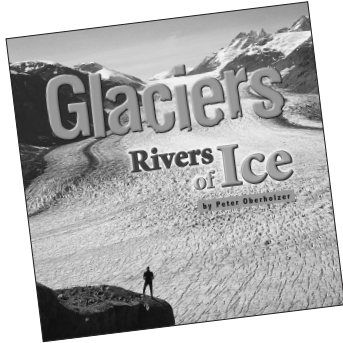


GLACIERS RIVERS OF ICE

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TEXT TYPE: Non-fiction: Description—Report
GUIDED READING LEVEL: R

SUMMARY: Glaciers play a crucial role in helping the environment. The formation, movement, and ecological importance of glaciers to the Earth is detailed in this text. Suggestions are presented to help preserve glaciers and, in turn, our planet.

Note: You may want to focus only on a spread or a specific feature of the text rather than covering this non-fiction text in its entirety.

TEXT FEATURES

- glossary
- text boxes
- dashes

VISUAL LITERACY

- table of contents
- photographs
- illustrations
- map
- captions
- diagram
- labels

TEXT SUPPORTS

- table of contents
- glossary
- photographs

POSSIBLE TEXT CHALLENGES

- complex sentence structures
- diagram

FOCUS COMPREHENSION STRATEGY

- inferring

FURTHER COMPREHENSION STRATEGY

- analyzing

ORAL LANGUAGE OPPORTUNITIES

- Ranking Ladder strategy
- discussing with a group
- podcast recording on protecting glaciers and environment (option 3 in Focused Rereading)

WORKING WITH WORDS

- word solving and building: uses a range of strategies to read multi-syllabic words, including using knowledge of prefixes and suffixes
- language predictability: building a repertoire of language generalizations (e.g., possibilities for letter order in words and word order in sentences)
- high frequency words: recognizes important words linked to other curriculum areas (e.g., science)

ASSESSMENT OPPORTUNITIES

Observe each student's ability to:

- make inferences about word meanings from context
- understand cause and effect
- recognize problems and solutions

ASSESSMENT TOOLS

Select from the following:

- Inferring Strategy Checklist
- Comprehension Strategies Anecdotal Record

First Session (pages 2–9)

BEFORE READING

Inferring

Activate and build prior knowledge

- Display the cover of the book and read the title. Ask, *How do you think the book we are about to read is related to the discussion we just had about our environment? Why are you thinking that?* Encourage the students to link the information that is going to be presented in the text with their own personal experience, background knowledge, and the previous discussion. Turn to the back cover and read the blurb. Ask the three questions: *What are glaciers? How do they move? How do they help us and Earth?* Provide an opportunity for the students to discuss the questions and provide possible answers.

TEACHING TIP: When teaching Inferring, you can use the term directly or you may call it ‘Using Clues.’ Choose a label that describes the strategy and that works for your class.

Text and Visual Literacy Features

Introduce supports and challenges

- As a group, scan pages 2 and 3. What do the students notice about the format of the text? Ask, *Why do you think the author presents the information this way?* Discuss with the students some ways they may read the information presented in this manner. Remind the students the information in the text boxes and captions is very important and must be read. Scan the remainder of the book and ask students to identify information not presented in the main text or text boxes, e.g., diagram, map. Encourage students to read and view all the information presented in the book.

Language Predictability

- Ask the students to turn to pages 2 and 3 again and briefly scan the pages, paying attention to the sentence structure. Ask the students what they notice about the sentences. Are the sentences composed the same way? Is there a difference in the length of the sentences? Say, *The way sentences are written affects how we read a text. You can see most of the sentences on these two pages are longer and contain a lot of information. What do you notice about the punctuation in the sentences?* Direct students’ attention to the fact the sentences contain commas and dashes. Ask, *How important are commas and dashes when we read or write a sentence?* Remind them these types of punctuation are used to make readers pause, therefore giving them an opportunity to think about the reading and help understand the information being presented. Remind students to consider this when composing text as well, as these are important to know when expressing ideas through writing.
- Next, have students look at the second last sentence on page 3 (‘Each year as more snow piles on top...’). Model reading the sentence, pausing at each comma and sharing thoughts about the information.

Word Solving and Building

Inferring

Read the beginning of the sentence pause and say, *That means there must be more and more snow falling each year, so there may be a lot of snow falling in this area each year.* Continue reading the second part of the sentence ('more weight presses down') and say, *It must get really heavy—I wonder what happens when the snow starts pressing down?* Read the third part of the sentence ('and more melt water trickles through') and say, *The weight may cause the melt water to trickle—what does all the melt water do?* Finally, read the last portion of the sentence ('slowly turning the firn into ice') and say, *I guess all the melt water helps make the ice.* Encourage the students to pay attention to longer, complex sentences as they read, paying attention to the punctuation, using the pauses as an opportunity to think about the information they are reading.

