Standard(s) Supported: SC.4.L.16.1, SC.5.L.15.1, SC.4.P.8.1, SC.4.L.16.4, SC.4.L.17.1, SC.5.L.14.2, HE.4.PHC.1.4, HE.5.PHC.1.4

LET'S LEARN ABOUT FLORIDA CUCUMBERS!

This Virtual Farm Field Trip unit is all about cucumbers. It begins with an informative 4-minute video, transporting students to Long and Scott Farms in Mount Dora, Florida. Your students will meet farmers Haley and Kirsten to learn how Florida cucumbers are planted, grown, harvested and distributed.

We encourage you to expand the learning experience using this section's worksheets and guided activities, including a taste test. You may choose to use all these resources or pick the ones best suited to your classroom.





ACCESS VIRTUAL FARM FIELD TRIP

Scan code or visit:
FarmToSchoolFL.com/FieldTrips

FLORIDA CUCUMBER FUN FACTS

- **There are two main kinds of cucumbers – they are called slicers and picklers. We eat slicers fresh and turn picklers into… pickles!**
- **Florida grows more slicer cucumbers than anywhere else in the United States.**
- **Cucumbers are more than 95% water. They are the perfect snack to keep you hydrated on a hot day.**
- **Have you ever heard someone say, "cool as a cucumber"? That's because the inside of a cucumber is 20 degrees cooler than the temperature around it.**
- **Cucumbers are high in nutrients like iron, calcium and vitamin B. Iron helps make blood, which carries the air we breathe to our muscles so we can move and grow. Calcium helps us grow strong bones and vitamin B turns the food we eat into energy.**

BEFORE YOU WATCH: DISCUSSION STARTERS

Get students thinking about agriculture, science and nutrition by asking questions such as:

- *Where do the fruits and vegetables you eat come from? How did they get there?*
- *What do plants need to grow?*
- *Let's name some vegetables. Can you think of any others that are green?*
- *Now, let's name some fruits. Which ones are green?*
- *Close your eyes and imagine you are at a farm. What do you see? Hear? Smell?*
- *Today, we'll be taking a virtual field trip to visit a Florida cucumber farm. What do you know about cucumbers?*
- *Does anyone know what the word agritourism means? What do you think it might mean? Listen for its use in the video.*

AFTER YOU WATCH

Explore the activities and worksheets on the following pages – including a video trivia sheet! You might pass the trivia sheet out before starting the video so students can complete it as they watch or wait until after to test understanding.

TRIVIA TOSS

Want to liven up your video trivia sheet exercise? Have students complete their worksheets separately, then come together in teams to compare and finalize answers. Go around the room asking each team a question. If they answer it correctly, they get a chance to toss a ball into one of three buckets to get a prize for their team. Prizes might be a homework pass, free time, extra computer time or lunch in the classroom.



GEOGRAPHY MOMENT

Ask students to find Mount Dora on a map of Florida. (Hint: It's between The Villages and Orlando.)

Also, if your students participate in the "Letter to a Farmer" activity, you can mail their letters right to the farmers at Long and Scott Farms! Just be sure to review the letters before you send.

Their address:

Long and Scott Farms
PO Box 1228
Zellwood, FL 32798

USING THESE TEACHING TOOLS

Below is an overview and guide for using the teaching tools included in this section, including guided activities, recipes and worksheets. We've included the education standards each tool complements, materials needed for each activity, a brief overview of each tool and tips for building your lessons.

You can find each of these tools on the following pages, along with additional information and pointers.

