



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

Pumpkin

In season:



**Summer and
Fall**

Lakota: wagmúzi

Lesson Plan

Objectives

Participants will:

- identify pumpkin as vegetable from MyPlate.
- increase knowledge in growing, selecting, storing, using and the nutritional benefits of pumpkins.
- demonstrate use of pumpkin in a healthy recipe.
- demonstrate use of equipment needed to prepare pumpkin recipe.

Items Needed for the Lesson

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

Handouts or Take Home Items

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

Recipe Choices

- Pumpkin and White Bean Soup
- Pumpkin Mac and Cheese

Cooking and Food Safety Skill Sheets

- Handwashing
- Washing Fruits and Vegetables
- Blender Use and Safety
- Measuring Liquid and Dry Ingredients
- Stove Top Safety
- Oven Use and Safety

Other Cooking and Food Safety Skills

- Cleaning canned goods and can openers
- Safety storing leftovers

Supplies for Pumpkin Lesson

- Pumpkin and White Bean Soup
 - » Liquid measuring cup
 - » Can opener
 - » Knife
 - » Cutting board
 - » Measuring spoons
 - » Blender
 - » Pot
 - » Hot plate
 - » Mixing spoon
- Pumpkin Mac and Cheese
 - » Measuring spoons and cups
 - » Liquid measuring cup
 - » Can opener
 - » Pot
 - » Skillet
 - » Spatula
 - » 9x13" pan
 - » Stove/Oven

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. • Its flesh is deep yellow to orange in color. • World record weighs 2,624.6 pounds. • Is a type of winter squash. • They are often used as a decoration for Halloween. (Answer: Pumpkin.)	• 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 pumpkins
Pumpkins are grown on a vine like cucumber, squash and watermelon. The first flowers do not produce pumpkins. These first blooms bring bees for the pollination of future flowers. These first flowers only last for a day before they fall off. Flowers that produce pumpkins have small fruits at the base.	• Keep the visuals of pumpkin visible. • Share Part of a Plant visual.
Have you ever planted pumpkins before? Pumpkins can stand short periods of hot, dry weather. When planting pumpkins, the seeds need warm soil and young plants need to be planted after the last frost. Pumpkins should be planted in late May. If they are planted too early, they may soften and rot before Halloween. Depending on the variety, pumpkins can be grown on the vine, semi-bush or bush plants.	• Allow discussion.

What You Say:	What You Do:
Pumpkins that grow on vines need 50-100 square feet per hill. These seeds should be planted 1 inch deep with 4-5 seeds per hill. Once the plants emerge and look healthy thin down to the best 2-3 plants per hill. The hills need to be spaced 5-6 feet apart. Pumpkins that grow on semi-bush plants also need to be planted 1-inch deep with 4-5 seeds per hill. Again, thinning down to the 2 best plants per hill. There needs to be 4 feet between hills and 8 feet between the rows. Pumpkins that grow on bush plants need to be planted 1-inch deep with 1-2 seeds per foot of row. These do not need to be planted in hills. You need to allow 4-6 feet between rows. Miniature pumpkins need to be planted 2-3 seeds every 2-feet down the row. The rows should be planted 6-8 feet apart.	Allow discussion.
When picking pumpkins off the plants, the pumpkins need to be a deep color all the way around and have a hard rind or skin. Cut the pumpkins from the vines so that 3-4 inches of the stem remains on the pumpkin. Pumpkins that have missing or broken handles do not keep well. You should wear gloves to pick pumpkins as the vines have sharp prickles on them. Pumpkins picked after a frost will not keep or store. Once pumpkins have fruit set on the vines, they will not set any more fruit.	Refer to the pumpkin visuals.
Choose pumpkins that are heavy, with no cracks or soft spots anywhere and have a hard skin.	
Pumpkins can be stored at room temperature for 2-3 months. They need to be stored in a cool, dark and dry place. If refrigerated, pumpkins can be stored for 3-5 months. Pumpkins can be canned or frozen for long-term storage. To freeze pumpkins, they need to be diced and then cooked by steaming, baking or microwaving. The pumpkin needs to be cooled and placed into freezer bags or freezer containers leaving ½ inch space at the top. Seal and freeze.	



= for adults or older youth

What You Say:	What You Do:
To can pumpkin, it should be diced and cooked the same way as above. Pumpkin must be processed in a pressure canner. Pumpkin cannot be mashed or pureed for home canning.	• Refer to Preserve it! sheet.
Pumpkins grow from a flower and contain seeds inside, making them scientifically a fruit. However, they are eaten as a vegetable and are a part of the vegetable group on MyPlate. MyPlate shows us how to eat healthier. MyPlate shows that we should be filling $\frac{1}{2}$ of 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 mashed pumpkin is equal to $\frac{1}{2}$ cup in the MyPlate vegetable group.	• Point to the pumpkin visuals. • Point to the vegetable section on MyPlate. • Daily Recommendations visual.
There are 5 subgroups of vegetables: dark green, red and orange, beans and peas, starchy and others. We need to be eating vegetables from each of these groups because each has different vitamins and nutrients in them. Do you know what subgroup pumpkins are in? (Answer: Red and orange.)	
Why might you want to eat pumpkin? Pumpkins are full of nutrients that our bodies need. The orange color is a giveaway that they contain beta-carotene, which the body turns into vitamin A. Vitamin A is important for healthy skin, vision and bone development. Pumpkins also contain vitamin C, which supports a healthy immune system. Carbohydrates help to provide energy and to protect the body from diseases. Pumpkins also contain potassium, which helps strengthen bones.	• Call on someone who would like to answer. • Refer to Pumpkin Nutrition Information sheet.



