K-1 Classroom Guide Sweet Corn

Standard(s) Supported: SC.1.L.14.2, SC.K.L.14.3, SC.1.L.14.1, SC.1.L.16.1, HE.K.CH.3.1, HE.K.PHC.1.1, ELA.K.C.4.1

LET'S LEARN ABOUT Florida sweet corn!

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VIRTUAL FARM

FIFID TRIPS

This Virtual Farm Field Trip unit is all about sweet corn. It begins with an informative 4-minute video, transporting students to Sweet Magnolia Ridge in Havana, Florida. Your students will meet farmers Stephanie and Vincent to learn how Florida sweet corn is 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 SWEET CORN FUN FACTS

- Florida grows more sweet corn than anywhere else in the United States.
- Sweet corn is a great source of nutrients like vitamin C, which helps boost the immune system and keep us healthy. It is also high in fiber, which helps your tummy feel good.
- Every single strand of silk on an ear of corn has the potential to become a kernel. The average ear of corn has between 500 and 1,000 kernels!
- Corn is usually yellow, but it can come in lots of colors, like green, red and white.
- You probably think of corn as a vegetable, but it's actually a grain and fruit!
- The two most common kinds of corn are sweet corn and field corn, also called dent corn. Sweet corn is harvested early for its soft, sugary kernels – perfect for eating fresh. Dent corn is left to mature fully. Its starchy kernels are used in processed foods, like tortillas and cereal.

BEFORE YOU WATCH: DISCUSSION STARTERS

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

- How do you think fruits and vegetables grow?
- What kind of fruits or vegetables would you like to grow?
- Name some fruits and vegetables that you've tasted.
- Where do the fruits and vegetables you eat come from? How did they get there?
- How do fruits and vegetables help us stay healthy?
- Today, we'll be taking a virtual field trip to visit a Florida sweet corn farm. What do you know about sweet corn?

AFTER YOU WATCH: CHECK FOR UNDERSTANDING

Trivia Toss

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Materials

- 3 buckets, boxes or similar containers
- 2 palm-sized balls (enough for each team to have one)

Divide students into two teams. Students work as a team to answer a review question about the video. Then, if they answer correctly, they get a chance to toss a ball into one of three buckets to earn a prize for their team. Prizes might be a homework pass, free time, extra computer time or lunch in the classroom.

SUGGESTED QUESTIONS:

- What does the farmer have to do to the soil before they plant the corn seeds? ("harrow" the soil, which means breaking soil up to make it fluffy)
- How many ears of corn does one corn plant produce? (2-3 ears)
- What three creatures are used to pollinate the plants? (birds, bees and butterflies)
 - Teacher Tip: Ask students how they get to the plants. (They fly!)

• True or false: The process for growing sweet corn takes 2 to 3 months. (True)

Teacher Tip: Ask students how many days are in a month.

- True or false: We get popcorn when the corn is picked early, when it's soft and sweet. (False; popcorn comes from when the corn is hard)
- True or false: Florida grows more sweet corn than anywhere else in the United States. (**True**)

 True or false: Florida has good weather to grow corn. (True)

Teacher Tip: Ask students to describe Florida's weather.

 True or false: Each ear of corn is picked by hand. (True)



The video is full of information. You might want to watch it again after your discussion so students can listen for details they missed!

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USING THESE TEACHING TOOLS

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FIELD TRIPS

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

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TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Video, Discussion Questions and Trivia Toss (in Classroom Guide) On page 25	Standard(s) Supported: SC.1.L.14.2, SC.K.L.14.3, SC.1.L.14.1, SC.1.L.16.1, HE.K.CH.3.1, HE.K.PHC.1.1, ELA.K.C.4.1	 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.	
Corn Three Ways On page 29	Standard(s) Supported: HE.K.CH.3.1, HE.K.PHC.1.1, HE.1.PHC.1.1, SC.1.N.1.2	 Ear of sweet corn (uncooked) Cooked corn on the cob (see recipe page) Popcorn See Guided Activity overview for a full list of alternate corn food ideas. 	In this activity, you'll guide students through tasting corn in three different forms – as fresh, uncooked corn, as cooked corn and as popcorn.	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 corn – and processed foods – like corn puff cereal.
Recipe: Corn on the Cob On page 31		 Microwave Wet paper towel Knife (optional) Ears of sweet corn (with or without husk) Plates/paper towels (for serving) 	If you choose to prepare the cooked corn on the cob yourself, this recipe provides simple microwave instructions.	You might microwave the corn as part of your lesson rather than preparing it ahead of time. That way, you can show students how the corn's properties change in real time.



TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Sense Explorers: Sweet Corn Edition On page 32	Standard(s) Supported: SC.K.L.14.1, SC.K.N.1.2, SC.1.L.14.1, HE.K.CH.3.1, HE.K.PHC.1.1, SC.1.N.1.2	- Ears of fresh sweet corn (cut into pieces for each student)	This activity encourages students to use their five senses to make observations about corn.	You can also ask your school nutrition team to help provide food for this exercise! Use this activity to teach students how they can use their senses as tools. This activity will also help deepen students' familiarity with corn as a fresh and nutritious food choice.

WORKSHEETS

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Sweet Corn Sounds On page 33	Standard(s) Supported: ELA.1.F.1.3	 Writing instrument Crayons, colored pencils or markers (optional) 	This sounding worksheet prompts students to identify the beginning sounds in common farm words.	You might build upon this lesson by encouraging students to think of and spell out other common farm words.
Letter Practice On page 34	Standard(s) Supported: ELA.1.C.1.1	 Scissors Glue Writing instrument Crayons, colored pencils or markers (optional) 	This worksheet prompts students to practice writing the words "sweet corn."	This lesson also presents an opportunity to practice sounding with students. Get kids out of their seats by asking them to make each of the letters in the words "sweet corn" with their bodies! You might put them in groups to make the whole phrase or demonstrate and make each of the letters together as a class.
Parts of a Sweet Corn Plant On page 35	Standard(s) Supported: SC.K.L.14.1, SC.1.L.14.1, SC.1.L.14.2, ELA.1.F.1.3	 Scissors Glue Writing instrument Crayons, colored pencils or markers 	This worksheet asks students to cut out words naming parts of the plant and paste them in the appropriate spot. Students also have space to practice writing the words.	This worksheet complements life science lessons about parts of the plant. It also provides an opportunity to practice sounding and spelling common science terms.

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
How Sweet Corn Grows On page 36	Standard(s) Supported: SC.1.L.16.1, ELA.1.C.1.2	 Scissors Glue Crayons, colored pencils or markers 	This worksheet invites students to cut and paste the basic stages of corn's life cycle in the correct order.	This worksheet complements life science lessons about plant life cycles. It also encourages students to think critically about order of events. Try getting kids out of their seats by instructing them to pretend they are a seed, crouched in a ball. Then ask them to stand taller as they simulate the phases of the corn plant's growth.
Answer Key On page 37			See here for answers to each worksheet.	

CORN THREE WAYS

This group activity brings the field trip to life as students get the opportunity to not only taste corn but also begin to recognize its many uses in popular food products, like popcorn and cereal.

MATERIALS

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Ear of sweet corn (uncooked)



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Cooked corn on the cob (see instructions on the following pages)



Popcorn (be sure to reserve an unpopped kernel to show)

ALTERNATE IDEAS

With so many uses for corn, finding options that intrigue your students is easy. You could easily substitute a microwavable bag of frozen corn or canned corn for cooked corn on the cob.

Other creative options for taste testing or show and tell (with items likely already in your pantry) include:

- Cornbread
- Grits
- · Corn flakes cereal
- Puffed corn cereal
- Corn syrup
- Cornmeal
- Corn muffins
- Rice cakes
- Most brands of chips, including corn tortilla chips

All Grades Guided Activity Sweet Corn

Standard(s) Supported: HE.K.CH.3.1, HE.K.PHC.1.1, HE.1.PHC.1.1, SC.1.N.1.2

COLLABORATE WITH YOUR CAFETERIA

You might also consider partnering with your school nutrition team to obtain these food items and/or prepare a corn-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!

VIRTUAL FARM FIELD TRIPS

SUGGESTED QUESTIONS

Lead a discussion as your students try corn 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:

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- 1. Have you tried corn before? What did you think?
- 2. If not, what do you think it will taste like?
- 3. Did you know popcorn and many chips are made from corn?

