



Teaching with SeedPower

Discovering How Plants Grow

Preview

- Read the title, including the subtitle.
- Have students use the title and cover illustration to predict the focus of the book. Ask them to support their predictions by stating clues (details) in the title and illustrations.

Prepare

- Discuss with students how to navigate the text. For example, suggest that they read the main text first on each page, then closely examine the picture and any special features (e.g., "It's a Fact"). Remind them to think about how these special features illustrate the text, clarify ideas, or add new information.
- Have students browse the book, noticing any special features. Ask them to generate questions they have about how plants grow that might be answered in the text.
- Activate prior knowledge by having students turn to a partner and name the parts of a plant they know and the function of each one.

Vocabulary

- **Academic Vocabulary** Preteach the following academic words using the Define-Example-Ask Routine: *variety*, *produce*.

Define: *Variety* means "a number of different kinds of things."

Example: *There is a variety of colors in my crayon box.*

Ask: *Where can you find a variety of plants? Fruits and vegetables?*

Define: *Produce* means "to make or manufacture."

Example: *Farms produce the foods we eat.*

Ask: *What is something that is produced at or near your home?*

- **Additional Words** Use a student-friendly definition, the illustrations, and context clues to highlight these words while reading: *roots*, *fruit*, *contestants*, *wedges*, *burst*, *swirled*, *bloom*, *attach*, *soil*, *protect*, *pollinate*, *harvest*, *reproduce*.

Close Reading

Guide students through a reading of the book to increase overall comprehension and develop generalizable reading skills.

Text-Based Questions Ask the following questions while reading. Have students provide evidence in the text and illustrations to support their answers.

(page 9) *How does Connor react to swallowing a seed? What clues does the author give in the text and illustrations?*

(page 11) *Where is Connor? Why did the author put him there? How does this place connect to the eating contest?*

(page 15) *Why clues does the author give to help you figure out the meaning of "germinate"?*

(page 17) *What does the author want us to know about soil and its function in growing plants?*

(page 20) *How does the "It's a Fact" box relate to the main text? Why do you think the author included it on this page?*

(page 21) *How do plants grow? Retell the key steps to a partner in your own words.*

Reinforce Vocabulary

- **Content Vocabulary** After reading, review the following content words using the glossary on page 31: *germinate, nutrients, photosynthesis, sows, spores*. Have partners read each word and definition, then find the sentence in the book containing the word.
- **Build Vocabulary Strategies** Increase student's general word awareness skills using the following words: *seedless, sowing*.

seedless (suffixes): Write the word and underline the suffix *-less*. Explain that a suffix is a word part added to the end of a base word. It changes the word's meaning. Readers use the meaning of the suffix to determine the whole word's meaning. Point out that *-less* means "without." So, *seedless* means "without seeds."

sowing (homophones): Explain that some words are pronounced the same, but have different spellings and meanings. These words are called homophones. Write the words *sowing* and *sewing*. Direct students to reread pages 11-13 to determine the meaning of each word. Guide students to notice the clues the author provides (e.g., *sowing seeds* vs. *sewing a button with thread*). Remind students that they have to think about the context to decide which spelling to use when writing homophones. Repeat using the words *wait/weight, hole/whole, pour/poor, stares/stairs, see/sea, and piece/peace*.

Use the Tools Discuss why the author included each of these nonfiction tools and how students can use them to better understand the text.

- **Captions** Ask students to find and read the captions for the photos in the Fact File on page 29. Ask: *Why did the author add captions to the photos? How do they help the reader?* Remind students to read the main text, then carefully examine the photos and read the captions. They should think about how the information in the caption relates to the main text. *Does it directly connect to details in the text or does it add new information?*
- **Boldfaced Words** Ask students to find and record the boldfaced words in the text. Ask: *Why did the author put these words in special type?* Remind students to pay careful attention to words in special type while reading to aid in comprehension. These are key words the author wants the reader to know and remember.

Imagine This! Build comprehension using the interactive game. Share with students the directions below. **Alternate:** Divide the class into teams to play; the members may help each other and the first team to reach WINNER space wins.

Players: 2

Materials: plastic cup, penny, place marker for each player

To Play:

- 1 Each player in turn shakes the penny in the cup, then spills it out. If the penny lands on heads, the player moves 1 space. If it lands on tails, the player moves 2 spaces.
- 2 The player then answers the question. If correct, the player stays on the space. If incorrect, the player skips a turn. Players landing on a penalty square only incur the penalty once, even if they land on the square again. Also, players can challenge their opponent's answer, then check the book to confirm.
- 3 Each player continues in turn. The first player to reach the WINNER space wins.

Extend

- **Grow a Seed** Provide seeds and other materials for students to observe plant growth. Guide students through the steps for growing an avocado on pages 30-31, or choose fast-growing seeds such as marigolds, nasturtiums, broad (fava) beans, or runner beans.
- **Nature Walk** Take students on a nature walk around your school. Collect seeds from flowers (as available) or purchase seeds packets for common plants in your area. Guide children to observe and record details about each seed using hand lenses, including splitting open larger seeds to inspect the insides. Help students note similarities and differences in seed shape, size, and color.
- **Research It** Have students use the books or web sites on page 32 to learn more about how plants grow. Suggest they create a sequence diagram showing a plant at different stages of growth (similar to page 27), but with labels and details about each stage.



START

Name 3 fruits with seeds inside them.

What is another word for **germinate**?

Help the farmer.
Take an extra turn.

True or False?
All watermelons have seeds.

Name 2 things that seeds need to grow.

True or False?
Watermelons are mostly water.

Seed Growing
Don't walk on them! Go ahead 1 space.



Name 3 parts of a plant.

Stop and Sow
Plant some seeds.
Miss a turn.



What do a plant's roots need to grow?



Bees at work
Stop and watch.
Go back 1 space.

What 3 things do seeds need to germinate?

What's another word for **sow**?

How do the leaves help a plant grow?

True or False?
Some plants do not grow from seeds.



Name 2 fruits with seeds on the outside.

Watermelons go to market!
Take an extra turn.

Do all fruits have the same number of seeds? Explain.

Harvest Time
Pick a watermelon.
Miss a turn.

Why does a plant need sunlight?

Stop and Water
Your plants are thirsty. Go back 1 space.



What part of a plant grows underground?

Name a plant that does not grow from seeds.

Contest Time
Watermelon-eating race!
Miss a turn.

Do you need **nutrients**? Why or why not?

What does a seed coat do?

WINNER

