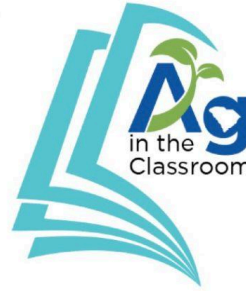




# SPROUTS' MONTHLY BOOK



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 SC Ag in the Classroom  
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## March 2024 Monthly Book

*Potatoes for Pirate Pearl*

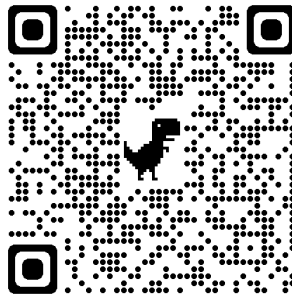
Written by: by Jennifer Concepcion

Grade Levels Suggested:

Lesson by: Allison Whiten, AITC Ambassador



Scan here for Lesson Slides!



### ELA Lesson

#### Grade levels

- K-2

#### Time length of lesson

- 1 hour

### **Standards addressed**

- K
  - 8.1 With guidance and support, read or listen closely to:
    - a. describe characters and their actions;
    - b. compare characters' experiences to those of the reader;
    - c. describe setting;
    - d. identify the problem and solution; and
    - e. identify the cause of an event.
  - 9.1 With guidance and support, identify the literary devices of repetitive language and the sound devices of rhyme, onomatopoeia, and alliteration; identify when the author uses each.
- 1
  - 8.1 Read or listen closely to:
    - a. describe characters' actions and feelings;
    - b. compare and contrast characters' experiences to those of the reader;
    - c. describe setting;
    - d. identify the plot including problem and solution; and
    - e. describe cause and effect relationships.
  - 9.1 Identify the literary devices of rhythm, repetitive language, and simile and sound devices of rhyme, onomatopoeia, and alliteration; explain how the author uses each.
- 2
  - 8.1 Read or listen closely to:
    - a. compare and contrast characters' actions, feelings, and responses to major events or challenges;
    - b. describe how cultural context influences characters, setting, and the development of the plot; and
    - c. explain how cause and effect relationships affect the development of plot.
  - 9.1 Identify the literary devices of simile and metaphor and sound devices; explain how the author uses each.

### **Objective of the lesson**

- I can describe, compare, and contrast characters' actions, feelings, and

responses to major events or challenges.

- I can compare and contrast characters' experiences to those of the reader.
- I can describe setting.
- I can identify the plot including problem and solution and describe how it affects the development of plot.
- I can identify the sound devices of onomatopoeia and explain how the author uses it.

### **National Agricultural Literacy Outcomes:**

- Upper Elementary (Grades 3-5) T1.3-5
  - Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production
  - Identify land and water conservation methods used in farming systems (wind barriers, conservation tillage, laser leveling, GPS planting, etc.)
  - Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals)
- Upper Elementary (Grades 3-5) T2.3-5
  - e. Understand the concept of stewardship and identify ways farmers/ranchers care for soil, water, plants, and animals
- Upper Elementary (Grades 3-5) T3.3-5
  - g. Identify food sources of required food nutrients
- Upper Elementary (Grades 3-5) T4.3-5
  - d. Provide examples of science being applied in farming for food, clothing, and shelter products

### **Materials list:**

- Computer
- Projecting screen
- Pencil
- Paper
- Potatoes for Pirate Peal book
- [Story Map Attachment](#)
- Student devices or device that students can use to complete jamboard

### **Vocabulary:**

- Setting: the time and place of the story's events
- Actions: any movement a character makes.
- Feelings: an emotional state or reaction
- Major events: the most important events in the story
- Plot: refers to what happens in a story. It consists of an introduction, rising action, climax, falling action, and resolution.
- Challenge/ Problem: This is the problem or challenge that drives the story.
- Solution: represents the nature of the things that would resolve the Overall Story Problem
- Onomatopoeia: a literary device that uses the letter sounds of a word to imitate the natural sound emitted from an object or action

**ELA Instructor procedure:**

1. The teacher will review the I can statements with the class. Slide 3
2. The teacher will review the vocabulary with the class. Slide 4
3. The teacher will read Potatoes for Pirate Pearl to the class.
  - a. As the teacher reads, the students will give a thumbs up each time they hear onomatopoeia.
4. The teacher will ask the following questions throughout the lesson.
  - a. Page 1-2: What onomatopoeia do you see on these pages?
  - b. Page 5-6: How is the setting changing on these pages? Why?
  - c. Page 10: What is the problem in this story? What do you predict the solution will be?
  - d. Page 14: How does Pirate Pearl feel? How do you know? How has her feelings changed since the beginning of the story?
  - e. Page 18: Why is Pirate Pearl scared of the irrigation system and the ladybug? Have you seen these things before? She doesn't know what the tractor is. Have you seen a tractor before?
  - f. Page 25: How is the setting changing on these pages? Why?
5. The teacher will have students collaborate on the following [Jamboard](#) (Make a copy of the Jamboard prior to using). Slide 6
  - a. The students will describe Pirate Pearl's feelings throughout the story.
6. The teacher will review the sticky notes that the students put on the Jamboard.

