

- For students reading at  
**Literacy Level G/11**, including:
- English-language learners
  - Students reading below grade level
  - First-grade readers

## Objectives at a Glance

### COMPREHENSION

Students will:

- Identify stated main idea and supporting details
- Read aloud to clarify
- Utilize text and graphic features
- Summarize the information in the book
- Answer text-dependent questions

### VOCABULARY

Students will:

- Recognize high-frequency words
- Develop Tier Two vocabulary
- Develop Tier Three vocabulary

### GRAMMAR, WORD STUDY, AND LANGUAGE DEVELOPMENT

Students will:

- Use sequence words
- Use irregular plurals
- Recognize the sentence structures  
*Some \_\_\_ are \_\_\_ and \_\_\_ is a \_\_\_*

### PHONICS

Students will:

- Problem-solve by searching all the way through words
- Recognize words with I-family blends

### FLUENCY

Students will:

- Read question marks

### WRITING

Students will:

- Write to a picture prompt
- Write to a text prompt

# How Does a Cactus Grow?

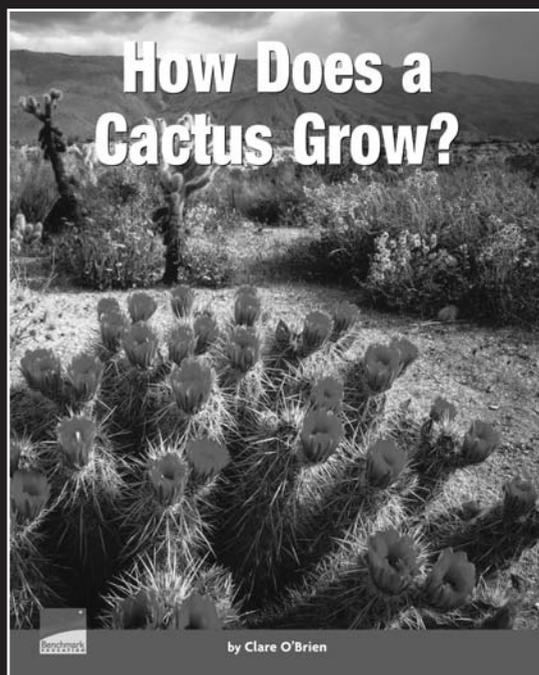
**Theme: Plant Reproduction**

How Does a Cactus Grow? (G/11)

Do Plants Grow Under Water? (I/15)

### Science Big Idea:

Readers learn how cacti grow from seeds and survive in the harsh desert environment.



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# Before Reading

## Related Resources

The following Benchmark Education resources support this lesson.

### Other Early Explorers Books

- The Bee Puzzle (K/20)
- Honeybees Help Flowers (K/20)
- How Do Trees Grow? (M/28)

### Fluency and Language Development

- *How Does a Cactus Grow?* Audio CD

### Comprehension Resources

- *How Does a Cactus Grow?* question card
- Power Tool Flip Chart for Teachers
- Student Bookmark
- Identify Main Idea and Supporting Details poster

### Assessment

- *Early Explorers Overview & Assessment Handbook*
- *Grade 1 Comprehension Strategy Assessment Book*

## Make Connections and Build Background

- **Use a Photograph or Realia** Tell students they will read a book about cacti. Show students the photograph of the cacti on page 9 or a living cactus. Point to the plant and **say**: *I notice something about a cactus. A cactus has sharp points.* Invite students to Think/Pair/Share other things they notice about the cacti.
- **Use a Graphic Organizer** Draw a KWL chart on the board. Explain that **K** stands for *What I Know*, **W** stands for *What I Want to Find Out*, and **L** stands for *What I Learned*. **Ask**: *What do you know about a cactus? We will list our ideas on the chart.* Write students'

responses in the **K** column of the chart. Then ask them what they want to find out about cacti. Write their questions in the **W** column. Finally, read the entries in both columns and ask students to echo-read.

<i>What I Know</i>	<i>What I Want to Know</i>	<i>What I Learned</i>
has sharp points	Why does a cactus have sharp points?	
lives in the desert	What are the sharp points called?	
is green	Does a cactus need water?	
does not have leaves	Does a cactus ever have flowers?	

