

Polar Habitats



TEACHER'S GUIDE

For students reading at
Literacy Level M/28, including:

- English-language learners
- Students reading below grade level
- Second-grade readers
- First graders reading above grade level

Skills & Strategies

Anchor Comprehension Strategy

- Compare and contrast

Metacognitive Strategy

- Ask questions

Vocabulary

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

Grammar, Word Study, and Language Development

- Use negatives
- Use adjectives
- Recognize the sentence structures _____
lives _____ and _____ grow _____.

Phonics

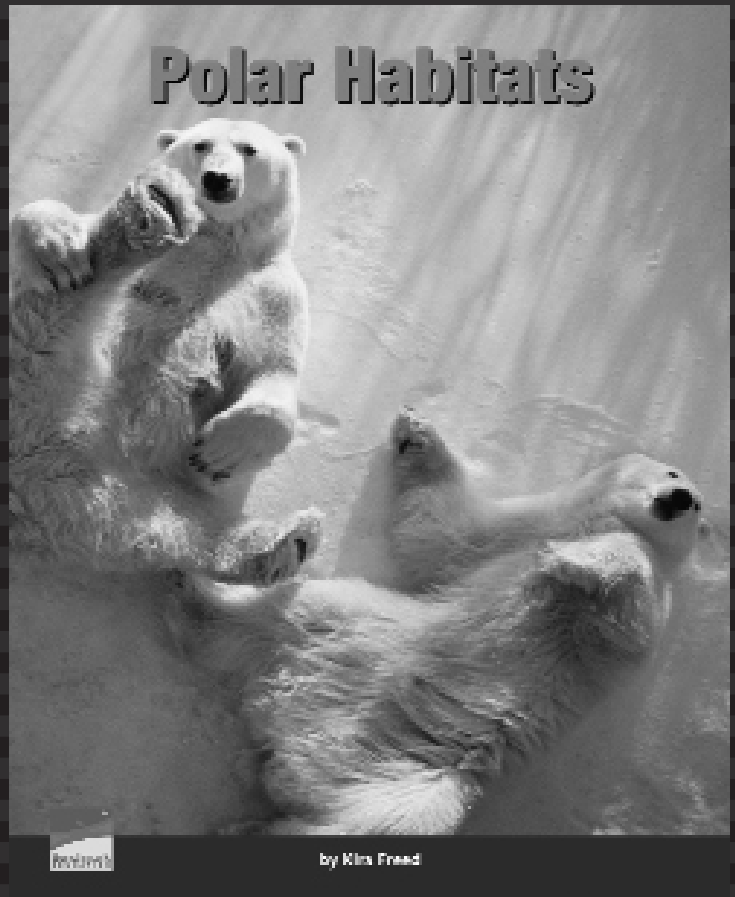
- Use word parts to problem-solve multisyllable words
- Recognize words with r-controlled e, i, u

Fluency

- Read commas

Writing

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



Theme: Habitats

- In the Backyard (K/20)

Science Big Idea:

Readers learn about plants and animals in the Arctic and Antarctic regions.

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Before Reading

Related Resources

The following Benchmark Education resources support this lesson.

Other Early Explorers Books

- What Can You See in a Desert? (A/1)
- On a Coral Reef (C/3)
- In the Forest (D/5)
- Ponds (E/7)
- The Arctic (F/10)
- Colorful Coral Reefs (G/12)
- The Savannas of Africa (H/14)
- In a Tropical Rain Forest (I/16)

Fluency and Language Development

- *Polar Habitats* Audio CD

Comprehension Resources

- *Polar Habitats* question card
- Power Tool Flip Chart for Teachers
- Student Bookmark
- Compare and Contrast poster

Assessment

- *Early Explorers Overview & Assessment Handbook*
- *Grade 2 Comprehension Strategy Assessment Book*

Make Connections and Build Background

- **Use a Globe** Show students a globe. **Say:** *We will read a book about the polar habitats on Earth. We can see where the polar regions are located on this globe.* Point out the Arctic and Antarctic regions on the globe. Ask students to Think/Pair/Share what the habitats in these regions might be like and what types of plants and animals might live there.

- **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*. **Say:** *We shared some ideas about polar habitats. Now 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 the polar habitats. Write their questions in the **W** column. Finally, read the entries in both columns and ask students to echo-read.

K	W	L
The weather is very cold, snowy, and icy.	How are the two polar habitats different?	
Polar bears live there.	What types of plants live in polar habitats?	
Penguins live there.	What other animals live in polar habitats?	
	How do animals live in these habitats?	

