



THE TRIANGLE BOOK

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TEXT TYPE: Non-fiction: Description—Trivia Book

GUIDED READING LEVEL: Y/Z

SUMMARY: This trivia book is the ultimate guide to all things triangle! Starting with basic facts about triangles, the text moves into the use of triangles in ancient and modern construction, Pascal's Triangle, and even looks at mysterious and puzzling triangles, including the Bermuda Triangle.

TEXT FEATURES

- format is in shape of a triangle
- headings
- trivia challenges
- answers section
- mathematical concepts and content
- bolded words
- italics
- Did You Know? sections
- Pascal's Triangle variations

VISUAL LITERACY

- photographs
- illustrations
- diagrams
- labels
- map
- highlighted text
- symbols
- various triangle and design graphics

TEXT SUPPORTS

- content presented in engaging manner
- definitions contained within the text
- answers section

POSSIBLE TEXT CHALLENGES

- text layout
- amount of information
- mathematical concepts and content
- numerous challenging words

FOCUS COMPREHENSION STRATEGY

- synthesizing

FURTHER COMPREHENSION STRATEGIES

- making connections: text to self, text to text
- evaluating

ORAL LANGUAGE OPPORTUNITIES

- Say and Switch strategy
- sharing ideas
- answering questions
- discussion on surprising content (option 3 in Focused Rereading)

WORKING WITH WORDS

- language predictability: using textual definitions to work out word meanings
- word solving and building: using chunking and syllabication
- word solving and building: noticing a familiar word embedded within a larger word

ASSESSMENT OPPORTUNITIES

Observe each student's ability to:

- identify important ideas and information in the text
- track and synthesize important facts with use of an organizer
- integrate new information with prior knowledge
- critique the author's format for presenting information

ASSESSMENT TOOLS

Select from the following:

- Synthesizing Strategy Checklist
- Comprehension Strategies Anecdotal Record

BEFORE READING

Making Connections: Text to Self

Activate and build prior knowledge

- Organize students into pairs. Explain that they will be using the Say and Switch strategy (see Oral Language Strategies in the *Grade 6 Literacy Support Guide*). Each partner will take a turn responding to the discussion question: *What do you know about triangles?* The first partner responds while the second listens. Use the signal word, ‘*Switch*,’ and have partners switch roles so the second partner finishes the first partner’s line of thought before introducing their own response, as the first partner listens. Continue so that several switches occur. This will activate students’ understanding and prior knowledge of triangles. At the end of the activity, ask students to share with the group something new they’ve learned about triangles.

Making Connections: Text to Self and Text to Text

Introduce supports and challenges

- Referring students to the opening activity, ask, *Where did you learn most of the information you know on triangles?* Some of their knowledge will come from math classes. Explain that this text contains mathematical information on triangles. As students read, encourage them to think about what they already know about triangles and how they can relate new information presented in this text to their existing knowledge.

Text Features and Evaluating

- Provide students with copies of the book. Ask, *What do you notice about the format of the book?* (its shape, and how it is laid out) Invite students to open the book. Most of its sections are compartmentalized into triangles. Ask students to scan the text and look for other features related to triangles. Ask, *Do you think this format is the best way for the author to present information on triangles?* Students should provide pros and cons for presenting the text in this format.

Language Predictability

- Ask students to turn to page 2 and direct their attention to the word ‘congruent’ and the brief definition in the parentheses that follow it. As a group, scan the section ‘TRIANGLE TRIVIA’ on the same page and look for another example of a definition found within the text (an explanation of ‘vertex’ is provided in parentheses). Explain that many definitions for mathematical terms used in this book are found within the text, either directly or in parentheses. Remind students to pay attention to the definitions as they encounter them while reading—particularly for words they are unfamiliar with.

