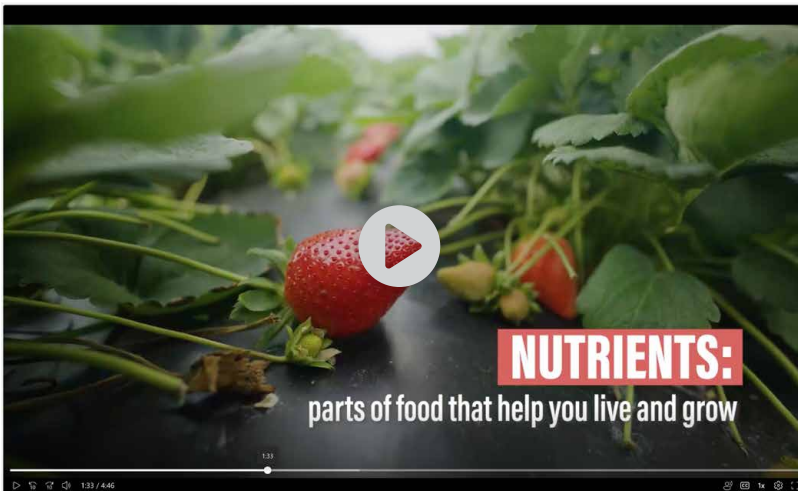
Standard(s) Supported: SC.2.L.16.1, SC.3.L.14.1, SC.3.L.17.2, HE.2.PHC.1.5, HE.3.PHC.3.2, HE.2.CH.3.1, HE.3.PHC.1.1

LET'S LEARN ABOUT FLORIDA STRAWBERRIES!

This Virtual Farm Field Trip Unit is all about strawberries. It begins with an informative 5-minute video, transporting students to Astin Farms in Plant City, Florida – the winter strawberry capital of the world! Your students will meet farmers and sisters Madison and Payton to learn how Florida strawberries 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 STRAWBERRY FUN FACTS

- **Strawberries have nutrients like fiber, potassium and vitamin C. Eating foods with fiber makes you feel full, potassium helps your muscles move properly and vitamin C helps your body heal cuts and scrapes.**
- **Strawberries are the only fruit with seeds on the outside – and each strawberry has about 200 of them.**
- **Strawberries are technically part of the rose family.**
- **People love strawberries! In the United States, 94% of households eat strawberries.**
- **Unlike other fruits, like bananas or avocados, strawberries stop ripening as soon as they are harvested. That's why you want to eat them as soon as you can.**
- **While we put strawberries in the refrigerator to make them last longer, they actually taste best at room temperature. That's why they are so delicious right off the plant!**

BEFORE YOU WATCH: DISCUSSION STARTERS

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

- *What are some examples of fruit?*
- *What fruits have you tasted? Which is your favorite?*
- *Have you ever picked your own fruit at a farm or in a garden? What did you pick?*
- *How do you think the food we eat gets from the farm to our table – at home and in school?*
- *Today we're going to talk about strawberries. How do you think they are grown and harvested?*

AFTER YOU WATCH: CHECK FOR UNDERSTANDING

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 Plant City on a map of Florida. (Hint: It's just east of Tampa.)

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 116*	Standard(s) Supported: SC.2.L.16.1, SC.3.L.14.1, SC.3.L.17.2, HE.2.PHC.1.5, HE.3.PHC.3.2, HE.2.CH.3.1, HE.3.PHC.1.1	- 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.	Use this activity to complement or reinforce the Strawberry Video Trivia sheet.
Strawberry Three Ways *On page 121*	Standard(s) Supported: SC.2.P.9.1, SC.2.P.8.1, SC.3.P.8.3, SC.3.N.1.6, HE.2.PHC.1.5, HE.3.PHC.3.2, HE.2.CH.3.1, HE.3.PHC.1.1	- Fresh strawberries - Strawberry jam/jelly - Strawberry smoothie (see recipe)	In this activity, you'll guide students through tasting strawberries in three different forms – as fresh strawberries, as strawberry jam and in a smoothie.	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 strawberries – and processed foods – like strawberry jam.

