LET'S LEARN ABOUT FLORIDA SWEET CORN!

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

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:

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 earn 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 Havana on a map of Florida. (Hint: It's just north/northwest of Tallahassee.)

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

Their address:

Sweet Magnolia Ridge
1361 Concord Bainbridge Road
Havana, FL 32333

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 196*	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 Sweet Corn Video Trivia sheet.
Corn Three Ways *On page 201*	Standard(s) Supported: SC.4.P.9.1, SC.4.P.8.1, HE.4.PHC.1.4, HE.5.PHC.3.2	- 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 203*		- 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
Grow Your Own Sweet Corn Experiment *On page 204*	Standard(s) Supported: SC.4.L.16.1, SC.4.N.1.6	**Garden option:** - Hoe, shovel and/or trowel - Sweet corn seeds **Indoor option:** - Sweet corn seeds - Clear plastic cups or jars - Paper towels - Water - Labels and markers	In this STEM activity, students will grow corn from a seed – either in your school garden or in your classroom through germination.	This activity teaches students about plant biology and agriculture. Consider asking students to make a hypothesis at the beginning of the activity and track the seeds' progress over time.

WORKSHEETS

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Sweet Corn Video Trivia *On page 206*	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 207*	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 them 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.)

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Life Cycle of Sweet Corn *On page 208*	Standard(s) Supported: SC.4.L.16.4, SC.4.L.16.1	- Writing instrument - Crayons, colored pencils or markers	This worksheet invites students to (1) label the stages of corn's life cycle, and (2) briefly describe what is happening in each stage.	This worksheet complements life science lessons about plant life cycles.
Sweet Corn Crossword Puzzle *On page 209*	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 210*			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



Ear of sweet corn
(uncooked)



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**

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!

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:

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?*
2. *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!

1. *Show the students an un-popped 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 ingredients – 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

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

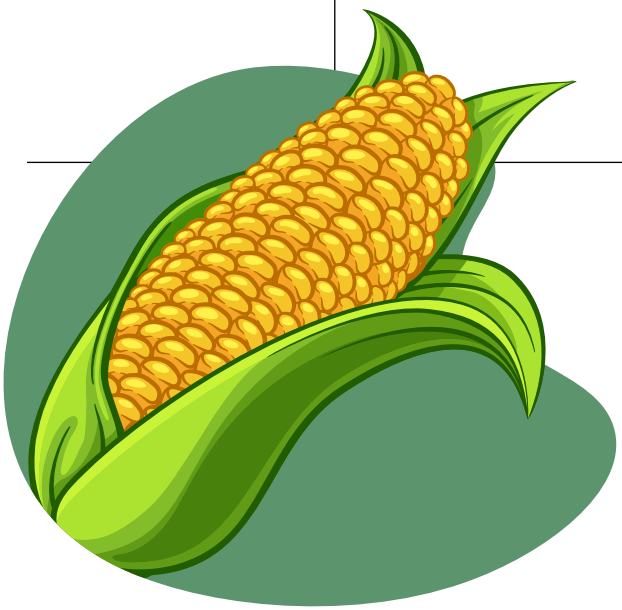
Microwaving corn on the cob is quick and easy. Here are the steps to microwave corn on the cob:

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**
  - **2 ears: 4 minutes**
  - **3 ears: 5 minutes**
  - **4 ears: 6 minutes**

GROW YOUR OWN SWEET CORN

Growing corn is a fun and educational activity that helps students learn about plant biology. If your school has a garden, you can plant and grow corn there! If not, you can germinate seeds in the classroom.

SCHOOL GARDEN OPTION

MATERIALS

- Hoe, shovel and/or trowel
- Sweet corn seeds

DIRECTIONS

Be sure to follow the instructions on your seed packet. Generally, to plant sweet corn, you will:

1. Select a site that has direct sunlight for at least 8 hours a day. Sweet corn performs best in fertile, well-drained soils in full sun.
2. Build small mounds of soil about 12 inches high. Be sure to create two to three rows, to promote successful pollination.
3. Soak four to seven corn seeds overnight and then plant them about 6 inches apart in the center of each mound. (You'll eventually thin to three or four seedlings.)
4. As the plants grow, gently weed around them.
5. You'll notice that the corn is fruiting when you see the tassels.
6. Harvest any fruits that have been produced.

