



# DISCOVER



## 4-H COOKING CHALLENGE



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## Description

The Discover 4-H Clubs series guides new 4-H volunteer leaders through the process of starting a 4-H club or provides a guideline for seasoned volunteer leaders to try a new project area. Each guide outlines everything needed to organize a club and hold the first six club meetings related to a specific project area.

## Purpose

The purpose is to create an environment for youth and families to come together and participate in learning activities while spending time together as a multi-family club. Members will be able to experiment with new 4-H project areas.

## What is 4-H?

4-H is one of the largest youth development organizations in the United States. 4-H is found in almost every county across the nation and enjoys a partnership between the U. S. Department of Agriculture (USDA), state land-grant universities (e.g., Utah State University), and local county governments.

4-H is about youth and adults working together as partners in designing and implementing club and individual plans for activities and events. Positive youth development is the primary goal of 4-H. The project area serves as the vehicle for members to learn and master project-specific skills while developing basic life skills. All projects support the ultimate goal for the 4-H member to develop positive personal assets needed to live successfully in a diverse and changing world.

Participation in 4-H has shown many positive outcomes for youth. Specifically, 4-H participants have higher participation in civic contribution, higher grades, increased healthy habits, and higher participation in science than other youth (Lerner et al., 2005).

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## Utah 4-H

4-H is the youth development program of Utah State University Extension and has more than 90,000 youth participants and 8,600 adult volunteers. Each county (Daggett is covered by Uintah County) has a Utah State University Extension office that administers the 4-H program.

## The 4-H Motto

"To Make the Best Better!"

## The 4-H Pledge

I pledge: My HEAD to clearer thinking, my HEART to greater loyalty, my HANDS to larger service and my HEALTH to better living, for my club, my community, my country, and my world.

## 4-H Clubs

What is a 4-H Club? The club is the basic unit and foundation of 4-H. An organized club meets regularly (once a month, twice a month, weekly, etc.) under the guidance of one or more volunteer leaders. The 4-H club elects its own officers, plans its own programs, and participates in a variety of activities. Clubs may choose to meet during the school year, only for the summer, or for both.

## Club Enrollment

Enroll your club with your local Extension office. Each member will need to complete a Club Member Enrollment form, Medical History form, and a Code of Conduct/Photo Release form. (Print these from the [www.utah4h.org](http://www.utah4h.org) website or get them from your county Extension office).

## Club Officers

Elect club officers during one of your first club meetings. Depending on how many youth are in your club, you can decide how many officers you would like. This will typically include a president, vice president, pledge leader, and secretary. Other possible officers or committees are: song leader, activity facilitator, clean-up supervisor, recreation chair, scrapbook coordinator, contact committee (email, phone, etc.), field trip committee, club photographer, etc. Pairing older members with younger members as Sr. and Jr. officers may be an effective strategy to involve a greater number of youth in leadership roles and reinforce the leadership experience for all ages. Your club may decide the duration of officers (6 months, 1 year, etc.).



## A Typical Club Meeting

Follow this outline for each club meeting:

- ☐ Call to order – President
- ☐ Pledge of Allegiance and 4-H Pledge – Pledge Leader (arranges for club members to give pledges)
- ☐ Song – Song Leader (leads or arranges for other club member to lead)
- ☐ Roll call – Secretary (may use an icebreaker or a “get acquainted” type of roll call to get the meeting started)
- ☐ Minutes of the last meeting – Secretary
- ☐ Business/Announcements – Vice President
- ☐ Club Activity – Activity Facilitator arranges this. It includes a project, lesson, service, etc. These are outlined by project area in the following pages.
- ☐ Refreshments – Refreshment Coordinator
- ☐ Clean Up – Clean-up Supervisor leads others in cleaning up



## Essential Elements of 4-H Youth Development

The Essential Elements are about healthy environments. Regardless of the project area, youth need to be in environments where the following elements are present in order to foster youth development.

1. **Belonging:** a positive relationship with a caring adult; an inclusive and safe environment.
2. **Mastery:** engagement in learning, opportunity for mastery.
3. **Independence:** opportunity to see oneself as an active participant in the future, opportunity to make choices.
4. **Generosity:** opportunity to value and practice service to others.