GUIDED ACTIVITIES

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Video, Discussion Questions and Trivia Toss (in Classroom Guide) *On page 181*	Standard(s) Supported: SC.4.L.16.1, SC.5.L.15.1, SC.4.P.8.1, SC.4.L.16.4, SC.4.L.17.1, SC.5.L.14.2, HE.4.PHC.1.4, HE.5.PHC.1.4	- 3 buckets, boxes or similar containers - 2 palm-sized balls (enough for each team to have one)	This activity gets students out of their seats as they respond to questions about the Virtual Farm Field Trip video.	Use this activity to complement or reinforce the Cucumber Video Trivia sheet.
Cucumber Three Ways *On page 186*	Standard(s) Supported: SC.4.P.9.1, SC.5.P.8.1, HE.4.PHC.1.4, HE.5.PHC.3.2	- Sliced cucumbers - Jar of pickles - Cucumber punch (see recipe)	In this activity, you'll guide students through tasting cucumbers in three different forms – as fresh cucumbers, as pickles and in a cucumber punch.	Start by asking your school nutrition team if they can support you by acquiring and/or preparing the food items. Use this activity to introduce students to new, nutritious foods. Educate them on the nutritional differences between whole foods – like fresh cucumbers – and processed foods – like pickles.

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Recipe: Cucumber Punch *On page 188*	Standard(s) Supported: SC.4.P.9.1, SC.4.P.8.1	- Cutting board - Knife - Clear pitcher - Wooden spoon (optional) *Adjust quantities based on class size:* - 6-7 cucumbers (sliced thin) - 6-8 limes and/or lemons (quartered) - 15-20 mint leaves (optional) - 8-9 cups (64-72 oz) drinking water - Ice (optional) - Small cups - Spoons	Use this recipe to prepare your own cucumber punch for the Cucumber Three Ways exercise.	You might demonstrate making a large batch of punch to share with your class or give each student a cup and ingredients to prepare their own.
Food Science: DIY Pickles *On page 189*	Standard(s) Supported: SC.4.P.9.1	- Cutting board - Knife - 2 or more Mason jars - Mixing bowl - Spoon - Measuring cup - Measuring spoons - Refrigerator - Forks, plates and napkins for serving (optional) - 2 medium to large cucumbers - 1 cup water - 1 cup rice vinegar - 3 tablespoons maple syrup or sugar - 3 teaspoons salt - Freshly ground black pepper - 4 leafy sprigs of fresh dill - 4 cloves of fresh garlic - 1 bay leaf	Use this activity on its own or to prepare your own pickles for the Cucumber Three Ways activity. With this activity, you will demonstrate for students how to turn fresh cucumbers into pickles.	Start by asking your school nutrition team if they can support you by acquiring the food items. What's better than a science experiment you can eat? This activity connects young students with where their food comes from, showing them firsthand how cucumbers are processed to become pickles. It also introduces students to the idea that adding ingredients can change an item's properties.

WORKSHEETS

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Cucumber Video Trivia *On page 191*	Standard(s) Supported: SC.4.L.16.1, SC.5.L.15.1, SC.4.P.8.1, SC.4.L.16.4, SC.4.L.17.1, SC.5.L.14.2	- Writing instrument	This worksheet tests students' comprehension of the Virtual Farm Field Trip by asking questions answered in the video.	You might hand the worksheet out before the video so students can answer as they go or wait until after the video. Consider enhancing this activity with the "Trivia Toss" activity, explained in this Classroom Guide, under "After You Watch."
Letter to a Farmer *On page 192*	Standard(s) Supported: ELA.4.C.3.1, ELA.5.C.3.1, ELA.K12.EE.6.1	- Writing instrument - Crayons, colored pencils or markers (optional)	This worksheet asks students to write a letter to the farmer(s) they met in the Virtual Farm Field Trip video, sharing something they learned.	In addition to reinforcing comprehension, this worksheet allows students to practice their writing skills and teaches students how to format a letter. Be sure to write the farm's address on the board for students to copy (see Classroom Guide, under "Geography Moment"). You might even send the letters to the farmers! (Just be sure to review content before sending.)
Life Cycle of a Cucumber *On page 193*	Standard(s) Supported: SC.4.L.16.4, SC.4.L.16.1	- Writing instrument - Crayons, colored pencils or markers (optional)	This worksheet invites students to (1) label the stages of a cucumber's life cycle, and (2) briefly describe what is happening in each stage.	This worksheet complements life science lessons about plant life cycles.
Cucumber Crossword Puzzle *On page 194*	Standard(s) Supported: SC.4.L.16.1, SC.5.L.15.1, SC.4.P.8.1, SC.4.L.16.4, SC.4.L.17.1, SC.5.L.14.2	- Writing instrument	This crossword puzzle asks students to fill in the blanks using facts they learned in the Virtual Farm Field Trip.	You might hand the worksheet out before the video so students can answer as they go or wait until after the video.
Answer Key *On page 195*			See here for answers to each worksheet.	

