

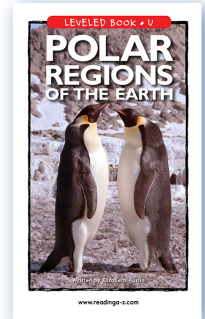
Focus Question:

How would you describe the polar regions?

Book Summary

Text Type: Nonfiction/Informational

The coldest regions of Earth are some of the most fascinating places, and are home to a variety of lifeforms. *Polar Regions of the Earth* provides students a comprehensive look at these frigid environments as well as the unique animals that survive there. The book can also be used to teach students how to compare and contrast and the purpose of captions in a book.



Lesson Essentials

Instructional Focus

- ☐ Ask and answer questions to understand text
- ☐ Compare and contrast information
- ☐ Describe information provided by captions
- ☐ Recognize and use content vocabulary in a text
- ☐ Identify commas in a series

Materials

- ☐ Book: *Polar Regions of the Earth* (copy for each student)
- ☐ Compare and contrast, commas in a series, content vocabulary worksheets
- ☐ Discussion cards
- ☐ Retelling rubric

Vocabulary

Boldface vocabulary words also appear in a pre-made lesson for this title on VocabularyA-Z.com.

• Words to Know

Story critical: *hibernate* (v.), *ice cap* (n.), *inhospitable* (adj.), *migrate* (v.), *permafrost* (n.), *tundra* (n.)

Enrichment: *axis* (n.), *blubber* (n.), *brutally* (adv.), *equator* (n.), *lichens* (n.)

- **Academic vocabulary:** *beneath* (prep.), *energy* (n.), *entire* (adj.), *region* (n.), *return* (v.), *use* (v.)

Guiding the Reading

Before Reading

Build Background

- Place on the board a photograph of Earth and label the North Pole, the South Pole, and the equator. Ask students where the North Pole and South Pole are located.
- Involve students in a discussion about what they know about the environment of the North and South Poles.
- Have students explain what they know about how weather changes during the different times of the year and how this is related to Earth's position in relation to the Sun.

Introduce the Book

- Give students their copy of *Polar Regions of the Earth*. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is (genre, text type, and so on) and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).
- Preview the table of contents on page 3. Remind students that the table of contents provides an overview of the book. Ask students what they expect to read about in the book, on the basis of what they see in the table of contents. (Accept all answers that students can justify.)

Introduce the Reading Strategy:

Ask and answer questions

- Write the phrase *polar regions* on the board. Ask students to share what they know about that phrase. Explain that the *polar regions* are the North Pole and the South Pole. Ask students to think about what they know about the two regions.
- Create a KWLS chart on the board. Review or explain that the *K* stands for what we already know, the *W* stands for information we want to know, the *L* stands for knowledge we learned, and the *S* stands for what we still want to know about the topic. Have students discuss what they already know, and fill in the first row (*K*) with that information. In pairs, have students

Guiding the Reading (cont.)

discuss what they would like to learn. Have students share with the class and record their ideas on the board under the (W) section.

Introduce the Comprehension Skill:

Compare and contrast

- Explain that effective readers compare and contrast ideas and details as they read. Point out that they compare how information in a book is alike and different.
- Have students compare and contrast with a partner what they know about animals that fly and animals that swim. Ask students to describe how the animals are alike and different.
- Model how to compare and contrast using a Venn diagram. Draw a Venn diagram on the board. Label the left circle *Animals that Fly* and the right circle *Animals that Swim*. Point out that information that describes only flying animals will be recorded in the left circle and information that describes only swimming animals will be recorded in the right circle. Explain that the information about how the two animals are similar will be written where the circles overlap.
- Record ideas from the discussion in the appropriate areas of the Venn diagram.

Vocabulary

Have students turn to the “Words to Know” box on the copyright page. Discuss each word with students. Then, have students turn to the glossary on page 16. Explain that the glossary provides definitions for the vocabulary words in the book. Point out the use of each content word and academic vocabulary word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Have them include on each poster the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word.

Set the Purpose

- Have students read to find out more about the two polar regions. Write the Focus Question on the board. Invite students to look for evidence in the book to support their answer to the question.
- Have students make a small question mark in their book beside any word they do not understand or cannot pronounce. These can be addressed in a future discussion.

During Reading

Text-Dependent Questions

As students read the book, monitor their understanding with the following questions. Encourage students to support their answers by citing evidence from the book.