- Direct the students' attention to the word 'refreezes' on page 3. Ask, *If you did not know this word, what are some strategies you could use to figure it out?* Allow the students to share appropriate strategies. Ask, *How can knowing the prefix and suffix help us? Is there a familiar word we know already (e.g., freeze)?* Make the students aware of paying attention to prefixes and suffixes when dealing with new or unfamiliar words. Encourage the students to use this strategy as they read the text independently.

Set a purpose for reading

- Ask students to think about why protecting glaciers is so important to our planet.

Provide for early finishers

- Any students who finish early can discuss with a partner the suggestions they have for protecting glaciers.

DURING READING

Monitor reading

- Ask each student to read independently to the end of page 9, thinking about the purpose set.
- Remind students of the strategy modelled to deal with longer and complex sentences. Provide prompts to help students who may be struggling: *What did the author mean? Why did that happen? What will be the effect of this action/activity?* If needed, model similar sentences as the one previously or allow students to 'share' their thought process as they work through more complex sentences.
- Assist students who are experiencing difficulty with the format of the text. Ask: *Did you find the information in the caption supported the picture? Is the information in the text box the same or different*

from the information in the main text? Questions of this nature will remind students to read all the components of the text and help their understanding and comprehension.

- Provide support to students in word solving and vocabulary.

Observe

- Make observations on your assessment tools. (See the *Inferring Strategy Checklist* and the *Comprehension Strategies Anecdotal Record* in the *Grade 4 Literacy Support Guide*.)
- Ensure students are attempting to use strategies suggested or other appropriate strategies.

AFTER READING

Inferring

Revisit the purpose for reading

- Ask students to discuss the importance of protecting glaciers (this is discussed on page 4 under ‘Does the Earth need glaciers?’). *The author does not specifically tell us what we can do to protect glaciers. Based on what you have read, our discussions, and your own background knowledge, how do you think we can protect glaciers?* If students have difficulty in answering the question, refer them to page 5. Direct students’ attention to the fact a warmer climate causes glaciers to melt, thereby disappearing forever. Encourage the students to develop suggestions on how to prevent this from happening.

Check on outstanding challenges

- Ask, *Can someone share an example of how they read a complex sentence with tricky word order and thought about the information presented?* Revisit the type of modelling presented prior to the reading via a student example or another teacher-led example. Discuss why the strategy may have been successful in helping students comprehend the text. Encourage students who had difficulty reading the text to think about utilizing the strategy.
- Review and discuss any challenges students experienced related to the format. Ask the students if they read all the information presented. How did the text boxes and captions help their understanding? Allow some of the students to provide examples from their own reading.

Note successful strategy use

- Highlight a student who successfully read the text, e.g., *Tae used two strategies to help him figure out the word ‘retreating’ on page 5. First, Tae noticed a familiar word within the longer word. He knew the word ‘eat.’ Second, Tae used his knowledge of prefixes and suffixes, as we discussed earlier today, to help him figure out the word. He saw the prefix re- at*

the beginning of the word. And Tae saw the suffix -ing at the end of the word. He was able to use these strategies to figure out the word was retreating. Excellent job, Tae!

Second Session (pages 10–16)

BEFORE READING

Activate and build prior knowledge

ESL NOTE: Review the content of the first session by asking students true and false questions: *A glacier is a large piece of ice that forms in the ocean...When the climate gets colder, glaciers begin to shrink...* Allow students to have their books open to the page you are discussing.

Analyzing

- Ask the students to share the main things they learned in the first session. Students should be able to present facts and information from the text. The students should discuss what a glacier does, why the Earth needs glaciers, and what will happen if the Earth gets warmer. Ask students to provide specific examples from the text to support their answers.
- Remind students in the first session they had to develop some suggestions to help the Earth's climate from getting warmer and stop the melting of glaciers. Direct students to page 15. Compare the suggestions listed with the ones made by the students. Were the students' suggestions similar to the ones presented by the author? As a Ranking Ladder activity (see Oral Language Strategies in the *Grade 4 Literacy Support Guide*), ask the students to narrow down the suggestions, both the ones they generated and the ones in the text, to a maximum of seven of the best ideas to help the Earth's climate and reduce the melting of glaciers. Next, the students must rank them from first choice to last choice. Ask the students to provide reasons and evidence for the ranking they gave each suggestion.

Inferring

- Say, *During the first session you suggested some ways to prevent glaciers from melting. The author did not have these suggestions directly stated in the text. You used the information presented in the text, along with your own knowledge, to fill in the missing information. In this session, you are going to read a section titled 'Glaciers Once Covered All of Canada.' What do you think happened to the ice that once covered Canada?* Provide the students with the opportunity to present their ideas. *The author does not specifically give us the reasons for the disappearance of the glaciers. I want you to try and fill in the gap by thinking about what you have read already and any other information and knowledge you may have on the subject.*

Visual Literacy Features

High Frequency Words

Inferring

- Aid students in realizing the answer is not in the text and they must move beyond specifically stated facts. Encourage the students to think of appropriate answers to the question. Explain to students there is no one correct answer, but there must be evidence and logic in the reasoning presented in the answers they provide.