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Recipe: Strawberry Smoothie *On page 123*	Standard(s) Supported: SC.2.P.9.1, SC.2.P.8.1, SC.3.N.1.6	- Blender - Cutting board - Knife - Measuring cup - Tablespoon *Adjust quantities based on class size:* - 1 cup fresh strawberries - 1 banana - ½ cup yogurt - ½ cup milk (or water) - 1 tablespoon honey - Small cups (ideally clear) - Spoons	Use this recipe to prepare your own strawberry smoothie for the Strawberry Three Ways exercise.	You might prepare your smoothie before the lesson or demonstrate for the class for an added learning opportunity.
Strawberries on Stage *On page 124*	Standard(s) Supported: SC.2.N.1.2, SC.2.L.16.1	- Ball of yarn - Scissors - Strawberry plant (optional) and/or strawberry diagram	In this activity, you will educate students about the parts of a strawberry plant, then ask them to demonstrate each part using their bodies.	This is a fun activity to get students out of their seats while reinforcing their understanding of strawberry plant parts by making connections to their own body parts. This is also a great way to reinforce that strawberries rarely come from seeds – instead, they grow from “starter”/“daughter” plants, produced by “mother” plants.

WORKSHEETS

TOOL	COMPLEMENTARY STANDARDS	MATERIALS NEEDED	ABOUT THIS TOOL	TEACHER TIPS
Strawberry Video Trivia *On page 126*	Standard(s) Supported: SC.2.L.16.1, SC.3.L.14.1, SC.3.L.17.2	- 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."
On the Strawberry Farm *On page 127*	Standard(s) Supported: ELA.2.C.3.1, ELA.3.C.3.1, ELA.2.R.3.2	- Writing instrument - Crayons, colored pencils or markers	This worksheet asks students to draw a scene from the strawberry farm they visited in the Virtual Farm Field Trip and describe what is happening.	This tool reinforces comprehension, encourages observation skills and allows students to express their understanding creatively. You might ask students to each share with the class what they drew and wrote.
Parts of a Strawberry Plant *On page 128*	Standard(s) Supported: SC.3.L.14.1, SC.3.L.17.2	- Writing instrument - Crayons, colored pencils or markers (optional)	This worksheet has students (1) label parts of the strawberry plant using a word bank, then (2) match each part of the plant with a description of its function.	This worksheet complements life science lessons about parts of the plant. It also touches on the concept of photosynthesis. If students have already learned about photosynthesis, it's great reinforcement. If not, it provides the perfect introduction.
Life Cycle of a Strawberry *On page 129*	Standard(s) Supported: SC.2.L.16.1, SC.3.L.14.1, SC.3.L.17.2	- Scissors - Glue - Writing instrument - Crayons, colored pencils or markers (optional)	This worksheet invites students to cut and paste words indicating stages of a strawberry's life cycle in the correct order.	This worksheet complements life science lessons about plant life cycles.
Answer Key *On page 130*			See here for answers to each worksheet.	

Standard(s) Supported: SC.2.P.9.1, SC.2.P.8.1, SC.3.P.8.3, SC.3.N.1.6, HE.2.PHC.1.5, HE.3.PHC.3.2, HE.2.CH.3.1, HE.3.PHC.1.1

STRAWBERRY THREE WAYS

This group activity brings the field trip to life as students get the opportunity to taste strawberries three ways: as fresh berries, as strawberry jam or jelly and in a strawberry smoothie.

MATERIALS

Fresh strawberries

Strawberry jam/jelly

Strawberry smoothie
(see recipe on following pages)

SUGGESTED QUESTIONS

Lead a discussion as your students try strawberries 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 a strawberry before? What did you think?*
2. *If not, what do you think it will taste like?*
3. *Have you tried any foods with strawberries in them? What about foods that were strawberry flavored? What were they and what did you think?*

As they try the fresh strawberries:

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

Don't have time to prep or make a recipe? Swap the smoothie for a store-bought smoothie, strawberry yogurt or strawberry ice cream.