- *What is the name of the land around the North Pole and the land around the South Pole?* (level 1) page 5
- *How would you describe the sunlight that reaches the North Pole and the South Pole? How does the light affect the temperatures at the poles?* (level 2) pages 6 and 7
- *What animals live in the Arctic during the summer? What draws them there during the summer?* (level 2) page 8
- *How and why is the plant and animal life different during the winter and summer in the Arctic region?* (level 3) multiple pages
- *Why is the Antarctic cold year-round?* (level 2) page 13
- *How are the plant life of the Arctic and the plant life of Antarctica different?* (level 3) multiple pages
- *How are plants and animals able to survive in the Arctic and the Antarctica?* (level 3) multiple pages

Text Features: Captions

Explain to students that a caption is text that explains what is shown in a photograph. Discuss how captions help readers understand information in the text and can provide additional information, beyond what is given in the text. Have students turn to page 9, show their partner where the caption is, and read the caption together. Ask students: *How does the caption help you better understand what is going on in the photograph? How do captions clarify visual information?* Have students review other captions in the book and discuss in groups what additional information they learned from the captions. Invite volunteers to share what they discussed with the rest of the class.

Skill Review

- Have students read to the end of page 7. Remind them to look for information about the polar regions that will answer questions on the class KWLS chart.
- When students have finished reading, have them review any questions on the KWLS chart that were answered. Encourage them to share any new questions that may have come up. Write any new questions on the chart.
- Have students reread page 6. Model how to compare and contrast the North Pole and the South Pole from the information in the book. **Think-aloud:** *From the information I just read on page 6, I see similarities and differences between the two regions. I read that it is the coldest at the North and South Poles, and since both the North and South Poles are located at the ends of Earth's axis, the sun's rays hit the regions at an angle. I can see from the chart at the bottom of the page, that the location of the North Pole is north, shown here at the top, and the location of the South Pole is*

Guiding the Reading (cont.)

south, or shown here at the bottom of Earth. This is one way the two poles are different.

- **Check for understanding:** Together reread page 7 and have students discuss with a partner the similarities and differences between the two poles. Invite them to share with the class their responses.
- **Independent practice:** Review with students how information is organized in a Venn diagram. Introduce, explain, and have students complete the [compare-and-contrast worksheet](#).

After Reading

Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Skill Review

Graphic Organizer: **Compare and contrast**

Review the compare-and-contrast worksheet that students completed. Have student pairs discuss the similarities and differences between the Arctic region and the Antarctic region that they identified on their worksheet. Invite volunteers to share with the rest of the class.

Comprehension Extension

[Discussion cards](#) covering comprehension skills and strategies not explicitly taught with the book are provided to be used for extension activities.

Response to Focus Question

Have students cite specific evidence from the book to answer the Focus Question. (Answers will vary. Samples: *Both the Arctic and the Antarctic regions have very cold weather. The animals that live there survive because of their winter feathers, blubber, and other special features. During the summer, humans, animals, and even some plant life can survive and grow. The Antarctic in the summer is very different from the Arctic. The weather is much cooler, and life is very limited due to the cold mountain range and the permanently frozen ice cap.*)

Comprehension Checks

- [Book quiz](#)
- [Retelling rubric](#)

Book Extension Activities

Build Skills

Grammar and Mechanics: **Commas in a series**

- Write the following sentence on the board and read it aloud to students: *Caribou, whales, seals, and birds migrate to warmer areas.* Point out that

this sentence contains a list of animals that migrate.

- Have students discuss with a partner what punctuation mark is separating the words in the list. Write the word *comma* on the board and have students say it aloud. Call on students to come to the board and draw a comma.
- Review or explain to students that when three or more items are written in a list within the sentence, a comma must be placed between the listed items. Point out that the items in a list can be nouns, verbs, adverbs, adjectives, or phrases.
- **Check for understanding:** Have students turn to page 5 and read the paragraph with a partner. Ask them to share with a partner how many sentences in the paragraph contain a list. Discuss with the class the sentences and point out the commas in the list separating the items.
- **Independent practice:** Introduce, explain, and have students complete the [commas-in-a-series worksheet](#). If time allows, discuss their answers.

Word Work: **Content vocabulary**

- Remind students that some words in the book are used to tell about the polar regions. Have students turn to page 5 and point to the word *inhospitable*. Have students discuss with a partner how to find the meaning of this word using the book. Invite students to share their responses.
- Explain to students that the word *inhospitable* is in the glossary on page 16. Explain that the glossary has the definitions of the boldface print words, which are oftentimes the vocabulary content words.
- In pairs, have students search the book and find the word *blubber*. Have students turn to the glossary, read the definition of the word, and share the meaning of the word with the class.
- **Check for understanding:** Have students find and circle all the boldface print words in the book. Have students call out the number of words they found. Call on volunteers to explain where they can find the definitions to these words.
- **Independent practice:** Introduce, explain, and have students complete the [content vocabulary worksheet](#). If time allows, discuss their answers.

Connections

- See the back of the book for cross-curricular extension ideas.