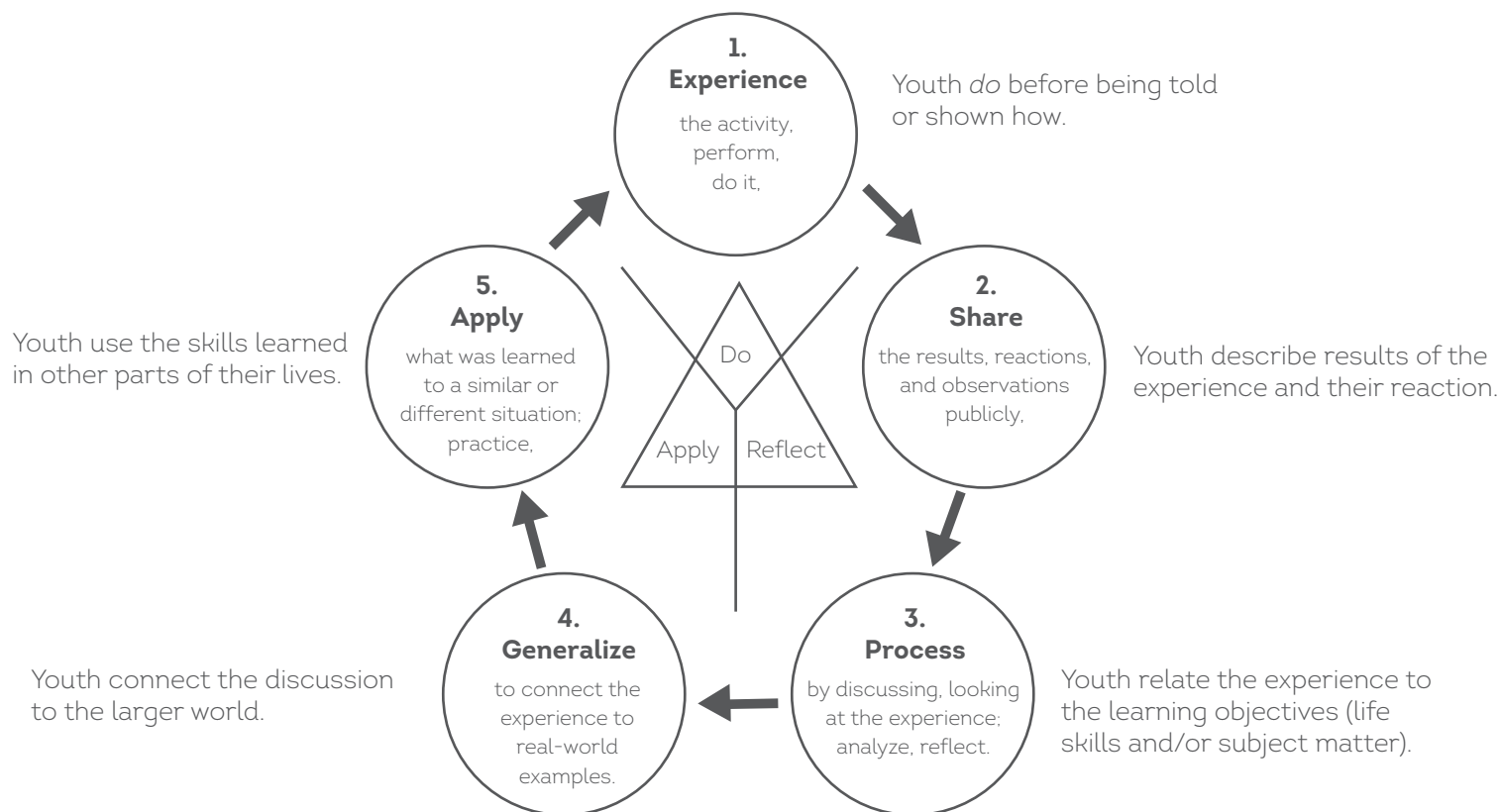
(Information retrieved from: <http://www.4-h.org/resource-library/professional-development-learning/4-h-youth-development/youth-development/essential-elements/>)





## 4-H “Learning by Doing” Learning Approach

The Do, Reflect, Apply learning approach allows youth to experience the learning process with minimal guidance from adults. This allows for discovery by youth that may not take place with exact instructions.



## 4-H Mission Mandates

The mission of 4-H is to provide meaningful opportunities for youth and adults to work together to create sustainable community change. This is accomplished within three primary content areas, or Mission Mandates - citizenship, healthy living, and science. These mandates reiterate the founding purposes of Extension (e.g., community leadership, quality of life, and technology transfer) in the context of 21st century challenges and opportunities. (Information retrieved from: [http://www.csrees.usda.gov/nea/family/res/pdfs/Mission\\_Mandates.pdf](http://www.csrees.usda.gov/nea/family/res/pdfs/Mission_Mandates.pdf))

1. **Citizenship:** connecting youth to their community, community leaders, and their role in civic affairs. This may include: civic engagement, service, civic education, and leadership.
2. **Healthy Living:** promoting healthy living to youth and their families. This includes: nutrition, fitness, social-emotional health, injury prevention, and prevention of tobacco, alcohol, and other drug use.
3. **Science:** preparing youth for science, engineering, and technology education. The core areas include: animal science and agriculture, applied mathematics, consumer science, engineering, environmental science and natural resources, life science, and technology.

## Getting Started

1. Recruit one to three other families to form a club with you.
  - a. Send the 4-H registration form and the medical/photo release form to each family (available at [utah4h.org](http://utah4h.org)).
  - b. Distribute the Discover 4-H Clubs curriculum to each family.
  - c. Decide on a club name.
  - d. Choose how often your club will meet (e.g., monthly, bi-monthly, etc.).
2. Enroll as a 4-H volunteer at the local county Extension office (invite other parents to do the same).
3. Enroll your club at the local county Extension office.
  - a. Sign up to receive the county 4-H newsletter from your county Extension office to stay informed about 4-H related opportunities.
4. Identify which family/adult leader will be in charge of the first club meeting.
  - a. Set a date for your first club meeting and invite the other participants.
5. Hold the first club meeting (if this is a newly formed club).
  - a. See the previous section, *A Typical Club Meeting*, for a general outline.
    - i. Your activity for this first club meeting will be to elect club officers and to schedule the six project area club meetings outlined in the remainder of this guide. You may also complete a-d under #1 above.
  - b. At the end of the first club meeting, make a calendar outlining the adult leader in charge (in partnership with the club president) of each club meeting along with the dates, locations, and times of the remaining club meetings.
6. Hold the six project-specific club meetings outlined in this guide.
7. Continue with the same project area with the 4-H curriculum of your choice (can be obtained from the county Extension office) OR try another Discover 4-H Club project area.



## Other Resources

Utah 4-H website: [www.utah4-h.org](http://www.utah4-h.org)

National 4-H website: [www.4-h.org](http://www.4-h.org)

4-H volunteer training:

To set up login to:

<http://utah4h.org/volunteers/training/>

To start the modules: (password = volunteer)

## References

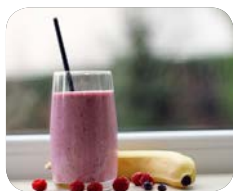
Information was taken from the Utah 4-H website ([utah4h.org](http://utah4h.org)), the National 4-H website ([4h.org](http://4h.org)), the Utah Volunteer Handbook, or as otherwise noted.

Lerner, R., M. et al. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth grade adolescents: Findings from the first wave of the 4-H Study of Positive Youth Development. *Journal of Early Adolescence*, 25(1), 17-71.