Introduce the Book

- Give each student a copy of the book. Remind students they will read about polar habitats. 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, author, table of contents, photo			
2–3	photos, maps	Antarctica, burrow, coast, habitat, krill, regions		
4	chapter head, photo, caption	habitat, nature, plants, animals, rocks, soil, water, types, weather, causes, different, polar	habitat/el hábitat , plant/la planta, animal/el animal, rock/la roca, type/el tipo, cause/causar, different/diferente, polar/polar	
5	photos, captions	survive		
6	maps, labels	regions, Arctic, area, North Pole, Arctic Ocean	region/la región, area/la área, ocean/el océano	
7	maps, labels, sidebar	center, South Pole, Antarctica	center/el centro	
8	chapter head, photo, caption	plants, flowers	flower/la flor	_____ lives _____, _____ grow _____.
9	photos, captions	animals, insects	insect/el insecto	
10	map, sidebar, photos, caption	leave, move		
11	photo, caption	squirrels, burrows		
12	photos, captions	blubber, fur		
13	sidebar, photos, caption	lemmings		
14	chapter head, close-up photo, photo, captions	coasts, float, sunlight	coast/la costa	
15	close-up photo, photo, captions	orcas, krill, hunt	orca/la orca	
16	photo, caption	seals, move	move/mover	
17	photo, caption	penguins	penguin/el pingüino	
18	photo, caption	whales		
19	photo, caption	form, groups	form/formar	
20	glossary, index			

- **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 habitat sound like a word you know in Spanish? (Allow time for students to respond.) The English word habitat sounds like the Spanish word el hábitat. Habitat and el hábitat mean the same thing. What might live in a very cold, icy habitat? (Allow time for students to respond.)* Write the word **habitat** on the board and ask students to locate it on page 4 in the book.
- **Page 7 Graphic Feature Say:** *This page has a sidebar. A sidebar has extra information for readers. What is this sidebar about? (Antarctica) What does the sidebar show? (a map of the seven continents)*
- **Page 8 Sentence Structure** Write ____ lives ____ on the board. Read the sentence structure aloud and ask students to repeat it several times. **Say:** *We use this sentence structure to tell where someone or something lives. Model using the sentence structure to tell about one of the photographs, such as A flower lives in the Arctic. Then assist students in forming their own sentences using the structure. Say: The word live is another form of the word lives. ____ lives ____ is in the chapter heading. ____ live ____ is in the text. Can you find both structures on page 8? Frame the sentences. Let's read the sentences together.*

Rehearse Reading Strategies

- Write the word **colorful** on the board. **Say:** *One word in this book is colorful. Look at the word colorful. Say the word colorful. What parts are in colorful? Allow time for students to respond, assisting as needed. Say: The word colorful has two parts. The first part is the word color. The second part is the suffix -ful. We put color and -ful together to make colorful. Colorful things are full of color. Ask students to find the word **colorful** on page 8. Say: Use word parts to help you when you read.*
- Remind students to use other reading strategies that they are learning as well, such as thinking about the meanings of prefixes and suffixes or reading on to the end of the sentence to figure out a word through context clues.

Set a Purpose for Reading

- **Say:** *Now it's time to read the book. You may whisper-read or read silently to yourself. Assign one or more chapters, depending on available time and the needs and abilities of students in the group. Use the chart on page 5 to set a purpose for each chapter, and look for opportunities to add to the KWL chart at each stopping point. If students do not complete the book, orally summarize the previously read chapters and begin at this point in the Teacher's Guide the next time you meet.*

During Reading

Pages	Purpose for Reading
4–7	Read to learn about polar habitats.
8–13	Read to find out what lives in the Arctic region.
14–19	Read to find out what lives in the Antarctic region.

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 polar habitats?* 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.

K	W	L
The weather is very cold, snowy, and icy. Polar bears live there. Penguins live there.	How are the two polar habitats different? What types of plants live in polar habitats? What other animals live in polar habitats? How do animals live in these habitats?	The Antarctic region is colder and icier than the Arctic region. Short plants and colorful flowers grow in the Arctic region. Whales, fish, polar bears, and seals live in the Arctic region. Foxes, hares, birds, and insects live in the Arctic region, too. Seals and penguins live in the Antarctic region. Some animals live by traveling far away for food. Some animals sleep all winter. Some animals have blubber to keep warm. Some animals stay warm underground.

Reading Strategy Mini-Lesson: Ask Questions

- **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. One way is to ask questions about the book. Ask students to turn to page 5. Say: I had a question about this page. I wanted to know how plants and animals survive in polar habitats. I will write my question on a self-stick note and place it on the page. Model doing so, and then ask students to look at page 8. Say: I find part of the answer on page 8. Plants in the Arctic region are short. Being short keeps the plants safe from high winds. I will write the answer on the self-stick note. Model doing so. Say: Now I have another question. How do plants survive in the Antarctic region? I will write this question on a self-stick note and place it on page 8. Model doing so, explaining that the question may or may not be answered in the book.*
- **Guide** Invite students to read page 10 with you. Ask the following questions, allowing time for students to respond after each one: *Did you ask yourself a question when you read this page? How far must animals go to find food? What types of animals go to warmer places? Did you wonder whether the animals travel in groups or by themselves?* Invite students to write down one of their questions on a self-stick note and place it on the page. Assist students if they need help composing their thoughts. Then ask them to tell a partner how asking questions helped them better understand page 10.

