

Squash

In season:



Summer & Fall

Lesson Plan

Objectives

- Identify squash as a vegetable from My Plate and their nutritional contribution to good health.
- Increase knowledge in selection, purchase, storage and use of summer and winter squash.
- Demonstrate use of squash in a healthy recipe.

Items Needed for the Lesson

- My Plate poster
- Measuring cups ($\frac{1}{2}$ cup and $\frac{1}{4}$ cup)/tennis ball
- Parts of a plant visual
- Squash visuals
- Vegetable chart for different age groups
- Squash recipes for easy and intermediate skill levels

Handouts or Take Home Items

- Pick It, Try It, Like It Squash Handout with recipe
- Additional recipe card with alternative recipe

Recipe Choices

- Easy – Three Sisters Salad
- Intermediate – Zucchini Carrot Bread

Facts to Share with Students

- Start with Ice Breaker – Guess the Topic (Fruit or Vegetable)
- My Plate –Vegetable servings per day/ serving sizes
- Where and how squash are grown and when they are in season
- Is it ripe? Shelf life.
- Different ways to use squash
- Different types of summer and winter squash
- Nutrition facts for each type

Cooking and Food Safety Skills

- Wash hands for 20 seconds
- How to wash fresh squash
- Cleaning canned goods and can openers
- Safely storing leftovers
- Knife safety and cutting boards
- Measuring skills
- Washing fresh vegetables
- Oven safety

Supplies for Squash Lesson

- **Three Sisters Salad**
 - » Can opener
 - » Knife
 - » Cutting Board
 - » Measuring spoons
 - » Medium bowl
 - » Mixing spoon
 - » Colander
 - » Fork
 - » gloves

- **Zucchini Carrot Bread**
 - » Measuring cups
 - » Measuring spoons
 - » Liquid measuring cup
 - » Grater
 - » Vegetable peeler
 - » Knife
 - » Cutting board
 - » Large mixing bowl
 - » Medium bowl
 - » Mixing spoon
 - » Bread pan
 - » Rubber scrapper
 - » Cooling rack
 - » Hot pads
 - » Small bowl

What You Say:	What you do:
<p>Every class we're going to learn about a different fruit or vegetable. I'm going to give you some clues and I want you to try to think of what it is. After each clue, raise your hand if you think you know what it is.</p> <ul style="list-style-type: none"> • It was originally grown for its seeds • It was a main food of the colonists • One of the "three sisters" • Two main types of Summer and Winter (Answer: Squash) 	<ul style="list-style-type: none"> • Name off each clue, allow a few guesses before moving on to the next clue. • After someone guesses the answer, or you tell them, show them visuals of squash.
<p>Squash along with cucumbers and melons are members of the cucurbit family of produce. They grow on vines on the ground or on a trellis or poles that hold the produce up.</p> <p>Summer squash grows on a bush like plant. Popular shapes include;</p> <ul style="list-style-type: none"> • Scallop or patty pan – round and flattened with a scalloped edge, usually white, yellow or green • Crookneck or straight neck – looks like a hook or J" or straight with the same thickness from end to end- usually yellow • Club-shaped – skinnier at one end and slightly fatter at the other end - shades of green, yellow or white <p>Winter Squash grows on bush, semi-vine and vining plants. Popular varieties include;</p> <ul style="list-style-type: none"> • acorn which looks like a slight oval with deep ridges and deep green in color • spaghetti which is oval in shape butter yellow in color • butternut which is 2-3 inches in diameter with a wider bulb at the end creamy orange in color • true winter squash which is round and oval in shape usually has a bumpy skin shades of green, orange, yellow, and white. 	<ul style="list-style-type: none"> • Keep the visuals of squash visible. Point to the visuals as you talk about each subset. • Parts of a plant handout