**We would love feedback or suggestions on this guide; please go to the following link to take a short survey:**

**Go to <https://goo.gl/iTfiJV> or [Click here to give your feedback](#)**

# 4-H COOKING CHALLENGE CLUB *Meetings*



## Club Meeting 1

Smoothie Challenge ..... 2



## Club Meeting 2

Cooking with Challenges ..... 6



## Club Meeting 3

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## Club Meeting 4

Make a Dessert out of a Selection of Ingredients ..... 17



## Club Meeting 5

Follow the Recipe Exactly ..... 20



## Club Meeting 6

Making a Main Dish with All the Ingredients ..... 27



## Smoothie Challenge



### Supplies

- Activity 1 Supplies: Computer, Projector
- Activity 2 Supplies: Computers with Internet, Blenders (preferably Ninja or high power blenders), Milk, Yogurt, Ice, Bananas, Strawberries, Blueberries, Mangos, Spinach, Salt, Vanilla, Honey (Optional)

### OVERVIEW OF CLUB

In this club, the youth will have hands-on experience learning basic cooking skills and how to create different foods. They will work with other youth in fun food challenges each week to see who can create the best dishes. This club will teach youth teamwork, mastery, independence, creativity, and so much more!

### INTRODUCTION

Welcome to the amazing and creative world of smoothie making! In this meeting, we will be learning about fruits and different healthy ways to eat them. Then we will have fun experimenting by having a team challenge of smoothie making!

### PRIOR TO MEETING

- Shop for supplies.
- Make sure your computers and internet are working.
- Read through the lesson plan to prepare yourself to teach the lesson. Also review MyPlate.
- Have volunteers lined up to judge the smoothie contest.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Determine the location of the club meeting.

## Activity *#1*



### WHAT SHOULD I EAT?

TIME: 10 MINUTES

1. Talk to the youth about fruits and explain to them that they are one of the five food groups our body needs.
2. Have youth identify the other four food groups (vegetables, grains, protein, and dairy).







3. Explain the healthiest ways to eat fruits (with the skins, not as juice, etc.) Use ChooseMyPlate.gov as a resource.
4. Use the following website to see how much of each food group is recommended and how much Americans actually eat on average: <https://health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/>.
5. Have the youth stand up if their age group is supposed to eat more fruits, sit down if they eat the right amount, and spread out on the floor if they eat too much. (You could repeat this activity with the numbers from their age group for other food groups.)
6. Explain that fruits are a more natural way to have sugar than processed sugars.

## Activity #2



### SMOOTHIE CHALLENGE

TIME: 45 MINUTES

1. Divide youth into groups based on the number of blenders and youth. Smaller groups are better.
2. Explain that they will be making smoothies to see who can make the best smoothie. Tell them the smoothies will be judged for taste/texture, appearance, texture, and nutrition.
3. Give the groups time to look at the ingredients and write down a plan of what they want to put in their smoothies and how much. You should give limits to how much of the ingredients each group can use.
4. Give groups a 30-minute time frame to complete steps 5-7.
5. Give the groups time to look on computers and find out what nutrients are in the ingredients they are planning on using.
6. Once the youth have shown you their plan, they may begin making the smoothie.
7. After they have made their smoothie, have youth pour them into cups for the judges to try.
8. Each group will present their smoothie to the judges. They will tell them what is in their smoothie and why it is nutritious.
9. The judges will judge the smoothies based on taste, appearance, texture, and nutrition on a scale from 1-10 for each, with 10 being high. The scores will be totaled and the winner determined.
10. As a group, discuss what made each smoothie good and how to determine ways to improve each smoothie in the four different judging categories.





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## Reflect

- Why do you think the winning smoothie was chosen as the winner?
- What created a good texture?
- What helped it have a good appearance?
- What makes the smoothie sweeter?
- What do you think the judge is looking for in a perfect smoothie?
- What do you look for in your food?

## Apply

- These smoothies can be a healthy option for a snack or even a meal. What will you do to eat healthier?
- What will you do to use natural sweeteners rather than processed sugars?
- Go home and make your own smoothie (or an improved version) for a friend or family member.



## 4-H MISSION MANDATES

### Citizenship

Encourage responsibility by having each group clean up their own blender and workstation.

### Healthy Living

Youth will learn about fruits, why they are important, and the healthiest ways to eat them. They will learn the importance of using natural sugars over processed sugars.

## ESSENTIAL ELEMENTS

### Belonging

The youth must work as part of a team to come up with a product they are all proud of.

### Independence

The club members have to come up with the recipe for their smoothie on their own.

### Generosity

Youth must share with the judge. They can also share and sample other groups or take some home to share with their families. They will be encouraged to make the recipe again for their family or friends.

### Mastery

You could have each group go back to their blenders and add to their leftover smoothie based on the comments from the judge to improve the quality of their smoothie.

## References and Other Resources

2015 Dietary Guidelines Advisory Committee. "Chapter 2 Shifts Needed To Align With Healthy Eating Patterns." Chapter 4 - 2008 Physical Activity Guidelines, 2015, [health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/](http://health.gov/dietaryguidelines/2015/guidelines/chapter-2/a-closer-look-at-current-intakes-and-recommended-shifts/)

United States Department of Agriculture. "Choose MyPlate." ChooseMyPlate, [www.choosemyplate.gov/](http://www.choosemyplate.gov/)



# 4-H *Club Meeting 2*

## Cooking With Challenges



### Supplies

- Activity 1 Supplies: Computer, Projector
- Activity 2 Supplies: Noodles, Sabotage Noodle (1 package), Tomato Sauce, Tomato Paste, Tomatoes, Lean Hamburger, Butter, Flour, Milk, Parmesan Cheese, Garlic Cloves, Plates, Salt, Pepper, Oregano, Basil, Dried Onions, Forks, Whisks, Napkins, Knives, Saucepans, Big Pots for Noodles, Burners, Spoons, Cutting Boards, Little Bowls, and Fake Money

### INTRODUCTION

Are you ready to take the Spaghetti Challenge?! In this meeting, we will be refining our cooking skills by competing to make the best spaghetti while experiencing different challenges and barriers throughout the process.

### PRIOR TO THE MEETING

- Shop for supplies.
- Make sure your computer and projector are working.
- Read through the lesson plan to prepare yourself to teach the lesson.
- Come up with an Auction Off Challenges for Activity 2.
- Print the fake money.
- Have volunteers lined up to judge the spaghetti.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Determine the location of the club meeting.