COLLABORATE WITH YOUR CAFETERIA

You might also consider partnering with your school nutrition team to obtain these food items and/or prepare a strawberry-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 strawberry jam/jelly:

1. *How do you think they turn the strawberries into jam?*
2. *How does the taste of the jam compare to the fresh strawberries? How is it different and how is it the same?*
3. *What do you think about the texture of the jam compared to the fresh strawberries?*
4. *Have you had strawberry jam before? If so, what do you usually eat it with? If not, would you like to try it again?*
5. *Before today, did you know strawberry jam is made from fresh strawberries? What other fruits are turned into jam?*

As they try the strawberry smoothie:

1. *Can you taste the strawberries in the smoothie? How strong is the flavor?*
2. *What other flavors can you taste? Can you guess which other fruit(s) is (are) in the smoothie?*
3. *How does the flavor of the smoothie compare to the fresh strawberries?*
4. *What is the same about the fresh strawberries and the smoothie? What is different?*
5. *If you were making a fruit smoothie, what fruits would you add?*

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 strawberry – are more nutritious than packaged, processed foods with many ingredients.

You can explain that food with lots of ingredients – like the jam – 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 strawberry's ingredient list is. (There is none – because there's just one ingredient!)

STRAWBERRY SMOOTHIE RECIPE

STRAWBERRY SMOOTHIE

Estimated Servings: 20 oz, or (6-7) 3 oz tasters

EQUIPMENT REQUIRED

- Blender
- Cutting board
- Knife
- Measuring cup
- Tablespoon
- Small cups (ideally clear)
- Spoons

MATERIALS AND INGREDIENTS

Adjust quantities based on class size.

- 1 cup fresh strawberries
- 1 banana
- ½ cup yogurt
- ½ cup milk (or water)
- 1 tablespoon honey

DIRECTIONS

1. Wash berries and cut away strawberry stems.
2. Combine all ingredients in a blender. Blend until smooth.
3. Pour into individual cups for serving and enjoy!

You might prepare your smoothie before the lesson or demonstrate for the class for an added learning opportunity!



CUSTOMIZE YOUR SMOOTHIE

Mix up your smoothie by adding other fresh ingredients like blueberries, pineapple chunks, orange segments, kiwis or even spinach! If you're demonstrating for your students, they can help decide which ingredients get added. Children are more likely to be excited about eating food they choose and help prepare themselves!

If you prep the recipe ahead of time, ask them to guess what else you added.

STRAWBERRIES ON STAGE

This activity gets students up and moving as they learn about the life cycle of strawberry plants.

MATERIALS



Ball of yarn



Scissors



Strawberry plant *(optional)* **and/or strawberry diagram**

INTRODUCTION

Strawberries are the only fruit to produce their seeds on the outside. Growing strawberry plants from the seeds is very challenging. Fortunately, strawberry plants can reproduce by propagation.

With propagation, the parent (mother) plant produces runners (horizontal stems) that bud into a new daughter plant. The flowers develop into the fruit – the part we eat. For more helpful background information, scan the QR code to the right or visit bit.ly/StrawberryDiagram.

