Jicama

Lesson Template

Grade: 2-3

Month: October
Time Required: 30 minutes
Alternative Tastings: White Potato, Sweet Potato, Carrot

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 compare the needs of plants and humans.
- Students will be able to explain the function of roots.

Academic Standards Connection
Coming soon.

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

Materials
- An image of a plant and an image of a person, printed and labeled
- “Plant and People Needs” cards
- Venn diagram worksheet
- Napkins or paper plates
- Jicama, cut-up and prepared to serve
- Tajín seasoning (optional)

Preparation
- Printed worksheets (below); cut the attached page of “Plant and People Needs” cards, enough to give one per student or enough for students to use with partners.
- Prepare jicama samples: peel and slice jicama into chips or sticks.
  - Option: Offer raw jicama and a limey-Tajín-flavored jicama.
    - 2 cups peeled and sliced jicama, cut into small-medium sticks
    - Juice from 2-3 limes
    - Tajín, sprinkled on to taste (½ teaspoon)
- Put ingredients into a large plastic bag or plastic container before lesson to enhance flavors.
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.

   Show students two large printed and labeled images of a plant and a person. Place the pictures across the classroom: the plant toward the front of the room and the person at the back of the room, for example.

2. Engage Activity: 10 minutes
   The “Engage Activity” section has two purposes: 1) to activate students’ prior knowledge and 2) to engage every student.

   With students seated at their desks or carpet, pass out prepared cards that have plant and people needs listed on them; one per student or one per pair of students. I want you to read the word on your card, think quietly to yourself and decide, is the word on your card something that a plant needs or something that a person needs? Think in your head and when I say “go,” you will quietly walk to the picture that matches what you’re thinking and stay there. Give students 5-10 seconds to think; say “go.”

   Tell students, Now we have two groups: a group that represents plants and a group that represents people. Have both groups crouch down low to the ground. I’m going to read the words that were on our cards. If I say something that a plant needs, the plant group will jump up and crouch back down. If I say something that people need, the people group will jump up and crouch back down. Demonstrate the jump-up and share an example. Read the list of words aloud, observing and verbalizing which group jumped, or if students from both groups jumped.

   - Words on cards: Water, House/apartment, Air, Pants, Soil, Spaghetti, Shoes, Sunlight, Love and care, Tacos

   Explain, plants and people need certain things to grow. Some of these things are very different and some of these things are the same. For example, plants need soil to grow in, but people don’t. People can eat tacos or spaghetti to grow, but plants don’t. Plants AND people both need water to grow.

   Add the card of the person and the plant to the middle of the room. Tell students, I’m adding a space to the middle of the room. This is a place to stand if you think your card is something that both plants AND people need. When I say “go,” you will talk with your group and decide if anyone should move to this spot. “Go.” Have students in the middle of the room read their cards aloud. Excellent, this is a great list of things that both plants AND people need to grow!

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 at their desks (opportunity for 3 deep breaths).

   - We’re going to taste a vegetable called jicama. Jicama is a root. Note new vocabulary word: root. Define, write out, and have the class repeat the word root. A root is a plant part that grows underground. Just like we drink water when we’re thirsty, the roots drink water when the plant is thirsty; the root is like a straw. Show a picture of jicama growing underground. The roots grow deep into the soil and take in water for the plant. (Have students stand very still pretending to be roots).
Note how the jicama has smaller roots growing off the main root. *We’re going to watch a short video that shows us how a root vegetable grows many roots before it comes out of the ground.*

Pass out and explain the Venn diagram worksheet (list plant needs on left side, people needs on right, other needs for both in the middle where the circles overlap). Watch the video together, and narrate for clarification. After viewing, give students a minute to list plant needs - soil, water, sunlight, air (Option to write a large Venn diagram on the board to complete with students). Watch again, giving students a second opportunity to complete their lists.

Potato root video: [https://www.youtube.com/watch?v=YbTFCh_XdYI](https://www.youtube.com/watch?v=YbTFCh_XdYI) (1 minute video - can speed up the video under “settings”, then click “Playback Speed”)

With teacher or student helpers, pass out jicama samples to all students.

**4. Tasting Activity: 2 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”).*

Be sure to review your brave tasting rules (for example, don’t yuck my yum, we all try together, etc.). Ask students to use their senses while they wait until the entire class is ready to taste the jicama together.

**Reflect**

**5. Voting Activity: 2 minutes**

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

As students taste the jicama, 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: 6 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”.*

Complete the rest of the Venn diagram worksheet. *As you finish your jicama, let’s fill in the rest of our Venn diagram. List at least 3 things you need under “people need,” then 3 things under “plants and people need.”*

**Asking Discussion:**

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

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy jicama?*

Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.
PEOPLE
<table>
<thead>
<tr>
<th>House or Apartment</th>
<th>Shoes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>Sunlight</td>
</tr>
<tr>
<td>Pants</td>
<td>Love and care</td>
</tr>
<tr>
<td>Soil</td>
<td>Water</td>
</tr>
<tr>
<td>Spaghetti</td>
<td>Tacos</td>
</tr>
</tbody>
</table>
Select a better snack™ Lesson Template

Plants Need:  People Need:  Plants and People Need:
## Lesson Supplement

### Recommended Books
- “Tops & Bottoms” (Caldecott Honor Book) by Janet Stevens
- “Stone Soup” by Ann Mcgovern

### Physical Activity
**Plant Parts Song** (sung to the tune of “Head Shoulders Knees and Toes”)
- Roots (touch toes), stems (stand up straight), leaves (put arms out) and flowers (cup hands around face)
- Leaves and flowers.
- Roots, stems, leaves and flowers
- Leaves and flowers....
- Grow to fruits then drop their seeds
- Roots, stems, leaves and flowers
- Leaves and flowers.


### What You Need to Know About Jicama
- Jicama needs warm temperatures for nine months to grow.
- Jicama is available from November to May and can be purchased in Mexican markets and most large supermarkets.
- Choose firm, unblemished jicama. Store whole jicama in a dry, cool place for two weeks. Place raw, cut jicama in a plastic bag in the refrigerator for up to one week. Refrigerate cooked jicama and use within a few days.

### Facts About Root Vegetables and Jicama
- Root vegetables grow underground. Many root vegetables can grow through the winter (in some climates).
- Jicama is grown in Central America and Mexico (show on map).
- Jicama can grow up to 50 pounds, but supermarkets usually sell the 3-to-5 pound size. Jicama is sold individually, whereas potatoes are often sold in sacks.
- The jicama skin should be removed before eating as the skin can be toxic. The leaves and seeds also contain mild toxins.
- When cooked, jicama retains its crisp, water chestnut-like texture.
Health Connection

- Excellent source of Vitamin C, to heal our wounds and keeps us healthy (reinforce by crossing arms in an “X” for our defense shield)
- Good source of fiber, to keep us full longer and help with digestion (reinforce by rubbing stomach)
- Roots are made of complex carbohydrates or “starches” which provide energy for the body.

References and Resources

https://harvestofthemonth.cdphc.ca.gov/Pages/Downloads.aspx
http://www.fruitsandveggiesmorematters.org/top-10-ways-to-enjoy-jicama (recipe ideas)
http://aggie-horticulture.tamu.edu/archives/parsons/vegetables/jicama.html
https://livewellutah.org/2017/10/18/give-jicama-a-try/