Local Summer Crops
Tomatoes, Eggplant, Cucumbers

Month: September
Time Required: 30 minutes
Tastings: Tomatoes, Eggplant, Cucumbers

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 associate tomatoes with hot weather.
- Students will be able to list conditions for growing summer crops.

Materials
- Prepared images for Hot or Cold Activity
- Printed “Summer Crops Need” half sheets for students
- Image of tomato plant and sun (included in lesson)
- Locally-grown summer crop of your choosing: Tomatoes (fun varieties like cherry, sungold, roma, heirloom), cucumber, or eggplant
- Knife (for educator to demonstrate cutting)
- Napkins or paper plates

Preparation
- If using doc-cam, print images for Hot or Cold Activity and cut into cards.
- Print “Summer Crops Need” half sheets for students.

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.

   If this is your first lesson of the year, introduce yourself to the class and to Pick a better snack™. Share with students, When I come to your classroom every month, we’re going to have fun trying foods together and learning about each other. So here’s something I want to learn about you… (have students stand up in a circle).

2. Engage Activity: 6 minutes
   The “Engage Activity” section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

   Hot or Cold?
   Think in your head (can put fingers up to temples and close eyes), Do you like when the weather is hot or when the weather is cold? When I say our magic word “tomato,” I want you to silently show us your preference. If you like when it’s hot outside, put your arms over your head to make a big sun. If you like when it’s cold outside, stretch your arms out to the side like you’re a snowflake. Ready? Tomato! Observe all students’ preference for hot or cold weather, and ask a couple of students to share why they like hot or cold weather better with the class (use pick-a-stick to randomly select students to share). Great job! Our classroom likes both hot and cold weather.

   Now, we’re going to look at a few pictures. When you see the picture, if you think of hot, put your arms over your head to make a big sun. If you think of cold when you see the picture, stretch your arms out to the side like you’re a snowflake. Using the doc-cam, show one picture at a time, using the images below or include your own. Verbally name the image on each card and verbalize how students are responding as you move through the images. For example, “Ice Cube - we think of cold when we see an ice cube.” When you get to a picture of a tomato plant (or cucumber or eggplant - whatever you will be tasting), pause to see how students respond. Ask a few students, “Why does the tomato plant make you think of hot? Or, Why does the tomato plant make you think of cold?” Answers will vary. Share, Those are great connections. Today we’re going to taste a tomato, a vegetable that really likes hot, sunny weather.

**Hot or Cold Images
   Include any images of your liking! Some included within this lesson plan are:
   - Ice Cube
   - Campfire
   - Ice cream cone
   - Glass of water
   - Birthday candle
   - Grill
   - Winter Coat
   - Tomato
   - Sunshine
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 return to their desks (opportunity for 3 deep breaths).

Show students a whole tomato (or other summer crop you will taste). We’re going to taste this vegetable called a tomato. What’s this vegetable called? (choral response - “tomato”) Vegetables - like tomatoes - that grow during the summer are called warm-season crops. Tomatoes, cucumbers, eggplant - these are some examples of warm-season crops. To grow, they need special things that only happen in the warm season. Show image of tomato plant and sun (below in this document) on the doc cam. Summer crops need warm soil, lots of sunlight, and high temperatures to grow. Read the words on the image together as a class. These three things make summer crops grow. Demonstrate cutting open a tomato (using doc-camera), showing students the skin, seeds, and inside.

“Summer Crops Need” Worksheet - pass out “Summer Crops Need” worksheets. Ask students to draw a sun and sunshine over the tomato plant and a warm base of soil under the tomato plant. Show the completed image on the doc-cam for students to reference.

4. Tasting Activity: 5 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 tomato - a practice that you’ll encourage every month during PABS lesson time.

Summer Crops Taste Test Ideas:
1. Offer classrooms 2 types of tomatoes to sample (ex: different sizes, varieties, colors).
2. Offer classrooms 2 types of summer crops (ex: cucumber and tomato - a summer crop salad! )
3. Use all 5 senses to compare and contrast the tomatoes or different summer crops.
4. Discuss flavors, textures, colors, seed shapes, etc., as a class.

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

Introduce the tradition of voting with your thumb. As students taste the summer crop(s), 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.”

Choral Response:
I’m going to ask a question and you’re going to quietly think to yourself. When I say our magic word, “tomato,” you can say your answer aloud. Let’s practice…
Reflect (cont’d)

- What month is it? (September)
- Whose class am I in?
- What vegetable did we try today? (Tomatoes)
- Do tomatoes like hot or cold weather? (Hot)
- What is one thing that summer crops need? (Sunlight, high temperatures, warm soil)
- Why can’t summer crops grow outdoors in Iowa’s winters? (Little sunlight, low temperatures, cold soil)

Asking Discussion:
Raise your hand if you’re excited to go home and tell your family about tasting tomatoes.
- 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 tomatoes? What else do you know about tomatoes?

*Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.
Summer crops need:

- Lots of Sunlight
- High Temperatures
- Warm Soil
Summer crops need:

1. **Lots of Sunlight**
   Draw a big sun over the tomato plant.

2. **High Temperatures**
   Draw sunrays coming from the sun.

3. **Warm Soil**
   Draw a warm bed of soil under the tomato plant.
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](https://idph.iowa.gov/inn/play-your-way/brain-breaks).

What You Need to Know About Summer Crops
- Look for firm and fully-colored tomatoes and avoid those that are brown or wrinkled.
- Store tomatoes out of direct sunlight at room-temperature and rinse under cool water before preparing. Use within 1 week of purchase.
- Look for cucumbers that are small in size, firm, and dark green and avoid those that are soft or have yellow spots.
- Cucumbers can be stored in the refrigerator for up to 1 week. Rinse under cool water and trim off the ends before eating.
- Look for eggplants that are firm, glossy, and heavy with no breaks in the skin.
- Eggplants can be stored whole in the refrigerator for 1 week or 3-5 days if cooked. Rinse under cool water prior to cooking.
- The skins of tomatoes, cucumbers, and eggplants are edible!

Facts About Summer Crops
- Tomatoes are in season in Iowa July-September.
- Common varieties of tomatoes include heirloom, beefsteak, roma, cherry, and grape, and tomatoes come in every color of the rainbow.
- Tomatoes grow on a vine and are the fruit part of the plant; however, they are considered a vegetable when eaten.
- Cucumbers are in season in Iowa July-August.
- Cucumbers are in the gourd plant family, which also contains squash and melons.
- Cucumbers are about 96% water, and the phrase “cool as a cucumber” is based on the fact that the inside of a cucumber is 20º cooler than the outside!
- Eggplants are in season in Iowa August-September.
- Different varieties of eggplants include Japanese, Chinese, and the globe or American eggplant.
- Eggplants belong to the nightshade family and are classified as the berry part of the plant.

Health Connection
- Tomatoes provide vitamin C, vitamin A, and potassium. Tomatoes also contain the antioxidant lycopene, which helps keep our eyes and heart healthy!
- Cucumbers provide vitamin C and are a great source of fiber.
- Eggplants are a good source of fiber.
- Vitamin C helps heal our skin and helps our bodies fight off illness! Fiber is good for our digestive systems and our hearts.

References and Resources
[https://spendsmart.extension.iastate.edu/cook/produce-basics/](https://spendsmart.extension.iastate.edu/cook/produce-basics/)
[https://www.iowafarmtoschoolearlycare.org/choose-iowa-campaign](https://www.iowafarmtoschoolearlycare.org/choose-iowa-campaign)