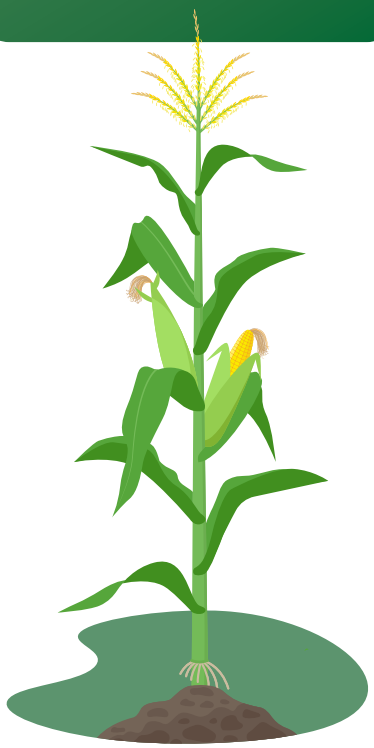
WHEN TO PLANT YOUR SWEET CORN

North Florida:
February - April

Central Florida:
January - April

South Florida:
October - March

Plant after the danger of frost.



INDOOR GERMINATION OPTION

MATERIALS

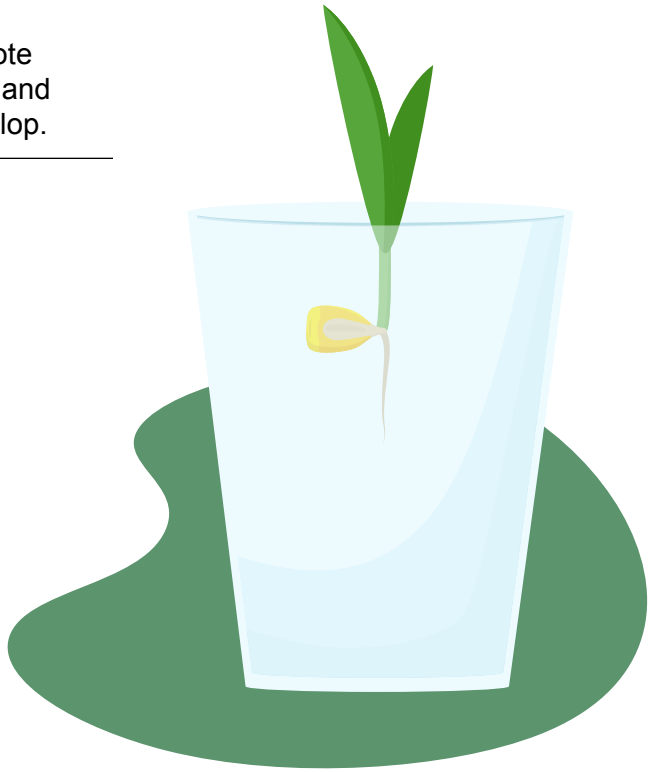
- Sweet corn seeds
- Clear plastic cups or jars
- Paper towels
- Water
- Labels and markers

DIRECTIONS

1. Fill the clear plastic cups or jars with folded paper towels. Make sure the paper towels are snugly fit inside the cups/jars.
2. Gently water the paper towels until they are damp but not soaking wet. This will create a moist environment for the seeds to germinate.
3. Carefully place the corn seeds between the paper towels and the side of the cup/jar. Make sure the seeds are visible from the outside so children can observe the germination process.
4. Use labels and markers to write the children's names and the date on each cup/jar.
5. Place the cups/jars in a warm, sunny spot. Encourage children to observe the seeds daily and record any changes they see. They can note when the seeds start to sprout and how the roots and shoots develop.

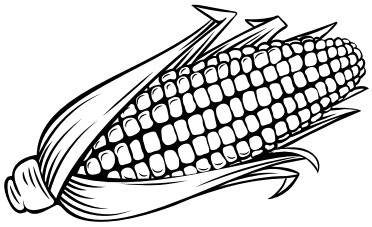
TIPS:

- **Corn seeds need warmth to germinate. Ensure the environment is warm enough for the seeds to sprout.**
- **Keep the paper towels moist but not soggy. Overwatering can cause the seeds to rot.**



Name _____ **Date** _____

Sweet Corn Video Trivia



Directions: Answer these trivia questions based on the video about the Florida sweet corn farm.