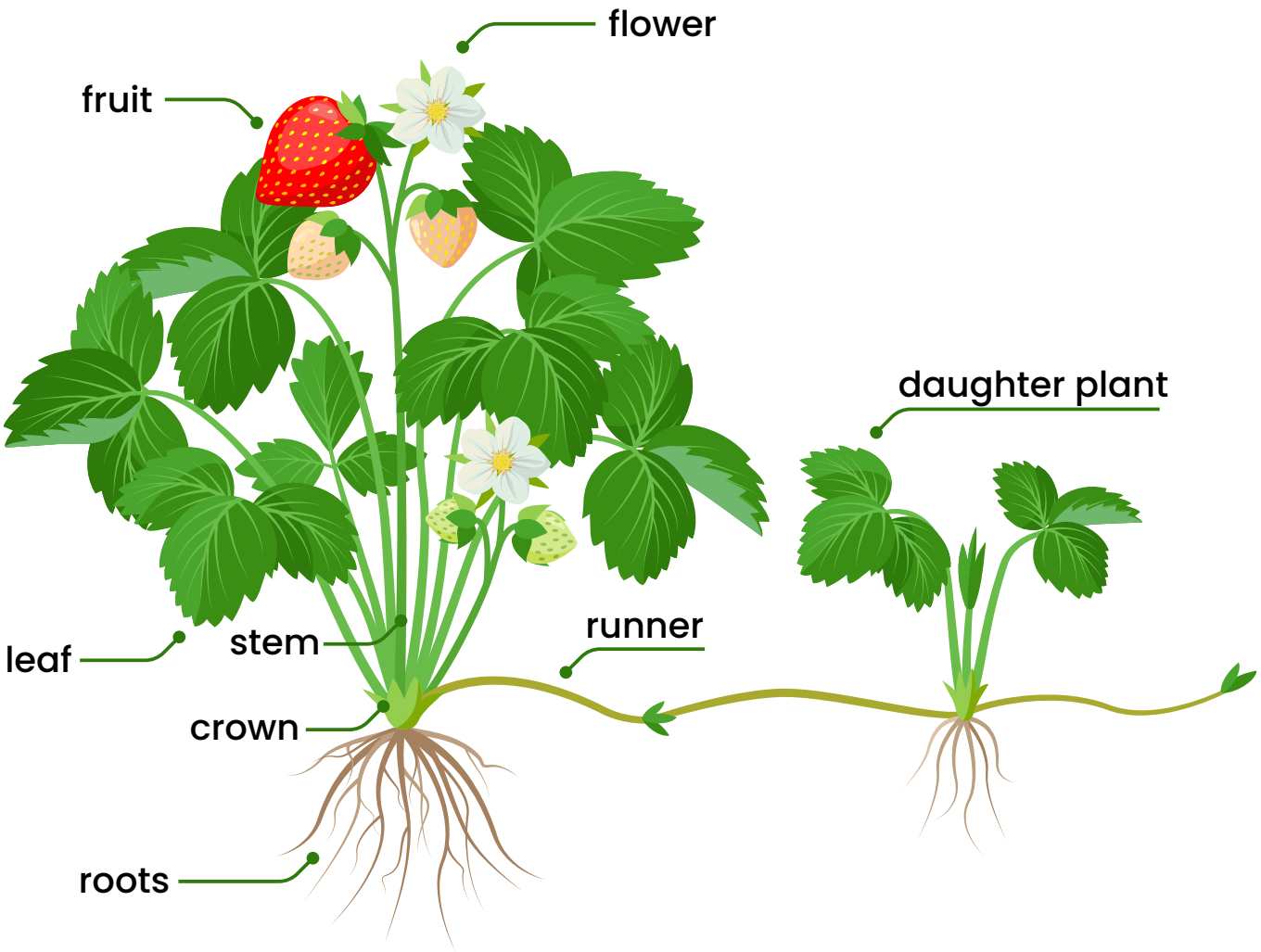
Discuss the life cycle of flowering plants with your students, including key topics such as pollination, fertilization, seed dispersal and germination. Engage your students in a discussion about the unique characteristics of strawberry plants and their reproduction.

ACTIVITY

If you have a real strawberry plant, use it to explain the various parts of a strawberry plant (mother plant, crown, runner, daughter, leaves, stems, roots, flowers). Otherwise, use the diagram on the following page.

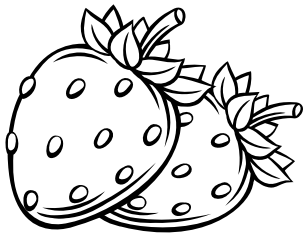
Split the class into four groups and hand each student three long pieces of yarn of various lengths. Tell the students to imagine they are a strawberry plant. Ask them which body part would be their roots (legs and feet), crown (body), stems (arms), leaves (hands) and flowers (head).