7. Students will think pair share to communicate how they would have felt in the same situation as Pirate Pearl.
8. The students will fill out the story map independently. Slide 7
9. The teacher will ask the students to recall the different onomatopoeia in the story.
10. The teacher will ask how did the onomatopoeia add to the story?
  - a. Did it make it more interesting?
11. The teacher will ask the following questions to conclude:
  - a. How did Pirate Pearl feel through the story?
  - b. How did those feelings change through the story?
  - c. What would you do if you were Pirate Pearl? How would you feel?
  - d. What was the setting of the story and how did it change?
  - e. What was the problem in this story? How was it solved?
  - f. What were the examples of onomatopoeia and how did the author use it?
12. After the lesson students will independently write a narrative story about a fantasy character coming to a farm. Slide 8

### **Assessment:**

- **Assessments**
  - Informal:
    - Questioning through the story
    - Jamboard
    - Think pair share
  - Formal
    - Story Map
    - Students will independently write a narrative story with a fantasy character coming to a farm.
- **Early finishers:**
  - Early finishers will use the [Ag in the Bitmoji Classroom](#)

## **Math Lesson**

### **Grade levels**

- 3-4

### **Time length of lesson**

- 1 hour

### **Standards addressed**

- 3.MDA.5 Understand the concept of area measurement.
  - a. Recognize area as an attribute of plane figures;
  - b. Measure area by building arrays and counting standard unit squares;
  - c. Determine the area of a rectilinear polygon and relate to multiplication and addition.
- 3.MDA.6 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
- 4.MDA.3 Apply the area and perimeter formulas for rectangles.

### **Objective of the lesson**

- I can determine the area and relate to multiplication and addition.
- I can apply the area and perimeter formulas for rectangles.
- I can solve real-world and mathematical problems involving perimeter.

### **National Agricultural Literacy Outcomes:**

- Upper Elementary (Grades 3–5) T1.3–5
  - Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production
  - Identify land and water conservation methods used in farming systems (wind barriers, conservation tillage, laser leveling, GPS planting, etc.)
  - Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals)
- Upper Elementary (Grades 3–5) T2.3–5
  - e. Understand the concept of stewardship and identify ways farmers/ranchers care for soil, water, plants, and animals
- Upper Elementary (Grades 3–5) T3.3–5
  - g. Identify food sources of required food nutrients
- Upper Elementary (Grades 3–5) T4.3–5
  - d. Provide examples of science being applied in farming for food, clothing, and shelter products

**Materials list:**

- Computer
- Projecting screen
- Pencil
- Paper
- Potatoes for Pirate Pearl book
- Perimeter and area [sheet](#)
- Poster [grid](#)

**Vocabulary:**

- Area: the total space taken up by a flat 2D shape of an object
- Measurement: quantifying the length, weight, capacity (volume), and many more quantities.
- Plane figures: a flat shape
- Arrays: An arrangement of objects, pictures, or numbers in rows and columns
- Standard unit squares: a square with sides measuring 1 unit
- Rectilinear polygon: a polygon all of whose sides meet at right angles.
- Perimeters: the continuous line forming the boundary of a closed geometric figure
- Polygons: a plane figure with at least three straight sides and angles, and typically five or more.
- Rectangles: a plane figure with four straight sides and four right angles, especially one with unequal adjacent sides, in contrast to a square.

**Math Instructor procedure:**

1. The teacher will review the I can statements with the class. Slide 9
2. The teacher will review the vocabulary with the class. Slide 10
3. The teacher will read Potatoes for Pirate Pearl to the class.
4. The teacher will read slide 12
5. The teacher will explain how to find area and perimeter. Slide 13
6. The teacher will walk through two equations while modeling thinking. Slides 14-15 (use unit blocks if needed)
7. The teacher will follow students directions in order to solve two equations. Slides 16-17 (use unit blocks if needed)
8. The students will complete the following [sheet](#). Slide 18

9. Students will make a poster of a potato bed. The students will draw a picture of their potato farm with at least 5 potato beds of varying sizes. The student will write the length and width of the potato beds and find the area and perimeter of each. Slide 19
  - a. Students can use the [grid](#) for assistance
10. The teacher will close by asking students the process for finding area & perimeter and how a farmer could use the math equations.

