

Quarter 4 / Unit 2

Title: From Seed to Plant

Suggested Time: 5 days (45 minutes per day)

Common Core ELA Standards: RI1, RI3, RI4, RI8, RF4, W2, L1, L3

Teacher Instructions

Refer to the Introduction for further details.

Before Teaching

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers, about the big ideas and key understanding that students should take away **after** completing this task.

Big Ideas and Key Understandings

Plants make seeds which then produce new plants.

Synopsis

This informational text describes the life cycle of plants.

2. Read entire main selection text, keeping in mind the Big Ideas and Key Understandings.
3. Re-read the main selection text while noting the stopping points for the Text Dependent Questions and teaching Vocabulary.

During Teaching

1. Students read the entire main selection text independently.
2. Teacher reads the main selection text aloud with students following along.
(Depending on how complex the text is and the amount of support needed by students, the teacher may choose to reverse the order of steps 1 and 2.)
3. Students and teacher re-read the text while stopping to respond to and discuss the questions and returning to the text. A variety of methods can be used to structure the reading and discussion (i.e.: whole class discussion, think-pair-share, independent written response, group work, etc.)

Text Dependent Questions

Text Dependent Questions	Answers
Most plants make seeds. Read page 275 and explain how seeds differ.	Seeds come in different shapes, sizes and colors.
After reading page 276 and looking at the illustration, state where most seeds begin.	Flowers are where most seeds begin.
Use the illustration on page 277 and identify the parts of the flower.	Petal, stigma, pollen, pistil, stamens, ovules, sepal and stem.
Read the text on page 277 and explain the process of pollination.	A grain of pollen from the stamen must land on the stigma at the top of the pistil of a flower like itself.
Pollination happens in different ways. Using the text and illustrations on pages 278 and 279, name the different ways that pollination happens?	The wind blows pollen from flower to flower and bees, insects and hummingbirds visit flowers. When they visit, pollen rubs on their bodies and they carry pollen to other flowers.
After reading page 280, state how a seed begins.	A pollen grain from a flower lands on the pistil of the same kind of flower, it grows a long tube through the pistil into an ovule.
The text and illustration on page 281 describes what happens as the seeds grow inside the flower. Restate what happens as the seeds grow inside the flower.	The seeds become bigger, a fruit or pod grows around them. The fruit or pod ripens and breaks open. The seeds are ready to become new plants. The seeds fall to the ground around the base of the plant.
The text and illustrations on pages 281 – 283 identify many different ways that a seed travels. After reading these pages, explain the different ways that seeds travel.	Seeds fall to the ground. Birds eat the berries and drop the seeds to the ground. Some seeds fall into streams ponds or rivers and they travel on the water until the stick to the dirt along the shore. The winds can scatter the seeds. Animals help to scatter seeds.

The beginning of a plant is curled up inside each seed. Look at the illustration on page 285 and name the part of the seed that protects the plant.	Seed coat.
A seed will not sprout until certain things happen. Using the text on pages 286 – 289, order the things that must happen before a seed can sprout.	It must be in or on the soil. It needs rain to soak and soften the seed coat. It needs the sun to warm the ground so the seed coat can break open. After the root is formed it needs water and minerals from the soil for food. A shoot will grow and green leaves will shoot towards the sun.
Explain what happens when the plant is full grown that starts the process all over again. (p. 289)	Buds on the plants open into flowers where new seeds will grow.

	KEY WORDS ESSENTIAL TO UNDERSTANDING Words addressed with a question or task	WORDS WORTH KNOWING General teaching suggestions are provided in the Introduction
TEACHER PROVIDES DEFINITION not enough contextual clues provided in the text	Page 281 - ripens Page 285 – seed coat Page 287 - germination	Page 277 – sepal Page 281 – pod Page 283 – parachutes Page 285 – stored Page 287 – minerals Page 290 – vitamins, nutrition
STUDENTS FIGURE OUT THE MEANING sufficient context clues are provided in the text	Page 275 - seeds Page 277 – grains of pollen Page 277 – stamen Page 277 – stigma Page 277 – pistil Page 277 – ovules Page 277 – pollination Page 281 - tube	Page 277 - petal Page 277 - stem Page 279 - nectar Page 281 – base of the plant Page 282 – streams Page 283 – fluff Page 285 – protect Page 286 – sprout Page 286 – soil Page 287 – root Page 287 – shoot Page 289 - bud

Culminating Task

Create a labeled illustration of how a seed becomes a plant. Write a short explanation of your illustration.

Answer: Students may choose to illustrate birds dropping seeds on the ground, the seed sprouting and a plant growing. Writing must match the illustration. Accept any reasonable answer.

Additional Tasks

- In this story, the parts of the plants are labeled to help us understand the picture better. Choose an object that has different parts and draw a picture of the object. Label the parts and share your picture with a group of students.
- Plant seeds in a glass jar. Water and place in the sunlight. When the seeds sprout and roots begin to form, plant in a Styrofoam cup filled with dirt. Watch them grow! Journal your observations and create a labeled diagram of your plant.

Name _____ Date _____

“From Seed to Plant”

1. Most plants make seeds. Read page 275 and explain how seeds differ.
2. After reading page 276 and looking at the illustration, state where most seeds begin.
3. Use the illustration on page 277 to identify the parts of the flower.

4. Read the text on page 277 and explain the process of pollination.

5. Pollination happens in different ways. Using the text and illustrations on pages 278 and 279, name the different ways that pollination happens?

6. After reading page 280, state how a seed begins.

7. The text and illustration on page 281 describes what happens as the seeds grow inside the flower. Restate what happens as the seeds grow inside the flower.

8. The text and illustrations on pages 281 – 283 identify many different ways that a seed travels. After reading these pages, explain the different ways that seeds travel.

9. The beginning of a plant is curled up inside each seed. Look at the illustration on page 285 and name the part of the seed that protects the plant.

10. A seed will not sprout until certain things happen. Using the text on pages 286 – 289, order the things that must happen before a seed can sprout.

11. Explain what happens when the plant is full grown that starts the process all over again. (p. 289)