CUCUMBER THREE WAYS

This group activity brings the field trip to life as students get the opportunity to taste cucumbers three ways: as fresh slices, as pickles and as an easy-to-make punch.

MATERIALS



Sliced cucumbers



Jar of pickles



Cucumber punch
(see recipe on following pages)

SUGGESTED QUESTIONS

Lead a discussion as your students try cucumbers three different ways. Questions like the following can help kids better connect with their food, think about their preferences and encourage them to make nutritious choices in the future.

Before the tasting:

1. *Have you tried cucumber before? What did you think?*
2. *If not, what do you think it will taste like?*
3. *Did you know pickles are made from cucumbers? Do you know how cucumbers get turned into pickles?*

As they try the fresh cucumbers:

1. *What do you think of the texture of the fresh cucumber? Is it crunchy or soft?*
2. *Do you like the smell of the cucumber? How would you describe it?*
3. *How would you feel about eating fresh cucumbers as a snack? Why? What might you eat them with?*

MAKE YOUR OWN PICKLES

For a bonus activity, make pickles together as a class! See the Guided Activity section for an easy recipe.

COLLABORATE WITH YOUR CAFETERIA

You might also consider partnering with your school nutrition team to obtain these food items and/or prepare a cucumber-themed dish for your taste test. Be sure to contact them ahead of time, discuss the support you will need and show gratitude for their collaboration!

As they try the pickles:

1. *How does the taste of the pickle compare to the fresh cucumber? Is it more sour or salty?*
2. *What do you think about the texture of the pickle compared to the fresh cucumber? Is it softer or crunchier?*
3. *Do you like the smell of the pickle? How would you describe it?*
4. *Have you had pickles before? If so, what do you usually eat them with? If not, would you like to try them again?*

As they try the punch (cucumber water):

1. *Can you taste the cucumber in the water? How strong is the flavor?*
2. *How does the flavor of cucumber water compare to regular water? Is it more refreshing?*
3. *Would you enjoy drinking cucumber water on a hot day? Why or why not?*
4. *Before today, did you know you could change the flavor of water by adding fruit like cucumbers? What other fruit might you add to water, and how might it change the flavor?*

TEACHER TIP:

You can also use this activity as a nutrition lesson for students. Explain how whole foods made of just one ingredient – like a fresh cucumber – are more nutritious than packaged, processed foods with many ingredients.

You can explain that food with lots of ingredients – like pickles – are like a big puzzle with many pieces, and some of those pieces might not be as healthy (like added sugar). The simple food with one ingredient is usually better for your body and helps you feel your best!

You might even pass around a jar of pickles to show the students the list of ingredients on the nutrition label. Then ask them where the fresh cucumber's ingredient list is. (There is none – because there's just one ingredient!)

CUCUMBER PUNCH RECIPE

CUCUMBER PUNCH

Estimated Servings: 100 oz, or (20) 5 oz cups

EQUIPMENT REQUIRED

- Cutting board
- Knife
- Clear pitcher
- Wooden spoon (optional)

MATERIALS AND INGREDIENTS

Adjust quantities based on class size.

- 6-7 cucumbers (sliced thin)
- 6-8 limes and/or lemons (quartered)
- 15-20 mint leaves (optional)
- 8-9 cups (64-72 oz) drinking water
- Ice (optional)
- Small cups
- Spoons

DIRECTIONS

1. Slice cucumbers, limes and lemon.
2. Place sliced cucumbers, limes, lemons and mint into drinking cup. (*Optional: Lightly mash pieces using a wooden spoon to enhance taste.)*
3. Add water and ice cubes.
4. Enjoy!



