

Broccoli/Cauliflower

GRADE
2-3

Month: December

Time Required: 30 minutes

Alternative Tastings: Artichoke

Lesson Goals

- Students will increase their knowledge of fruits and vegetables.
- Students will learn to try new fruits and vegetables and increase their preference for them.
- Students will learn that their peers like to eat fruits and vegetables.
- Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Learning Objectives

- Students will be able to identify 6 plant parts.
- Students will be able to distinguish plants within the brassica family.

Academic Standards Connection

Coming soon.

Essential Components Checklist

- Physical Activity
- “Asking” Discussion
- Voting
- Newsletters, BINGO Cards, Stickers, and Incentives
- Tasting

Materials

- Pictures of broccoli, cauliflower, and other brassicas
 - Blank sheets of paper for reflection
 - Cooler
 - Electric skillet
 - Plastic tote (to transport electric skillet)
 - Spatula
 - Power strip (with long cord)
 - Water bottle with water
 - Rags
 - Food storage containers
 - Tasting materials (plates, napkins, etc.)
 - Broccoli and/or cauliflower for cooking
 - Olive oil
 - Salt
 - Pepper
 - Preferred spices (ex: garlic, cumin, chili powder, etc.)
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Preparation

- ❑ Wash broccoli and/or cauliflower and chop into small “trees”
- ❑ Portion broccoli and/or cauliflower into food storage bags (one per lesson)
- ❑ Add olive oil and spices to the bag; shake well

Engage

1. Introduction: 2 minutes

The “Introduction” section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day’s lesson.

*If you’re planning on cooking your broccoli or cauliflower in an electric skillet or air fryer, you may want to start preheating your cooking instruments as soon as you arrive in the class. Alert students and teachers to the hot skillet or air fryer. If using a skillet, heat a couple tablespoons of olive oil over medium heat, leaving uncovered.

2. Engage Activity: 6 minutes

The “Engage Activity” section has two purposes: 1) to activate students’ prior knowledge and 2) to engage every student.

Today we’re going to be trying broccoli and/or cauliflower. If you’re cooking, show your students your container of chopped up broccoli or cauliflower. Before you add the broccoli to the preheated electric skillet or air fryer, ask students to listen very carefully for the “sizzle” noises. Add the broccoli or cauliflower. If using a skillet, leave uncovered, stir occasionally and cook for 10 minutes or until tender over medium or heat.

Think-pair-share: Gather students in a large circle. *I’d like to know something that is special about your family.* As an example, share something that makes your family special.

- *Think to yourself quietly.* Have students close their eyes, put their fingers to their temples, and think real hard.
- Ensure all students have a partner. Then, have students turn to a partner and share their special quality.
- After a couple minutes, bring the class back together and select students to share out. If you use “pick a stick,” this is a good way to randomly select students to share.
- As students share their special quality; have them put on an imaginary crown.

That’s beautiful! All of our families are different, and all of our families are special.

Explore

3. Experiential Learning: 8 minutes

This is a time for students to familiarize themselves with what you’ll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit (opportunity for 3 deep breaths).

Today, we’re going to try broccoli and cauliflower, two vegetables that belong to a special family of plants called brassicas (write and have class repeat the word: brassica). There are many vegetables in the brassica

family. Show a side by side image of broccoli and cauliflower (or pass around 2 fresh heads of broccoli and cauliflower). *We might be able to tell that broccoli and cauliflower are in the brassica family.*

- *Think in your head of one way these vegetables are similar.* Use “pick a stick” to randomly select students to share.

Now, think in your head of one way these vegetables are different. Use “pick a stick” to randomly select students to share.

There are all kinds of vegetables in the brassica family. Just like our families, they are unique and special. Show image of the rest of the brassica family (name: kale, kohlrabi, cabbage, brussel sprouts).

When we eat vegetables in the brassica family, we are eating different plant parts. There are six plant parts (how many plant parts? “Six!”). Broccoli and cauliflower are flowers (what plant part are they? “Flowers!”) Some people even call them the “crowns” (put on imaginary crowns again). We eat broccoli and cauliflower before the flowers bloom, when they are tender and sweeter. We’re going to do a dance to learn about what each plant part does.