### **Assessment:**

- **Assessments**
  - Informal:
    - The teacher will walk through two equations while modeling thinking. Slides 13-14 (use unit blocks if needed)
    - The teacher will follow students directions in order to solve two equations. Slides 15-16 (use unit blocks if needed)
  - Formal
    - The students will complete the following [sheet](#). Slide 17
    - Students will make a poster of a potato bed. The students will draw a picture of their potato farm with at least 5 potato beds of varying sizes. The student will write the length and width of the potato beds and find the area and perimeter of each.
- **Early finishers:**
  - Early finishers will use the [Ag in the Bitmoji Classroom](#)

## **Science Lesson**

### **Grade levels**

- 5

### **Time length of lesson**

- 1 hour

### **Standards addressed**

- 5
  - 5-LS1-1. Support an argument with evidence that plants obtain materials they need for growth mainly from air and water.



- 5-ESS3-1. Evaluate potential solutions to problems that individual communities face in protecting the Earth's resources and environment.

### **Objective of the lesson**

- I can support an argument with evidence that plants obtain materials they need for growth mainly from air and water.
- I can evaluate potential solutions to problems that individual communities face in protecting the Earth's resources and environment.

### **National Agricultural Literacy Outcomes:**

- Upper Elementary (Grades 3-5) T1.3-5
  - Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production
  - Identify land and water conservation methods used in farming systems (wind barriers, conservation tillage, laser leveling, GPS planting, etc.)
  - Recognize the natural resources used in agricultural practices to produce food, feed, clothing, landscaping plants, and fuel (e.g., soil, water, air, plants, animals, and minerals)
- Upper Elementary (Grades 3-5) T2.3-5
  - e. Understand the concept of stewardship and identify ways farmers/ranchers care for soil, water, plants, and animals
- Upper Elementary (Grades 3-5) T3.3-5
  - g. Identify food sources of required food nutrients
- Upper Elementary (Grades 3-5) T4.3-5
  - d. Provide examples of science being applied in farming for food, clothing, and shelter products

### **Materials list:**

- Computer
- Projecting screen
- Pencil
- Paper
- Potatoes for Pirate Peal book
- Notes [page](#)
- [sheet](#)

### **Vocabulary:**

- Argument: people disagreeing about scientific explanations (claims) using empirical data (evidence) to justify their side of the argument
- Evidence: evidence that serves to either support or counter a scientific theory or hypothesis,
- Solutions: The answer to a science experiment
- Problems: a question that you have that can be answered via an experiment
- Communities: a group of people.
- Earth's resources: An actual or potential form of wealth supplied by nature, as coal, oil, water power, timber, arable land, etc.
- Environment: the surroundings or conditions in which a person, animal, or plant lives or operates.

### **Science Instructor procedure:**



1. The teacher will review the I can statements with the class. Slide 21
2. The teacher will review the vocabulary with the class. Slide 22
3. The teacher will read Potatoes for Pirate Pearl to the class.
4. The teacher will play the two videos for background knowledge.
  - a. As students watch the videos they will take notes on this [page](#).
5. The students will think pair share about their notes.
  - a. The teacher will direct thinking to plant needs.
6. The students will brain dump about issues concerning the environment using the [jamboard](#) (Make a copy of the Jamboard prior to using).
7. The teacher will ask students how these issues would affect the growth of the potatoes.
  - a. What affect would that have on our food supply?
8. What solutions to problems relating to protecting the Earth's resources and environment did you see in this story?
9. Students will use the following [sheet](#) to research one of the issues concerning the environment and its impact on agriculture.
10. Students will make and test their own solution to an issue.
  - a. Students will present this solution with a poster, google slides, etc.

### **Assessment:**

- **Assessments**
  - Informal:
    - Jamboard
    - Questioning

- Students will use the following [sheet](#) to research one of the issues concerning the environment and its impact on agriculture.
  - Formal
    - Students will make and test their own solution to an issue.
      - Students will present this solution with a poster, google slides, etc.