1. What does "harrow" mean? (Hint: You do this before planting the corn seeds.) _____

_____

2. How many ears of corn does one corn plant produce? _____

3. What three creatures were named as pollinators? _____

_____

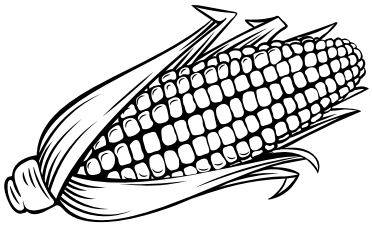
Circle whether the statements below are true or false.

4. The process for growing sweet corn takes 60 to 90 days.	**TRUE** | **FALSE**
5. Popcorn is harvested while the corn is soft and sweet corn is harvested when the corn gets hard.	**TRUE** | **FALSE**
6. Florida is the top producer of sweet corn in the United States.	**TRUE** | **FALSE**
7. Florida has good weather to grow corn.	**TRUE** | **FALSE**
8. Each ear of corn is picked by hand.	**TRUE** | **FALSE**

Name _____ **Date** _____

Hello, Farmer!

Directions: Write a letter to Ms. Stephanie and/or Mr. Vincent, the Florida sweet corn 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 Sweet Corn

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

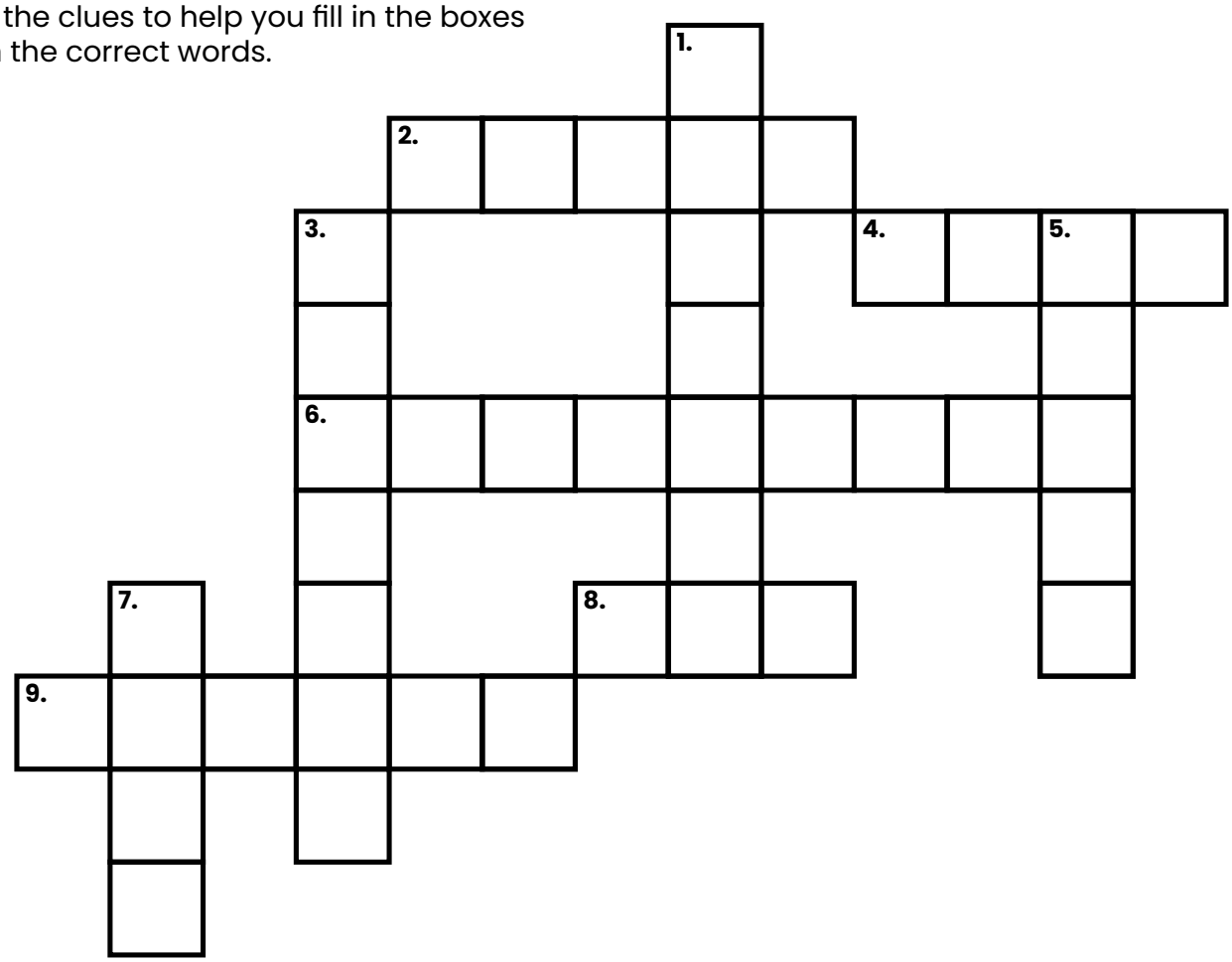


Word Bank			
Seed	Germination	Sprout	Seedling
Flower (tassel)	Plant with fruit	Fruit with seeds	

Name _____ **Date** _____

Sweet Corn Crossword Puzzle

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



ACROSS

2. 2 or 3 ears of corn can come from one _____.
4. The green outside of corn that you have to remove before eating is called a ____.
6. Birds, bees and butterflies _____ corn.
8. We call each piece of corn an ___.
9. _____ means breaking up the soil to make it fluffy.

DOWN

1. _____ is the top producer of sweet corn in the United States.
3. Corn used for _____ is harvested after the corn gets hard.
5. _____ corn is harvested when the corn is soft.
7. Each ear of corn is picked by ____.

ANSWER KEY