Students will act out the parts of the strawberry plant. One student in the group will be the “mother” plant and all other students will be the “daughter” plants. The mother plant will hold onto one end of all the strings and the daughters will hold on to the opposite end.


flower
fruit
daughter plant
leaf
stem
runner
crown
roots

Name _____ **Date** _____

Strawberry Video Trivia



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

1. How are strawberry seeds different than other fruit seeds? _____

_____

2. Each strawberry has about how many seeds? _____

3. What do you call the shape of a strawberry? _____

Circle whether the statements below are true or false.

4. There is only one type of strawberry.	**TRUE** | **FALSE**
5. Eight strawberries have more vitamin C than one orange.	**TRUE** | **FALSE**
6. Strawberries are picked by machines.	**TRUE** | **FALSE**
7. Strawberries ripen faster when it's warmer.	**TRUE** | **FALSE**
8. An acre is the size of a basketball court.	**TRUE** | **FALSE**
9. Strawberries are healthy for you.	**TRUE** | **FALSE**

Name _____ **Date** _____

On the Strawberry Farm

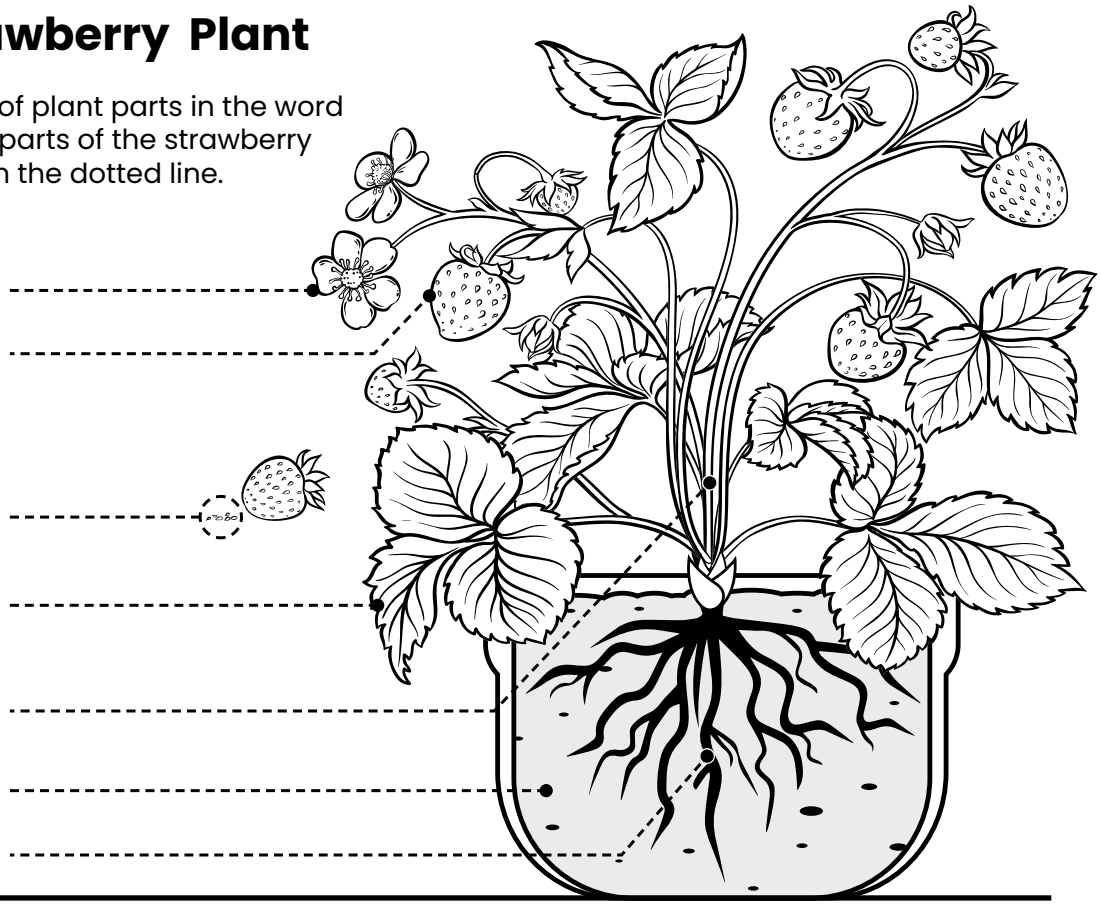
Directions: Draw a scene from the Florida strawberry farm you just learned about. Next, describe what is happening.

