
Getting Ready to Read: Analyzing the Features of a Text

MATHEMATICS

There's more to a good book or website than the words. A well-designed textbook uses a variety of graphical and text features to organize the main ideas, illustrate key concepts, highlight important details, and point to supporting information. When features recur in predictable patterns, they help the reader to find information and make connections. Readers who understand how to use these features spend less time unlocking the text, and have more energy to concentrate on the content.

In this strategy, students go beyond previewing to examine and analyze a textbook and determine how the features will help them to find and use the information for learning. You can use the same strategy to deconstruct other types of text – in magazines, e-zines, newspapers, e-learning modules, and more.

Purpose

- Familiarize students with the main features of the texts they will be using in the classroom, so that they can find and use information more efficiently.
- Identify patterns in longer texts.
- Create a template that describes the main features of the texts, and post it in the classroom so that students can refer to it.

Payoff

Students will:

- develop strategies for effectively locating information in texts.
- become familiar with the main features of the texts they will be using.

Tips and Resources

- Text 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 or bolded words or passages, colour, and symbols.
- See Student/Teacher Resource, *Features of a Mathematics Textbook – Sample*.

Cross-Curricular Literacy: Strategies for Improving Secondary Students' Reading and Writing Skills, pp. 20-21.

Cross-Curricular Literacy: Strategies for Improving Middle Level Students' Reading and Writing Skills, Grades 6-8, pp. 28-29, 40-41.

Teaching Reading in the Content Areas: If Not Me, Then Who?, pp. 16-18.

* See also **Previewing a Text** to provide students with another opportunity to look at text features.

Further Support

- Provide students with an advance organizer to guide them as they read a particular text. This organizer might be a series of prompts that ask the students to preview particular features of text and note how they are related to the main body of the text.
- Teach students the SQ4R strategy (Survey, Question, Read, Recite, Review, Reflect). For example, **survey** the title, headings, subheadings, maps, pictures, sidebars, bold or italic print, etc. Turn the title, headings, and captions into **questions**. **Read** the passage to answer the questions. **Recite** the answers to their questions to summarize the passage. **Review** the passage to remember the main idea and important information and details. **Reflect** on the passage and process to check that they understand the text, and to generate additional questions.
- Model for students how to use the features of computer software and Internet websites to help them navigate and read the program or site (e.g., URLs, pop-up menus, text boxes, buttons, symbols, arrows, links, colour, navigation bar, home page, bookmarks, graphics, abbreviations, logos).



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What teachers do	What students do
<p>Before</p> <ul style="list-style-type: none"> Ask students to recall a magazine or informational book they recently read, or a website they recently viewed. Ask them to describe how the text looked and how they found information. Ask students what they remember about the content, and have them suggest possible reasons for how they were able to locate and/or remember information. Select and provide copies of a text, resource or textbook chapter. Ensure every student has a copy of the selected text. Organize students into groups of 3 to 5. Assign two different sequential chapters or sections to each group. Ask groups to scan the assigned chapters and note features of the text that are similar between the chapters and those that are unique to a chapter. Groups record their findings on chart paper (e.g., point-form notes, Venn diagram, compare/contrast chart). Ask each group to send an “ambassador” to the other groups to share one thing the group discovered, trading it for one thing the other group discovered. The ambassadors return to their original group and report. 	<ul style="list-style-type: none"> Recall something recently read or viewed and identify some features of that particular text. Note similarities and differences among the responses from other students. Make connections between what they remember and the features of the text. Quickly scan chapters, and note the different features of the text. Contribute to the group discussion and chart-paper notes. Share findings with other groups, noting such things as chapter previews, tables of contents, charts and graphs, typography (italics, bold), questions, chapter reviews/summaries, timelines, and headings.
<p>During</p> <ul style="list-style-type: none"> Remind students that textbooks have many different elements or features that are designed to help students learn the material being presented. Some textbooks have a greater variety of elements than others. Ask each group to report about the features of their text for example, some textbooks contain an annotated overview of the textbook layout. Create a textbook or chapter template on chart paper, indicating the common features and noting any unique features (see Student/Teacher Resource, <i>How to Read a Mathematics Textbook – Sample</i>). 	<ul style="list-style-type: none"> Share the groups’ findings. Contribute to the template that the class develops.
<p>After</p> <ul style="list-style-type: none"> Assign a relevant reading task to a small group so that students can practise using the features of the text to locate information and help them understand and remember what they read. Encourage students to use the template to make predictions about where they might find particular information or use the features to complete a task. Discuss how this strategy might help students navigate websites, e-zines, and online media. 	<ul style="list-style-type: none"> Use the features of text to complete the assigned reading task. Note the features that help the reader to locate, read, understand, and remember information. Refer to the template for future reading tasks. Recall how they have used features of electronic texts to help find and read information.

Notes



Features of a Mathematics Textbook – Sample

Textbook Title:	Doing Mathematics
Table of Contents:	This is a list of the topics and subtopics in each chapter.
Chapters:	These are used to group big, important mathematical ideas.
Chapter Introduction:	This gives a brief overview of the important mathematics in the chapter and lists the curriculum expectations. The Chapter Introduction also poses a problem that can be solved by applying the mathematical concepts in the chapter.
Skill Review:	This provides review material for mathematical skills learned in earlier grades. Proficiency with these skills is an aid to doing the mathematics in this chapter.
Chapter Sections:	There are 3 – 15 sections in each chapter. A chapter section focuses on a smaller part of the important mathematics in the chapter. Chapter sections usually include a “Minds On” activity, information and examples about the key mathematics in the section, a brief summary of the key ideas and practices questions.
Chapter Review:	This is a summary of the mathematics in the chapter, additional examples, and extra practice questions that connect the mathematics in each section of the chapter.
Chapter Review Test:	This is a sample test that you can use to self-assess your understanding of the mathematics in the chapter.
Cumulative Review Test:	This is a sample test that you can use to self-assess your understanding of the mathematics in several consecutive chapters.
Technology Appendix:	This section has specific instructions for graphing calculators, CBRs, spreadsheets, Fathom, The Geometer’s Sketchpad. Technology icons in the chapter material will indicate that this appendix can be used for more detailed instructions.
Icons:	This textbook has technology, career, and math history icons. These visuals help you to quickly locate related text.
Answers:	The answers to most practice questions, review, and review tests are provided at the back of the textbook.
Glossary:	This is an alphabetical listing of the new terms introduced throughout the textbook. Italicized words in the text will also appear in the glossary.
Index:	This provides a quick way to look up specific information or concepts. The page references are given.