## Activity *#1*



## HOW TO MAKE SAUCES

TIME: 10 MINUTES

1. Teach youth how to make spaghetti by doing the following:
  - a. making white sauce
  - b. making spaghetti sauce





- c. how to brown meat
- d. how to crush garlic
2. Note: You can teach the youth how to make all the items through explanation, showing pictures, and/or by doing a demonstration.
3. Directions for making a white sauce base:
4. In a small saucepan over medium heat, melt 2 tablespoons of butter. Then add 2 tablespoons of flour. Stir until the flour and butter are well combined. Slowly add 1 cup of milk, stirring constantly as it thickens. Then add garlic and cheese, or whatever ingredients you would like to finish your sauce.
5. Note: To make a bigger batch of sauce, increase the amount of all of your ingredients. Be sure you have equal parts of butter and flour. Slowly add the desired amount of milk. For a thicker sauce, use more butter and flour. For a thinner sauce, use more milk.
6. To make it a "pink" sauce, add a can of tomato sauce and a can of tomato paste to your white sauce base. Season with salt, pepper, oregano, basil, onions, etc.
7. Add browned meat to either white or pink sauce if desired.

## Activity #2



### TAKE THE SPAGHETTI CHALLENGE

TIME: 60 MINUTES

1. Divide youth into groups of 3-4.
2. Explain that each group has to make spaghetti, but there will be challenges involved that will make it more difficult.
3. Give each group 100 fake dollars to start with.
4. Introduce the youth to the Auction off Challenges! If they buy the challenge, they decide who receives it. Make a rule that each team can only have one challenge given to them.
5. Examples of challenges include having to use tomatoes instead of tomato sauce, not getting to use knives, no measuring utensils, wrong kind of noodles, they can only use one hand each, etc. Note: Pick the same amount of challenges as you have groups.
6. Give youth 1-2 minutes to come up with a "chef bio."
7. Have them tell their "chef bio" before you start. They get 60 seconds to "shop" for their ingredients. Then auction off the sabotages and give them a designated time (set a timer) to complete the challenge.
8. Each group will make their own spaghetti.
9. After the designated amount of time, the groups will present their final product to the judges (could be the 4-H leader or another adult), and the judges will pick the winner!
10. Following the judging, have everyone taste each of the different spaghetti recipes.







## Reflect

- Did you know how to make spaghetti before today?
- How did the challenges make it harder to cook?
- Were the challenges as bad as you thought?
- Did the challenges make things better?

## Apply

- What skills do you need for cooking?
- What challenges might make it harder for you to cook in the future?
- Can challenges sometimes be a good thing? How?
- People in life often have many challenges and barriers. What are some ways that you could help combat those challenges?

## Spaghetti Recipe

1-pound ground beef

1 onion, chopped

4 cloves garlic, minced

1 small green bell pepper, diced

1 (28 ounce) can diced tomatoes

1 (16 ounce) can tomato sauce

1 (6 ounce) tomato paste

2 teaspoons dried basil

1 teaspoon salt

½ teaspoon black pepper





## 4-H MISSION MANDATES

### Citizenship

After learning about the skills of teamwork and self-motivation, the club can work together to better serve their community and become more productive citizens.

### Healthy Living

Youth will learn about using lean meat and a way to cook a healthy meal.

## ESSENTIAL ELEMENTS

### Belonging

Youth feel like they belong as they work on a group challenge with their team.

### Independence

Youth must complete the dish on their own, demonstrating a high level of independence.

### Generosity

Youth get the opportunity to share their dish with other groups in their club and practice sharing and appreciating others' work.

### Mastery

Youth learn new skills and practice these skills in a challenging environment, leading to greater mastery.

## References and Other Resources

Hank's Mom. "Spaghetti Sauce with Ground Beef." Allrecipes, 11 Dec. 2019,  
<https://www.allrecipes.com/recipe/158140/spaghetti-sauce-with-ground-beef/>

CJO. "White Sauce." Allrecipes, 12 Sep. 2019,  
<https://www.allrecipes.com/recipe/21171/white-sauce/>





### Supplies

- List of Ingredients and Their Functions in Baking, 2 Chocolate Chip Cookie Recipes, Butter, White Sugar, Brown Sugar, Eggs, Vanilla, Baking Soda, Water, Salt, Flour, Chocolate Chips, Walnuts, Maple Syrup, Electric Mixers, Mixing Bowls, Spoons, Cookie Sheets, Cooking Spray, Cooling Racks, Spatulas, and Ovens

### INTRODUCTION

Sometimes it's hard to get the perfect ooey, gooey, delicious chocolate chip cookie. In this meeting, we will be competing to see who can get the best chocolate chip cookie! Club members will also learn what ingredients are used in baking, their functions, and amounts.

### PRIOR TO MEETING

- Shop for supplies.
- Make sure your computers and internet are working.
- Read through the lesson plan to prepare yourself to teach the lesson.
- Have volunteers lined up to judge the chocolate chip cookies.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Determine the location of the club meeting.

## Activity *#1*



# MAKING THE PERFECT CHOCOLATE CHIP COOKIE

**TIME: 60 MINUTES**

1. Divide the youth into groups of 3-5.
2. Hand out a list of baking ingredients and the two recipes.
3. Do a quick lesson on the different baking ingredients and their purposes.





4. Explain that they will have 30 minutes to make the cookies, and then they have to put them in the oven.
5. Explain to youth that it is common for bakers to experiment and come up with their own recipe for their favorite desserts. Most bakers start with a base recipe and begin experimenting from there. Let youth know that now is a great time for them to create their best chocolate chip cookie. They can use one of the recipes that they have been given or they can take both recipes and combine them together to make their own chocolate chip recipe. They are trying to create the best chocolate chip cookie for the judges based on flavor, texture, and freshness.
6. Choose someone to judge the cookies. Then eat and share the cookies!





## Reflect

- What recipe do you think worked best?
- Were there parts of both recipes that were good?
- Were there parts of both recipes that were the same?
- What was different about the recipes?
- Why do you think there were differences? What did the differences do?