- **Apply** Ask each student to turn to his or her favorite page and read it to a partner. Invite them to share any questions they have, write them on a self-stick note, and place it on the page. The partner may then find the answer in the book or help think of another way to find the answer. Observe students as they ask questions, 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 ask questions any time you read. Remember to ask questions to help you understand.*

Answer Text-Dependent Questions

- **Explain** Remind students that they can answer questions about books that they have read. **Say:** *We answer different types of questions in different ways. I will help you learn how to answer each type.* Tell students that today they will practice answering Take It Apart! questions. **Say:** *The answer to a Take It Apart! question is not stated in the book. You must think like the author to figure out the answer.*
- **Model** Use the first Take It Apart! question on the question card. **Say:** *I will read the question to figure out what to do:* The author uses a map on page 10. Why does the author use a map? *This question asks me to figure out the author's purpose. I know because the question has the words why and author. What other words in the question will help me?* (Allow student responses.) *Yes, I need to look at the map on page 10. Model looking at page 10. Say: In the text next to*

the map, the author says that Arctic terns migrate between the Arctic region and the Antarctic region. When I look at the map, I see that these birds fly all the way from the top of the world to the bottom of the world. I think the author wanted readers to see just how far the terns fly. I am thinking like the author. 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: Compare and Contrast

- **Explain** Create an overhead transparency of the graphic organizer on page 12 or draw it on the board. Label the columns **Arctic and Antarctic Habitats**, **Arctic Habitats**, and **Antarctic Habitats**. **Say:** *Non-fiction books sometimes show how things are alike and different. We compare by telling how things are alike. We contrast by telling how things are different.*
- **Model Say:** *Let's figure out how the two habitats in Polar Habitats are alike and different. Ask students to turn to pages 4 and 5. Say: Polar habitats are cold and dry. Being cold and dry is one way the Arctic and Antarctic habitats are alike. Write **cold and dry** in the first column on the graphic organizer. The ask students to turn to pages 6 and 7. Say: The*

*Arctic Ocean is the center of the Arctic region. Land surrounds most of the Arctic Ocean. The Antarctic region is different, though. A large piece of land is the center. Water surrounds the land. Write **water in the center with land around it** in the second column and **land in center with water around it** in the third column.*

- **Guide Say:** *Let's find another way the Arctic and Antarctic habitats are alike. What do both habitats have? (Allow time for students to respond, assisting if needed.) Yes, both habitats have snow and ice. We can write these details in the first column.*
- **Apply** Ask students to work with a partner to find other ways the Arctic and Antarctic habitats are alike and different. If more support is needed, utilize all or part of the "Guide" process by pointing out additional similarities and differences on pages 8–17. Finally, read the completed graphic organizer aloud and invite students to echo-read.

Name: _____ Date: _____

Polar Habitats

Arctic and Antarctic Habitats	Arctic Habitats	Antarctic Habitats
• cold and dry • snow and ice • whales and fish • animals with blubber • seals	• water in the center with land around it • short plants and colorful flowers • polar bears, foxes and hares • birds and insects • squirrels • lemmings	• land in the center with water around it • a few plants only in summer • tiny plants in the ocean • penguins

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Home Connection

- Give students the take-home version of *Polar Habitats* to read to family members. Encourage students to work with a friend or family member to list several animals that live in each habitat. Invite them to bring their lists 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 and label pictures of your favorite animals in the book.
- Rate the book with a 1 (don't like), 2 (okay), or 3 (like a lot). Tell why you chose that rating.
- Tell what you saw in your mind as you read the book.
- Tell your favorite part of the book to a partner.
- Write a question you would like to ask the author.
- Write about a connection you made to the book.

