



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**

Cucumbers

In season:



Summer

Lakota: kun̄kún

Lesson Plan

Objectives

Participants will:

- identify cucumbers as a vegetable from MyPlate.
- identify the 2 types of cucumbers grown in gardens.
- increase knowledge in the growing, selecting, storing and use of cucumbers.
- demonstrate the use of cucumbers in a recipe.

Items Needed for the Lesson

- MyPlate poster
- Cucumber Nutrition Information sheet
- Visuals of or samples of pickling and slicing cucumbers
- Cucumber seeds
- Waxed-covered cucumber from supermarket
- ½ cup measuring cup
- Ruler
- 8 ounce cup

Handouts or Take Home Items

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

Recipe Choices

- Thai Cucumber Salad
- Cucumber Yogurt and Herb Dip

Cooking and Food Safety Skill Sheets

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

Other Cooking and Food Safety Skills

- Kitchen terms - disable, grate and chop

Supplies for Cucumber Lesson

- Thai Cucumber Salad
 - » Measuring cups
 - » Measuring spoons
 - » Liquid measuring cup
 - » Cutting boards
 - » Knives
 - » Saucepan
 - » Bowl
 - » Spoon
 - » Stove or electric burner
- Cucumber Yogurt and Herb Dip
 - » Measuring cups
 - » Measuring spoons
 - » Rubber scraper
 - » Knives
 - » Vegetable peeler
 - » Cutting boards
 - » Bowl
 - » Spoon

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. • These are 96% water. • Most of their flavor comes from the seeds. • Some have smooth skin, others have bumpy. • Their thick skin makes it hard for bugs to eat, but bugs do eat the plants they grow on. • This produce is used to make pickles. (Answer: Cucumber)	• 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 cucumbers.
Cucumbers, along with cantaloupe, squash, pumpkins and watermelon, are members of the cucurbit family of produce. They grow on vines on the ground or can be grown on poles or trellises that hold the produce up.	• Keep the visuals of cucumbers visible.
Because cucumbers develop from a flower and contain enclosed seeds, they are scientifically a fruit. They are, however, eaten as a vegetable and thus are part of the vegetable group on MyPlate. MyPlate shows us how to eat healthier. 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 cut up cucumbers counts as $\frac{1}{2}$ of the vegetable group on MyPlate.	• Point to the MyPlate poster. • Refer to the Daily Recommendations visual for specific age groups. • Show a $\frac{1}{2}$ cup measure.
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 has different vitamins and nutrients in them. Do you know what subgroup cucumbers are in? (Answer: others)	• Call on someone who wants to answer. • Show the Vegetable Subgroups visual.
How many of you have grown cucumbers in your garden? Cucumbers are usually grown by planting seeds. Seeds should be planted $\frac{1}{2}$-1 inch deep in warm spring soil. They can be thinned to 1 plant every 12 inches in a row. If they are planted in hills, thin to 3 plants per hill. Cucumbers have shallow roots and need to be watered to keep the soil moist through the whole growing season. When the cucumbers start setting on the plant, it is very important to keep them watered.	• Allow discussion. • If possible, show a packet of cucumber seeds, demonstrating how to plant in rows or hills.

What You Say:	What You Do:
Cucumbers can be picked at any size. The best size depends on the variety and how they are going to be used. When pickling, cucumbers of the 2-inch length are appropriate. For dill pickles, 4-6 inch long cucumbers work well and if they are going to be sliced and eaten, the 6-8 inch cucumber can be picked and used.	• Show the different lengths using a ruler.
As mentioned, there are 2 types of cucumbers grown in the garden. 1. Pickling cucumbers. This type usually has thick, bumpy skin. They are smaller and have fewer seeds. 2. Slicing cucumbers. This type is for eating fresh. This type includes most cucumbers sold in grocery stores.	• Refer to cucumber visuals or if possible have one of each type of cucumber available to show.
Cucumbers should be picked early in the morning while it is still cool outside. Refrigerate cucumbers immediately after picking. They can be stored in the refrigerator for up to 3 days in loose plastic bags. Do not wash before storing. If you have heard the term "cool as a cucumber", it refers to the fact that growing in a garden on a hot day, the inside of a cucumber is 20 degrees cooler than the outside air temperature.	
If you are purchasing cucumbers at the store, note that some are covered in an edible wax that prevents them from losing moisture. It also make the cucumbers look shiny. Choose firm, well-shaped cucumbers that are heavy for their size and have a dark green color. Avoid buying cucumbers that are shriveled, have bruises or dark spots, or that have bulging middles. This is a sign of a cucumber that has large seeds and is water inside.	• If possible, show a cucumber that has the waxy coating.
About 2-3 cucumbers make 1 pound. One pound of cucumbers makes about 3 cups of chopped cucumbers.	