What You Say:	What you do:
<p>Squash develop from a flower and contain enclosed seeds they are scientifically a fruit. They are eaten as a vegetable and thus are part of the vegetable group on MyPlate.</p> <p>MyPlate shows us how to eat healthier. As the MyPlate diagram shows, we should be filling half our plates with fruits and vegetables. Depending on your age and gender, you should be eating between 1 to 3 cups of vegetables each day.</p> <p>½ cup of diced, chopped or sliced squash is equal to ½ cup in the MyPlate vegetable group.</p>	<ul style="list-style-type: none"> Point to the MyPlate poster. Refer to the daily vegetable chart for specific age groups Show a ½ cup measure
<p>There are 5 subgroups of vegetables: dark green, red and orange, beans and peas, starchy and others. We need to make sure we are eating vegetables from each of these groups because each have different vitamins and nutrients in them.</p> <p>Do you know what subgroup Summer Squash is in? Answer (other)</p> <p>What about winter squash? Answer (red and orange)</p>	<ul style="list-style-type: none"> Call on someone who wants to answer. Show the vegetable subgroup visual
<p>How many of you have grown squash in your garden?</p> <p>Squash are grown from seeds. Seeds should be planted 2-3 at a time 24-36 inches apart 1 inch deep in the soil. Can be planted in a hill or flat. Squash should be planted after the danger of frost in early spring through mid-summer.</p> <p>Summer squash will continue to produce fruit until frost.</p> <p>Winter squash will not produce anymore once fruit is set and then picked.</p>	<ul style="list-style-type: none"> Allow discussion.
<p>Summer squash should be harvested or picked when it is young and smaller, so it stays tender and has more flavor.</p> <p>Choose summer squash with a smooth glossy, small to medium in size and should feel heavy for its size.</p> <p>Winter squash should be harvested when it is fully-grown and has a hard skin.</p> <p>Choose squash that has a dry, dull rind that is free of cracks and soft spots and should feel heavy for its size.</p>	

What You Say:	What you do:
<p>Summer squash should be stored in the refrigerator and used within 3-4 days.</p> <p>Winter Squash should be stored unwashed in a cool dark space depending on the variety for 1 week to 6 months.</p>	
<p>How do you like to eat squash?</p> <p>Summer squash can be sautéed, fried, baked, grilled and eaten raw.</p> <p>To fry summer squash, coat it in flour, bread crumbs or cornmeal. The place in small batches into hot oil. Turn over once it turns golden brown.</p> <p>To grill squash, drizzle in oil and place on hot grill. Turn once.</p> <p>To sauté squash, drizzle oil into a skillet. Turn the heat up to medium. Add squash and gently stir until tender.</p> <p>Winter squash can be baked, steamed, microwaved, mashed, and sautéed.</p> <p>To steam winter squash, peel, remove seeds and into 2-in cubes. Place a steaming basket or colander into a large pan with a lid. Add water so that it does not come through the holes in the basket. Bring water to a boil then place the cubed squash in the basket. Place lid on the pan and turn down the heat, making sure to keep the water bubbling. Steam for 25-40 minutes. A fork should poke easily into the squash when done.</p> <p>To bake winter squash, wash the whole squash with running water. Cut squash in half and remove seeds. Poke holes with a fork. Bake halves at 400 degrees for 1 hour or until fork pokes through easily.</p> <p>To microwave squash, cut in fourths and remove seeds. Cover each section with plastic wrap. Microwave one section at a time on high for 5 – 8 minutes. Let sit and keep covered for 5-10 minutes. Fork should poke easily into the flesh.</p>	<ul style="list-style-type: none"> • Allow for discussion

What You Say:	What you do:
<p>Why might you want to eat squash?</p> <p>Summer Squash is a good source of vitamin C, manganese, potassium, and vitamin B6. It also high in water and are low in calories.</p> <p>Water helps maintain body temperature, carries nutrients, helps get rid of waste and lubricates our joints. This water can come from water and other beverages we drink and from fruits and vegetables, we eat. It is recommended that we get 8 cups of water (64oz) of fluids a day. Summer squash can contribute to our water intake, as they are about 95% water.</p> <p>Winter Squash is a good source of vitamin C, Vitamin A, fiber, potassium, magnesium, thiamin, iron, and vitamin B6.</p> <p>Iron is a mineral that helps move oxygen from our lungs throughout our body. It also helps keep our blood healthy.</p>	<ul style="list-style-type: none"> • Call on someone who would like to answer.
<p>Are you ready to try out a recipe using Squash?</p> <p>What is the first thing we always do before preparing food?</p> <p>Answer: (wash our hands)</p>	<ul style="list-style-type: none"> • Review handwashing in reference section.