Write to a Picture Prompt

- **Describe a Place** Tell students that they will talk about a picture from the book. Then they will write about the picture. Ask them to turn to page 14. **Say:** *I can use this picture to describe a place in the book: The Antarctic region has blue water and green moss. Now I will write my idea.* Model writing your sentence 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. When you finish, read your writing to a partner.*

Write to a Text Prompt

- **Make a Prediction** **Say:** *Think about what might happen to the plants and animals if the Arctic and Antarctic regions became warm. Write about your prediction. When you finish, read your writing to a partner.*

Phonics: r-controlled e, i, u

- Ask students to locate the word **water** on page 4. Write **water** on the board and circle the letters "**er**." **Say:** *The letters "er" at the end of the word water sound like /er/. Slowly draw your finger under the word as you blend the sounds. Then ask students to do the same in their books. Repeat the process with the words **weather** on page 5, **flowers** on page 8, **winter** and **warmer** on page 10, **summer** on page 11, **blubber** on page 12, and **feathers** on page 17. Then repeat the process with the letters "**ir**" in **birds** (page 17) and "**ur**" in **surrounds** (page 6), **burrows** (page 11), and **fur** (page 16).*

- Ask students to brainstorm words that have /er/. Acknowledge all correct responses, and record those in which /er/ is spelled with the letters “er,” “ir,” or “ur” on index cards. Then spread the cards out in a pocket chart or on a table. Read each word, inviting students to echo-read.
- **Say:** *Let’s sort the words. Put the words with “er” in one group. Put the words with “ir” in another group. Put the words with “ur” in a third group. Model the process using three of the word cards. Then invite students to take turns reading a word and placing it in the appropriate group.*

Vocabulary

- **Tier Two Vocabulary** Pronounce the word **center** and ask students to repeat it. **Say:** *On page 6 we read that the Arctic Ocean is the center of the Arctic region. The center is the middle. I can stand in the center of the classroom. I can write a word in the center of the chalkboard. Discuss other things that have a **center**, such as a rug, a table, and a stage. Then model a sentence, such as *The park is in the center of the town.* Invite students to share their own sentences, providing assistance as needed. **Ask:** *What word have we been talking about? Yes—center. Let’s try to use the word center 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 **Antarctica**, **Arctic**, **blubber**, **burrow**, **coast**, **feathers**, **frozen**, **habitat**, **krill**, **penguins**, **regions**, and **whales** on index cards. Then mix up the cards and place them

facedown on the table. Choose two cards and model a question using both words. Then choose a student to answer the question. Finally, invite students to take turns doing the same. Continue the game until each student has had several turns. 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

Negatives

- **Model** Explain that authors sometimes use words that mean **no**. Ask students to read the first sentence on page 5 with you: *Many living things cannot live in polar habitats.* **Ask:** *Can many things live in polar habitats? No, they cannot.* Then ask students to read the fifth sentence on page 11 with you: *These squirrels do not eat for seven months.* **Ask:** *Do the squirrels eat for seven months? No, they do not. I can use the words cannot and do not, too.* Point inside and outside the classroom as you share **cannot** and **do not** sentences, such as these:
The desk is heavy. I cannot pick up the desk.
The sun is shining. I do not think we will have rain today.
- **Guide** Invite students to read page 16 with you. **Ask:** *Do seals with thin fur and much blubber move well on land? (no) How do you know?* (The author uses the words **do not**.) Invite students to name things other animals do not do or do not do well. For example, penguins **do not** fly; cats **do not** swim well.

- **Apply** Pair students. Ask them to make up sentences using the words **do not** or **cannot**. As they share their sentences with the group, write the sentences on the board and underline the negatives.

Adjectives

- **Model** Explain that authors sometimes use describing words when they write. Tell students that adjectives are words that describe nouns. Ask them to turn to page 4. **Say:** *The author says polar habitats have cold weather. The word cold is an adjective. Cold describes how the weather feels.*
- **Guide** Invite students to read the second paragraph on page 16 with you. **Ask:** *Which words are adjectives? (thick, thin) Why are thick and thin adjectives? (Thick describes the fur on some seals. Thin describes the fur on other seals.) What could you describe with the adjective thick? What could you describe with the adjective thin?*
- **Apply** Ask students to find the adjectives on pages 4 (**dry**), 7 (**large, huge**), 8 (**short**), and 14 (**low, tiny**). Write the words on the board. Read them aloud and ask students to echo-read. Then invite them to make up a sentence using two of the adjectives in the book.

Fluency: Read Commas

- **Say:** *When we read, we do not run all our words together. Instead, we watch for commas to see when we should pause.*
- Ask students to turn to page 4. Read the fourth sentence without pausing. Then read the sentence again, pausing at the commas. **Say:** *I know I need to pause because I see commas. Pausing makes the sentence sound right.* Read the sentence again, asking students to echo-read.
- Ask students to turn to page 9 and point to the comma. Then choral-read the page with them, pausing at the comma.
- Invite students to take turns rereading *Polar Habitats* with a partner. Remind them to pause when they see a comma.

Name: _____

Date: _____

Vocabulary

Find each word in the book. Write the number of the page where you first found the word. Then write a sentence for each word.

Words

Page Number

Antarctica

Arctic

blubber

coast

frozen

habitat

krill

regions

Name: _____

Date: _____

Polar Habitats

Arctic and Antarctic Habitats	Arctic Habitats	Antarctic Habitats