## Introduce the Book

- Give each student a copy of the book. Remind students they will read about cacti. Preview the book, encouraging students to interact with the pictures and text on each page as you emphasize the elements from the page 3 chart that will best support their understanding of the book's language, concepts, and organization. (Items in bold print include sample "teacher talk.")

Pages	Text and Graphic Features	Words to Discuss	English/Spanish Cognates	Sentence Structures
Cover	title, author, photo			
1	title page, photo			
2–3	photos, labels	<b>cactus, desert, seedling, seeds, spines, trunk</b>		
4	photo, caption	deserts, hot, cool	<b>desert/desierto</b>	<b>Some ____ are ____.</b>
5	photo	plants, rain, survive	plant/planta, survive/sobrevivir	
6	photo, caption	cactus		____ is a ____.
7	photo, caption	fruit, seeds, spread	fruit/fruta, animal/animal	
8	photo, <b>inset photo</b> , caption			
9	photo, inset photo, caption	soil, seedling		
10	photo, caption	trunk		
11	photo, caption	spines, protect	spine/espine	
12	photo, caption	arms		
13	photo, caption	flowers, bloom		
14	photo, caption	cacti		
15	photo, inset photo, caption	skin		
16	photo, caption			

- **Pages 2–3 Words to Discuss** Ask students to point to each photograph as you say its matching label. Repeat the process, inviting students to echo-read. After students Think/Pair/Share what they know about each word, fill in any missing details. **Say:** *We will see these words in the book.*
- **Page 4 Spanish Cognate** **Ask:** *Does **desert** sound like a word you know in Spanish?* (Allow time for students to respond.) *The English word **desert** sounds like the Spanish word **desierto**. **Desert** and **desierto** mean the same thing. What is a **desert**?* (Allow time for students to respond.) Write the word **desert** on the board and ask students to locate it on page 4 in the book.
- **Page 4 Sentence Structure** Write *Some \_\_\_\_ are \_\_\_\_* on the board. Read the sentence structure aloud and ask students to repeat it several times. **Say:** *We use this sentence structure to tell about something.* Model using the sentence structure to tell about the photograph, such as *Some flowers are yellow* or *Some cacti are tall*. Then assist students in forming their own sentences using the structure. **Say:** *This sentence structure is in the book. Can you find the structure on page 4? Frame the sentence. Let's read the sentence together.*
- **Page 8 Graphic Features** **Say:** *This page has an **inset photo**. An inset photo shows something close up. The inset photo helps you learn more about the bigger photograph. What does the big photograph show? (a cactus) What does the close-up photograph show? (cactus seeds)*

## Rehearse Reading Strategies

- **Say:** *One word in this book is **years**. Say the word **years**. What letters do you expect to see after the **ly**? Allow time for students to respond, assisting as needed. Then ask them to find the word **years** on page 12. **Say:** *Search all the way through a word to help you when you read.**
- Remind students to use other reading strategies they are learning as well, such as looking at the pictures for additional information or rereading part of the sentence if something doesn't sound right.

## Set a Purpose for Reading

- Direct students' attention to the KWL chart. **Say:** *Now it's time to whisper-read the book. Read to learn more about a cactus.*

Cue Source	Prompt	Example	Page
Graphophonic	Search all the way through the word. Are you blending the right sounds?	bigger	9
Syntactic	Some deserts is cool at night. Think about the book's sentence structure. Use the structure to make this sentence sound right.	Some deserts are cool at night.	4
Semantic	What do you see in the picture that would make sense in this sentence?	sharp	11

## During Reading

### Observe and Prompt Reading Strategies

- After the supportive introduction, students should be able to read all or most of the book on their own. Observe students as they read. Take note of the graphophonic, syntactic, and semantic cues they use to make sense of the text and self-correct. Prompt individual students who have difficulty problem-solving independently, but be careful not to prompt English-language learners too quickly. They may need more time to process the text as they rely on their first language for comprehension.

