

MMMM Sugar Cookies



Author – Erin Holleran, 4-H Volunteer

Name: _____

Club: _____

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THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Member Project Guide

Project Background

This project is for 4H members of all ages, with and without prior cooking and baking experience. It is intended to be a single year project. This project is eligible for competition at the county level, however, there is no State Fair category for this project.

In this project members will be introduced to four cookie recipes and two frosting recipes. Some of these recipes have been collected from Wood County 4H Bake Off participants. Members will be asked to complete four learning activities, which will add to their understanding of baking techniques and the ways in which ingredients interact with each other.

The principles learned in this project will serve as a base for more sophisticated baking experiences.

A note to the Project Helper

A 4H member has asked you to serve as a Project Helper, congratulations! You may be a parent, relative, project leader, friend, club advisor, or another individual that is important in the 4H member's life. Your duties begin with helping the youth create and carry out project guidelines, as outlined in this project guide. This is followed by helping the youth focus on each activity, providing support and feedback, and determining what was done well, what could have been done differently, and where to go next.

As a Project Helper, it is up to you to encourage, guide, and assist the 4H member. How you choose to be involved helps to shape the 4H member's life skills and knowledge of the importance of baking.

Your Role as a Project Helper

Your contributions are critical to the delivery of the 4H Program. It is essential that your interactions support positive youth development within the framework of these eight key elements.

1. Positive relationship with a caring adult
2. Safe environment, emotional and physical
3. Opportunity for mastery
4. Opportunity for value and practice service
5. Opportunity for self-determination
6. Welcoming environment
7. To be an active participant in the future
8. Engagement in learning

For more information on the eight key elements, please refer to the Advisor Handbook available online at www.ohio4h.org. In addition, on a practical level, your role as a project helper means you will;

- Guide the youth and provide support in setting goals and completing this project.
- Encourage the youth to apply knowledge from this project book.
- Serve as a resource person.
- Encourage the youth to go beyond the scope of this 4H project book to learn more about baking.

Project Guidelines

Step 1: Complete all 10 activities

Step 2: Learning Activities – Juniors (ages 9-13) **complete at least two**, Seniors (ages 14-18) complete **at least four**.

Step 3: Leadership/citizenship activities – Juniors complete **at least two**, Seniors complete **at least four**.

Step 4: Complete the project review

Step 1: Project Activities

Please complete all of the following for judging:

_____ All about sweeteners

_____ The role of flour

_____ Types of butter

_____ Cut-out cookie thickness

_____ Royal icing research

_____ Cookie bar brainstorming

_____ Exploring food coloring

Step 2: Learning Experiences

Learning experiences are meant to complement project activities, providing the opportunity for you to do more in a subject that interests you. Some ideas include: attending a workshop or class related to baking cookies, organizing a club meeting about your project, touring a local bakery, preparing a demonstration or exhibit about your project, and participating in county project judging.

Juniors complete **two** learning experiences and Seniors complete **four**.

Plan to do	What I did	Date Completed	Project Helper Initials

Step 3: Leadership and Citizenship Activities

Choose at least two leadership/citizenship activities from the list below or create your own and write them in. Record your progress by asking your project helper to initial next to the date that each activity is completed. Here are some leadership/citizenship activities that you may choose from:

Juniors complete **two** learning experiences and Seniors complete **four**.

Plan to do	What I did	Date Completed	Project Helper Initials
	Help someone shop for groceries.		
	Take cookies to a friend, neighbor, or relative.		
	Help someone clean up the kitchen after a meal.		
	Serve a snack at a 4H Club meeting.		
	Help another member with their project.		

Step 4: Project Review

Completing a project review helps you assess your personal growth and evaluate what you have learned. Use this space to write a brief summary of your project experience. Be sure to include a statement about the skills you have learned and how they may be valuable to you in the future.

Now work with your Project Helper to create your project portfolio. This portfolio can be a folder with center binder tabs, or a three ring notebook (not a scrapbook). One page should be devoted to each project activity. Ideas for pages could include photos or graphs with captions or journaling, collages of products used, etc. All of these things should help describe what you did with your project.

All About Sweeteners!

Granulated sugar is the most common sweetener used in baking, but there are many other sweeteners available. Do some research and explore at least four different kinds of sweeteners. Fill out the table below so that you can return to it when substituting different kinds of sweeteners.

