

CONNECT TO LITERACY

Discuss the Text

CCSS.ELA-Literacy.RI.1.2

Have students focus on these questions about the text:

- **Infer** *Imagine you put a celery stalk in a glass of blue colored water. The next day the celery was partially blue. Why do you think this happened?* (Celery is a stalk. It is a hollow tube that carries liquids to different plant parts. The celery absorbed some of the colored water into these tubes.)
- **Connect** *How does the stem work with other plant parts?* (Possible response: The roots collect nutrients and water, which the stem carries to the leaves. The stem supports the leaves and carries the food they create throughout the plant.)
- **Hypothesize** *Why do you think some desert animals dig through the tough outer covering of cacti to the stem of the plant?* (The stem holds water that they can drink.)

Provide Prompts for Response

Offer prompts that allow students to explore the text:

- Create a cluster chart listing what you have learned about stems. Think of categories of information such as “what they do” and “what they look like.”
- Draw a plant. Label the stem. Use arrows to show how the stem carries water and food.
- Tell which ideas were new to you. What questions do you still have about stems?
- Rate the book. Give it one to four stars.

Connect with Writing: Informational Text

CCSS.ELA-Literacy.W.1.2

Introduce the Text Type and Assignment Say: *Have you ever visited a website to get facts and information about a topic. These websites are informational texts. When I was reading this book, I enjoyed looking at the different stems from the thick, woody stalks of the sunflowers to the thin twisty strawberry stems. I want to develop a website page that will show pictures of different plants and give descriptions of their stems.*

Review Features Review the features of informational text and be sure to display these features for students’ reference:

- clearly names the topic in the beginning
- uses facts
- uses the proper vocabulary
- text features to help readers keep track of information
- an ending that gives closure

Model the Writing Model the writing process as you begin a description of a sunflower stalk: *I love sunflowers, so I decided to begin my first text box by describing them. Watch as I begin my model using descriptive language.*

.....

Sunflowers reach high into the air with their heavy yellow flowers. Holding these flowers up are stalks, another word for a stem. The stems are thick and woody. The stems are green and have a rough, ribbed surface.

.....

Notice that I used precise words like stalk and included descriptive words like thick and woody. Model writing another text box including descriptive vocabulary.

Support Writers Display your model as students begin writing. Remind them that their writing should include facts, definitions, concrete details, and content-specific vocabulary. Support them as they create text features to add to their writing, such as text boxes, images, and bold print.

Revise and Edit Show students how to revise and edit for specific points, such as:

- content vocabulary
- short and long sentences
- sensory words
- facts

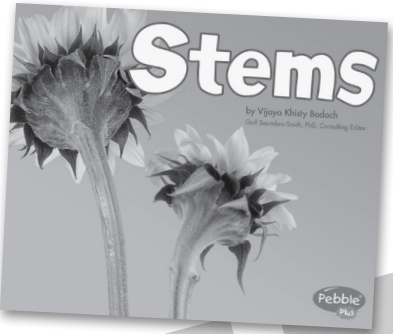
Share and Reflect Allow time for students to share their work with an authentic audience. Then ask questions to guide self-reflection:

- What was your purpose for writing this text?
- Which sentence was the most interesting? Why?
- What facts did you include? Where did you find the facts?
- What would you do differently if you were to write this again?

Connecting Literacy and Content

Stems

Level 1
Life Science
Content: Plant parts



Objectives

- Students will:
- describe stems and their role in plants.
 - interpret a text feature: table of contents.
 - analyze words and illustrations.
 - do a close reading to answer questions about content.
 - define and use academic vocabulary related to stems.
 - identify inflectional endings.
 - read grade-level prose with the appropriate rate.
 - write an informational website.

CONNECT TO SCIENCE

Build Content Background

Engage Students

Show time lapse videos of plants growing. Have students turn and talk with partners. Say: *What parts did you see on the plants? Watch as I start a list of plant parts.* Write stems on a list on chart paper. *What other plant parts can you name?*

Use a Graphic Organizer

Draw a KWL chart on the board. Explain: *We use a KWL chart to help us learn more about a topic. Thinking about what you already know about a topic helps you to make connections as you read.* Have students pair up and discuss what they know about stems. Then, list the ideas in the first column. Explain: *Now, we can brainstorm what we would like to learn. This guides our reading by helping us recognize what details are important as we read.* Brainstorm and list questions on the second column. After reading, return to the graphic organizer so that students can confirm their understanding or change their responses.

Topic: Stems		
What I Know	What I Want to Know	What I Learned

Introduce the Content

Preview Stems

Give each student a copy of the text and explain: *This book is about one part of a plant—the stem. Take a look at the cover. What do you notice about the stem on this flower?* (It has a thick, woody stem.) Have students thumb through the book, paying attention to the photographs. *What else do you think we will learn about stems?* Allow a few moments for students to turn and talk to share their predictions.

Preview Academic Vocabulary

CCSS.ELA-Literacy.RI.1.4

Turn to p. 23. Say: *This list of words is a glossary. It shows important vocabulary—each of these words helps us learn more about stems. They are listed in alphabetical order. Can you find the word root? The definition tells us that roots are another plant part. The stem carries water from the roots to other plant parts.* Work through the glossary with students and connect the words to the concept of stems. Then thumb through the pages with students. *Remember, we are reading to answer the question: Why are stems important plant parts?*

CONNECT TO SCIENCE

Discuss Text Features

CCSS.ELA-Literacy.RI.1.5

Say: *Text features add to our understanding of the topic. Some help us locate information quickly such as a table of contents that lists the topics in the book and tells the page where you can find that information.* Examine the table of contents on the first page. Point out that the topics are listed in the order they occur in the book. Model using the table of contents to find the pages explaining the parts of an oak tree. Have students work in pairs to locate other information using the table of contents. How does the table of contents help you find information quickly? How is the information organized?