= for adults or older youth

Squash

Dakota word translate and perspective provided by a member of Hunkpati Dakota.

Dakota Name- Wagmu

- Very versatile plant that grew wild here and was somewhat domesticated by tribes who planted.
- The seeds were roasted and eaten; the flesh could be dried for later use in soups or eaten fresh.
- The dried shell of the squash was used to hold water, make toys, utensils, tools and storage, very nutritious.

Use this page if you are going to prepare Three Sisters Salad

Equipment List

- Can opener
- Knife
- Cutting Board
- Measuring spoons
- Medium bowl
- Mixing spoon
- Colander
- Fork
- gloves

What You Say:	What You Do:
Today we are going to make Three Sisters Salad. It's called Three Sisters because it contains corn, beans, and squash. Native Americans planted these three together because they help each other grow. Let's read the recipe together before we begin. What are some things we need to remember about using Knives?	Hand out the recipe. Read recipe together. Review Knife safety
The first thing we are going to do is to wash the tops of our can. Why do you think it is important to wash the tops of cans? (Answer: to make sure no dust or germs get into our food) Now we are going to open the beans, drain, and rinse them in the colander. dump them out into the medium mixing bowl	Demonstrate washing the tops of the cans. Call on someone who wants to answer. Have a volunteer wash and open the can of beans, drain and rinse them. Then dump into medium bowl.
Now we need to open the corn and drain into the colander. Then dump it into the bowl with the beans.	Have another volunteer wash, open and drain the corn. Add to beans.
Now we need to wash and chop the zucchini and add it to the beans and corn	Have a volunteer wash and chop the zucchini. Add to beans and corn.
To chop the cilantro first rinse it in water, then pat dry with a towel. Roll the leaves together to form a log and make thin slices across the end of the roll.	Have a volunteer wash, dry and chop the cilantro. Review measuring and cilantro add to the bowl.
Wash the lime cut in half and demonstrate how to juice a lime. Stick the fork into the lime and squeeze the lime around the fork.	Have a volunteer finish juicing the lime and measure it into the bowl.
When we cut spicy peppers, we always want to wear gloves so that we don't get the hot juice on our hands and in our eyes. Cut the stem off and then cut the pepper in half. use the knife to cut out the seeds. Cut the pepper into thin strips then cut the strips into small chunks.	Have a volunteer seed and chop the jalapeno. Dispose of the gloves and wash hands immediately.
Stir the salad together and serve or refrigerate.	Stir the salad together and scoop out 1/4 cup portions for the class.

Use this page if you are going to prepare Zucchini Carrot Bread

Equipment List

- Measuring cups
- Measuring spoons
- Liquid measuring cup
- Grater
- Vegetable peeler
- Knife
- Cutting board
- Large mixing bowl
- Medium bowl
- Mixing spoon
- Bread pan
- Rubber scrapper
- Cooling rack
- Hot pads
- Small bowl

What You Say:	What You Do:
Today we are going to make Zucchini Carrot Bread. Let's read the recipe together before we begin.	<ul style="list-style-type: none"> • Pass out the recipe and read it together.
First, we are going to preheat the oven to 375 degrees F. Then we will get all of our dry ingredients measured out. When we measure dry ingredients, we want to remember to dip your cup or spoon into the ingredient then your scoop out a heaping cup or spoonful. Last, we want to scrap the cup or spoon level with the back of a knife.	<ul style="list-style-type: none"> • Have 2-3 volunteers to measure the flour, sugar, baking powder, baking soda, salt and ground ginger. Have one volunteer preheat the oven. Add dry ingredients to the large mixing bowl.
Now we need to grate the zucchini. First, we wash it, then cut off both ends and then grate it on the grater.	<ul style="list-style-type: none"> • Remind the volunteer to keep the fingers flat as they get to the end of the zucchini. Measure the zucchini and add it to the medium bowl.
Scrub the carrots and peel them with the veggie peeler. Then grate them with the grater.	<ul style="list-style-type: none"> • Have volunteer wash, peel and grate carrots. measure the carrots and add to the medium bowl
Remember when measuring liquids, you need to get down to eye level to get an accurate measurement.	<ul style="list-style-type: none"> • Have a volunteer measure the oil. Add it to the zucchini and carrots.
Crack the egg into a small bowl. Always crack eggs into a separate bowl so that if you need to pick out shell pieces its easier to see and get to them.	<ul style="list-style-type: none"> • Have volunteer crack the egg into small bowl and check for shell pieces. Then pour into the zucchini and carrots.
Mix the egg, oil, zucchini and carrots together. Then pour it into the dry ingredients and add the nuts.	<ul style="list-style-type: none"> • Have a volunteer mix the liquid ingredients and pour into the dry.
When we mix the liquid ingredients into the dry ingredients we want to mix only until everything in moist. It will be lumpy and that is okay. If you mix too much the bread will be dry and chewy.	<ul style="list-style-type: none"> • Have a volunteer mix the liquid, dry and nuts together.
Grease the bread pan. Then scrape the batter into it.	<ul style="list-style-type: none"> • Have volunteer grease the pan and scrape the batter into the pan.
Place the bread into the oven for 50 minutes. Remember that when we put and remove things from the oven to pull the oven rack out first.	<ul style="list-style-type: none"> • Have volunteer put bread in the oven for 50 minutes. • Remove the bread from the oven and cool in the pan for 5 minutes. Then dump out on a cooling rack or plate.
The bread can be served warm or cool. This makes 6 -1-cup servings	<ul style="list-style-type: none"> • Slice the bread and distribute 1/4 slices to the class.