Word Solving and Building

- Direct students to the word ‘Mesoamerican’ on page 7. Ask, *What are some strategies you can use to figure out the pronunciation of this word?* If not mentioned, remind students that they can break the word into parts, identify the sounds associated with the parts, and reblend the word. If needed, continue practising with the word ‘Cholula,’ found on the same page. Explain to students that they will encounter other words, particularly some names (e.g., ‘**Sierpinski**’ and ‘Niels Fabian Helge von Koch’ on page 12), where breaking them into parts and

reblending could be helpful with pronunciation. Searching for a smaller word within the larger word might also be a helpful strategy for students ('American' in 'Mesoamerican').

Synthesizing

Set a purpose for reading

- Ask each student to draw an equilateral triangle (equal sides and angles) on a piece of paper and divide the triangle in half. Explain that as they read they will use this triangle to organize the information they've learned. On one of the triangle halves, students should jot the heading 'Types,' and on the other half jot '3-D.' Students should then flip over their triangles and on one of the sides, write the heading 'Architecture.' On the other side of the triangle, write 'Pascal's Triangle.' On the bottom portion of this side of the triangle students should write 'Mysteries.' As students read, ask them to write a few notes about something new they've learned under the appropriate headings.

ESL NOTE: To ensure complete comprehension for your ESL learners you may wish to provide a brief definition for each heading.

Provide for early finishers

- If students finish early they can partner with another early finisher to search for and list examples of triangle shapes found in the classroom. How many can they list?

DURING READING

Monitor reading

- To check on comprehension, you might offer individual students prompts, such as: *What did you learn about the importance of triangles in building and architecture? What can you tell me about Pascal's Triangle? What did you learn about the Bermuda Triangle? What is the main idea presented in the section under the heading 'IN THE AREA'? Could you summarize the most important thing you've learned in a sentence or two for each of your five triangle sections?*

Observe

- Make observations on your assessment tools. (See the Synthesizing Strategy Checklist and the Comprehension Strategies Anecdotal Record in the *Grade 6 Literacy Support Guide*.)

AFTER READING

Revisit the purpose for reading

Synthesizing

- Draw a triangle organizer on a whiteboard or a piece of chart paper like the ones students created, with the same five headings. Ask each student to share information they recorded under each of the five headings. After students have shared their ideas about each topic,

summarize them into one or two main points with students, and write these on the triangle organizer under their appropriate heading. Upon completion, the triangle organizer should synthesize all the important facts about triangles contained in the book.

Check on outstanding challenges

- Ask students if the text’s layout presented any challenges as they tried to select the main points for each section. How did students navigate through the dense amount of information? Encourage students to share how they handled these kinds of challenges with the group.

Note successful strategy use

- Explain a successful reading strategy you observed, e.g., *Ardith was able to pronounce the name ‘Sierpinski’ on page 12 by breaking the word into three smaller parts. After some practice she figured out how to pronounce the first part: Sier-. She said the second two parts of the word were easier because they were smaller words which she already knew: –pin and –ski. Ardith blended all the individual sounds together to pronounce the name ‘Sierpinski’ perfectly!*

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 6 Literacy Support Guide*.

Written

- Provide students with examples of non-fiction books for younger students (Kindergarten to Grade 2) from classrooms of the respective grade level or the school library. Highlight the features of these books to students (e.g., simple words, colourful, many illustrations/photographs). Ask students to write ‘The Triangle Book for Kids’ based on the information they learned in this text. Emphasize that the books they create must be appropriate and understandable for the age of their readers.

Artistic

- Students can create a collage featuring triangles. They can use photographs from magazines, newspapers, flyers, photographs they have taken, craft materials, and so on.

Oral/dramatic

- Students can participate in a discussion entitled, ‘The Most Surprising Thing I Learned About Triangles.’ Students can offer their thoughts on one or two of the most surprising things they discovered about triangles in this text. They should refer to the section of text they found surprising, reading it aloud to the rest of the group. They should then talk about how and why this information surprised them.

Synthesizing

Inferring

**Synthesizing and
Evaluating**