Local Brassicas
Brussels Sprouts, Cabbage, Kohlrabi

Month: November
Time Required: 30 minutes
Tasting: Locally available Brassicas, including Brussels sprouts, cabbage, or kohlrabi

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.

Lesson Objectives
- Students will be able to describe the concept of a plant family.
- Students will be able to recognize Brussels sprouts as a member of the Brassica family.

Materials
- Images of Brassicas for Brussels Sprout Shout activity (included in lesson)
- Optional and so cool if you can get it: whole stalk of Brussels sprouts!
- Printed compare and contrast worksheets, one per student pair or table group
- For in-class cooking: cooler, antibacterial wipes, electric skillet or air fryer, plastic tote (to transport electric skillet), spatula, power strip (with long cord), water bottle with water, rags, plastic food storage bags, halved Brussels sprouts for cooking (depending on class size), olive oil, salt, pepper, preferred spices (garlic, cumin, etc.)
- Tasting materials (plates, napkins, etc.)

Preparation
- Food preparation:
  - Prepare Brussels sprouts for tasting: if using air fryer or electric skillet, cut Brussels sprouts into halves. If making a salad, shred the Brussels sprouts.
  - Portion Brussels sprouts into food storage bags (one per lesson).
  - Add olive oil and spices to the bag.
- Chop/shred the Brussels sprouts no more than two days in advance of your lesson, and store them in an airtight container in the refrigerator

Recommended Books
(Send book suggestions to suzy.wilson@idph.iowa.gov.)
### Engage

<table>
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<th>1. Introduction: 2 minutes</th>
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<td>The “Introduction” section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day’s lesson.</td>
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*If you’re planning on cooking your Brassicas 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. |

<table>
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<th>2. Engage Activity: 10 minutes</th>
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<td>The “Engage Activity” section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.</td>
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Gather students in a circle. Share, *Today, we’re going to be tasting Brussels sprouts, and we’re going to learn about families.* If you’re cooking, show your students your container of prepared Brussels sprouts. Before you add the Brussels to the preheated electric skillet or air fryer, ask students to listen very carefully for the "sizzle" noises. Add the Brussels. If using a skillet, leave uncovered, stir occasionally and cook for 10 minutes or until tender over medium or heat.

*Families* are special groups of people. Sometimes, people in our family are similar to us - maybe they look like us, live in the same place as us, enjoy the same foods or activities, talk like us. Sometimes, people in our family are different from us - maybe they look different from us, are a different age than us, live in different places, or like eating different foods than we do.

**Think-pair-share:** *I’d like you to talk with a partner and share about a special person in your family. How are they the similar or different from you?* As an example, share something special about a person in your family.

- *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 about their family member.*
- *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.*

*Thank you for sharing about the special people in your families. I can tell you care for them. We’re going to play a game where we will work together as a classroom family and practice care for each other!*

**Play “Crooked Circle,” a collaborative game from Playworks**

- Have students stand in the circle and number off by 1’s and 2’s (or “Brussels” and “sprouts”)
- Explain that the game is a challenge; give examples of how to care for each other while playing.
  - Examples: holding hands firmly and carefully, paying attention to instructions, etc.
- Designate a signal to start.
- Make sure students are holding hands and remember their numbers.
- The students hold hands and when you give the signal, the 1’s lean forward and the 2’s lean backward. The challenge is to keep holding hands while maintaining balance once half the group is leaning back and the other half is leaning forward.
- Once the group has managed to balance, bring them back to center and change roles.
- If the group has switched roles successfully, challenge them to do it with their eyes shut.
- Discuss how caring for each other played a role in the game.
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.

Seat students at their desks. Opportunity for 3 deep breaths.

Just like people have families, plants have families, too! Explain, A plant family is a group of plants that share similar features or traits. Show image via doc-cam. One plant family is called the Brassica family. Let’s say that together: “Brassica family.” There are many vegetables in the Brassica family. Just like in our human families, each member of the Brassica family is special.

Brassica Family: Compare and Contrast
Using doc-cam, share images of vegetables in the Brassica family (images included in lesson). Pass out The Brassica Family: Compare and Contrast worksheets, one per pair of students or table group. Share these instructions for the activity: We’re going to look at the many different members of the Brassica family and examine how their traits are the same and how they are different. With your partner (or table group), pick 2 Brassicas to compare and contrast, using the worksheet. Write the ways they are different on the outside circles, and write the ways they are the same in the inside circle. Share an example slide if helpful.

Give students several minutes to complete the activity in groups, moving around the room to offer support as needed. Ask a couple of groups to share aloud.

The Brassica we are about to sample is called Brussels sprouts. Share slide showing how Brussels sprouts grow on a stalk. Consider opportunities for additional small group discussion with these questions:

- Do you think all members of the Brassica family taste the same?
- Can you think of other plants that might be in the same family?
- Have you ever tasted any of these Brassicas?

