



**SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION**

# Broccoli

**In season:**



**Summer and  
Fall**

*Lakota: yuŋíyathŋ*

## Lesson Plan

### Objectives

Participants will:

- identify broccoli as a vegetable and the part of the plant it comes from.
- increase knowledge in harvesting, storage and use of broccoli.
- be able to demonstrate the use of broccoli in a recipe.

### Items Needed for the Lesson

- MyPlate poster
- Parts of a Plant visual
- Regional in season chart of fruits and vegetables
- Broccoli Nutrition Information sheet
- Vegetable Subgroups visual
- Broccoli recipes

### Handouts or Take Home Items

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

### Recipe Choices

- Broccoli Salad
- Steamed Broccoli with Dill Dressing

### Cooking and Food Safety Skill Sheets

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

### Other Cooking and Food Safety Skills

- Kitchen terms - blanch, chop, dice and steam
- Making low-fat substitutions
- Storing fresh produce

### Supplies for Broccoli Lessons

- Steamed Broccoli with Dill Dressing
  - » Vegetable peeler
  - » Knife
  - » Cutting board
  - » Measuring spoons
  - » Small mixing bowl
  - » Large mixing bowl
  - » Spoon
  - » Saucepan
  - » Strainer/colander
- Broccoli Salad
  - » Strainer/colander
  - » Measuring cups
  - » Measuring spoons
  - » Knife
  - » Cutting board
  - » Bowl
  - » Spoon

### Notes

- If preparing the Broccoli Salad and choosing to use the bacon, consider cooking bacon beforehand so it is cooled and can be crumbled when preparing the recipe.

| 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"> <li>• Its name comes from a Latin word meaning "branch" or "arm".</li> <li>• California is the nation's largest producer of this vegetable.</li> <li>• It provides us with calcium but it is not a dairy food.</li> <li>• President George H. W. Bush was not a fan of this vegetable.</li> <li>• Kids sometimes call it trees.</li> </ul> <p>(Answer: Broccoli.)</p> | <ul style="list-style-type: none"> <li>• Name off each clue; allow a few guesses before moving on to the next clue.</li> <li>• After someone guesses the answer, or you tell them, show them the visuals of broccoli.</li> </ul> |
| <p>We should be filling <math>\frac{1}{2}</math> our plates with fruits and vegetables.</p> <p>Depending on our age and gender, we should be eating between 1-4 cups of vegetables a day.</p> <p>There are 5 subgroups of vegetables, which group do you think broccoli belongs to?</p> <p>(Answer: Dark Green.)</p>                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Point to MyPlate poster.</li> <li>• Show Vegetable Subgroups visual.</li> </ul>                                                                                                         |
| <p>Different vegetables come from different parts of the plant. Vegetables are either a root, stem, leaf, fruit, flower or seed. What part of the plant do you think broccoli is?</p> <p>(Answer: Flower.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Show Parts of Plant visual, call on people to answer questions.</li> </ul>                                                                                                              |
| <p>Do you know why plants have flowers?</p> <p>(Answer: Flowers attract pollinators such as bees and butterflies that will help fertilize the flower. After the flower is fertilized a fruit will begin forming.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                  |
| <p>Broccoli is a cool season crop, but is able to tolerate a small amount of heat. Plant broccoli plants between April and May. They will take about 65-75 days before the heads are large enough to be harvested. After the central head is removed, smaller side heads will form and can be harvested later.</p>                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                  |
| <p>When purchasing broccoli choose tight florets that are green, purplish or blueish green. If the florets are turning yellow, the broccoli is over mature. The broccoli heads should be large with tight clusters and firm stalks.</p>                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• If possible, show a fresh head of broccoli.</li> </ul>                                                                                                                                  |
| <p>Store fresh broccoli in the vegetable crisper in the refrigerator. Do not wash fresh broccoli until you are going to use it.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                  |