## After Reading

### Use the Graphic Organizer to Summarize

- Ask students to think about their reading. **Ask:** *Can you answer any questions in the **W** column of our chart? (Allow time for students to respond, assisting as needed.) What did you learn about a cactus?* Record appropriate responses in the **L** column of the KWL chart. Choral-read the entire chart. Then ask students to use the graphic organizer to tell a partner about the book.

<i>What I Know</i>	<i>What I Want to Know</i>	<i>What I Learned</i>
has sharp points	Why does a cactus have sharp points?	sharp points protect the cactus
lives in the desert	What are the sharp points called?	sharp points are called spines
is green	Does a cactus need water?	needs water; holds water in trunk
does not have leaves	Does a cactus ever have flowers?	has flowers and fruit

## Reading Strategy Mini-Lesson: Read Aloud to Clarify

- **Reflect Ask:** *Did you understand what you read? What parts were hard to understand? How did you help yourself?*
- **Model Say:** *I want to understand what I read. Sometimes I read aloud to figure out a tricky part. Ask students to turn to page 9. **Say:** The first time I read this page I was confused. Where does a seedling come from? Then I read the page aloud: The soil covers the seed. The seed grows bigger. Now the seed is a small plant. The small plant is a seedling. Now I understand that the seedling comes from the seed. Now the page makes sense. I'm ready to keep whisper-reading.*
- **Guide** Ask students to turn to page 13. **Ask:** *Where are the flowers on a cactus? (Allow time for students to respond.) Let's check by reading these pages aloud together. Then we will be sure we understand where the flowers are. Read the pages aloud together and briefly discuss how this clarifies or confirms students' understanding.*
- **Apply** Invite each student to turn to a tricky page. Then ask students to tell a partner about the page. Afterward, they should read the page aloud to make sure they understand it. Observe students as they read aloud to clarify, providing assistance if needed. See the *Early Explorers Overview & Assessment Handbook* for an observation chart you can use to assess students'

understanding of the monitor-reading strategy. Then **say:** *You can read aloud any time you need to. Remember to read aloud to help you understand.*

## Answer Text-Dependent Questions

- **Explain** Remind students they can answer questions about books they have read. **Say:** *We answer different kinds of questions in different ways. I will help you learn how to answer each kind. Tell students today they will practice answering Prove It! questions. **Say:** The answer to a Prove It! question is not stated in the book. You have to look for clues and evidence to prove the answer.*
- **Model** Use the first *Prove It!* question on the question card. **Say:** *I will read the question to figure out what to do: A cactus has fruit. What can you tell about the fruit? This question asks me to make an inference. I know because the question asks something that is not explained in the book. I already know an inference has only one or two clues. What words in the question will help me? (Allow student responses.) Yes, I need to find clues and evidence about the **fruit** of a **cactus**. Model looking through the book, stopping at page 13. **Say:** I see a picture of the fruit of a cactus on page 13. I see many spines in the photograph. Turn back to page 11. **Say:** On page 11 I read about the spines of a cactus. The author says the spines are sharp. I can infer that you need to be careful when picking the fruit. I have located the clues and evidence I need. The clues support my answer. The answer makes sense.*

- **Guide** Ask students to answer the other questions on the question card. Use the Power Tool Flip Chart and Student Bookmark to provide additional modeling as needed. Remind students to ask themselves: *What is the question asking? How can I find the answer? Does my answer make sense? How do I know?*

## Build Comprehension: Identify Stated Main Idea and Supporting Details

- **Explain** Create an overhead transparency of the “How Does a Cactus Grow?” graphic organizer on page 12 or draw it on the board. **Say:** *Nonfiction books have main ideas and supporting details. The main idea is the most important thing we learn. Details tell about the main idea.*
- **Model Say:** *Sometimes the main idea is at the end of the book. Ask students to read the second sentence on page 16 aloud. **Say:** This sentence tells the most important thing we learn. This sentence is the main idea of the book. Write **The cactus survives in the desert** on the graphic organizer and read it with students. **Say:** Now we need to look for supporting details. We need to look for facts about how the cactus survives. We will start near the beginning of the book. Ask students to read page 7 with you. **Say:** Animals eat the fruit and spread the seeds. The animals help the cactus survive in the desert. Write **animals eat fruit and spread seeds** in the first Detail box on the graphic organizer.*