Focus on the Content

As you focus on the text, ask questions that require students to use varying depths of knowledge. Model how to determine the answer to a question before you pose additional questions. (A model is shown for the sixth question.)

- **Recall** (p. 4) *Which parts of the plant do stems join together?* (They join the leaves and roots together.)
- **Differentiate** (p. 6) *How can you tell the leaves from the stems?* (The leaves grow out from the stems.)
- **Infer** (p. 8) *What would you see if you cut a stem in half?* (The stem would be hollow inside. It would have food inside.)
- **Apply Concepts** (p. 10) *Why is it harmful to peel the bark off of trees?* (The bark protects the stems.)
- **Identify** (p. 16-19) *What are some stems you eat?* (celery and asparagus)
- **Draw Conclusions** (pp. 16–19) *Why do stems help plants stay alive?* (They bring nutrients from the roots to the leaves. They support the plant and hold up the leaves.)

Model *This question is asking me to look for evidence in the book to explain a statement. I notice that the statement is written on page 20. However, this is a closing sentence by the author. The answer is not found on this page. Instead, the answer is found throughout the book. When I look at the table of contents, I notice the section on page 4 is titled Plants Need Stems. I will look for evidence in that section. I was right! The first sentence tells me that stems join the leaves and roots together. I should add a sentence to tell why this is important.*

Collaborate *Partners, let’s read page 6 together to find out why it is important that stems join leaves and roots together.*

Provide independent practice Have students read p. 8 to find one more reason that stems are important to plants. Then direct them to combine information from all three sources to answer the question.

Summarize *We used the table of contents to find the section that answered our questions. Then, we read through several pages of text to find the complete answer.*

Discuss Concepts

- Ask:
- *What are the parts of an oak tree?* (leaves, stem, seeds, roots)
 - *How can you describe stems?* (They can be long or short and thick or thin.)
 - *Why do you think strawberry stems are long and thin and tree stems are thick and tall?* (The tree trunk is thicker so that it can support the tall tree. The strawberry plant stems are thin so they can quickly grow across the ground.)

Apply Concepts Have students go on a stem scavenger hunt. Have students work in pairs or small groups to take photographs or draw pictures of different stems they observe. Then, have the students work together to create a poster with the different images and labels to describe the stems.

CONNECT TO LITERACY

Analyzing Words and Illustrations

CCSS.ELA-Literacy.RI.1.7

Introduce the Strategy Say: *When I read, I want to pay attention to the words and the illustrations. I know that the illustrations give details that help me understand the text.*

Model Focus on pp. 14–15: *When I think of stems, I think of the tall stick like objects that grow up from the ground. However, when I read this page, I was a little confused. The words said that tulip bulbs are underground stems. I just couldn’t imagine what this meant. So, I turned to the illustrations. I notice that the author included a picture of tulips and, in the corner of the page, there is a picture that shows me exactly what a tulip bulb looks like underground. The pictures and the text worked together to help me understand this key idea.*

Guide Practice Have students work in pairs to discuss how to use the illustrations and details in the text to describe key ideas.

Close Reading

CCSS.ELA-Literacy.RI.1.2

Introduce the Strategy Say: *When we are answering a question we want to make sure our answer is accurate by doing a close reading. This means we reread the author’s words on the page to see exactly what was written and use that to answer the question.*

Model Model with the **Infer** question: *This question asks me to infer. This means I use what I’ve read to learn more than what the author told us. I will start by looking for clues about what stems look like and what they do. On page 8, it says: Stems act like straws. Watch as I highlight the words: act like straws. I know that straws are long, hollow tubes so this is a good start. I can imagine cutting a straw in half and seeing this tube, but I am wondering if there is anything inside the tube. I need to keep reading to find out.*

Guide Practice Provide copies of p. 8 along with highlighters. Have students highlight textual evidence to answer the **Infer** question.

Focus on Fluency

CCSS.ELA-Literacy.RF.1.4c

Model Fluent Reading Say: *When I read, I want to make sure that I am reading the words accurately and that I understand what I read. This means that I pay attention to the punctuation marks and don’t just read through them.* Read the text on p. 12. Read through the comma and period without pausing. Ask children to listen as you read again, this time pausing appropriately at the punctuation. Point out that part of accurate reading is paying attention to the punctuation marks.

Guide Practice Choose another passage from the book for students to practice fluent reading. Have students pair up and read the passage to each other, focusing on reading for accuracy. Encourage the students to reread as necessary to fix meaning. Circulate and offer assistance as needed.

Study Words

CCSS.ELA-Literacy.L.1.4c

Introduce the Strategy Say: *Sometimes word parts are added to the end of a word to change its meaning. Looking for endings such as –s, –ed, and –ing while you read can help you figure out unfamiliar words.*

Practice the Strategy Write the word *covered* on the board. Point out that the ending *–ed* has been added to the word *cover*. Now write: *covers* and *covering*. Ask students to identify the endings added to the base word. Have students turn to their partners and tell a sentence using *cover* with each inflectional ending.