Name of sweetener	Description	Can it be used in place of sugar?	Tips for substituting

When you are baking sugar cookies the flavor of the sweetener makes a difference. Extend this experiment by doing a taste test. Sample each sweetener on it's own and record your thoughts on the flavor of the sweetener below.

Name of sweetener	Flavor notes

Fluffy Drop Sugar Cookies

Ingredients:

- 1 Cup Margarine (2 sticks)
- 2 Cups Sugar
- 3 Eggs
- 1 Tablespoon Vanilla
- 4 Cups Flour
- 1 Teaspoon Baking Powder
- 1 Teaspoon Baking Soda
- 1 Teaspoon Cream of Tartar
- 1 Cup Milk
- ¼ Cup Sugar

Directions:

Preheat the oven to 350°F. In the bowl of a stand mixer, cream together margarine and sugar until light and fluffy. Add eggs one at a time, beating thoroughly each time. Add vanilla and mix well.

In a separate bowl combine flour, baking powder, baking soda, and cream of tartar. Gradually beat this mixture into butter, sugar, and egg mixture, alternating with small amounts of milk until all ingredients have been added except ¼ cup of sugar.

Place remaining sugar in a small bowl. Roll out balls of dough using a large cookie scoop. Roll each ball in the sugar and place on a cookie sheet. Bake for 10 to 12 minutes and let cool on wire rack.

Often called Amish Sugar Cookies these are typically large and fluffy. They can be frosted or glazed, you could even roll them in colored sugar before baking!



What role does flour play in a sugar cookie recipe? Make two batches of these drop sugar cookies, one batch following the recipe as it is written, one batch using only **two** cups of flour. How does each batch turn out?

Sugar cookies don't have to be complicated, in fact, this shortbread recipe only uses three ingredients. In this recipe, the butter gives the cookie most of it's flavor. Visit the grocery store and make a list of the different types of butter you see.

What kind of butter do you think would be best for these cookies? Why?

Shortbread cookies don't usually have frosting, but you could dip them or drizzle them with a glaze made with 1 cup of powdered sugar and 4 to 5 teaspoons of a liquid such as water, lemon juice, or an extract.

3 Ingredient shortbread

<p><u>Ingredients:</u> 1 Cup Butter ½ Cup Powdered Sugar 2 Cups Flour</p>	<p><u>Directions:</u> Preheat the oven to 350°F. Line two baking sheets with parchment paper or baking mats and set aside.</p> <p>Cream together butter and powdered sugar in a large bowl. Add flour and mix until a soft dough forms (it may look crumbly, but if you keep mixing it will come together). Roll the dough into a ball in your hands and place the ball back in the bowl.</p> <p>Dust a clean surface with flour (or use powdered sugar to keep the dough from becoming too dense) and roll out the dough with a rolling pin. You want your cookies to be approximately ¼ inch thick (Shortbread should be thin and flaky). Cut into shapes and bake for 16 to 18 minutes.</p>
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Rolling out cookie dough can take some practice. Be sure to flour your hard surface so that the dough does not stick to it. You may also choose to flour your rolling pin. Many bakers use special gadgets to make sure that all of their cookies are rolled to the same thickness.

Rolling Pin Rings: These silicone rings come in pairs so that you can slide one ring each end of your rolling pin. They come in different thicknesses so that you could roll your dough as thick or as thin as you want.

Perfection Strips: Perfection strips are similar to rolling pin rings, however they are designed to lay flat on the counter, one on each side of your dough, as you roll the dough out, helping you to keep the dough an even thickness on both sides.

DIY Options: There are a number of do it yourself options for measuring your dough to even thickness. You can place two dowel rods of the same thickness on either side of your dough, or two strips of wood in the same thickness. If you choose to try either of these options make sure to clean the wood well with dish soap and water before using them for baking.

When rolling out cookies the common thickness is $\frac{3}{4}$ of an inch. You should consider how the thickness of your cookie dough will impact the finished cookies. Thicker cookies will be softer while thinner cookies will be slightly crunchy if baked at the same temperature for the same length of time. Thicker cookies will also mean that you may get fewer cookies out of the same amount of dough.



Mix up one batch of Sour Cream Cut Out cookies (recipe on the next page) and roll some of the cookies out thinner than $\frac{1}{4}$ ' and some of the cookies thicker than $\frac{1}{4}$ ". After baking taste each thickness and record your notes below about the baking process for the different thicknesses and the taste of each.