- **Guide Say:** *Let’s find another supporting detail. Ask students to read pages 10 and 11 with you. **Ask:** What protects the cactus? Allow time for students to respond, assisting if needed. **Say:** Yes, the trunk and spines protect the cactus. The trunk and spines help the cactus survive in the desert. Write **trunk and spines protect cactus** in the second Detail box.*
- **Apply** Ask each student to work with a partner to find other supporting details to add to the graphic organizer. Remind them to look for facts about how the cactus survives in the desert. If more support is needed, utilize all or part of the “Guide” process on pages 14 (trunk holds water) and 15 (hard skin protects cactus; fuzzy spines keep cactus warm). Finally, read the completed graphic organizer aloud and invite students to echo-read.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**How Does a Cactus Grow?**

<b>Main Idea:</b> The cactus survives in the desert.	→	<b>Detail:</b> animals eat fruit and spread seeds
	→	<b>Detail:</b> trunk and spines protect cactus
	→	<b>Detail:</b> trunk holds water
	→	<b>Detail:</b> hard skin protects cactus
	→	<b>Detail:</b> fuzzy spines keep cactus warm

HOW DOES A CACTUS GROW? ©2007 Benchmark Education Company, LLC

## Home Connection

- Give students the take-home version of *How Does a Cactus Grow?* to read to family members. Encourage students to work with a friend or family member to draw a young cactus and an old cactus. Invite them to bring their pictures to share with the group.

## Reader Response

Invite students to respond to the book in a way that is meaningful to them. Model and use think-alouds as needed to scaffold students before they try the activities on their own.

- Draw a picture of a desert.
- Tell something that surprised you about cacti.
- Pretend to be a cactus growing from a seed into a large plant with arms.
- Would you like to have a small cactus to care for? Tell why or why not.
- Write something you like about cacti. Write something you don't like.
- Write something you already knew about cacti.

## Write to a Picture Prompt

- **Describe a Place** Tell students they will talk about a picture from the book. Then they will write about the picture. Ask them to look at the title page. **Say:** *I can use this picture to describe a place in the book: Many plants grow in the dry, rough ground. The blue sky is full of puffy clouds. Now I will write my idea.* Model writing your sentences on the board. Ask students to use a picture to tell a partner about a place in the book. Allow time for students to share their descriptions, providing assistance as needed. Then **say:** *You used a picture to tell about a place in the book. Now write your idea. After you are finished, read your writing to a partner.*

## Write to a Text Prompt

- **Describe a Summary** **Say:** *Think about something you learned in the book. Then write what you learned in your own words. When you are finished, read your writing to a partner.*

## Phonics: /-family Blends

- Ask students to locate the word **plants** on page 5. Write **plants** on the board. Explain that the two sounds at the beginning of the word—**/p/** and **/l/**—are blended together to make **/pl/**. Slowly draw your finger under the word as you blend the sounds. Then ask students to do the same in their books. **Say:** *The word **plants** begins with an /-family blend. Another consonant blends with the letter “l” to start the word.* Repeat the process with **slowly** (page 6) and **flowers** and **bloom** (page 13).

- Ask students to brainstorm words beginning with the above **I-family blends** as you record them on index cards. Then spread the cards out in a pocket chart or on the table. Read each word, inviting students to echo-read.
- **Say:** *Now let's sort the cards by I-family blends.* Write **pl-**, **sl-**, **fl-**, and **bl-** on separate index cards. Hold them up one at a time, asking student to blend the sounds and locate any words that begin with that blend. Once all the cards are sorted, invite each student to select a pile and think of one more word to add.

## Vocabulary

- **Tier Two Vocabulary** Pronounce the word **remarkable** and ask students to repeat it. **Say:** *Remarkable means special and unusual. The cactus is a remarkable plant. No other plant is like a cactus.* Discuss other objects, people, and experiences that are **remarkable**, such as a giraffe's long neck, Helen Keller's ability to read and write, or an amazing view from a skyscraper. Then model a sentence, such as *My remarkable aunt can speak three languages.* Invite students to share their own sentences, providing assistance as needed. **Ask:** *What word have we been talking about? Yes—remarkable. Let's try to use the word remarkable many times today. We can use the word at school and at home.*
- **Tier Three Vocabulary** Review the book with students and write the words **cactus**, **desert**, **seedling**, **seeds**, **spines**, **trunk**, **flowers**, **fruit**, **survive**, and **protect** on index cards. Ask students to read the words with you. Spread the cards out in a pocket

chart or on the table. Then make up a riddle about each word, such as *I am dry. I am often hot in the day and cool at night. What am I?* (desert) Ask students to select the word that answers each riddle. For additional practice, students may work as a group or in pairs to complete the vocabulary activity on page 11.