You might demonstrate making a large batch of punch to share with your class or give each student a cup and ingredients to prepare their own.

FOOD SCIENCE: DIY PICKLES

Complete this recipe with your students for a fun science experiment they can eat!

SUGGESTED QUESTIONS

Below are discussion questions to ask your class before, during and after this DIY pickle experiment.

Before:

1. *Did you know pickles are made from cucumbers?*
2. *How do you think cucumbers get turned into pickles?*
3. *Have you tasted pickles before? What did you think?*
4. *If not, what do you imagine they taste like?*

During:

1. *What does a fresh cucumber taste like?*
2. *How do you think adding these ingredients will change the flavor of the cucumber?*
3. *How might adding these ingredients change the texture?*
4. *How might adding these ingredients change the smell?*

After:

1. *Does the pickle taste how you expected? Explain.*
2. *How does the taste of the pickle compare to fresh cucumber? Is it more sour or salty?*
3. *What do you think about the texture of the pickle compared to a fresh cucumber? Is it softer or crunchier?*
4. *Do you like the smell of the pickle? How would you describe it?*
5. *Have you had pickles before? If so, what do you usually eat them with? If not, would you like to try them again?*

COLLABORATE WITH YOUR CAFETERIA

Be sure to ask your school nutrition team if they can support you by providing food items!

When we pickle cucumbers, we put them in a special juice called brine, which is often made of water, salt and vinegar. When cucumbers sit in this juice for a long time, they turn into pickles.

This process – called pickling – helps keep cucumbers fresh for a long time. It also changes the texture, making cucumbers crunchier. Best of all, the cucumbers absorb the flavors from the brine, making them tangy!

EASY DIY PICKLES

EQUIPMENT REQUIRED

- Cutting board
- Knife
- 2 or more Mason jars
- Mixing bowl
- Spoon
- Measuring cup
- Measuring spoons
- Refrigerator
- Forks, plates and napkins for serving (optional)

MATERIALS AND INGREDIENTS

- 2 medium to large cucumbers (about 24 ounces total)
- 1 cup water (room temperature or cooler)
- 1 cup rice vinegar
- 3 tablespoons maple syrup or sugar
- 3 teaspoons salt
- 40 twists of freshly ground black pepper
- 4 leafy sprigs of fresh dill, roughly chopped (about ½ cup)
- 4 cloves garlic, peeled and smashed
- 1 bay leaf

DIRECTIONS

1. Slice the cucumbers into thin rounds, about 1/8-inch thick. Set aside.
2. In a liquid measuring cup or bowl, combine the water, vinegar, maple syrup, salt and black pepper. Stir until most of the salt has dissolved into the liquid, about 30 seconds to 1 minute. Set aside.
3. Place the cucumbers into a wide-mouth jar about 3 to 4 inches in diameter, tall enough to offer at least 1 inch of extra space on top.
4. Top the cucumbers with the dill and garlic. Tuck the bay leaf into the side of the jar. Pour all of the liquid over the cucumbers so they're fully submerged.
5. Cover and refrigerate for at least 1 hour. The flavor will continue to develop over the next couple of days. These pickles will keep for up to 3 weeks in the refrigerator.



Name _____ **Date** _____

Cucumber Video Trivia

Directions: Answer these trivia questions based on the video you watched about the Florida cucumber farm.

1. Each cucumber plant produces two kinds of flowers. What are they? _____

_____

2. Which flower makes the cucumbers? _____

3. What insects are brought in to be pollinators? _____

4. What happens if a cucumber plant isn't pollinated enough times? _____

_____

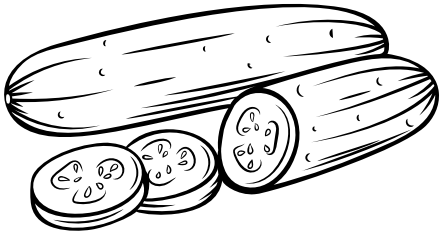
Circle whether the statements below are true or false.