## Apply

- Which recipe would you use in the future?
- How would you create your own chocolate chip cookie recipe?
- Can you modify recipes? Will you in the future?







## 4-H MISSION MANDATES

### Healthy Living

Youth learn how different ingredients work together through the baking process. The more that they understand this process, the better they will be at substituting ingredients to make a recipe healthier.

### Science

Youth learn the importance of measuring their ingredients so that their baking creations turn out as they desire. The amount of each ingredient used affects the outcome of a recipe.

## ESSENTIAL ELEMENTS

### Belonging

Youth participate in making cookies as part of a team and feel valued as a member of that team.

### Independence

Youth aren't told what to do during this activity. They are able to decide with their teams how to create the recipes.

### Generosity

Youth will practice generosity by sharing their cookies with other teams and other individuals.

### Mastery

Youth learn different ingredients in baking, the functions of those ingredients, and the differences in a recipe when ingredients and their amounts are changed.

## References and Other Resources

"Baking Ingredients & Function: A Breakdown." Food Services, 23 Nov. 2016, [ueat.utoronto.ca/baking-ingredients-function/](http://ueat.utoronto.ca/baking-ingredients-function/)

Dora, et al. "Best Chocolate Chip Cookies Recipe." Allrecipes, 1 Jan. 2008, [www.allrecipes.com/recipe/10813/best-chocolate-chip-cookies/](http://www.allrecipes.com/recipe/10813/best-chocolate-chip-cookies/)

"Perfect Chocolate Chip Cookies." Pinch of Yum, 16 Jan. 2018, [pinchofyum.com/perfect-chocolate-chip-cookies](http://pinchofyum.com/perfect-chocolate-chip-cookies)

## Chocolate Chip Cookie Recipe

Recipe 1

Note: This recipe can be completed in the 60-minute club meeting time.

1 cup butter, softened

1 cup white sugar

1 cup packed brown sugar





2 eggs

2 teaspoons vanilla extract

1 teaspoon baking soda

2 teaspoons hot water

1/2 teaspoon salt

3 cups all-purpose flour

2 cups semisweet chocolate chips

1 cup chopped walnuts

#### Directions

1. Preheat oven to 350 degrees F (175 degrees C).
2. Cream together the butter, white sugar, and brown sugar until smooth.
3. Beat in the eggs one at a time, then stir in the vanilla.
4. Dissolve baking soda in hot water.
5. Add to batter along with salt.
6. Stir in flour, chocolate chips, and nuts.
7. Drop by large spoonfuls onto ungreased baking sheets.
8. Bake for about 10 minutes in the preheated oven, or until edges are nicely browned.
9. <https://www.allrecipes.com/recipe/10813/best-chocolate-chip-cookies/>

#### Recipe 2

Note: This recipe will take extra time to complete.

15 tablespoons salted butter (about 225 grams)

1 1/2 cup white sugar

1 tablespoon brown sugar

2 tablespoons real maple syrup

2 teaspoons vanilla extract





2 eggs

2 1/4 cup all-purpose flour

1 teaspoon baking soda

1/2 teaspoon salt

1 bag Hershey's semisweet chocolate chips

#### Directions

1. Turn the oven to 350 degrees.
2. Put the butter in the oven in a stainless-steel bowl as it is preheating until about half of the butter is melted. Turn the oven off. Let the butter come back to room temperature – it doesn't have to harden completely but just so it's not hot anymore.
3. Add the sugar, maple syrup, and vanilla to the bowl with the butter. Cream with electric mixers until well mixed. Add the eggs and beat on high speed for 1 minute.
4. Measure in the flour, baking soda, and salt. You can do this in a separate bowl or in the same.
5. Slowly mix with the electric mixer on low speed, scraping the sides, until all the flour is incorporated.
6. Stir in the chocolate chips with a wooden spoon.
7. Refrigerate for 2 hours or more, until firm. I refrigerated mine overnight.
8. Preheat the oven to 375 degrees.
9. When the dough is firm, roll 2 tablespoons or more into high, round balls.
10. Place on a baking sheet a few inches apart and bake for 8-12 minutes. Watch them after 8 minutes to see when they look ready. You want to take them out when they are puffy and just a tiny bit brown on the tops and edges. Let stand for a few minutes – they will lose a little of their puffiness, but they should stay thick and hold together well.
11. <https://pinchofyum.com/perfect-chocolate-chip-cookies>





## Baking Ingredient & Function: A Breakdown

**Baking Powder:** Made from cream of tartar and starch, baking powder is a leavening agent, which causes your batter to rise. It has a built-in acidic ingredient, so you don't need to add anything else (unlike with baking soda). Too much baking powder results in a bitter tasting product, while too little results in a tough cake with little volume.

**Baking Soda:** Baking soda is pure sodium bicarbonate, and needs to be paired with an acidic ingredient like honey, chocolate, or yogurt. Like baking powder, it's a leavening agent. Use too much, and you'll have a soapy, coarse cake.

**Butter:** As a solid fat, butter is better suited for baking than any other fat product. Butter in particular adds flavor, with a melting point just below body temperature, which is why some cookies and baked goods tend to "melt in your mouth." It also helps in leavening and adds moisture.

**Cornstarch:** This ingredient has multiple purposes depending on the type of dish in which it is being used. Cornstarch is usually either a thickener or a binder, but can also be an anti-caking agent. It's great to use in gluten-free cooking instead of flour to thicken sauces, custards, or cake fillings.

**Eggs:** Eggs do a lot in baking, but most importantly they're a leavening agent, meaning they add volume, and are a binder, meaning they keep the finished product together. You can use the whole egg, for flavor, binding, thickening, or glazing. Or you can use egg whites and egg yolks for separate things. Egg whites are a drying agent, and add moisture and stability. Egg yolks contribute to texture and flavor.

**Flour:** Flour holds ingredients together in baking. When flour protein is combined with moisture and heat, it develops into gluten. Different types of flours have different levels of protein, which are suitable for various baked goods.

**Milk:** The protein in milk softens, contributes moisture, and adds color and flavor to baked goods. It's a double-whammy in terms of function, as it gives the dough or batter strength and structure, as well as adds tenderness, flavor and moisture.