## Grammar, Word Study, and Language Development

### Use Sequence Words

- **Model** Explain that authors sometimes use words that tell how things happen in a certain order. Ask students to read pages 8 and 9 with you: *A cactus starts from a seed. The soil covers the seed. The seed grows bigger. Now the seed is a small plant.* **Say:** *The words starts and now are sequence words. The author uses the words starts and now to tell readers how a cactus grows.* Follow the same procedure with pages 10 to 12, pointing out the sequence words **next** and **then**. **Say:** *I can use the words start, now, next, and then, too.* Model a simple oral sequence and pantomime the actions, such as:  
**I start** by picking up a piece of chalk.  
**Then** I go to the board.  
**Next** I write the date.  
**Now** I put the chalk down.
- **Guide** Write the words **start**, **then**, **next**, and **now** on the board. **Ask:** *How do you start your day?* Point to the first word and help students respond with a sentence such as *I start my day by getting out of bed.* Guide students through the sequence, such as **then** *I eat breakfast*, **next** *I go to school*, and **now** *I'm learning about words.*

- **Apply** Invite students to tell a partner how to get to school from home, using the words **start**, **then**, **next**, and **now**.

### Irregular Plurals

- **Model** Explain that authors sometimes use **plurals** when they write. Tell students that plural means “more than one.” Point out that many plural words have the letter “**s**” at the end, but some plurals are special words that do not end in “**s**.” Ask students to read the second sentence on page 13 with you: *The flowers grow fruit.* **Say:** *Let’s look at the picture. Do you see one fruit or more than one fruit?* (more than one) Write the word **fruit** on the board. **Say:** *The word **fruit** can mean one fruit or many fruit.*
- **Guide** Invite students to read page 14 with you. **Ask:** *Is the author talking about one cactus or more than one cactus?* (more than one) Write the words **cactus** and **cacti** on the board. Draw a line under each word as students say it with you. Then invite volunteers to use the words in sentences.
- **Apply** Ask student partners to think of other plurals that do not end in “**s**,” such as **sheep** (plural of **sheep**) and **mice** (plural of **mouse**). Record the words on the board. Then invite student partners to choose one of the words to use in an oral sentence.

### Fluency: Read Question Marks

- **Say:** *Sometimes authors ask questions. We recognize a question by the question mark at the end. Our voices sound different when we ask something. Our voices move to a higher pitch at the end of the question.*
- Ask students to turn to page 5. First, read the author’s question in a flat voice. Hold your hand level while you read it. Discuss how this makes the question sound. Then read the question again, moving your hand upward at the end as you move your voice to a higher pitch. Ask students to echo-read and move their hands along with yours.
- Ask students to turn to pages 14 and 15. Choral-read the two pages with them, moving to a higher pitch at the end of each question.
- Invite students to take turns rereading *How Does a Cactus Grow?* with a partner. Remind them to move their voices to a higher pitch at the end of each question.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Vocabulary

Fill in the blanks. Use the words from the box below. Then read the paragraph to a partner.

<b>cactus</b>	<b>desert</b>	<b>seedling</b>	<b>seeds</b>	<b>spines</b>	<b>trunk</b>
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A \_\_\_\_\_ does not get much rain.

The \_\_\_\_\_ grows in the desert. Cacti

grow from \_\_\_\_\_. A small cactus is a

\_\_\_\_\_. A cactus has a hard

\_\_\_\_\_. Many sharp

\_\_\_\_\_ protect the cactus.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

# How Does a Cactus Grow?

**Main Idea:**

**Detail:**



**Detail:**



**Detail:**



**Detail:**



**Detail:**