= for adults or older youth

What You Say:	What You Do:
How do you like to eat pumpkin? Have you eaten pumpkin any other ways? Pumpkin can be cooked by baking, steaming or microwaving. It can be added to soups, casseroles, breads, pies or mashed. Pumpkin rinds and seeds need to be removed before cooking and eating. Pumpkin seeds can be roasted and eaten as a snack. To steam pumpkin, 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 pumpkin 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 pumpkin when done. To bake pumpkin, wash the whole pumpkin with running water. Cut pumpkin in half and remove seeds. Poke holes with a fork. Bake halves at 400 degrees for 1 hour or until fork pokes through easily. To microwave pumpkin, 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 participants to answer and discuss.
Are you ready to try out a recipe using pumpkin? What is the first thing we always do before preparing food? (Answer: Wash our hands.)	Review Handwashing skill sheet.

Use this page if you are going to prepare Pumpkin and White Bean Soup

Equipment List

- Liquid measuring cup
- Can opener
- Knife
- Cutting board
- Measuring spoons
- Blender
- Pot
- Hot plate
- Mixing spoon

What You Say:	What You Do:
Today we are going to make Pumpkin and White Bean Soup. Before we begin, we are going to read the recipe together. How many food groups are in this recipe? What are they? (Answer: 3, they are fruits, vegetables and protein.)	- Hand out the recipes and read through the recipe with participants. - Call on volunteer who wants to answer.
First thing we need to do is to chop the onion.	- Review Knife Safety and Cutting Boards skill sheet. - Have a volunteer chop the onion. Then pour it into the blender. - Review Blender Use and Safety skill sheet.
Always wash the tops of cans. 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.)	- Demonstrate washing the tops of the cans. - Call on a volunteer who wants to answer. - Have a volunteer open the can of beans and pour them into the blender. - Have a volunteer open the pumpkin and scoop it out into the pot.
Remember when measuring liquids, you need to get down to eye level to get an accurate measurement.	Have a volunteer measure out the water and add it to the blender.
Place the lid on the blender and blend until smooth. Remember not to stick anything in the blender while it is running or plugged in.	Have a volunteer blend the onions, beans and water until smooth.
We need to measure out the apple juice and add it to the pumpkin in the pot.	Have a volunteer measure out the juice and add it to the pumpkin.
Now we need to measure out the spices. When we measure dry ingredients, remember to dip your cup or spoon into the ingredient then you scoop out a heaping cup or spoonful. Lastly, we want to scrape the cup or spoon level with the back of a knife back into the ingredient container.	- Have 1-2 volunteers measure out the cinnamon, nutmeg, allspice, ginger, black pepper and salt. - Have a volunteer stir the pumpkin mixture and add in the bean mixture. Stir until mixed well.
We will cook the soup for 15-20 minutes on low heat until heated through.	- Have a volunteer stir the soup. - Serve the soup to the class in 1/4 cup servings.

Use this page if you are going to prepare Pumpkin Mac and Cheese

What You Say:	What You Do:
Today we are going to make Pumpkin Mac and Cheese. Before we begin, we are going to read the recipe together. How many food groups are in this recipe? What are they? (Answer: 3, they are grains, vegetables and dairy.)	• Hand out the recipe and read with participants. • Call on a volunteer who would like to answer.
The first thing we need to do is to preheat the oven to 350 degrees F.	• Review Oven Use and Safety skill sheet. • Have a volunteer preheat the oven.
Now we need to cook the macaroni. We will follow the package directions. Make sure not to overcook the macaroni, as it will continue to cook in the oven.	• Have a volunteer read the package directions, have another help with the steps.
Next we are going to make a roux, does anyone know what a roux is? (Answer: A cooked mixture of flour and fat used as a thickening agent in a soup or a sauce.) This is what will thicken and make the sauce creamy. You want to measure out the 3 Tablespoons of butter into the skillet and let it melt. Once it melts add the 3 Tablespoons of flour and whisk continuously for about 2 minutes, then add the milk while continuing to whisk. Bring the mixture to a simmer and simmer for 4 minutes. The milk should coat the back of a spoon when it is done.	• Define roux. • Have a volunteer make the roux while you explain what they need to do.
We need to wash the tops of our can of pumpkin. 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.) Measure out 1 teaspoon mustard, ¼ teaspoon pepper, ¼ teaspoon nutmeg and a generous pinch of salt. When we measure dry ingredients, remember to dip your cup or spoon into the ingredient then you scoop out a heaping cup or spoonful. Lastly, we want to scrape the cup or spoon level with the back of a knife back into the ingredient container. Add the spices and pumpkin and stir.	• Have a volunteer wash and open the can of pumpkin and measure out the spices. These will need to be mixed into the roux.
Measure out the shredded cheddar cheese and whisk into the roux mixture. It's important to not stop whisking until the cheese is completely melted and mixed together.	• Have a volunteer measure out the cheese and whisk it into the roux mixture.
Lightly grease a 9 x 13 baking pan. Pour the macaroni and cheese mixture into the greased pan and bake for 20-25 minutes or until the top is golden brown.	• Have a volunteer grease the baking pan and pour in the mixture. Place the pan into the oven and bake.