Visuals



Zucchini growing from the flower



Spaghetti squash on the vine



Butternut Squash



Summer squash varieties



Winter squash varieties

Squash Nutrition Information

Type	Serving Size/Weight in grams	Calories	Fiber (g)	Vitamin A (International Units)	Vitamin C (mg)	Potassium (mg)	Folate (mcg)
Zucchini, sliced	½ cup	14.4	1.3	20.1	6.9	227.7	3.8
Butternut Squash, cubed	½ cup	41.0	3	143.5	25.8	291.1	4.9
Daily Recommendations RDA=Recommended daily allowance AI=Adequate intake	1-2 cup servings of fruit per day depending on age	Varies according to age and activity level	AI (depending on age) ranges from 14-33.6 g	Daily Value based on a 2,000 calorie per day diet	RDA (depending on age) ranges from 25-90 mg	AI (depending on age) ranges from 3000-4700 mg)	RDA (depending on age) ranges from 150-400 mcg)

Daily Fruit Table

Daily Recommendation*		
Children	2-3 years old	1 cup
	4-8 years old	1 to 1 ½ cups
Girls	9-13 years old	1 ½ cups
	14-18 years old	1 ½ cups
Boys	9-13 years old	1 ½ cups
	14-18 years old	2 cups
Women	19-30 years old	2 cups
	31-50 years old	1 ½ cups
	51+ years old	1 ½ cups
Men	19-30 years old	2 cups
	31-50 years old	2 cups
	51+ years old	2 cups

Daily Vegetable Table

Daily Recommendation*		
Children	2-3 years old	1 cup
	4-8 years old	1 ½ cups
Girls	9-13 years old	2 cups
	14-18 years old	2 ½ cups
Boys	9-13 years old	2 ½ cups
	14-18 years old	3 cups
Women	19-30 years old	2 ½ cups
	31-50 years old	2 ½ cups
	51+ years old	2 cups
Men	19-30 years old	3 cups
	31-50 years old	3 cups
	51+ years old	2 ½ cups

Daily Dairy Table

Daily recommendation		
Children	2-3 years old	2 cups
	4-8 years old	2 ½ cups
Girls	9-13 years old	3 cups
	14-18 years old	3 cups
Boys	9-13 years old	3 cups
	14-18 years old	3 cups
Women	19-30 years old	3 cups
	31-50 years old	3 cups
	51+ years old	3 cups
Men	19-30 years old	3 cups
	31-50 years old	3 cups
	51+ years old	3 cups

*These amounts are appropriate for individuals who get less than 30 minutes per day of moderate.

<https://www.choosemyplate.gov>

Measuring Liquid & Dry Ingredients

To measure liquids:

- Use a liquid measuring cup for liquid ingredients such as milk, oil or water.
- Fill the liquid measuring cup to the appropriate line.
- Place the liquid measuring cup on a flat surface such as the table or countertop.
- Check the measured amount at eye level, adding or removing some of the liquid until the correct amount is level with the quantity line.