Name _____ **Date** _____

Parts of a Strawberry Plant

Directions: Use the list of plant parts in the word bank to correctly label parts of the strawberry plant. Write the word on the dotted line.

Word Bank
Leaf
Strawberry
Stem
Flower
Roots
Seeds
Soil



Now, draw a line between each part of the plant (on the left) and its function (on the right).

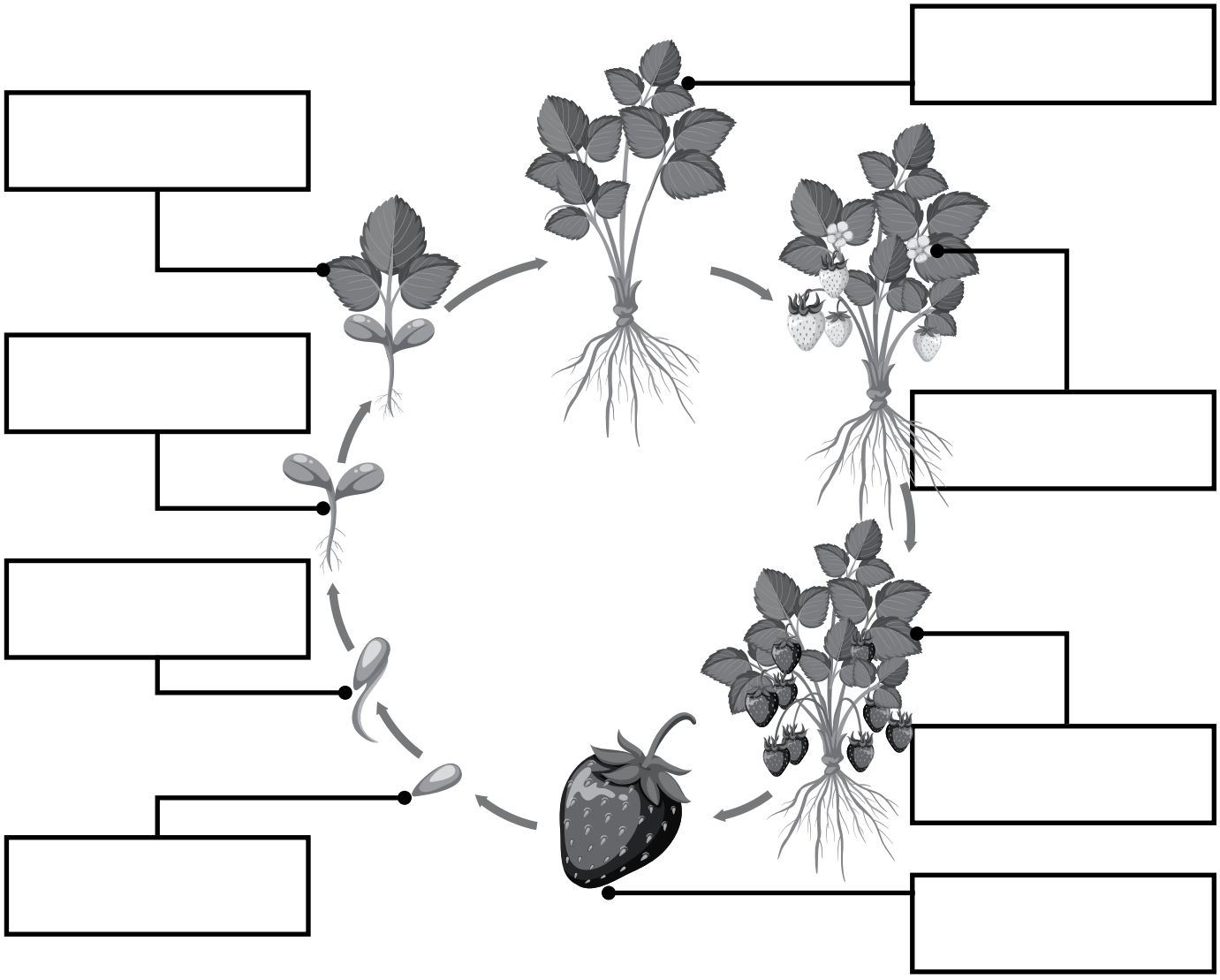
Roots
Stem
Leaf
Strawberry
Flower
Seeds
Soil