Name _____ Date _____

Sweet Corn Video Trivia



Directions: Answer these trivia questions based on the video about the Florida sweet corn farm.

1. What does "harrow" mean? (Hint: You do this before planting the corn seeds.) breaking up the soil to make it fluffy
2. How many ears of corn does one corn plant produce? 2-3 ears
3. What three creatures were named as pollinators? birds, bees and butterflies

Circle whether the statements below are true or false.

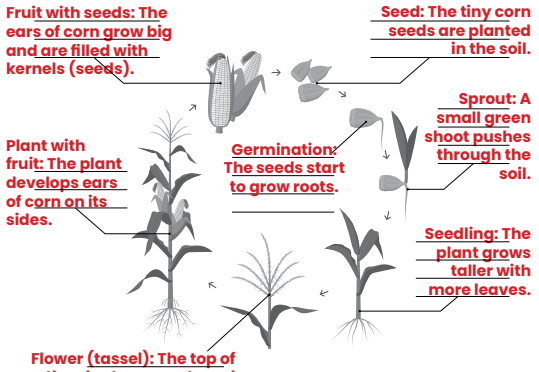
4. The process for growing sweet corn takes 60 to 90 days. **TRUE** FALSE
5. Popcorn is harvested while the corn is soft and sweet corn is harvested when the corn gets hard. TRUE **FALSE**
6. Florida is the top producer of sweet corn in the United States. **TRUE** FALSE
7. Florida has good weather to grow corn. **TRUE** FALSE
8. Each ear of corn is picked by hand. **TRUE** FALSE

VIRTUAL FARM FIELD TRIPS
4-5 Worksheet
Sweet Corn

Name _____ Date _____

Life Cycle of Sweet Corn

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

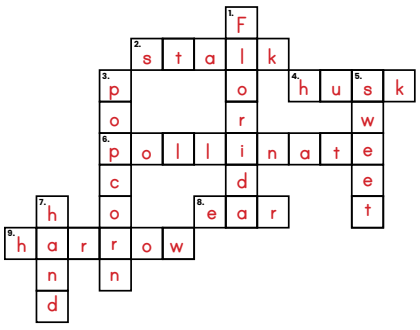


Word Bank			
Seed	Germination	Sprout	Seedling
Flower (tassel)	Plant with fruit	Fruit with seeds	

VIRTUAL FARM FIELD TRIPS
4-5 Worksheet
Sweet Corn

Name _____ Date _____

Sweet Corn Crossword Puzzle



ACROSS

2. 2 or 3 ears of corn can come from one _____.
4. The green outside of corn that you have to remove before eating is called a ____.
6. Birds, bees and butterflies _____ corn.
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DOWN

1. _____ is the top producer of sweet corn in the United States.
3. Corn used for _____ is harvested after the corn gets hard.
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7. Each ear of corn is picked by ____.