What You Say:	What You Do:
How do you like to eat cucumbers? Cucumbers are best eaten raw. They can be eaten plain as a snack, used in salads or dipped in low-fat dressing. Cucumbers should be scrubbed and rinsed well before eating or using in recipes. They can be eaten with the peel on or they can be peeled using a vegetable peeler or knife. For food safety, keep cucumbers that are going to be eaten raw away from raw meat, poultry or seafood and the kitchen tools used with the meat, poultry or seafood.	Allow discussion.
Pickling is the easiest way to preserve cucumbers. Pickles can be made by canning or refrigerating.	Allow discussion of making pickles.
Why might we want to eat cucumbers? Unpeeled cucumbers are higher in nutritional value than peeled cucumbers because fiber is lost by peeling. Cucumbers add crispness to sandwiches and salads, but do not provide an adequate amount of nutrients on their own. - Water is the most abundant nutrient in cucumbers. - Water is an essential nutrient needed for all forms of life. - Our bodies are made up of 60-65% of water. All cell tissues and organs need water. - Water helps maintain body temperature, carries nutrients, helps get rid of waste and lubricates our joints. It is recommended that we get 8 cups (64 ounces) of fluids each day. This can come from water, other beverages and from foods like fruits and vegetables. Cucumbers can contribute to this recommendation because they are made up mostly of water.	- Call on someone who would like to answer. - Show an 8 oz. cup.
Are you ready to try out a recipe using cucumbers? 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 Thai Cucumber Salad

Equipment List

- Measuring cups
- Measuring spoons
- Liquid measuring cup
- Cutting boards
- Knives
- Saucepan
- Bowl
- Spoon
- Stove or electric burner

What You Say:	What You Do:
Today we are going to be making Thai Cucumber Salad. Let's read through the recipe to make sure we understand all of the steps.	• Pass out the recipe. • Read the recipe with participants.
We are going to be measuring some dry and liquid ingredients. What are some things we want to remember about measuring dry ingredients and liquid ingredients? (Possible answers: Level dry ingredients, flat surface at eye level for liquid ingredients.)	• Review Measuring Liquid and Dry Ingredients skill sheet. • Demonstrate measuring dry and liquid ingredients.
The recipe says to heat the sugar mixture until dissolved. What does the cooking term "dissolve," mean? (Answer: To cause a dry substance to pass into solution in a liquid.)	• Call on someone to answer. • Define "dissolve".
How will we seed the cucumber? (Answer: After slicing the cucumber lengthwise (from end to end), use a spoon to remove the seeds.)	• Call on people. • Prepare recipe with participants.
We will also be using a knife and cutting board to cut the onions, red pepper and cucumber. What things do we need to keep in mind when using knives and cutting boards?	• Refer to Knife Safety and Cutting Boards skill sheet.

Use this page if you are going to prepare Cucumber Yogurt and Herb Dip

Equipment List

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> • Measuring cups • Measuring spoons • Rubber scraper | <ul style="list-style-type: none"> • Knives • Vegetable peeler • Cutting boards | <ul style="list-style-type: none"> • Bowl • Spoon |
|--|--|---|

What You Say:	What You Do:
Today we are going to be making Cucumber Yogurt and Herb Dip. Let's read through the recipe.	- Pass out recipes. - Read recipe with participants.
We will be peeling, seeding and grating the cucumber for this recipe. We can peel the cucumber with a vegetable peeler or a knife. After peeling, we can cut the cucumber lengthwise, from end to end, and then use a spoon to scoop out the seeds. This is seeding the cucumber. Then we are going to grate one of the cucumbers. Do you know what the term "grate" means? (Answer: To rub on a grater that separates the food in various sizes of bits or shreds.)	- Call on someone who would like to answer. - Define "grate".
We will also be chopping the garlic. What does the term "chop," mean? (Answer: To cut solid into pieces with a sharp knife or other chopping device.)	- Define "chop". - Go over Knife Safety and Cutting Boards skill sheet.
Besides vegetables, this recipe has yogurt in it, which comes from the dairy group on MyPlate. Why do you think we need dairy foods? (Possible answers: They have calcium, which helps make our bones and teeth strong.)	See Daily Recommendations visual for specific amounts.
The amount of dairy foods we need each day depends on our age. It is best to choose low-fat choices from the dairy group. This recipe calls for plain, non-fat yogurt.	