To measure dry ingredients:

- Use a dry measuring cup for larger amounts of dry ingredients such as flour or sugar.
- Spoon the dry ingredient into the measuring cup.
- Run the flat edge of a table knife across the top to level off.
- Use measuring spoons for small amounts of dry ingredients. Fill and level off with the straight edge of a table knife.



Knife Safety

1. Always cut away from you and use a cutting board.
2. Keep knife blades sharp and clean.
3. Keep the knife handle clean.
4. Never place knives in the dish water, as they can injure the person washing dishes.
5. When wiping a knife blade, point the cutting edge away from your hand.
6. Do not lay knives close to the edge of the counter.
7. If a knife falls, do not try to catch it.
8. When done using them, return clean knives back to their proper storage areas.



Cutting Boards

1. Choose a cutting board with a smooth, hard surface.
2. Replace your cutting board when it has lots of grooves and scratches.
3. Do not chop fruits, vegetables or other ready-to-eat foods on a cutting board that was used for meat, unless you wash it first. If possible, use a different board for meats than you use for ready-to-eat foods.
4. Scrub cutting boards with hot, soapy water after each use.
5. Dishwashers are good cleaners if the cutting board is dishwasher safe – thin plastic and wooden cutting boards may be damaged in the dishwasher.
6. Make sure cutting boards are completely dry before putting them away.

Handwashing

Washing hands often and properly helps kill harmful bacteria. We need to wash our hands before starting to work in the kitchen and prior to handling food. To wash properly follow these steps:

1. Wet hands well with warm water.
2. Add soap.
3. Scrub hands, wrists, fingernails, and between fingers for at least 20 seconds. To measure 20 seconds, sing the Happy Birthday song twice OR sing the ABC song.
4. Rinse hands thoroughly.
5. Dry hands with a clean paper towel.
6. Use the paper towel to turn the water off.
7. Discard the paper towel.



Washing Fruits and Vegetables

- Start with clean hands. Wash hands for 20 seconds with soap and water before and after preparing fresh produce.
- All fruits and vegetables should be washed before eating. This includes produce purchased from the grocery store, farmer's market, or produce grown at home.
- Wash fruits and vegetables under cool running water just before eating, cutting or cooking.
- Even produce that is going to be peeled before eating needs to be washed first.
- Scrub firm produce, such as melons, cucumbers and carrots with a clean produce brush.
- After washing, dry the produce with a clean cloth or paper towel, this may remove even more bacteria that may be present.
- Cut away any bruised or damaged areas before preparing or eating. Produce that is moldy or that looks rotten should be thrown away.