Physical Activity: Plant Parts Dance

- I’m a plant and I have...
 - Roots: soak up water and keep the plant in the ground
 - Stem: the elevator that brings water up and food down
 - Leaves: help the plant make food
 - Flowers: where the bees come to drink nectar
 - Fruit: helps spread seeds
 - Seeds: help make new plants

Practice leading the dance with this Youtube video!

“Parts of Plant: A Dance Tutorial with FoodCorps” (start at 1:22):

<https://www.youtube.com/watch?v=sIELVWizfOY&t=21s>

4. Tasting Activity: 3 minutes

The “Tasting Activity” section is when students get to try the fruit or vegetable. Don’t forget to review your food tasting norms (for example, “don’t yuck my yum”).

Before you pass out any samples, be sure to review your brave tasting rules (for example, don’t yuck my yum, we all try together, etc.). As students receive their samples, ask them to use their senses while they wait.

There are several ways to try broccoli and/or cauliflower:

Raw: Cut into small “trees” and serve with a dip.

Air fryer: Before lesson - chop cauliflower and/or broccoli into smaller pieces. During lesson - toss in an air fryer with olive oil and spice options (ex: garlic, pepper, paprika). You can also use an oven or fry in a skillet.

Electric Skillet: Before lesson - chop cauliflower and/or broccoli into smaller pieces. During lesson - heat 2 tbsp olive oil over medium heat, leaving uncovered. Add your broccoli or cauliflower to the hot skillet and season with optional spices (ex: salt, garlic, pepper, paprika).

Reflect

5. Voting Activity: 2 minutes

This is a time for students to give their opinion on what they tried!

As students taste the cauliflower and/or broccoli, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: 9 minutes

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion".

Plant Part Art:

Using a blank sheet of paper, instruct students to trace their hands, making a head of broccoli. Use the doc-cam to demonstrate how they can choose to add different plant parts: flowers to fill-out the crown, a stem, and leaves. They may also choose to add roots, flowers, and seeds (and a crown!) to make their own special version of a broccoli plant.

Asking Discussion:

- *Raise your hand if you're excited to go home and tell your family about tasting broccoli and/or cauliflower.*
- *Ask a student with a raised hand: if you wanted to try this at home, how might you ask your grown-ups?*

Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.



The Brassica Family



Kale



Kohlrabi



Brussel Sprouts



Cabbage



Lesson Supplement

Recommended Book

“The Trouble with Cauliflower” by Jane Sutton

Physical Activity

“Frozen Vocabulary” (page 17) from “Get Movin’ Activity Breaks” (Variation: Replace vocabulary words with a fruit or vegetable name. Call on a student to tell the class if the word you called out is a fruit or vegetable.)

More ideas for physical activity are available at <https://idph.iowa.gov/inn/play-your-way/brain-breaks>.

What You Need to Know About Broccoli and Cauliflower

- Broccoli is one of the few vegetables that is available year round.
- California is the top producer of broccoli in the United States, growing 90% of broccoli eaten in the U.S.
- Broccoli is a cool season crop which means it is not affected by frost when planted in cooler weather.
- Choose broccoli with tight florets that are dark green, purplish or bluish green. Stalks should be very firm.
- Choose cauliflower with compact creamy white buds and bright green leaves. Avoid brown spots or loose sections that are spread out.
- Cauliflower and broccoli are both high in Vitamin C.

Facts About Cantaloupe

- The part of the broccoli that we eat is a group of buds that are almost ready to flower.
- Broccoli is known as the “Crown Jewel of Nutrition” because it is low in calories, rich in vitamins, and high in fiber.

Health Connection

- Vitamin C - for healthy skin, strong immune system, and healing wounds (Reinforce with defense shield by crossing arms to make an “X”.)
- Fiber - helps with digestion and makes us feel full longer (Reinforce by rubbing stomach).

References and Resources

<https://harvestofthemonth.cdph.ca.gov/Pages/Downloads.aspx>

http://www.vermontharvestofthemonth.org/uploads/2/8/9/6/28966099/10_broccoli-cauliflower_lesson.pdf

<http://www.fns.usda.gov/tn/discover-myplate-emergent-reader-mini-books>

<http://blogs.extension.iastate.edu/foodsavings/2015/10/19/how-to-cut-cauliflower/>

<https://spendsmart.extension.iastate.edu/produce-item/broccoli-2/>

<https://spendsmart.extension.iastate.edu/produce-item/cauliflower-2/>