### **Additional resources which enhance the lesson:**

-  Sprout's March Lesson.pptx
- Please give input for future lessons!
  - <https://docs.google.com/forms/d/1eXB-TGhI5ptoU9o6IIscyk070fEk3rIXmT05CkpMsoQ/edit>
- **Activities:**
  - [Potatoes for Pirate Pearl Activity Kit](#)
  - [A Step by Step Guide to Growing Potatoes with your Class](#)
  - [My American Farm](#)
- **Additional Lesson Plans:**
  - <https://www.feedingmindspress.com/files/Free-Sample-Lesson-for-Pearl.pdf>
  - [No Small Potatoes Lesson Plan.pdf](#)
  - <https://cdn.agclassroom.org/mi/edu/lesson/science/potato.pdf>
- A message from the author to teachers
-  Author Jennifer Concepcion talks Potatoes for Pirate Pearl
- [How Do Potatoes Grow? | American Farm Bureau Foundation for Agriculture](#)
- South Carolina Agricultural Information
  - [State Agricultural Facts](#)
  - [TOP COMMODITIES](#)
- [Teacher Center | National Agriculture in the Classroom](#)

**Attachments:**

# STORY MAP

TITLE		AUTHOR	
<b>BEGINNING OF THE STORY</b>	<b>MIDDLE OF THE STORY</b>	<b>END OF THE STORY</b>	
CHARACTERS	CHARACTERS	CHARACTERS	
SETTING	SETTING	SETTING	
THE PROBLEM		THE SOLUTION	



# PERIMETER & AREA OF THE POTATO PATCH

Find the perimeter or area of each patch.



5

12

Area =



8

4

Area =



4

7

Area =



4

1

Perimeter =



3

9

Perimeter =



5

4

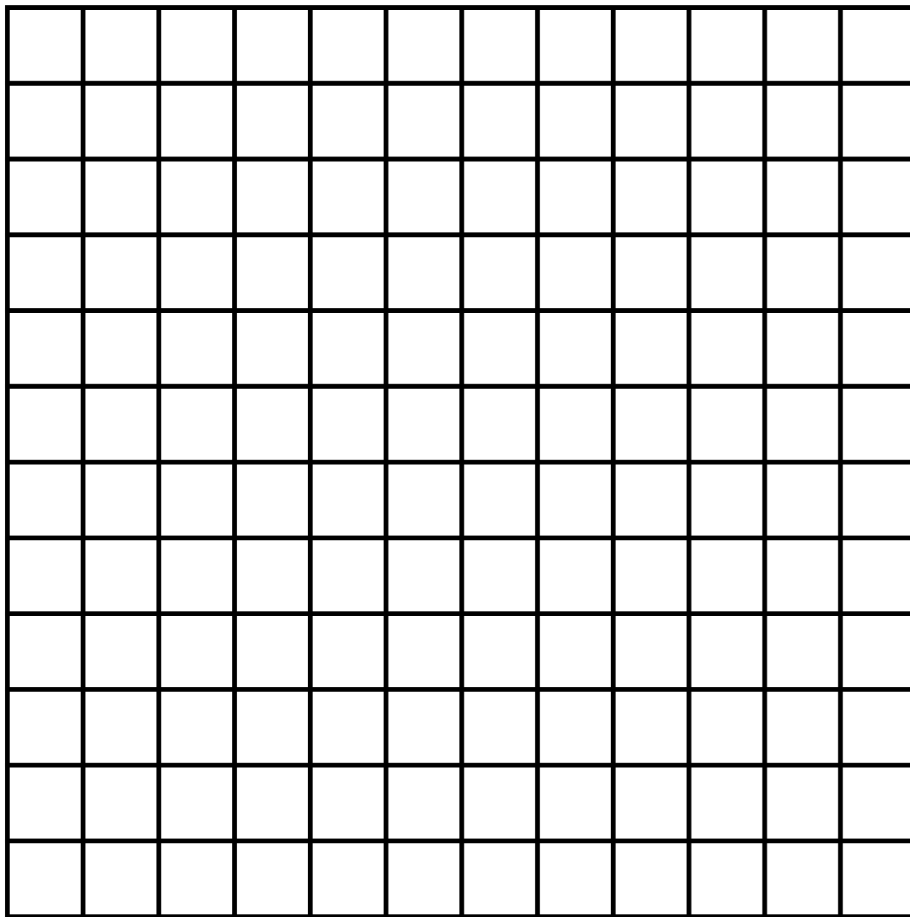
Perimeter =

Name:

Date:

# POTATO PATCH PERIMETER & AREA

Make your potato farm within the grid boxes below and calculate the perimeter. Make at least 5 potato beds of varying sizes. Write the length and width of the potato beds and find the area and perimeter of each. You can also add barns and other crops!



P =

A =

P =

A =

P =

A =

P =

A =

P =

A =

P =

A =



Name:

Date:

<b>Research topic:</b>		
Environment	People/animals affected	
	Issue	Solution
Facts	Cause	Picture



## **References:**

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<https://www.youtube.com/watch?v=YO-1RXhH0tM>