- The more vivid or deep the color, the more likely the icing will take on the taste of fruit or vegetable
- To achieve the most vibrant colors, start with as concentrated of a base color as possible, using either a liquid or a powder
 - When extracting colors from liquid, evaporate to about a ¼ cup
 - When using cooked fruit or vegetables, strain juice from solids through a sieve
 - Pulverize freeze dried berries or vegetables in a food processor to make a concentrated powdered color



<http://www.sweetpeasandabcs.com/natural>

- Natural colors will not be as intense in color as Wilton Gel Icing Colors and will have a unique tint
- Natural liquid colors can thin down icing consistency if you use a lot to achieve darker colors. You may need to add powdered sugar to stiffen icing if this happens.

Wilton Gel Icing Colors

- Available in 25 ready-to-use colors
- Easy to achieve very light to dark colors depending on how much Gel Icing Color you use
- Made in facilities that process tree nuts, egg and soy products which can be a problem for allergy sensitive people
- Because Icing Colors are a gel form and the colors are concentrated, they do not change the consistency of icing
- Colors intensify as they sit
- Can be easily mixed to make new colors and shades of color
- Long lasting, pots of color will last for years
- Will not change the taste of your icing



RECIPES FOR MAKING NATURAL ICING COLORS

*** Due to cooking, cooling and straining time, leader should pre-make all three colors so children can color icing during activity. Before coloring icing, leader should demonstrate steps to make natural colors, so children know how they are achieved.**

Blue – Red Cabbage

1. Combine 2 cups shredded red cabbage and 1 ½ cups water in saucepan
2. Bring the mixture to a simmer over medium heat
3. Remove the mixture from the heat and let steep for 15 minutes
4. Strain, then return juice to pan. Reduce to 3 to 4 tablespoons of liquid, then stir in a pinch of baking soda. It's the baking soda that will turn the color from purple to blue.
5. Transfer to a container to cool completely
6. Add ½ to 1 teaspoon blue color for every 1 cup of icing

Yellow - Turmeric Powder

1. In a small saucepan, simmer ½ cup water and 1 teaspoon ground turmeric for 2 to 3 minutes
 2. Allow to fully cool
 3. Only a very small amount of turmeric is needed to get a strong yellow color
- Note: Turmeric may stain containers yellow

Red – Beets

1. Using a blender or food processor, blend together ¼ cup of cooked beets (canned or fresh) and a ½ cup of beet juice (from can or cooking liquid) until smooth
2. If using fresh beets, use the round purplish-red variety
3. Strain to remove the beets and save the beet liquid, which is your food coloring

TINTING ICING

*Leader should make icing in advance using recipe on page 7 or purchase enough icing for each child to have 1 1/2 cups medium consistency icing. Children will each need 6 bowls of icing, about a ¼ cup per bowl. Each child will tint icing blue, yellow and red with natural colors, then blue, yellow and red using prepared Wilton Gel Colors.

Tinting with Natural Colors

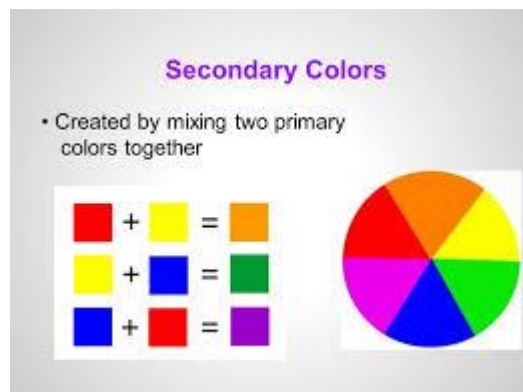
- Allow each child to measure about ¼ teaspoon of each color into their bowls of icing
- Using spatula or butter knife, stir the icing to blend in the color
- Wipe off spatula or butter knife between colors
- If there's enough color to go around, children can add additional color to intensify icing colors

Tinting with Wilton Gel Icing Colors

- Allow each child to dip a toothpick into the Icing Color jar then swirl it into their icing
- Using spatula or butter knife, stir the icing to blend in the color
- Wipe off spatula or butter knife between colors
- Add a little more color at a time to achieve a darker shade, using a fresh toothpick each time you add more color

Simple Color Theory – Explain blue, yellow and red are primary colors that can be combined to make secondary colors. Create secondary colors by mixing blue and yellow together to make green, yellow and red to make orange and red and blue to make purple. Have children experiment with natural icing colors and Wilton Gel Icing Colors.