**Salt:** Salt does a few different things in baking. For one, it helps preserve the color and flavor of flour. In bread, it controls the fermentation rate of yeast, and strengthens the gluten protein in dough. Though it seems salt is out of place in sweet recipes, if you skip it, your product will taste very bland, as it also enhances flavor.

**Shortening:** Shortening is just 100% solid fat made from vegetable oils, almost exclusively used in baking. When you use shortening instead of butter in baking, you'll get a softer and tenderer, though taller and less flavorful, product.

**Sugar:** In any given recipe, sugar is performing a number of functions of which you are probably not aware. For one, it adds texture, like keeping your baked foods soft and moist. It is also yet another leavener, though working in conjunction with fat, eggs, and liquid ingredients. Sugar sweetens by the sugar caramelizing in the recipe, and adds that "crunch" to the crusts of cakes and cookies.





# 4-H Club Meeting 4



## Make a Dessert out of a Selection of Ingredients



### Supplies

- List of Ingredients and Their Functions in Baking, Computers with Internet, Plates, Forks, Plastic Wrap, Muffin Pans, Cooking Spray, Frying Pans, Sauce Pans, Cookie Sheet, 9x9 Glass Pans, Utensils, Paper, Pens, Flour, White Sugar, Brown Sugar, Salt, Pepper, Baking Soda, Baking Powder, Butter, Eggs, Cornstarch, Milk, Oil, Vanilla, Apple Cider Vinegar, Peach Pie Filling, Cherry Pie Filling, Cinnamon, Marshmallows, Yogurt, Fruit, Corn Chex Cereal, Nuts, Rice Krispies Cereal, Chocolate Chips, Butterscotch Chips, Mint Chips, Cocoa Powder, Blueberries, Raisins, Graham Crackers

### INTRODUCTION

Are you ready to test your creative dessert making skills? Today, we will put our cooking competition skills to the test and cook a dessert of our choosing. Youth must select from a big list of ingredients to come up with the best dessert they can!

### PRIOR TO MEETING

- Shop for supplies.
- Make sure your computer and internet are working.
- Read through the lesson plan to prepare yourself to teach the lesson.
- Print off "Baking Ingredient & Function: A Breakdown" handout, found in lesson 3.
- Have volunteers lined up to judge desserts.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Gather paper, pens, pencils and crayons for thank you/uplifting notes.
- Determine the location of the club meeting.

## Activity #1



### DESSERT CREATION

TIME: 60 MINUTES

1. Break youth into groups of 3-5. Consider dividing into different groups from the previous days. Let them choose their own groups, or leave them the same each time.







2. It is ok for them to be with their friends because they probably came to be with their friends, but it's also good to make new friends at the same time.
3. Tell the youth that today they will get to choose any dessert they want to make using the ingredients given. Tell them that their desserts will be judged based on appearance, taste, texture, and overall quality.
4. Let the kids research a recipe online to use. They can use or modify a recipe or create their own. The recipe must be written down and handed to the judges along with the dessert.
5. Give the kids 30-60 minutes to prepare and bake their desserts.
6. Have volunteers judge desserts and pick the winner. Have volunteers provide positive feedback along with improvements for each dessert.
7. Let each group try the other groups' desserts.
8. Have youth put their desserts on plates with plastic wrap.
9. To help brighten someone's day, have youth take a piece of their dessert to people in their community.
10. Have youth write a thank you to the judges. Then have them write an uplifting note for the person to whom they will take the dessert.





## Reflect

- Which dessert won?
- Why do you think this dessert won?
- What was different about each of the desserts?
- What was the best thing about your dessert?
- What could you improve about your dessert?

## Apply

- Would you make your dessert again?
- What would you change about it if you made it again?
- How can you pick good recipes in the future?

### 4-H MISSION MANDATES

#### Citizenship

Youth will share their dessert with someone in the community. They will also practice showing appreciation for others' work.

#### ESSENTIAL ELEMENTS

##### Belonging

Youth will participate as part of a team and be able to feel a part of that team.

##### Independence

Youth will choose their own recipes and their own ingredients. By being able to make their own decisions, it helps to develop their independence.

##### Generosity

Youth will share their desserts with each other and with community members. They will also write thank you notes to judges and uplifting notes to go with the desserts that they deliver.

##### Mastery

Youth will learn that all recipes are different. They will also develop skills to pick and create good recipes.

#### References and Other Resources

"Baking Ingredients & Function: A Breakdown." Food Services, 23 Nov. 2016,  
[ueat.utoronto.ca/baking-ingredients-function/](http://ueat.utoronto.ca/baking-ingredients-function/)





## Follow the Recipe Exactly



### Supplies

- Activity 1 Supplies: Computer with Internet, Hand-outs, 8 1/2 x 4 1/2 x 2 3/4-Inch Loaf Pans, Kitchen Aid Mixers, Paper Towels, Food Thermometers, Aluminum Foil, Bread Knives, Butter Knives, Whole Wheat Flour, Bread Flour or All-purpose Flour, Butter, Instant Yeast, Sugar, Salt, 1% Milk, Olive Oil (or any Vegetable Oil), Eggs, Jam (optional)
- Activity 2 Supplies: Paper, Crayons
- Activity 3 Supplies: Paper, Pencils

### INTRODUCTION

Have you ever made a recipe that did not turn out as you expected? Maybe it was because you cooked it too long or forgot an ingredient. When making bread, it is important to always follow the recipe as bread making is a tricky science. Today we will also learn about having a healthy diet and make goals to get us there!

### PRIOR TO MEETING

- Shop for supplies.
- Make sure your computer and internet are working.
- Make sure the link for the video in Activity 1 is working.
- Read through the lesson plan to prepare yourself to teach the lesson.
- Print off "Baking Ingredient & Function: A Breakdown" handout, found in lesson 3.
- Print off the bread recipe for each group so they have something to follow along with.
- Print off "5 Day Meal Plan" handout at the end of the lesson.
- Have volunteers lined up to judge breads.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Gather paper, pencils, and crayons.
- Determine the location of the club meeting.





