



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

Squash

In season:



**Summer and
Fall**

Dakota: Wagmu

Lakota: wagnú

Lesson Plan

Objectives

Participants will:

- identify squash as a vegetable from MyPlate 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

- MyPlate poster
- Measuring cups (½ cup and ¼ cup)/tennis ball
- Parts of a Plant visual
- Squash visuals
- Daily Recommendations visual

Handouts or Take Home Items

- Pick It! Try It! Like It! Preserve It! fact sheet

Recipe Choices

- Three Sisters Salad
- Zucchini Carrot Bread

Cooking and Food Safety Skill Sheets

- Handwashing
- Washing Fruits and Vegetables
- Knife Safety and Cutting Boards
- Measuring Liquid and Dry Ingredients
- Oven Use and Safety

Other Cooking and Food Safety Skills

- Cleaning canned goods and can openers
- Safety storing leftovers

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:
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. • It was originally grown for its seeds • It was a main food of the colonists • One of the "3 sisters" • Two main types of Summer and Winter • It can be eaten as a savory or sweet dish (Answer: Squash.)	• 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.
Squash, along with cucumbers and melons, are members of the cucurbit family of produce. They can be grown on vines laying on the ground, on a trellis or on poles that hold the produce up. Summer squash grows on a bush like plant. Popular shapes include: • 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 1 end and slightly fatter at the other end – shades of green, yellow or white Winter Squash grow on bush, semi-vine and vining plants. Popular varieties include: • Acorn – looks like a slight oval with deep ridges and a deep green color • Spaghetti – oval in shape with a buttery yellow color • Butternut – 2-3 inches in diameter with a wider bulb at the end and has a creamy orange color • True Winter Squash – round and oval in shape, usually has a bumpy skin with shades of green, orange, yellow and white	• Keep the visuals of squash visible. Point to the visuals as you talk about each subset. • Parts of a Plant visual.
Squash develop from a flower and contain enclosed seeds; they are scientifically a fruit, but are eaten as a vegetable and thus are part of the vegetable group on MyPlate. MyPlate shows us how to eat a well balanced and nutritious diet. As the MyPlate diagram shows, we should be filling $\frac{1}{2}$ our plates with fruits and vegetables. Depending on your age and gender, you should be eating between 1-4 cups of vegetables each day. A $\frac{1}{2}$ cup of diced, chopped or sliced squash is equal to $\frac{1}{2}$ cup in the MyPlate vegetable group.	• Point to the MyPlate poster. • Refer to the Daily Recommendations visual for specific age groups. • Show a $\frac{1}{2}$ cup measure.

What You Say:	What You Do:
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. Do you know what subgroup Summer Squash is in? (Answer: Other.) What about winter squash? (Answer: Red and orange.)	• Call on someone who wants to answer. • Show the Vegetable Subgroups visual.
How many of you have grown squash in your garden? Squash are grown from seeds. Seeds should be planted in groups of 2-3, 24-36 inches apart and 1-inch deep in the soil. They can be planted on a hill or flat ground. Squash should be planted after frost is done, in early spring through mid-summer. Summer squash will continue to produce fruit until frost. Winter squash will not produce anymore once fruit is set and then picked.	• Allow discussion.
Summer squash should be harvested or picked when it is young and smaller, so it stays tender and has more flavor. Choose small to medium sized summer squash that feel heavy for their size and have a smooth and glossy skin. Winter squash should be harvested when it is fully-grown and has a hard skin. Choose squash that have a dry, dull rind that is free of cracks and soft spots and feels heavy for its size.	
Summer squash should be stored in the refrigerator and used within 3-4 days. Winter squash should be stored unwashed in a cool dark space depending on the variety for 1 week to 6 months.	