- Using a sheet of parchment, have children dip their spatula or butter knife separately into each primary color (red, yellow and blue), swiping each icing color onto the parchment
- Wipe off spatula between colors
- Repeat adding a dip of yellow to red, yellow to blue and blue to red
- Have children compare their secondary colors (orange, green and purple). They will be a little different depending on how much of each color was used.



<https://slideplayer.com/slide/8349691/>

SPATULA ICING COOKIES

***Leader – Provide 4-6 cookies on a sheet of parchment. Demonstrate spatula icing on cookies in various icing colors. Have children ice some cookies with natural colors and others with Wilton Gel Icing Colors so they can see and taste the difference.**

- Dip spatula or butter knife in icing color picking up a small amount of icing on the tip
- Swipe alternating colors in any direction to cover the cookie
- For best results, clean off spatula after each swipe



RESULTS

Discussion Questions – Encourage children to talk about their results and what they learned during the activity

- Which colors did you like best, the natural color or the those made Wilton Gel Icing Colors? Discuss why.
- Did the natural colors have a different taste?
- Did you know about primary and secondary colors before today's activity? Were you surprised you could make three new colors from the three primary colors?
- Did your neighbors' secondary colors look different than yours? If so, why do think that might be?
- Can you think of any other fruits, vegetables or spices you could use to naturally tint icing?

Now that your Girl Scouts have been introduced to basic icing color skills and spatula icing, encourage them to learn more through the Icing Fundamentals, Buttercream Flowers, Decorating Cookies and Fondant Fundamentals class activities. Find the easy to follow Leader Guide and completion certificates at <http://classpromo.wilton.com/girlscouts>

CLEAN-UP AND WRAP-UP

INSPIRATION



<https://food52.com/blog/16265-how-to-mak-1>



<http://www.sweetpeasandabcs.com/naturall>



<https://thepioneerwoman.com/food-and-fri>



<http://www.sweetpeasandabcs.com/naturall>

Wilton Buttercream Icing

Note: This recipe is for stiff consistency buttercream, which is excellent for piping decorations like flowers with petals that stand up. It will need to be thinned to medium consistency for stars, rosettes and leaves. Add 2 teaspoon of water to the recipe to convert stiff icing to medium.

Makes 2 ¼ cups

INGREDIENTS:

1 teaspoon pure vanilla extract
1/2 cup solid vegetable shortening
1/2 cup (1 stick) butter or margarine, softened
4 cups (1 lb.) sifted confectioners' sugar
2 tablespoons milk or water

TOOLS:

Electric mixer with paddle attachment (or hand mixer with beaters)
Large bowl
Silicone spatula

- In large bowl, beat shortening and butter with electric mixer until light and fluffy. Beat in vanilla.
- Gradually add confectioners' sugar, one cup at a time, beating well on medium speed.
- Scrape sides and bottom of bowl often. When all sugar has been mixed in, icing will appear dry.
- Gradually add milk or water; beat at medium speed until light and fluffy.

HINTS:

- Keep bowl covered with plastic wrap until ready to use
- If using a hand mixer, beat shortening, butter and liquids first, then add sugar, as above. Make one batch at a time to prevent hand mixer from overheating.
- Depending on the humidity and climate, it may be necessary to adjust the liquid and the sugar in your icing. If icing looks dry, add small amounts of liquid (1/4 to 1/2 teaspoon at a time). If icing is too wet, add 1 tablespoon of confectioners' sugar at a time.
- The key for both adjustments is adding small amounts until you achieve the right consistency.