5. Each cucumber is picked by hand.	**TRUE** | **FALSE**
6. Cucumbers are cooler on the outside than on the inside.	**TRUE** | **FALSE**
7. Each cucumber plant is harvested one time.	**TRUE** | **FALSE**
8. Cucumbers do not grow in Florida.	**TRUE** | **FALSE**
9. In the spring, Florida farmers typically harvest cucumbers from April through the middle of June.	**TRUE** | **FALSE**

Name _____ **Date** _____

Hello, Farmer!

Directions: Write a letter to Ms. Haley and/or Ms. Kirsten, the Florida cucumber farmers featured in the farm field trip video. Tell them what you learned. You must use an address, greeting, body, closing and signature.



_____

_____

_____

_____

Dear, _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Sincerely,

_____

Name _____ **Date** _____

Life Cycle of a Cucumber

Directions: Label each part of the cucumber plant's life cycle using the terms in the word bank. Then, briefly describe what is happening in each phase.

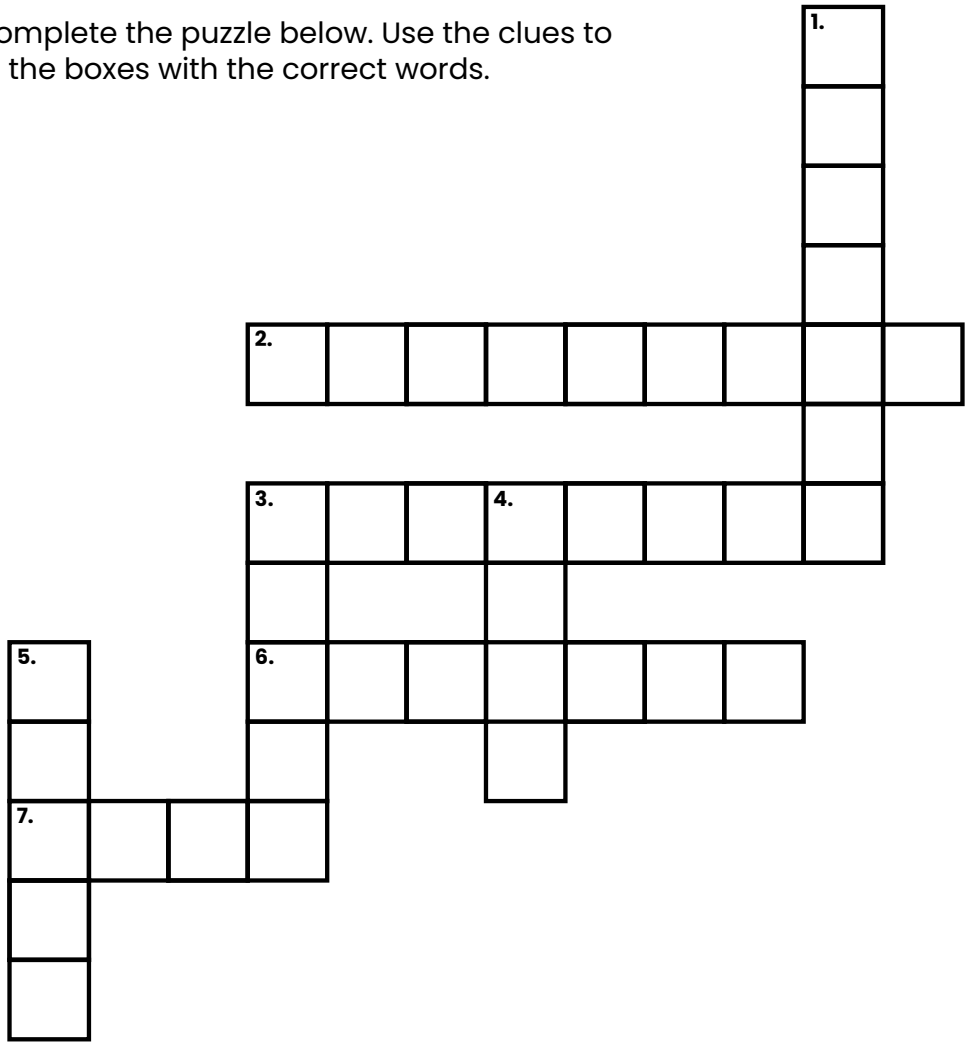


Word Bank				
Seeds	Seedling	Flowers *(Reproduction)*	Small fruit	Full-size fruit with seeds
Germination	Adult plant			

Name _____ **Date** _____

Cucumber Crossword Puzzle

Directions: Complete the puzzle below. Use the clues to help you fill in the boxes with the correct words.



ACROSS

2. Cucumbers are picked by hand, which is also known as being _____.
3. These vehicles plant cucumber seeds 4 inches apart.
6. How many pounds of cucumbers do farmers Haley and Kirsten harvest every year? 20 _____.
7. These insects are used as pollinators for the cucumber plants.

DOWN

1. Cucumber plants have these, and the female ones create the cucumber.
3. Cucumber plants can be picked 4-5 _____.