## MAKING BREAD FROM SCRATCH

TIME: 60 MINUTES

1. Divide the youth into groups of three.
2. Explain that each group will be making one loaf of bread.
3. Let them know that they are going to be following the recipe exactly.
4. Inform the youth that they will be judged on how well they followed the recipe and on the quality of their bread. The quality will be determined by the coloring, flavor, uniformity, the crumb, and moisture of the bread.
5. You can watch the following video until 7:12. <http://www.jennycancook.com/recipes/simple-whole-wheat-bread/>
6. Each group will make the bread according to the recipe.
7. There will be a 10-minute rising period. During this time, explain the judging to each group and what each of those characteristics mean.
8. There will also be a 35-minute rising period, and a 30-minute baking period. During these times, do Activity 2 and 3.
9. Explain that each member of the group needs to take turns putting in the ingredients and doing each step. They should switch with each ingredient or step of the process.
10. When the bread is all done baking, each group will present their loaf to the selected judge, who will cut and sample a piece of bread. Then the groups can eat their own bread and try the other groups' loaves.

## Activity #2



## MAKING YOUR FAVORITE MEALS HEALTHIER

TIME: 30 MINUTES

1. Complete Activity 2 when the dough is rising. Different groups may end at different times, so you can instruct each group individually as they get to that point.
2. Give each kid a piece of paper and crayons. Tell them to draw their favorite meal.
3. After they have drawn their favorite meal, review the 5 food groups and the amounts we need to eat from each group.
4. Then instruct the youth to go back and add to or change something about their favorite meal to make it healthier. You can talk about how often adding color in (fruits and vegetables) can make a meal healthier.
5. Students who finish early can then play a game of tag until their dough has risen.





## PLANNING HEALTHY MEALS

TIME: 30 MINUTES

1. Complete Activity 3 when the bread is cooking. Halfway through, you will have to pause and the youth will need to put the aluminum foil tents on their loaves.
2. Give each youth the 5 Day Meal Plan Handout.
3. Explain to the youth that they will need to write out a plan for 3 healthy meals a day, for 5 days.
  - a. They need to include a food from each food group each day.
  - b. They need to remember what they have learned to create healthy meals.
  - c. They need to include a lot of fruits and vegetables that they would be willing to eat.
  - d. They will also make a goal of how and when they will exercise.
4. They will take this home to their families. They will be encouraged to talk to their families about actually making some of the meals.







## Reflect

- What was the easiest part of making bread?
- What was the hardest part of making bread?
- Did the bread turn out like you thought it would?
- Do you eat healthy foods and meals on a regular basis?

## Apply

- Will you make bread again?
- What would you do differently next time?
- How will you stick to the exercise goal you made?
- How will you commit to eating healthier each day?

### 4-H MISSION MANDATES

#### Healthy Living

Youth will learn how to make whole wheat bread. They will also discuss what a healthy meal looks like. They will practice coming up with healthy meal options and making goals to be healthier.

#### Science

Youth can learn about the properties of yeast and how it works.

### ESSENTIAL ELEMENTS

#### Belonging

Youth will be a part of a group making bread and will practice taking turns during the preparation process.

#### Independence

Youth will be making the bread by themselves. They won't be watching just part of the process, but they will perform the whole process.

#### Generosity

Youth may take the bread home to share with their families or others. They will take home ideas of how to be healthy to their families.

#### Mastery

Youth will learn the new skill of making bread. Perfecting a recipe can at times be tricky and requires skill. Learning how to make bread also teaches youth new baking techniques that are unique to working with dough.

### References and Other Resources

"Simple Whole Wheat Bread." Jenny Can Cook:

[www.jennycancook.com/recipes/simple-whole-wheat-bread/](http://www.jennycancook.com/recipes/simple-whole-wheat-bread/)





## Whole Wheat Bread Recipe

### Ingredients

2 cups (260 gms) whole wheat flour

1/2 cup (65 gms) bread flour or all-purpose flour

2 teaspoons (1 packet / 7 grams) instant yeast (or active dry yeast)

2 Tablespoons sugar (or honey but add honey after the milk)

1 teaspoon salt

1 cup (240 mL) 1% milk, heated to 120-130° F for instant yeast (or 110-120°F for active dry)

2 Tablespoons (30 mL) olive oil (or any vegetable oil)

1 egg (room temperature)

About 1/4 cup additional bread flour

### Directions

1. Place flours, yeast, sugar and salt in a large mixing bowl.
2. Stir in milk, followed by oil and egg.
3. Beat on high for 2 minutes.
4. On low speed add about 1/4 cup bread flour until dough forms a mass.
5. Place dough on floured surface and knead 50 turns.
6. Cover and let rest 10 minutes.
7. Shape dough into a loaf and place in a greased 8 1/2 x 4 1/2 x 2 3/4-inch loaf pan.
8. Cover with a towel and let rise in a warm spot until it's one inch taller than the pan, about 35 minutes.
9. In the meantime, preheat oven to 375° F.
10. Bake for 30 minutes. After the first 15 minutes, cover the top of the loaf with a foil tent to prevent over-browning.





11. Remove immediately from pan onto a cooling rack. Let cool at least 10 minutes before slicing.
12. <http://www.jennycancook.com/recipes/simple-whole-wheat-bread/>
13. Watch video until 7:12





## 5 Day Meal Plan

	Mon.	Tue.	Wed.	Thur.	Fri.
Breakfast					
Lunch					
Dinner					

## Exercise Plan

This week I will exercise by:

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I will exercise at \_\_\_\_\_ : \_\_\_\_\_ every day.





## Make a Main Dish with All the Ingredients



### Supplies

- Salt, Pepper, Onions, Water, Cream of Mushroom Soup, Rice, Potatoes, Green Peppers, Lean, Ground Beef, Noodles, Cheese, Ovens/Stoves, Saucepans, 9x13 Pans, Plates, Forks

### INTRODUCTION

Welcome to your final challenge! The time has come for you to take everything you have learned in the last five weeks and to put it to the ultimate creative cooking challenge. In this meeting, we will practice independence and creativity as we come up with our own recipes with a selected list of ingredients.