As they try the fresh sweet corn:

- 1. What do you think of the texture of the uncooked corn? Is it crunchy or soft?
- Describe the flavor. Is it like corn you've tasted before? If yes, how so? If not, how is it different?
- 3. Before today, did you know you could eat sweet corn right off the cob, without cooking it? What other fruits or vegetables can you eat fresh and cooked? (Examples: Broccoli, carrots, sweet peppers, peaches.)

As they try the cooked sweet corn:

- 1. How is this corn similar to the uncooked corn you just tried? Prompt students to comment on taste, temperature, texture, etc.
- 2. How is it different?
- 3. Have you eaten corn like this before? What did you think?

4. How would you feel about eating fresh corn with a meal or as a snack? Why? What else might you eat with corn?

As they try the popcorn:

Teacher Tip: Explain to students why the popcorn pops! The hard outer shell traps steam from the moisture inside the kernel as it heats up. When the internal temperature reaches around 356 °F, the pressure causes the kernel to burst open, turning the starchy interior into the fluffy, white popcorn we eat!

- Show the students an unpopped kernel. Here is a kernel of popcorn before it's heated up and it expands. How does this look like the fresh sweet corn? How is it different?
- 2. Describe the flavor of the popcorn. Does it taste like the fresh corn at all? If yes, how so? If not, how is it different?
- 3. How do you think corn turns into popcorn? (See explanation above.)
- 4. What do you think of the texture of the popcorn? Is it soft or crispy?

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 ear of corn – are more nutritious than packaged, processed foods with many ingredients.

You can explain that food with lots of inaredients – like chips or cereal – 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 processed food item to show the students the list of ingredients on the nutrition label. Then ask them where the fresh corn's ingredient list is. (There is none because there's just one ingredient!)

PREPARING CORN ON THE COB

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CORN ON THE COB

EQUIPMENT Required

- Microwave
- Wet paper towel
- Knife (optional)

MATERIALS AND Ingredients

Adjust quantities based on class size.

- Ears of corn (with or without husk)
- Plates/paper towels (for serving to students)

DIRECTIONS

Microwaving corn on the cob is quick and easy. Here are the steps to microwave corn on the cob:

With the Husk:

- 1. Place the ear of corn with the husk on in the microwave.
- 2. Microwave on high for 3 minutes. If needed, add an additional 30 seconds.
- 3. Let the corn cool for a few minutes, then shuck the corn before eating.

Without the Husk:

- 1. Wet a paper towel and wring it out. Wrap the ear of corn in the damp paper towel.
- 2. Microwave on high for 3 minutes.
- 3. Carefully remove the paper towel and serve.

-☆- *TIPS:*

- You could give every student an ear of corn or cut each ear into two or three pieces.
- For multiple ears of corn, adjust the cooking time:
 - 1 ear:
 2 minutes
- 3 ears:5 minutes
- 2 ears: 4 minutes
- 4 ears: 6 minutes

SENSE EXPLORERS: SWEET CORN EDITION

This simple, hands-on activity invites students to use their five senses as tools. They will make observations about corn, describe it and compare their observations with their classmates.

* **TEACHER TIP:** Be sure to ask your school nutrition team if they can support you by providing sweet corn!

WHAT YOU'LL NEED: 1 PIECE OF SWEET CORN ON THE COB PER STUDENT

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Be sure to hold on to 1 full ear of sweet corn with the husk on for demonstration.



K-1 Guided Activity

Standard(s) Supported: SC.K.L.14.1, SC.K.N.1.2, SC.1.L.14.1, HE.K.CH.3.1, HE.K.PHC.1.1, SC.1.N.1.2

Sweet Corn

Consider passing out magnifying glasses so children can observe closely!

ACTIVITY:

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Invite your students to use each of their five senses to experience and make observations about corn. Guide them through this activity, one sense at a time. Begin with broad, open-ended questions, followed by more specific questions, as outlined below.





Like Mr. Vincent said in the video, you can eat sweet corn raw! Take a bite. How would you describe the flavor? Is it sweet or sour? Juicy or dry? How are the taste and texture different from cooked corn?