4. A machine called a flume washes cucumbers with ____ water to keep them fresh longer.
5. The water _____ is the boundary between wet and dry soil.

ANSWER KEY

Name _____ Date _____

Cucumber Video Trivia

Directions: Answer these trivia questions based on the video you watched about the Florida cucumber farm.

1. Each cucumber plant produces two kinds of flowers. What are they? male and female
2. Which flower makes the cucumbers? female
3. What insects are brought in to be pollinators? honeybees/ bumblebees
4. What happens if a cucumber plant isn't pollinated enough times? The cucumber grows in a crooked or curved shape instead of straight.

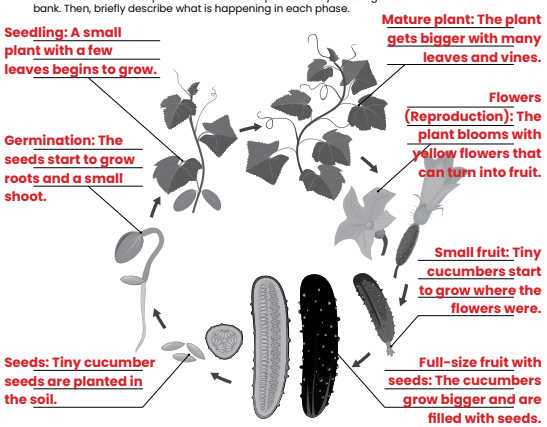
Circle whether the statements below are true or false.

5. Each cucumber is picked by hand. **TRUE** FALSE
6. Cucumbers are cooler on the outside than on the inside. TRUE **FALSE**
7. Each cucumber plant is harvested one time. TRUE **FALSE**
8. Cucumbers do not grow in Florida. TRUE **FALSE**
9. In the spring, Florida farmers typically harvest cucumbers from April through the middle of June. **TRUE** FALSE

Name _____ Date _____

Life Cycle of a Cucumber

Directions: Label each part of the cucumber plant's life cycle using the terms in the word bank. Then, briefly describe what is happening in each phase.

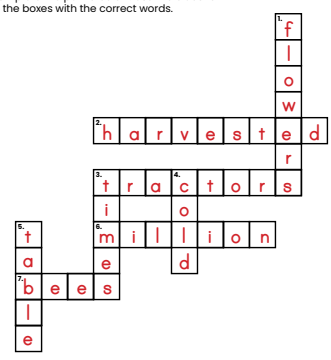


Word Bank				
Seeds	Seedling	Flowers *(Reproduction)*	Small fruit	Full-size fruit with seeds
Germination	Adult plant			

Name _____ Date _____

Cucumber Crossword Puzzle

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DOWN

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4. A machine called a flume washes cucumbers with ____ water to keep them fresh longer.
5. The water _____ is the boundary between wet and dry soil.