Winter Squash
Butternut, Buttercup

Month: January
Time Required: 30 minutes
Tasting: Local winter squash (ex.: butternut, buttercup, pumpkin)

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 define diversity.
- Students will be able to recognize varieties of winter squash.

Materials
- Image of many varieties of winter squash (included in lesson)
- All Kinds of Squash Matching Game picture cards
- Whole, raw butternut squash (or other local varieties)
- For in-class cooking: cooler, antibacterial wipes, electric skillet, plastic tote (to transport electric skillet), spatula, power strip (with long cord), water bottle with water, rags, plastic food storage bags, winter squash for cooking (depending on class size), olive oil, salt, pepper, preferred spices (garlic, cumin, etc.)
- Tasting materials (plates, napkins, etc.)

Preparation
- Print 2-3 sets, depending on class size, of picture cards for All Kinds of Squash Matching Game (There are 10 cards per set; 1 card per student or 1 card per pair of students). Cut apart the cards. You may want to laminate the cards so you can reuse them.
- Prepare to share video book reading at the beginning of the lesson.
- Food preparation:
  - Prepare winter squash for tasting: peel and chop raw butternut squash in ½ inch cubes.
  - Portion squash into food storage bags (one per lesson).
  - Add olive oil and spices to the bag.

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

*You may want to preheat your electric skillet for the cooking activity and alert students to the hot skillet. Preheat to medium, depending on the skillet.

***Cooking Tips:
- Feel free to delegate responsibilities with the teacher. Have them stir the squash, while you work with the class. Or vice versa.
- Email the teacher ahead of time to let them know you plan on using a heat source and will need a table close to an outlet, if possible.
- If you notice students getting distracted by the noise, smells, or sights of cooking use that as a teaching moment. Pause and ask students to smell the air together. Or listen very quietly for any sizzling noises. These are good interruptions!

2. Engage Activity: 8 minutes

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

The Same and Different

Gather students in a circle. Share, Today we are going to celebrate diversity. Note new vocabulary word: diversity. Write out, define and repeat the word. Diversity means differences. What does diversity mean? Choral response: “differences.” When I say, “Woohoo!” (do this dramatically -- put your hands in the air and wiggle your fingers), you’re going to talk with a partner sitting next to you, and come up with ways you are the same as each other, and ways you are different from each other. What hair and eye color do you each have? How many ears? Do you wear glasses? Do they? What is their favorite color? Ready? “Woohoo!”

Use a familiar callback to get students attention after a couple minutes. Great job! To celebrate diversity in our classroom, we celebrate all the ways we are different from each other. Use pick-a-stick or call on a few students at random to share what they learned from their partner. Thank you for sharing with us. Now, we’re going to read a book called “It’s Okay to Be Different” (link to book read aloud below). Between every page, we’re going to have a one second party to celebrate all the examples of diversity shared in the book. Together, we’ll say “Woohoo!” (dramatically put your hands in the air and wiggle your fingers) in between every page.

Play video: “It's Okay to Be Different,” by Todd Parr (2:51)

Excellent job! It’s important to celebrate all of our differences - the diversity - that makes up our classroom. Sometimes we like different things, sometimes we look different, we have different families. Diversity is beautiful in people and in plants!
Explore

3. Experiential Learning: 12 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 in a circle. Opportunity for three deep breaths.

Show an image of many varieties of winter squash (image in the lesson plan). Explain, Winter squash is one kind of plant with lots of diversity. There are many different varieties of winter squash. Each kind of winter squash looks very different from others and also tastes different. However, they are all the same species of plant. Winter squash grow in the summer, but we can store it and eat it in the winter.

Show the bag of prepared butternut squash and explain how you’ll be cooking it. Before you add the squash to the preheated electric skillet, ask students to listen very carefully for the “sizzle” noises. Add the squash to the skillet. Leave uncovered. Stir occasionally. Cook for 10 minutes or until tender.

All Kinds of Squash Matching Game*
Introduce the 10 kinds of squash featured in the game using the pictures on the cards (available below), or using actual examples of the squash. Then, hand each student (or pair of students) a card from the matching game, and have them find their match. Depending on the class size, there will be groups of 2 or 3 students with matching cards. Or, bring in examples and give some students real squashes and some students pictures and have them find their match. After students have done it once or twice, you can start timing it and make it a fun race, or use music again. Encourage students to compare their squash picture with a neighbor’s picture. How do the squash look the same? How do they look different?
*Activity adapted from Vermont Harvest of the Month, Winter Squash

***Cooking tips:
- While students are doing this activity, check in on the squash. While students continue working, start prepping samples to be passed out once the activity is done.
- Have another lesson and don’t have time to wash the skillet? Simply squirt water into the hot skillet to cool it down, then wipe it clean with a rag. Do not wait more than 4 hours before washing with soap.

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

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 winter squash, 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: 3 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.”*

**Asking Discussion:**

*Raise your hand if you’re excited to go home and tell your family about tasting winter squash.*

- **Will someone share what they liked or loved about the winter squash?** Select a couple students to share.
- **Will someone share what they would change about the winter squash?** Select a couple students to share.
- **Will someone share one way varieties of squash are different from each other?** Select a couple students to share.
- Ask a student with a raised hand: *if you wanted to try winter squash at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy butternut squash or other kinds of winter squash? What else do you know about winter squash?*

*Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.*
Physical Activity
Choose a physical activity to incorporate into the lesson. Ideas for physical activities are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

What You Need to Know About Winter Squash
- Look for squash with a full stem that is heavy and firm with no bruises or soft spots.
- Squash can be stored for up to 1 month in a cool, dark place. Once cut, cover and refrigerate squash for 2-4 days.
- Rinse squash under cool water and dry before preparing.
- Unlike summer squash, winter squash rinds (outer skin) should not be eaten.

Facts About Winter Squash
- Squash are in season August - October.
- They grow on vines on the ground and have prickly stems and big leaves.
- Squashes are a part of the gourd plant family.
- The flowers and seeds of squash are also edible. Roasted pumpkin seeds are a great snack!
- Acorn squash varies in shape from cylindrical to spherical and can be green, yellow, orange, or white.
- Pumpkins come in a variety of sizes and colors including orange, yellow, green, white, red, tan, and even blue!
- The largest pumpkin ever grown was over 2,000 pounds!
- The Halloween tradition of carving pumpkins began in Ireland where they originally carved turnips or potatoes! Once the custom traveled to the U.S., pumpkins were used instead.
- Florida, California, Georgia, and Michigan are the top squash-producing states.

Health Connection
- Winter squash contains both vitamin A and vitamin C.
- Butternut, acorn, and spaghetti squash provide the antioxidant lutein, which is good for our eyes!
- Pumpkin provides vitamin A, vitamin C, potassium, and fiber.
- Vitamin A is important for eyesight and keeps our skin healthy.
- Potassium helps keep our hearts and muscles 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://bit.ly/3zlZKzc
https://www.iowafarmtoschoolearlycare.org/choose-iowa-campaign
https://www.britannica.com
https://www.agmrc.org/commodities-products/vegetables/squash
https://snaped.fns.usda.gov/seasonal-produce-guide/winter-squash