| What You Say:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | What You Do:                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>If you grow your own broccoli, you may want to soak the heads in a brine before preparing to remove any insects. Cabbageworms are common for attacking the heads and leaves of the broccoli plants. To make a brine, mix 4 teaspoons salt with 1 cup of water. Separate heads into smaller sized stalks and soak for 30 minutes. Rinse the broccoli well before preparing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                        |
| <p>Freezing is the best way to store excess broccoli. Broccoli must be blanched first. Do you know what it means to blanch something?</p> <p>(Answer: Immerse food in rapidly boiling water, then remove and place in ice water to stop the cooking process.)</p> <p>Make sure to wash and cut florets into 1-inch pieces and blanch no more than 1 pound at a time. Each batch should only be in the boiling water no more than 4 minutes (the water used to blanch the broccoli can be reused). Prepare an ice bath in the meantime. Use a slotted spoon to remove the broccoli from the boiling water and immediately place the broccoli in an ice bath for 5 minutes. (If you do not have ice, you can use cold water. It will need to be changed several times).</p> <p>After the broccoli is cooled, pack in freezer bags or freezer containers. Make sure to get as much air out as possible if using bags. Label and date bags and place them in the freezer. Broccoli can be frozen for up to a year at 0°F or below. If broccoli is not blanched first, your broccoli will toughen and lose flavor and nutrients.</p> | <ul style="list-style-type: none"> <li>• Discuss blanching.</li> </ul>                                                                                                 |
| <p>Broccoli is very high in vitamin C. Vitamin C is important in keeping our skin healthy and helping wounds heal. Broccoli also has calcium in it. A serving of broccoli also has approximately 4% of your daily recommendation of calcium.</p> <p>The stalks of the broccoli can also be eaten. The stalk is high in fiber. To use the stalk you will want to wash and peel it first.</p> <p>What food group do we usually get our calcium from?</p> <p>(Answer: Dairy.)</p> <p>Why do we need calcium?</p> <p>(Answer: For healthy teeth and bones.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Discuss benefits of eating broccoli.</li> <li>• If using fresh broccoli demonstrate washing and peeling the stalk.</li> </ul> |

| What You Say:                                                                                                                                    | What You Do:                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <p>What are different ways you can eat broccoli?<br/> (Possible answers: Raw, steamed, in stir-fry, casserole, soups, stew and salads.)</p>      | <ul style="list-style-type: none"> <li>• Discuss different ways to eat broccoli.</li> </ul>                                    |
| <p>Are you ready to try out a broccoli recipe?</p> <p>What is the first thing we always do before preparing food?<br/> (Answer: Wash hands.)</p> | <ul style="list-style-type: none"> <li>• Call on someone for the answer.</li> <li>• Review Handwashing skill sheet.</li> </ul> |



## Use this page if you are going to prepare Steamed Broccoli with Dill Dressing

### Equipment List

- Vegetable peeler
- Knife
- Cutting board
- Measuring spoons
- Small mixing bowl
- Large mixing bowl
- Spoon
- Saucepan
- Strainer
- Stove or electric burner

| What You Say:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | What You Do:                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Today we are going to make Steamed Broccoli with Dill Dressing. If we look at the ingredients in this recipe, we see that we will be using broccoli and carrots. It is important to eat a variety of colors of vegetables to make sure we get all the vitamins and minerals we need.</p> <p>This recipe uses a dressing made of olive oil, black pepper and dill. Notice we are not using salt in this recipe; instead we are flavoring it with pepper (a spice) and dill (an herb).</p> <p>Other herbs that go well with broccoli are basil, garlic, lemon balm, marjoram, oregano, tarragon and thyme.</p> | <ul style="list-style-type: none"> <li>• Pass out the recipe and read through together.</li> </ul>                                                                                                    |
| <p>We will need to wash and cut the broccoli and carrots to prepare this recipe.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Refer to Knife Safety and Cutting Boards and Washing Fruits and Vegetables skill sheets.</li> <li>• Discuss how to safely use a vegetable peeler.</li> </ul> |
| <p>We will be steaming the vegetables in a saucepan. When we do this we will add the vegetables to the boiling water and let it cook for a short amount of time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Refer to Stove Top Safety skill sheets.</li> <li>• Prepare recipe with participants.</li> </ul>                                                              |