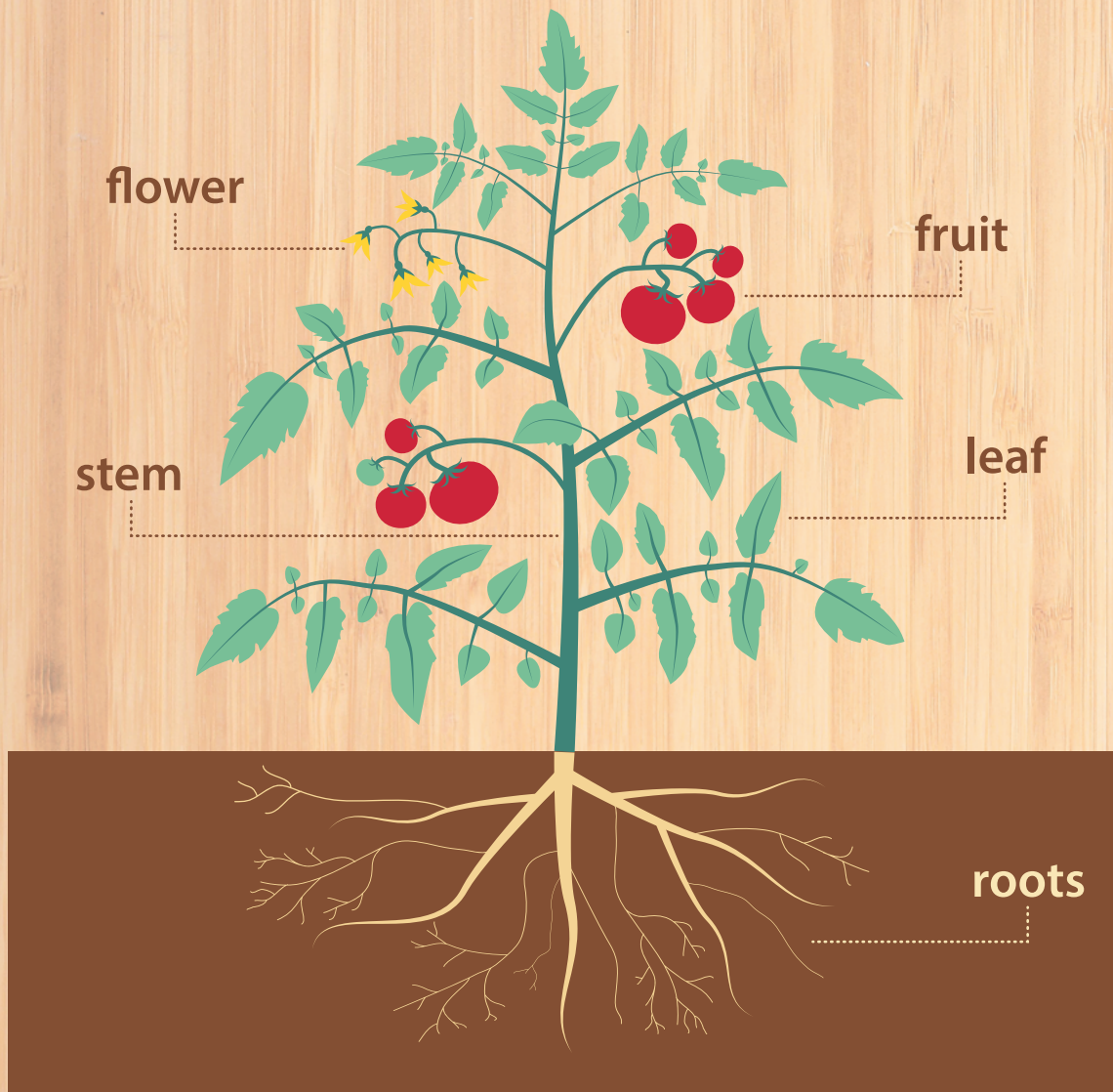


Oven Use and Safety

- Position oven racks before preheating the oven.
- Give your oven time to preheat to the proper temperature before placing the food to be cooked in the oven.
- Bake items on a rack placed in the middle of the oven for more even cooking.
- Keep a close eye on food cooking inside an oven.
- Use potholders or oven mitts when handling hot pots, pans or baking sheets. Do not use a dish towel for a potholder.
- Place hot dishes on a hot pad or cooling rack after taking them from the oven so they do not burn counter or table tops.
- If there is an oven fire, turn the oven off and keep the oven door closed. Call for emergency help.



Parts of a Plant



Squash Sources:

- <https://eatfresh.org/recipe/main-dish-side-dish-salads/three-sisters-salad#.XPVOvYhKiM8>
- <http://extension.illinois.edu/veggies/ssquash.cfm>
- <https://fruitsandveggies.org/fruits-and-veggies/acorn-squash/>
- <https://fruitsandveggies.org/fruits-and-veggies/butternut-squash/>
- <https://fruitsandveggies.org/fruits-and-veggies/summer-squash-nutrition-selection-storage/>
- <https://healthysd.gov/squash/?left=408&big10=29>
- <https://healthysd.gov/zucchini/?left=408&big10=29>
- <http://extension.illinois.edu/veggies/wsquash.cfm>
- <https://extension.purdue.edu/foodlink/food.php?food=winter+squash>
- https://whatscooking.fns.usda.gov/sites/default/files/factsheets/HHFS_WINTERSQUASH_FRESH_900150Dec2012.pdf
- <https://extension.purdue.edu/foodlink/food.php?food=summer+squash>
- <https://recipes.sparkpeople.com/recipe-calculator.asp>

Rapid City Regional Center's Master Gardener

Recipe

- <https://whatscooking.fns.usda.gov/recipes/supplemental-nutrition-assistance-program-snap/apple-stuffed-squash>