What You Say:	What You Do:
How do you like to eat squash? Summer squash can be sautéed, fried, baked, grilled and eaten raw. To fry summer squash, coat it in flour, bread crumbs or cornmeal. Then place in small batches into hot oil. Turn over once it turns golden brown. To grill squash, drizzle in oil and place on hot grill. Turn once. To sauté squash, drizzle oil into a skillet. Turn the heat up to medium. Add squash and gently stir until tender. Winter squash can be baked, steamed, microwaved, mashed and sautéed. To steam winter squash, peel, remove seeds and cut into 2-inch 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. To bake winter squash, wash the whole squash with running water. Cut squash in ½ and remove seeds. Poke holes with a fork. Bake halves at 400 degrees for 1 hour or until fork pokes through easily. To microwave squash, cut in fourths and remove seeds. Cover each section with plastic wrap. Microwave 1 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.	• Allow for discussion.

What You Say:	What You Do:
Why might you want to eat squash? Summer squash is a good source of vitamin C, manganese, potassium and vitamin B6. Summer squash also has a high water content. Water helps maintain body temperature, carries nutrients, helps get rid of waste and lubricates our joints. We can hydrate our bodies and get our daily needs of water by the food and drinks we consume. It is recommended that we get 8 cups of water (64 ounces) a day. Summer squash can contribute to our water intake, as they are about 95% water. Winter squash is a good source of vitamin C, vitamin A, fiber, potassium, magnesium, thiamin, iron and vitamin B6. Iron is a mineral that helps move oxygen from our lungs throughout our body. It also helps keep our blood healthy.	Call on someone who would like to answer.
Are you ready to try out a recipe using Squash? What is the first thing we always do before preparing food? (Answer: Wash our hands.)	Review Handwashing skill sheet.



= for adults or older youth

Squash

Dakota word translation 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 3 together because they help each other grow. Let's read the recipe together before we begin. What are somethings we need to remember about using knives?	• Hand out the recipe and read it all together. • Review Knife Safety and Cutting Boards skill sheet.
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 using a colander. Then, dump into a 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.
Now we need to open and drain the corn into a colander and add it to 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. Assist as needed. 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 cilantro. Assist as needed. • Review measuring.
Wash the lime cut in ½ 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, then cut the pepper in ½ and remove the seeds. Cut the pepper into thin strips then cut the strips into small chunks.	• Have a volunteer seed and chop the jalapeño. • Dispose of the gloves and wash hands immediately.
Stir the salad together and serve or refrigerate.	

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
- Oven

What You Say:	What You Do:
Today we are going to make Zucchini Carrot Bread. Let's read the recipe together before we begin.	• 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.	• Review Oven Uses and Safety skill sheet. • Have a volunteer preheat the oven. • Have 2-3 volunteers measure the flour, sugar, baking powder, baking soda, salt and ground ginger.
Now we need to grate the zucchini. First, we wash it, cut off both ends and then grate it on the grater.	• Review what grate means and safety measure while grating. • Grate the zucchini and have a volunteer measure it and add it to the bowl.
Scrub the carrots and peel them with the veggie peeler. Then grate them with the grater.	• Grate carrot and have a volunteer measure it and add it to the bowl.
Remember when measuring liquids, you need to get down to eye level to get an accurate measurement.	• Review Measuring Liquid and Dry Ingredients skill sheet. • Have a volunteer measure the oil.
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.	• Have volunteer crack the egg into a bowl and add it to the carrots and zucchini, then go wash their hands. Discuss the importance of washing hands after handling raw eggs.
Mix the egg, oil, zucchini and carrots together. Then pour it into the dry ingredients and add the nuts.	• 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 is moist. It will be lumpy and that is okay. If you mix too much the bread will be dry and chewy.	• Have a volunteer mix in the nuts.
Grease the bread pan. Then scrape the batter into it.	• 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.	• Discuss using oven mitts. • Have volunteer put bread in the oven for 50 minutes.
The bread can be served warm or cool.	• 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	1-4 cup servings of vegetables 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 3,000-4,700 mg)	RDA (depending on age) ranges from 150-400 mcg)

Squash Sources

Recipe

- eatfresh.org/recipe/main-dish-side-dish-salads/three-sisters-salad#.XPVOvYhKiM8