# Use this page if you are going to prepare Broccoli Salad

## Equipment List

- Colander
- Measuring cups
- Measuring spoons
- Knife
- Cutting board
- Bowl
- Spoon

| What You Say:                                                                                                                                                                                                                                                                                                                                                                      | What You Do:                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Today we are going to make Broccoli Salad. This recipe uses raw, fresh broccoli.</p> <p>Let's look over the ingredients. How many food groups are in this recipe?</p> <p>(Answer: 2 or 3 if you add bacon *Vegetables – broccoli and onion, *Fruit – raisins, *Protein – bacon.)</p>                                                                                            | <ul style="list-style-type: none"> <li>• Pass out the recipes.</li> <li>• Call on people or prompt after naming out each ingredient, point to each food group you discuss.</li> </ul> |
| <p>As we talked about earlier, when we look at MyPlate, ½ our plate is fruits and vegetables. We should be eating between 1-4 cups of vegetables per day depending on our age and gender.</p>                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Refer to the Daily Recommendations visual for specific recommendations.</li> </ul>                                                           |
| <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 has different vitamins and minerals in them. We already talked about broccoli being in the dark green subgroup. Do you know what group onion belongs in?</p> <p>(Answer: Others.)</p> | <ul style="list-style-type: none"> <li>• Show Vegetable Subgroups visual and talk about vegetables in the different groups.</li> <li>• Call on people to answer.</li> </ul>           |
| <p>We will be using low-fat mayonnaise in this recipe. Making low-fat choices is important in maintaining a healthy weight. Non-fat or low-fat plain yogurt can also be substituted for mayonnaise.</p>                                                                                                                                                                            |                                                                                                                                                                                       |
| <p>This recipe mentions chopping and dicing. What is the difference between the two terms?</p> <p>(Answer: Chop is to cut into small pieces, dice means to cut into small cubes that are the same shape and size.)</p>                                                                                                                                                             | <ul style="list-style-type: none"> <li>• Discuss.</li> <li>• Refer to Knife Safety and Cutting Boards skill sheet.</li> <li>• Prepare recipe.</li> </ul>                              |

## Visuals



**Central head of broccoli ready to be picked**



**Head of broccoli beginning to flower**



**Harvesting broccoli**



**Broccoli florets**

## Broccoli Nutrition Information

| Type                                                                                                | Serving Size/Weight in grams                            | Calories                                   | Fiber (g)                                   | Vitamin A (International Units)                   | Vitamin C (mg)                              | Potassium (mg)                                    | Folate (mcg)                                    |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------|---------------------------------------------|---------------------------------------------------|---------------------------------------------|---------------------------------------------------|-------------------------------------------------|
| <b>Broccoli, raw</b>                                                                                | ½ cup chopped<br>44g                                    | 15                                         | 1.1                                         | 45                                                | 40                                          | 139                                               | 28                                              |
| <b>Broccoli, cooked</b>                                                                             | ½ cup chopped<br>78 g                                   | 27                                         | 2.6                                         | n/a                                               | 51                                          | 229                                               | 84                                              |
| <b>Daily Recommendations</b><br><b>RDA=Recommended daily allowance</b><br><b>AI=Adequate intake</b> | 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) |

# Broccoli Sources

## Information

- [web.extension.illinois.edu/veggies/](http://web.extension.illinois.edu/veggies/)
- [s3.wp.wsu.edu/uploads/sites/2073/2014/03/Broccoli-03.pdf](https://s3.wp.wsu.edu/uploads/sites/2073/2014/03/Broccoli-03.pdf)
- [pickyourown.org/SDharvestcalendar.htm](http://pickyourown.org/SDharvestcalendar.htm)
- [extension.illinois.edu/gpe/case1/c1facts2a.html](http://extension.illinois.edu/gpe/case1/c1facts2a.html)

## Recipe

- [myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/broccoli-salad](http://myplate.gov/recipes/supplemental-nutrition-assistance-program-snap/broccoli-salad)