HEARING:

Listen as I shuck the corn. Can you hear the sound of the husk being pulled away? What does it sound like? Can you hear the crunch as you take a bite?

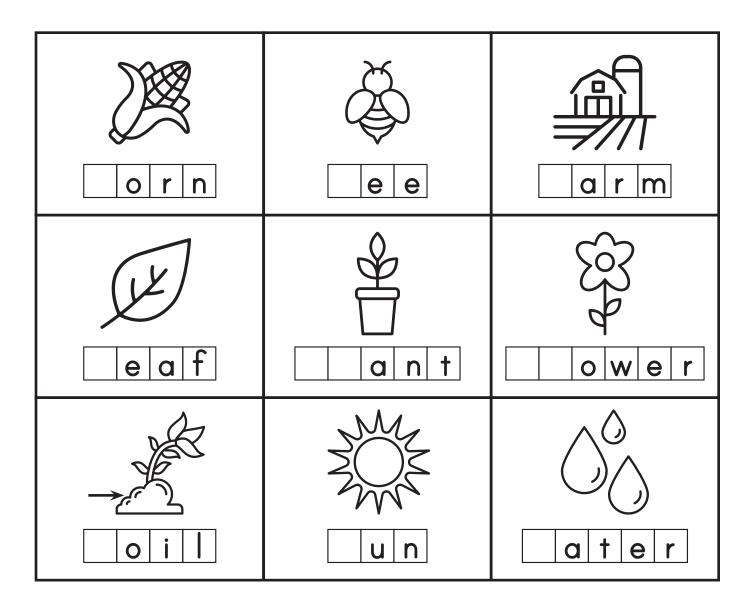


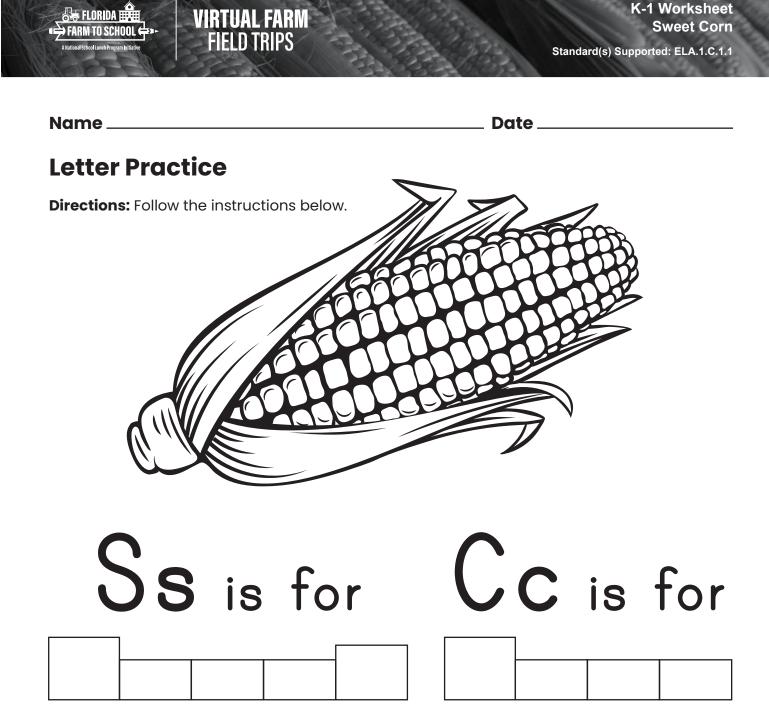
Name_

_____ Date _____

Sweet Corn Sounds

Directions: Below are words for things you can find on the sweet corn farm. Write the beginning sound of each word in the box.





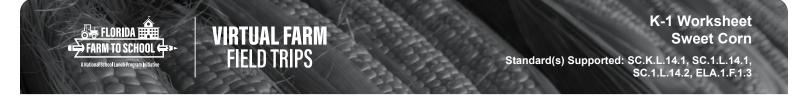
Trace it:

Write it:

Cut out the letters and glue them in the correct order in the boxes above.