Visuals



Pumpkins growing from flower



Immature and mature pumpkins growing on a vine



Photo by Jeremy Seitz

Different varieties of pumpkins



**Leave a "handle" of stem
2-3 inches**

Pumpkin Nutrition Information

Type	Serving Size/Weight in grams	Calories	Fiber (g)	Vitamin A (International Units)	Vitamin C (mg)	Potassium (mg)	Folate (mcg)
½ cup cooked/mashed	½ cup	24.5	1.3	122.3	9.6	281.8	2.8
½ cup canned	½ cup	40	5	300	2	0	0
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)

Pumpkin Sources

Recipe

- myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/pumpkin-and-bean-soup

Information

- fruitsandveggies.org/fruits-and-veggies/pumpkin/
- healthysd.gov/fruit-of-the-month-squash/
- myplate.gov/eat-healthy/vegetables
- extension.umaine.edu/harvest-for-hunger/vegetable-basics/winter-squash/
- extension.umaine.edu/publications/4176e/
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Photo credit

- Photo by Jeremy Seitz, flic.kr/p/7b5g3T

Lakota translation

- Translated by Jeshua Estes

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SOUTH DAKOTA STATE
UNIVERSITY EXTENSION

Pumpkin

Lakota: waggmúzi

Pick it!

Look for a heavy pumpkin with 3-4 inches of stem still attached.

Avoid pumpkins with bruises or soft spots.

Should be uniformly orange with a nice, hard rind.

Lopsided pumpkins are just as good as the round ones.

Store in a cool, dry, dark place for 2-3 months.



Try it!

Pumpkin is most popularly used in pies.

Also used to make bars, bread and pumpkin soup.

Pumpkin seeds can be roasted in the oven for a snack.

Rinse, cut in half and roast pumpkins on a baking sheet or steam on the stove or microwave.

After cooling, remove from the skin, and puree with a food processor or potato masher.



Types of Pumpkins

Small sugar: Smaller, sweeter pie pumpkins grown to be eaten, in the winter squash family, used like an acorn squash

Carving: Standard orange in small, medium or large sizes, usually used for holiday decor but may be eaten



Did you know...

Sodium and potassium create a balance in the body to make muscles contract, transmit nerve impulses and regulate blood pressure and heartbeat.

In season:



Summer and
Fall

Like it!

Pumpkin and White Bean Soup

Ingredients

- 1 ½ cups apple juice
- 1-15 oz. can small white beans
- 1 small onion, finely chopped
- 1 cup water
- 1-15 oz. can pumpkin
- ½ teaspoon cinnamon
- ⅛ teaspoon nutmeg, allspice or ginger
- ½ teaspoon black pepper
- ¼ teaspoon salt

Directions

1. Mash white beans, onions and water with a fork until smooth. Set aside.
2. In a large pot, add pumpkin, juice, cinnamon, pepper and salt. If using nutmeg, allspice or ginger, add that too. Stir.
3. Add bean mix to pot. Cook over low heat for 15-20 minutes, until warmed through.

Makes 6 servings

Nutrition Facts per Serving:

Calories 140, Fat 1g; Sodium 420mg; Carbohydrates 28g; Fiber 7g; Sugars 10g; Protein 7g

Source: myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/pumpkin-and-bean-soup

Lakota word translate by Jeshua Estes.

Pumpkin Mac and Cheese

Ingredients

- 1-16 oz. box whole-wheat macaroni
- 3 Tablespoons salted butter
- 3 Tablespoons flour
- 2 cups 1% or fat-free milk
- 1 teaspoon mustard
- 1 ¼ cups pumpkin puree
- 2 cups shredded cheddar cheese
- ¼ teaspoon pepper
- ¼ teaspoon nutmeg
- A generous pinch of salt

Directions

1. Cook macaroni according to directions.
2. In a skillet melt butter, add flour and cook 2 minutes.
3. Add milk, heat to a simmer for about 4 minutes, until mixture coats the back of a spoon.
4. Add seasonings and pumpkin, add cheese and stir until melted. Mix in macaroni.
5. Pour into lightly greased 9x13 pan. Bake at 350 degree F 20-25 minutes until golden brown.

Yield 10 servings.

Nutrition Facts per Serving:

Calories 320; Fat 12g; Sodium 24mg; Carbohydrates 41g; Fiber 5g; Sugars 4g; Protein 15g

Sources: urbanext.illinois.edu/fruitsandveggies.org/fruits-and-veggies/pumpkin/

**Find more recipes
and videos at
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