Absorbs sunlight to produce energy for the plant through photosynthesis
Located on the outside of the strawberry, these grow new plants
Absorbs food and water from the soil
Distributes food and water
Provides food to the plant and a space to grow
The plant's "fruit"
The part of a plant that produces seeds

Name _____ **Date** _____

Life Cycle of a Strawberry

Directions: Cut out the words and glue them where they belong to label each stage of the strawberry plant's life cycle.



Fruit with seeds	**Seed**	**Germination**	**Sprout**
Seedling	**Plant**	**Flowers** *(reproduction)*	**Plant with fruit** *(mature plant)*

ANSWER KEY

Name _____ Date _____

Strawberry Video Trivia

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

1. How are strawberry seeds different than other fruit seeds? **Their seeds are on the outside.**
2. Each strawberry has about how many seeds? **About 200**
3. What do you call the shape of a strawberry? **Conical, or like a cone**

Circle whether the statements below are true or false.

4. There is only one type of strawberry.	TRUE	**FALSE**
5. Eight strawberries have more vitamin C than one orange.	**TRUE**	FALSE
6. Strawberries are picked by machines.	TRUE	**FALSE**
7. Strawberries ripen faster when it's warmer.	**TRUE**	FALSE
8. An acre is the size of a basketball court.	TRUE	**FALSE**
9. Strawberries are healthy for you.	**TRUE**	FALSE

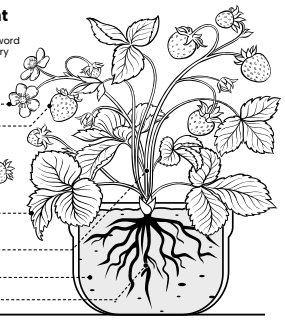
VIRTUAL FARM FIELD TRIPS
2-3 Worksheet
Strawberry

Name _____ Date _____

Parts of a Strawberry Plant

Directions: Use the list of plant parts in the word bank to correctly label parts of the strawberry plant. Write the word on the dotted line.

Word Bank
Leaf
Strawberry
Stem
Flower
Roots
Seeds
Soil



Flower
Strawberry
Seeds
Leaf
Stem
Soil
Roots

Now, draw a line between each part of the plant (on the left) and its function (on the right).

Roots	Absorbs sunlight to produce energy for the plant through photosynthesis
Stem	Located on the outside of the strawberry, these grow new plants
Leaf	Absorbs food and water from the soil
Strawberry	Distributes food and water
Flower	Provides food to the plant and a space to grow
Seeds	The plant's "fruit"
Soil	The part of a plant that produces seeds

VIRTUAL FARM FIELD TRIPS
2-3 Worksheet
Strawberry

Name _____ Date _____

Life Cycle of a Strawberry

Directions: Cut out the words and glue them where they belong to label each stage of the strawberry plant's life cycle.