## Lakota translation

- Translated by Jeshua Estes

## Photo credit

- Broccoli, Photo by Linda N. [flic.kr/p/52a1bp](https://flic.kr/p/52a1bp)
- Blossoming Broccoli: By Wing - Own work, CC BY-SA 3.0, [commons.wikimedia.org/w/index.php?curid=10806705](https://commons.wikimedia.org/w/index.php?curid=10806705)
- Brassica oleracea var. italica!!! Location: Maui, Foodland Pukalani: By Forest & Kim Starr, CC BY 3.0, [commons.wikimedia.org/w/index.php?curid=6178426](https://commons.wikimedia.org/w/index.php?curid=6178426)

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SOUTH DAKOTA STATE  
UNIVERSITY EXTENSION

# Broccoli

In season:



Summer and  
Fall

*Lakota: yuhíyatho*

## Pick it!

Choose tight florets that are green, purplish or bluish green.

Head should be large with a tight cluster of small flower buds and very firm stalks.

Yellow flowers and large buds are a sign of over maturity.

Store in the vegetable crisper of the refrigerator and use in a short period.

Do not rinse until just before using.

Prepare broccolini similarly to asparagus – roast or lightly sauté.

Avoid overcooking, which produces a strong sulfur odor and results in lost nutrients.



## Try it!

Broccoli is great raw with sauces or dips.

The stalk is edible and contains a high amount of fiber – to use, peel it first.

Cut florets into even-sized pieces for cooking.

Steam 3-4 minutes or simmer in 1 inch of boiling water until bright green, tender and crisp.

Also great added to salads, soups, stews casseroles and stir-fries.



## Types of Broccoli

**Sprouting:** Most common, small stems sprout from main with green clusters

**Broccolini:** Cross of broccoli and Chinese broccoli: smaller, delicate, sweeter

**Romanesco:** Cross of broccoli and cauliflower, liked for its spiral flower heads



## Did you know...

Calcium is needed for healthy bones and teeth. Calcium is most often found in dairy foods like milk and yogurt but can also be found in broccoli and kale.



**Like it!**

## Steamed Broccoli with Dill Dressing

### Ingredients

- 1 bunch broccoli, about 2 pounds
- 3 carrots, peeled and cut into 2 inch strips
- 6 Tablespoons olive oil
- ¼ teaspoon black pepper
- 1 teaspoon dried dill weed OR 3 teaspoons fresh dill, finely chopped

### Directions

1. Mix the olive oil, pepper and dill. Set aside.
2. Bring a large saucepan of water to a boil while preparing the vegetables.
3. Rinse and trim stems from the broccoli then cut the florets into small uniform pieces. Rinse and peel the carrots, then cut into 2 inch strips.
4. When water is boiling, add carrots and broccoli stems. Cook for 1 minute. Add the florets and boil for 2 more minutes.
5. Drain the produce and run under cold water.
6. Place in a large bowl and gently toss with the olive oil dressing. Serve Immediately.

Yields 6 servings

Nutrition Facts per Serving:  
Calories 200; fat 15g; Cholesterol 0mg; Sodium 70mg;  
Carbohydrates 14g ; Fiber 4g; Sugars 5g; Protein 5g

## Broccoli Salad

### Ingredients

- 6 cups broccoli
- 1 cup raisins
- 1 medium red onion, diced
- 2 Tablespoons sugar
- 2 Tablespoons lemon juice
- ¾ cup low-fat mayonnaise
- Optional: 8 slices of cooked bacon, crumbled

### Directions

1. Combine all ingredients in a medium bowl. Mix well.
2. Chill for 1-2 hours and serve.

Yields 8 servings

Nutrition Facts per Serving:  
Calories 174; fat 9g; Cholesterol 7mg; Sodium 198mg;  
Carbohydrates 23g ; Fiber 3g; Sugars 16g; Protein 3g

*Lakota word translated by Jeshua Estes.*

**Find more recipes  
and videos at  
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