Visuals



A cucumber blossom



A cucumber growing on the plant



Smaller cucumbers are great for pickling



Large varieties of cucumbers are good for slicing

Cucumber Nutrition Information

Type	Serving Size/Weight in grams	Calories	Fiber (g)	Vitamin A (International Units)	Vitamin C (mg)	Potassium (mg)	Folate (mcg)
Cucumbers, sliced	½ cup 52g	8	.3	4	2	76	4
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)

Cucumber Sources

Recipe

- myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cucumber-yogurt-and-herb-dip

Other

- pickyourown.org/SDharvestcalendar.htm
- fruitsandveggies.org/fruits-and-veggies/cucumber/
- web.extension.illinois.edu/veggies/cucumber.cfm
- extension.umaine.edu/publications/4254e
- wifss.ucdavis.edu/wp-content/uploads/2016/05/FDA_WIFSS_-Cucumbers_PDF.pdf
- healthysd.gov/veggie-of-the-month-cucumbers/

Clues

- scienceforkidsclub.com/cucumbers.html

Cooking Glossary

- reallifegoodfood.umn.edu/kitchen-skills-and-tips/cooking-terms-glossary

Lakota translation

- Translated by Jeshua Estes

Photo credit

- Pickling Cucumbers: Photo by Mike Licht, flic.kr/p/h2M5Hi

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SOUTH DAKOTA STATE
UNIVERSITY EXTENSION

In season:



Summer

Cucumber

Lakota: kunkún

Pick it!

Cucumbers range from 2 inches to 1 foot in length.

Select firm cucumbers no soft spots and an even bright green color. Do not choose cucumbers with yellow spots.

Avoid bulging cucumbers that likely are filled with large seeds and tasteless flesh.

Store-bought cucumbers are waxed to hold moisture. Refrigerate in plastic bag for up to 3 days.



Try it!

Slicing and seedless cucumbers are used fresh in salads or on vegetable platters.

Rinse under cold water to remove waxy coating, slice as desired.

Skins can be left on or peeled before eating; removing skin removes fiber and vitamin A.



Types of Cucumber

Slicing: Most common, can be eaten raw or pickled

Pickling: Grown specifically to be pickled, less bitter, smaller, fewer seeds

Seedless: Full-size and mini varieties



Did you know...

Cucumbers are full of water. Water moves nutrients and wastes in the body. Water is part of the body's cooling system and balances the acid-base ratio.

Like it!

Thai Cucumber Salad

Ingredients

- ¼ cup sugar
- 1 teaspoon salt
- ½ cup white vinegar
- 4 cucumbers, sliced lengthwise, seeded
- 1-2 green onions, thinly sliced
- 10 whole cilantro leaves or 1 teaspoon dried cilantro leaves
- ¼ cup red pepper, cut into 1-inch strips

Directions

1. Combine sugar, vinegar and salt.
2. Heat mixture in a small saucepan until the sugar is dissolved, about 5 minutes. Don't boil.
3. Place saucepan in cold water so the mixture cools.
4. Combine cucumbers and green onions in a bowl.
5. As soon as it is cool enough, pour over the cucumbers and green onions and place red peppers on top.

Yield 4 servings

Nutrition Facts per Serving:

Calories 80; Fat 0mg; Cholesterol 0mg; Sodium 590mg; Carbohydrates 18mg; Sugar 16g; Fiber 2g; Protein 1g

Cucumber Yogurt and Herb Dip

Ingredients

- 2 cups low-fat yogurt, plain
- 2 medium cucumbers
- ½ cup non-fat sour cream
- 1 Tablespoon lemon juice
- 1 Tablespoon fresh dill
- 1 garlic clove, minced
- 1 cup cherry tomatoes
- 1 cup broccoli florets
- 1 cup baby carrots

Directions

1. Peel, seed and grate 1 cucumber. Slice the other cucumber and set aside.
2. In a bowl, mix yogurt, grated cucumber, sour cream, lemon juice, dill and garlic. Chill for 1 hour.
3. Arrange tomatoes, cucumbers, broccoli and carrots on a colorful platter.
4. Serve platter with cucumber dip.

Yield 6 servings

Nutrition Facts per Serving:

Total Calories 94; Total Fat 2g, Saturated Fat 1g; Cholesterol 7mg; Sodium 109mg; Carbohydrates 15g, Dietary Fiber 2g, Total Sugars 9g, Added Sugars included 0g; Protein 6g

Source: myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/cucumber-yogurt-and-herb-dip

Lakota word translated by Jeshua Estes

**Find more recipes
and videos at
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