Getting Ready to Read: Previewing a Text

MATHEMATICS Grades 10 - 12

A well designed textbook, website, or other print resource has a variety of elements or features that are applied consistently to help the reader locate and use the material. Some texts have more of these features, and clearer cues, than others do. Previewing a course text can help students to identify the text features and use them efficiently.

Purpose

- Learn how to navigate subject-specific textbooks and resources.
- Examine the layout and features of a particular text, and how to use it.

Payoff

Students will:

- become familiar with different course texts and resources (print and electronic).
- use strategies for effectively previewing and locating information in different texts, using the table of contents, indices and/or navigation bar.

Tips and Resources

- Most informational texts use a variety of visual, graphic, and text features to organize information, highlight important ideas, illustrate key concepts, and provide additional information. Features may include headings, subheadings, table of contents, index, glossary, preface, paragraphs separated by spacing, bulleted lists, sidebars, footnotes, illustrations, pictures, diagrams, charts, graphs, captions, italicized words or passages, boldface words or sections, colour, symbols, and icons.
- In a mathematics textbook, the lesson title tells the reader the learning focus of the lesson. Subheadings are often used to identify the parts of the lesson that are for learning and the parts that are for practising. Accompanying diagrams, calculations, and tables are alternate forms of mathematical information that is integral to the meaning of the whole mathematical text.
  For an alternate approach: see ***Analyzing the Features of a Text,*** page 8.

  Teaching Reading in Social Studies, Science, and Math, pp. 266-269.
  Beyond Monet, pp. 94, 105.
  Cross-Curricular Literacy: Strategies for Improving Secondary Students' Reading & Writing Skills, pp. 20-21.

Further Support

- Provide the students who are having difficulties with the regular text, with alternate resources that use simpler language.
- Encourage students to use text features to assist them with future mathematics reading tasks.

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What teachers do	What students do
Before • Select a mathematics textbook, website, print, or electronic resource. • Create a book walk hand-out with ten or twelve questions to guide students to particular features of the text. See Teacher Resource, *Suggested Prompts for a Text-Features Search*. • Read the prompts out loud, if needed.	• Read or listen to the task prompts and ask clarifying questions.
During • Have pairs of students work to complete the text search task within a specific time frame. • Choose a cooperative learning strategy for student sharing of responses. (See *Beyond Monet*.)	• Read and respond to the prompts. Record responses on the text search recording sheet.
After • Discuss the text search items that were challenging to identify. • Ask students which text features were helpful in completing the book walk.	• Identify text search items that were challenging to complete. • Identify the text features they used to complete the book walk.

Notes

Suggested Prompts for a Text-Features Search

1. Using the Table of Contents, find the chapter number for the topic _____ (e.g., solving systems of 2 linear equations; developing the formula for volume of a cone).

2. In the Index at the back of the text, find and list all the pages that deal with _____ (e.g., quadratic relation and graph of a parabola; properties of similar triangles).

3. On page _____, what is the purpose of the coloured box (e.g., highlights the key ideas of the section)?

4. On page _____, what is the purpose of the icon beside question _____ (e.g., indicates that the use of a graphing calculator or spreadsheet is required)?

5. Where would you go in the textbook to quickly find a definition for _____?

6. On what page would you find the answer to question _____?

7. In Chapter Four, which page(s) reviews the skills needed for the mathematics in this chapter?

8. Turn to page _____. How does the textbook review the concepts of the chapter?

9. Which page has the “Review Test” for Chapter Two?

10. Open the text to page _____. What does the word “cumulative” mean in the expression “cumulative review” _____?

11. On page _____, what is the purpose of the **boldface** type?

12. Name the topic for the Chapter Problem in Chapter Eight _____.

13. Where would you go in the textbook to quickly find information on _____ (e.g., Geometer’s Sketchpad®, graphing calculators, spreadsheets, Tinker Plots®)?

Suggested Prompts for a Text-Features Search

1. Using the Table of Contents, find the chapter number for the topic _____ (e.g., experimental and theoretical probability, metric and imperial measurements, area).

2. In the Index at the back of the text, find and list all the pages that deal with _____ (e.g., surface area, volume of 3-D objects, rotations, dilatations, decimals, fractions).

3. On page _____, what is the purpose of the coloured box?

4. On page _____, what is the purpose of the icon beside question _____ (e.g., indicates that the use of a graphing calculator or spreadsheet is required)?

5. Where would you go in the textbook to quickly find a definition for _____?

6. Where would you find the answer to question _____ on page _____?

7. In Chapter One which page(s) reviews the skills needed for the mathematics in this chapter?

8. Turn to page _____. How does the textbook review the concepts of the chapter?

9. Which page has the “Review Test” for Chapter Two?

10. Open the text to page _____. What does the word “cumulative” mean in the expression “cumulative review?

11. On page _____, what is the purpose of the **boldface** type?

12. Name the topic for the Chapter Problem in Chapter Three.

13. Where would you go in the textbook to quickly find information on _____ (e.g., Geometer’s Sketchpad®, graphing calculators, spreadsheets)?

Suggested Prompts for a Text-Features Search

1. Using the Table of Contents, find the chapter number for the topic _____ (e.g., experimental and theoretical probability, metric and imperial measurements, area)?

2. In the Index at the back of the text, find and list all the pages that deal with _____ (e.g., surface area, volume of 3-D objects, rotations, dilatations, decimals, fractions).

3. On page _____, what is the purpose of the coloured box (e.g., highlights the key ideas of the section)?

4. On page _____, what is the purpose of the icon beside question _____ (e.g., indicates that the use of a graphing calculator or spreadsheet is required)?

5. Where would you go in the textbook to quickly find a definition for _____?

6. Where would you find the answer to question _____?

7. In Chapter One which page(s) reviews skills needed for the mathematics in this chapter?

8. Turn to page _____. How does the textbook review the concepts of the chapter?

9. Which page has the “Review Test” for Chapter Two?

10. Open the text to page _____. What does the word “cumulative” mean in the expression “cumulative review?

11. On page _____, what is the purpose of the **boldface** type?

12. Name the topic for the Chapter Problem in Chapter Three.

13. Where would you go in the textbook to quickly find information on _____ (e.g., Geometer’s Sketchpad®, graphing calculators, spreadsheets)?