Introduce supports and challenges

- Direct students to the diagram on page on page 10. Allow the students to review the diagram. Some students may experience difficulty in actually seeing any difference in the parts of the glacier by only viewing the diagram. Ask, *Do the parts of the glacier look different?* Point out the key containing the 6 parts of the diagram. Ask the students how the key, diagram, and text, combined, can help them understand the parts of a glacier. If not mentioned, explain the text helps show some differences in the parts of the glacier that cannot be seen by just looking at the diagram.
- Say, *In the first session, you came across some words related to glaciers. Can you give me some examples of such words?* Allow the students the opportunity to share the words from the first session. Then say, *The words you've given from the text are words you probably don't see or hear every day. What did you do to help you figure out these words when you came to them in the text?* Students can discuss the strategies they used and provide specific examples. If not mentioned by the students, point out the glossary.
- Remind students not all the scientific words are contained in the glossary. Highlight the word 'crevasses' (number 3 on the glacier diagram and featured in the caption of the picture on page 11). Ask students how they can determine the meaning of the word. Highlight the fact that the definition is presently directly in the caption. Remind the students to also look at the picture to provide clues as to the meaning of the word crevasses.
- Encourage students to use their background experiences and knowledge as well when attempting to figure out scientific words. For example, direct students to the word 'algae' on page 11. Ask students if they have seen or heard the word algae before. Where have they read/seen/heard the word?
- Explain to students they can use all of the strategies (glossary, main text, captions, pictures, background experiences and knowledge) to figure out scientific words they encounter in the text.

Set a purpose for reading

- Explain to students that as they read the remainder of the book, they should develop some ideas about what might have happened to the glaciers that once covered Canada.

Provide for early finishers

- Students who finish early can pair up and share their inferences regarding what they think happened to the glaciers.

DURING READING

ESL NOTE: Tell students that you are going to read a small part of the passage with them. Use gestures to help convey meaning such as hand motions that indicate words in the text such as ‘advances,’ ‘retreating,’ and ‘scrape.’

Monitor reading

- Continue to ensure all portions of the text (main information, maps and diagram, text boxes) are being read. Provide support to students who may still be finding it a challenge.
- Provide support to students in word solving and vocabulary. Ensure students are using a variety of strategies, including both the glossary and recognizing familiar scientific words and applying them to new reading experiences.

Observe

- Note students’ ability to decode unfamiliar words and any difficulties they encounter.
- Observe students’ use of the glossary in helping to solve the meaning of new words. Note any successful use of the glossary and encourage students who may not be using this reference tool to utilize it if needed.

AFTER READING

Revisit the purpose for reading

- Say, *What do you think happened to the glaciers that once covered Canada?* Allow students to share their ideas. Ask students to give examples and support for their answers. Emphasize to students the ‘meaning they created’ must be based on information from the text and personal knowledge.

Check on outstanding challenges

- Review the strategies students used in working with scientific words. Ask them if they found any scientific words in the text they were familiar with. Which strategies did they find most helpful? Did they need to check the glossary? Did the pictures help?

Note successful strategy use

- Explain a successful reading strategy you observed, e.g., *When I asked Carl what he thought caused the glaciers that covered Canada to disappear, he told me about a program he saw on television. Carl also*

Inferring

talked about the information on page 5 about what happens to glaciers when the Earth gets warmer. He used background information and the text to help him come up with a good answer.

FOCUSED REREADING

Three options are provided for focused rereading in the next Guided Reading lesson. Choose an activity that meets the needs of your students, or you might select a Reader Response activity from the *Grade 4 Literacy Support Guide*.

Written

- Students have to be ‘glacier detectives.’ Ask them to imagine they are scientists who have to write a report about glaciers. Three things that must be included in the report are: an explanation of what a glacier is, why glaciers are important, and the clues that would prove glaciers were once present in an area.

Analyzing

- Ask students to write an acrostic poem (a poem that takes a word, sentence, or phrase and makes the first letter of each—in this case a word—the first line of a poem) using the word ‘glacier.’ Remind students to include facts they learned about glaciers in their poems.

Artistic

- Ask the students to select a favourite photograph of a glacier from the text. Once the students have selected photographs, they must draw or sketch a picture of the photograph. The students are free to select any medium (chalk, pencil) to create their picture.

Oral/dramatic

- Working in small groups, students will select a topic related to protecting our environment and helping to preserve glaciers for a podcast recording (a podcast is an audio or video recording usually broadcast over the Internet). Students will decide on the format of the podcast (commercial, report, interview) and assign roles such as announcer, sound technician, and researcher to each student in the group. After students practise their project, it will be recorded and imported onto a class computer. The podcast can be recorded to a CD/DVD (and depending on school policy may even be uploaded to the Internet, to be shared with other students). After the podcast recording has been completed, discuss with students who participated how they used a range of skills (reading, writing, speaking, and listening) to produce an interesting podcast.

Synthesizing and Inferring

Analyzing

Self-monitoring and Sequencing