Information

- extension.illinois.edu/gardening
- fruitsandveggies.org/fruits-and-veggies/acorn-squash/
- fruitsandveggies.org/fruits-and-veggies/butternut-squash/
- fruitsandveggies.org/fruits-and-veggies/summer-squash-nutrition-selection-storage/
- healthysd.gov/squash/?left=408&big10=29
- healthysd.gov/zucchini/?left=408&big10=29
- extension.illinois.edu/veggies/wsquash.cfm
- extension.purdue.edu/foodlink/food.php?food=winter+squash
- extension.purdue.edu/foodlink/food.php?food=summer+squash

Rapid City Regional Center's Master Gardener

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SOUTH DAKOTA STATE
UNIVERSITY EXTENSION

Squash

In season:



Summer and
Fall

Dakota: Wagmu

Lakota: wagnú

Pick it!

Winter squash have hard skin and fleshy inside, should be heavy, free of spots.

To cure winter squash after picking: hold at 70-80 degrees for 10-20 days, and then remove to a dry place at 45-50 degrees. Store up to 6 months.

Summer squash should be young and tender.

Refrigerate summer squash unrinsed in a plastic bag. Use within 2-3 days.

Try it!

Often cooked but some summer squash is eaten raw with dip or in salad.

Cook by steaming, sautéing, grilling, microwaving or baking. Add to stir-fries, soups or casseroles. Bake in breads, cakes and pies.

Cut winter squash in half and remove seeds. Place unpeeled pieces cut side down on a shallow baking sheet.

Winter squash is done when it pierces easily with a fork; 30 minutes or more. Spoon out the soft flesh and blend.

Types of Squash

Summer squash: Zucchini and crookneck are the most common, the rinds and seeds can be eaten

Winter squash: Pumpkin, butternut, acorn, and spaghetti squash, have a hard rind and seeds that are not eaten



Did you know...

Beta-carotene is found in bright colored fruits and veggies. It is used to make vitamin A, a nutrient important for vision, immune function, skin and bone health.

Like it!

Zucchini Carrot Bread

Ingredients

- 1 ½ cups all-purpose flour
- 1 cup sugar
- 2 teaspoons baking powder
- ¼ teaspoon salt
- ¼ teaspoon ground ginger
- 1 egg, lightly beaten
- ½ cup canola oil
- 1 cup zucchini, grated
- ½ cup carrots, grated
- ½ cup walnuts or pecans, chopped

Directions

1. Preheat oven to 375 degrees F.
2. Add dry ingredients to a bowl and mix. In a different bowl, add egg, oil, zucchini and carrots.
3. Add wet mixture into the dry mixture until flour is blended. Mix in nuts.
4. Pour mixture in a well-greased 9-inch bread pan.
5. Bake for 50 minutes. When done baking, cool pan for 5 minutes then turn bread out onto a cooling rack.

Yields one 9-inch loaf

Nutrition Facts per Serving:
Calories 270; Fat 1g; Sodium 20mg; Carbohydrates 33g;
Fiber 1g; Sugars 19g; Protein 3g

Sources: extension.illinois.edu/gardening

Three Sisters Salad

Ingredients

- 1 – 15 ounce can low-sodium or no salt added beans such as black, kidney or garbanzo beans
- 1 – 11 ounce can corn with red and green peppers drained or 1-cup fresh or frozen corn, thawed
- 1 small zucchini, chopped
- 1 Tablespoon cilantro, chopped
- 2 Tablespoons lime juice about ½ lime
- 1 jalapeno, seeds removed, chopped

Directions

1. Drain and rinse beans and corn.
2. Add beans, corn, peppers, zucchini, cilantro, lime juice and jalapeno. Stir to combine.
3. Serve right away or refrigerate for later.

Yields 4 servings

Nutrition Facts per Serving:
Calories 220, Fat 16g; Sodium 331mg; Carbs 43g; Fiber 13g; Sugars 16g; Protein 11g

Sources: eatfresh.org/recipe/main-dish-side-dish-salads/three-sisters-salad#.XR5UZ-hKhPY

Dakota Perspective (Squash)

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.

Translation and information provided by a member of Hunkpati Dakota. Lakota word translated by Jeshua Estes.

**Find more recipes
and videos at
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