Sour Cream Cut-Out Cookies

Ingredients:

1 Cup Butter
1 ½ Cups Sugar
3 Eggs
1 Cup Sour Cream
1 Tablespoon Vanilla
4 Cups Flour
2 Teaspoons Baking Powder
1 Teaspoon Baking Soda

Directions:

Combine butter and sugar in the bowl of a stand mixer and beat until creamy. Add in eggs, one at a time, beating after each addition. Mix in sour cream and vanilla. Add dry ingredients, beating until all ingredients are well mixed. Transfer dough to a refrigerator safe bowl, cover, and refrigerate at least 4 hours.

Preheat oven to 350°F and roll out dough on a floured surface. Use cookie cutters to cut out desired shapes, placing each shape onto a cookie sheet. Bake for 8 to 10 minutes depending on the thickness and size of your cookies. Let cool on a wire rack before frosting.

When it comes to decorating sugar cookies, royal icing is the most popular kind of frosting. Royal icing dries hard, making it easy to package or plate your cookies because you don't have to worry about smudging the frosting. Royal frosting can be a little tricky to work with, it's helpful to watch others do it first. Find three sources (blog tutorials, online videos, non-fiction books, or cooking shows) where you can learn from someone else's royal icing tips. Write down these sources below for future reference, along with at least one tip you learned from each, then use the recipe on the next page to make your own royal icing.

Source	Tip(s)

Royal icing

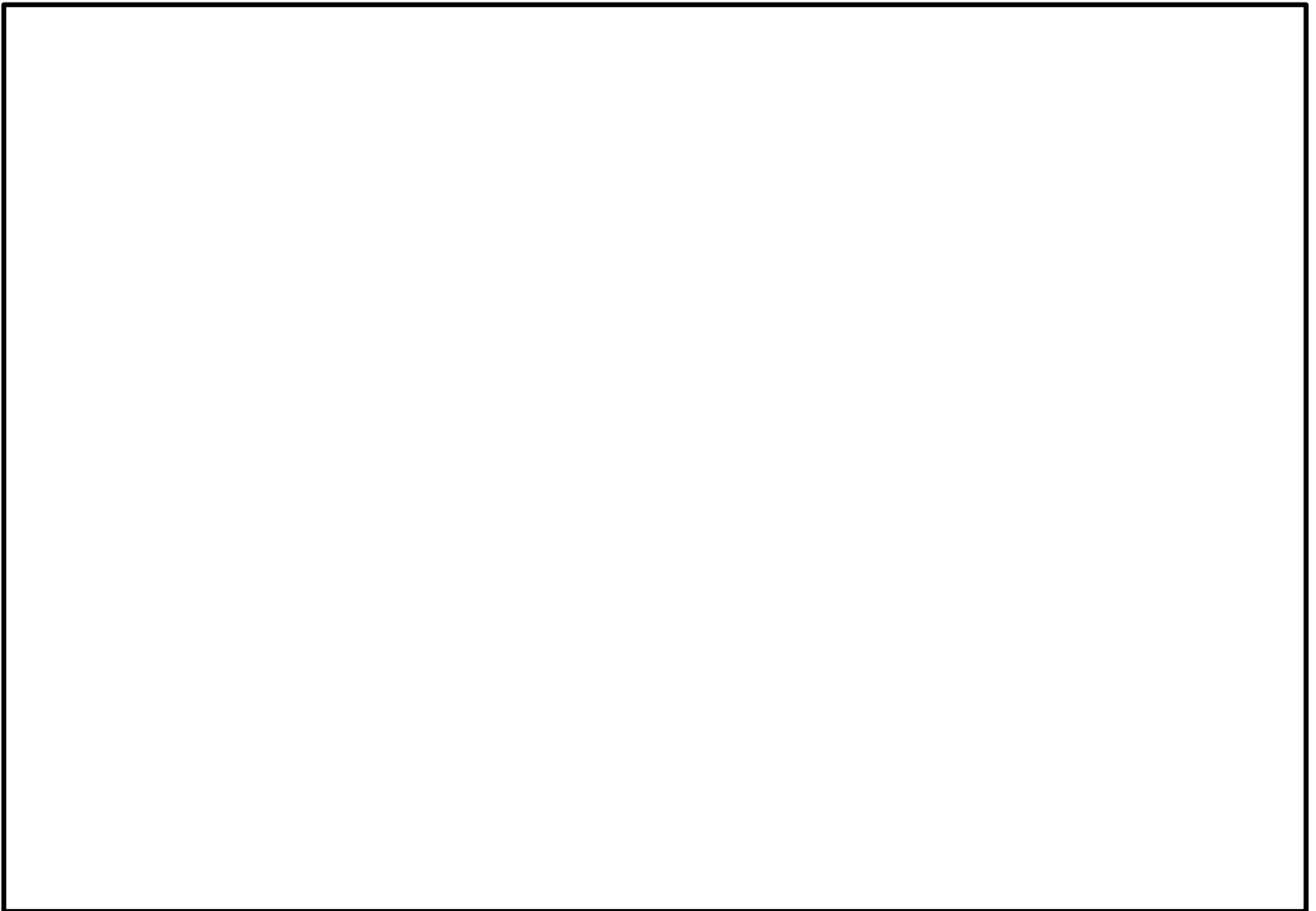
Ingredients:

2 pounds powdered sugar
5 tablespoons meringue powder
2-3 tablespoons vanilla extract
½ cup warm water

Directions:

In the large bowl of your stand mixer, dissolve the meringue powder in the water, using the whisk attachment. When the meringue powder is dissolved add the extract. Finally, add the powdered sugar slowly, one cup at a time. Mix well between each addition so that your frosting stays smooth. If the frosting is too dry you can add additional water, one tablespoon at a time until your frosting is thick and forms soft peaks.

Use the space below to share photos of your finished cookies:



What kinds of tools did you use to frost your cookies? _____

What will you try differently next time? _____

Bar cookies take less time to make because you don't have to shape or scoop them, and you can bake the entire pan at one time instead of waiting for multiple cookie sheets. This convenience makes them an easy choice for a potluck or party. List four places that you could take these sugar cookie bars

Sugar cookie bars

Ingredients:

½ Cup Butter
1 Cup Sugar
1 Egg
1 Tablespoon Sour Cream
1 Tablespoon Vanilla
½ Teaspoon Baking Powder
½ Teaspoon Salt
2 ½ Cups Flour

Directions:

Preheat the oven to 375°F. Using a stand mixer, cream together butter and sugar. When well mixed add egg, sour cream, and vanilla. Beat at medium speed until all ingredients are incorporated.

Mix in baking powder and salt, then slowly add flour (1 cup at a time). When all ingredients are well mixed, transfer the dough to a 9"x13" pan. Press dough down until it covers the bottom of the pan. Make sure to press it all of the way into the corners of the pan.

Bake for 18 to 20 minutes, just until the edges are golden brown. Let cool before frosting.

These cookies take the shape of the pan that they are baked in. What are some other types of pans or molds that you could bake these cookies to change their shape?



Use the frosting recipe on the next page to make the perfect butter cream frosting for your bar cookies, and don't forget to add sprinkles!

Frosting is what makes your cookie look great, but it also adds a layer of sweetness. This is why it is important to use some kind of flavoring in your frosting, usually vanilla or almond extract. The taste of your frosting is also why it is important to use any food coloring sparingly, as some food colorings can make your frosting taste different.

There are many different kinds of food coloring. The most common are liquid food coloring and gel food coloring, but you can also find powdered food coloring in some specialty stores.

Use the recipe below to make frosting for your bar cookies. Experiment by coloring some of the frosting with liquid food coloring, and some with gel food coloring, then answer the questions at the bottom of the page.

Fluffy buttercream frosting

Ingredients:

½ Cup Butter
4 Cups Powdered Sugar
¼ Cup Milk
1 Teaspoon Vanilla

Directions:

In the bowl of a stand mixer, cream the butter, slowly adding the powdered sugar. When all of the powdered sugar has been added, pour in the milk and vanilla and beat until the frosting is smooth.

If the frosting seems too thin continue to add small amounts of powdered sugar until it thickens. If you want to color your frosting add food coloring before removing the bowl from the stand mixer.

Did one type of food coloring create brighter colored frosting?

Did you have to use more of one type of food coloring to get the color that you wanted? _____

Did either type of food coloring make the frosting taste different?

Did either type of food coloring change the consistency of the frosting?