**Activity alternate: instead of pictures, bring in fresh Brassicas for students to compare and contrast.

4. Tasting Activity: 4 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 share your brave tasting rules (for example, don’t yuck my yum, we all try together, etc.). As students receive their samples, talk the class through using their senses to explore the tasting.

Below are some ideas for sampling Brussel sprouts:

Raw: Make a shredded Brussel sprout salad. A number of simple recipes can be found online.

Air fryer: Before the lesson, chop Brussels sprouts into smaller pieces. During the 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 the lesson, chop Brussels sprouts into smaller pieces. During the lesson, heat 2 tablespoons olive oil over medium heat, leaving uncovered. Add your Brussels sprouts to the hot skillet and season with optional spices (ex: salt, garlic, pepper, paprika).

Local Food Facts! If you’re tasting local food, be sure to share information about where it came from: Iowa farm/farmer, location, distance from the school (a map is a great visual here!), when it was harvested, how did you get it, etc.
Reflect

5. Voting Activity: 2 minutes
This is a time for students to give their opinion on what they tried!

As students taste the Brassicas, 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: 4 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.”

Choral Response:
I’m going to ask a question and you’re going to quietly think to yourself. When I say our magic word, “Brussels sprouts,” you can say your answer aloud. Let’s practice…
- What month is it? (November)
- People have families. Do plants have families, too? (yes!)
- What plant family did we learn about today? (the Brassica family)
- What member of the Brassica family did we taste today? (Brussels sprouts)
- What is one way members of Brassica family are similar? What is one way they are different?
- What’s another kind of Brassica that you would like to try? (can show the images from the Brussels Sprout Shout activity to help students remember names of other kinds of Brassicas.)

Asking Discussion:
Raise your hand if you’re excited to go home and tell your family about tasting Brassicas.
- Ask a student with a raised hand: if you wanted to try Brassicas like Brussels sprouts at home, how might you ask your grown-ups?
- You might also ask additional questions like, where could you buy Brassicas like Brussels sprouts?
  What else do you remember about Brassicas?

*Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.
Pick 2 Brassicas from the Brassica family.

**Compare:** On the inside circle, share their similarities.

**Contrast:** On the outside circles, share their differences.

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The Brassica Family: Compare and Contrast

Name of Brassica #1: ___________________________

Name of Brassica #2: ___________________________
Broccoli  
Cauliflower  
Brussels sprouts  
Cabbage  
Radish  
Napa cabbage  
Kale  
Rutabaga  
Kohlrabi  
Mustard greens  
Collard greens  
Turnips
Physical Activity

What You Need to Know About Brassicas
- Look for Brussels sprouts that are bright green, firm, and compact; they’re best if still on the stalk.
- Store Brussels sprouts in a plastic bag in the refrigerator for up to 1 week. Rinse under cool water and cut off the stalk portion (or stem portion if not on the stock) before eating.
- Look for cabbage that is crisp, heavy, and firmly packed with no loose leaves.
- Tightly wrap cabbage in plastic and store in the refrigerator for up to 1 week.
- Remove the outer leaves of cabbage and rinse under cool water before preparing. Remove the core before chopping.
- Look for firm, heavy kohlrabi globes without cracks or bruises, ideally 2 inches across in size.
- Trim off kohlrabi leaves, wrap kohlrabi in paper towels, and store in a plastic bag in the refrigerator for up to 4 days.
- Kohlrabi greens should be rinsed under cool water and blotted dry right before using. Kohlrabi globes should be scrubbed with a veggie brush under cool water and peeled before using. Small bulbs do not usually need to be peeled.

Facts About Brassicas
- Cabbage is in season mid-June-October; kohlrabi is in season mid-August-October; Brussels sprouts are in season June-November.
- Cabbage, kohlrabi, and Brussels sprouts are in the Brassicas plant family and grow right on top of the ground. They are also called cruciferous vegetables due to the cross formation of their flower petals.
- 78% of cabbage in the U.S. is grown in Texas, New York, Florida, California, or Wisconsin.
- Cabbage heads have various shapes including flat, pointed, or globular and are colored green, grey-green, or red.
- The word “Kohlrabi” is a German word meaning “cabbage turnip” and is the stem part of the plant. Kohlrabi comes in white (green) and purple varieties.
- First grown in Belgium around the year 1200, Brussels sprouts are buds along the plant stem that come in both green and red varieties.

Health Connection
- Cabbage provides vitamin C and anti-cancer phytochemicals.
- Kohlrabi provides vitamin C and fiber.
- Brussels sprouts provide vitamin C, vitamin K, potassium, and fiber.
- Vitamin K is good for our bones and blood. Potassium is good for our hearts. Vitamin A is important for eyesight and keeps our skin healthy. Vitamin C helps heal our skin and helps our bodies fight off illness.

References and Resources
[https://spendsmart.extension.iastate.edu/cook/produce-basics/](https://spendsmart.extension.iastate.edu/cook/produce-basics/)
[https://fruitsandveggies.org/fruits-and-veggies/](https://fruitsandveggies.org/fruits-and-veggies/)
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