Sweet Corn



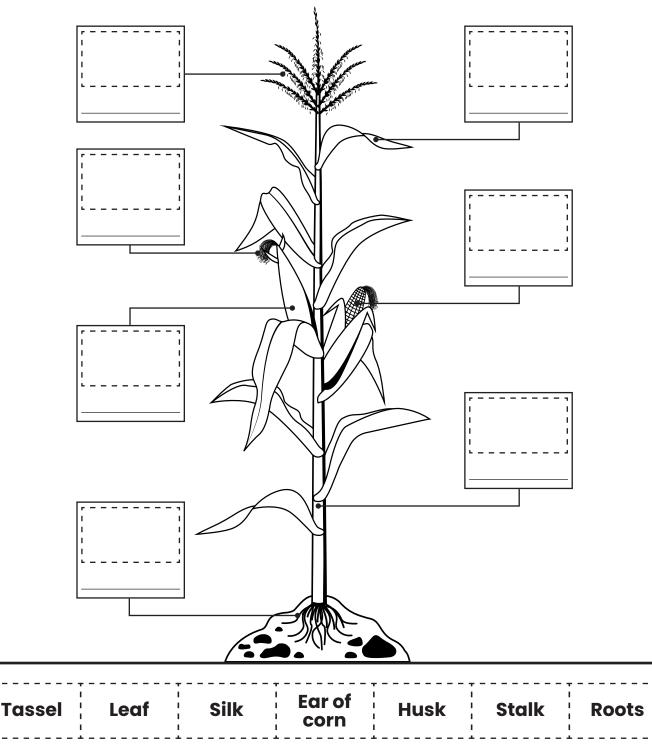


Name.

Date_

Parts of a Sweet Corn Plant

Directions: Color the sweet corn plant. Then cut out the words for parts of the plant and glue them where they belong to label parts of the plant. Next, write the word on the blank line under each box.



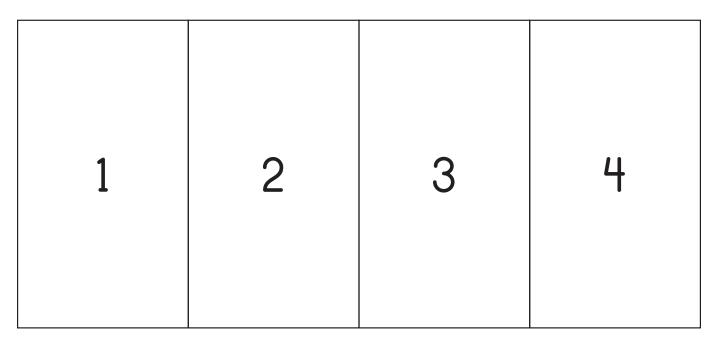


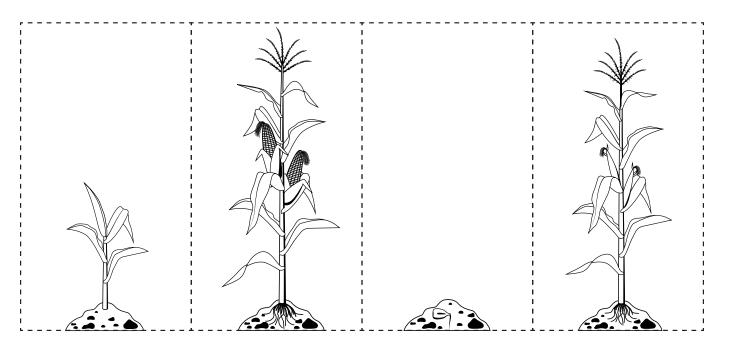
Name_

Date _____

How Sweet Corn Grows

Directions: Color, cut and paste the pictures in the correct order to show the life cycle of a stalk of sweet corn.

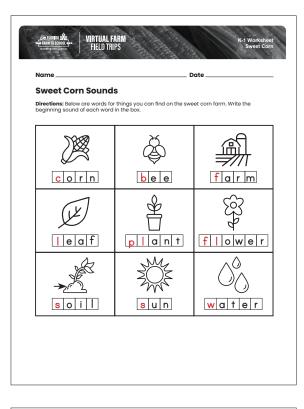






K-1 Answer Key Sweet Corn

ANSWER KEY



VIRTUAL FARM FIELD TRIPS