### PRIOR TO MEETING

- Shop for supplies.
- Read through the lesson plan to prepare yourself to teach the lesson.
- Have volunteers lined up to judge main dishes.
- Create judging sheets or print off judging sheet template included at the end of the curriculum for your judges.
- Determine the location of the meeting

## Activity #1



## YOUR SIGNATURE MAIN DISH

**TIME: 60 MINUTES**

1. Break the youth into groups of 3-4.
2. Explain to the youth that today's challenge is to make a main dish out of the ingredients provided. Tell them that they must use every ingredient except for one on the list. They can make any dish they want and will have 45 minutes to make and cook it. They do not have to use all of the ingredients in large amounts, but they have to use every ingredient, at least a little in their dish. Their dish will be judged on appearance, texture, and flavor.
3. Encourage the kids to really listen to each other and all the ideas before they get started. Tell them to create a plan before they start preparing or cooking.





4. Give students the ingredients and start the timer. Select a judge who can give positive feedback as well as improvements to each group of kids. Then the kids can eat their own and others' dishes.
5. \*Note: Here are other ideas for recipes for youth: homemade pizza, pancakes, tacos, lasagna, mashed potatoes, salads, etc.







## Reflect

- What were the good things about your dish?
- What were things you could have improved about your dish?
- Did your dish turn out how you thought it would?
- Did you like your dish? Did others?
- Do you think you've become a better cook over the past six weeks?

## Apply

- What skill would have helped you create a better dish?
- What other cooking skills would you like to learn in the future?
- What are some of your cooking goals?
- How will you keep the cooking skills you've learned over the past six weeks?

## 4-H MISSION MANDATES

### Healthy Living

Youth will learn how to create an original healthy recipe. They will talk about how to continue or start healthy habits.

### ESSENTIAL ELEMENTS

#### Belonging

Youth will create a dish as part of a team. Each opinion will be valued and heard.

#### Generosity

Youth may choose to share their dishes with the other teams.

#### Mastery

Youth will use the skills from the weeks prior to create a dish without a recipe.

Note: On the next page is a judging sheet template that can be printed off or used as a guideline to make your own.





## Judging Sheet Template

Category	Points Possible	Judges' Score	Comments
Appearance	30		
Texture	35		
Flavor	35		

Total Possible Points - 100

Judge's Total Score: \_\_\_\_\_

## Judging Sheet Template

Category	Points Possible	Judges' Score	Comments
Appearance	30		
Texture	35		
Flavor	35		

Total Possible Points - 100

Judge's Total Score: \_\_\_\_\_

30





## More to *Discover*

Congratulations on completing your Discover 4-H club meetings! Continue with additional curriculum in your current project area, or discover other 4-H project areas. Check out the following links for additional 4-H curriculum:

1. [www.discover4h.org](http://www.discover4h.org)
2. <http://www.4-h.org/resource-library/curriculum/>
3. <http://utah4h.org/curriculum/>

## Become a 4-H Member or Volunteer

To **register** your Utah club or individuals in your club, visit and contact your county Extension office:

<http://utah4h.org/about/>

<http://utah4h.org/join/index>

For help registering in 4-H online, visit:

<http://utah4h.org/staffresources/4honlinehelp>

Non-Utah residents, please contact your local 4-H office:

<http://www.4-h.org/get-involved/find-4-h-clubs-camps-programs/>



## Stay *Connected*

### Visit Your County Extension Office

Stay connected with 4-H activities and news through your county Extension office. Ask about volunteer opportunities, and don't forget to register for your county newsletter. You can find contact information for counties in Utah here:

<https://extension.usu.edu/locations>

## Enjoy the Fair!

Enter your project or create a new project for the county fair. Learn about your county fair and fair judging here:

<http://utah4h.org/events/index>



## Participate in Local or State 4-H Activities, Programs, Contests, or Camps

For Utah state events and programs, visit:

<http://utah4h.org/events/index>

<http://utah4h.org/projects/>

For local Utah 4-H events and programs, visit your county Extension office:

<https://extension.usu.edu/locations>

Non-Utah residents, please contact your local 4-H office:

<http://www.4-h.org/get-involved/find-4-h-clubs-camps-programs/>



## Discover *Service*

### Become a 4-H Volunteer!

 <http://www.youtube.com/watch?v=UBemO5VSyK0>

 <http://www.youtube.com/watch?v=U8n4o9gHvAA>

To become a 4-H volunteer in Utah, visit us at:

<http://utah4h.org/join/becomevolunteer>

### Serve Together as a 4-H Club or as an Individual 4-H Member

Use your skills, passions, and 4-H to better your community and world. You are needed! Look for opportunities to help in your area or participate in service programs that reach places throughout the world (religious groups, Red Cross, etc.).

## Hold a Club Service Project

USU Collegiate 4-H Club hosted "The Gift of Giving" as a club activity. Club members assembled Christmas stockings filled with needed items for CAPSA (Community Abuse Prevention Services Agency).

<http://tinyurl.com/lu5n2nc>



## Donate 4-H Projects

Look for hospitals, nursing homes, or other nonprofit organizations that will benefit from 4-H projects. Such projects include making quilts for CAPSA or Primary Children's Hospital, or making beanies for newborns. During Utah 4-H State Contests, 40 "smile bags" were sewn and donated to Operation Smile.

## Partner with Local Businesses

92,000 pounds of processed lamb, beef, and pork were donated to the Utah Food Bank in 2013 by multiple companies.

<http://tinyurl.com/pu7lxyw>

## Donate Money

Clubs or individuals can donate money gained from a 4-H project to a worthy cause. A nine-year-old 4-H member from Davis County donated her project money to help a three-year-old battle cancer.

<http://tinyurl.com/mqtfwxo>



## Give Us Your *Feedback*

Help us improve Discover 4-H curriculum. We would love feedback or suggestions on this guide.

Please go to the following link to take a short survey: [Click here to give your feedback](#)

or go to: <https://goo.gl/iTfiJV>