To encourage active engagement with the text, Questioning the Author uses queries rather than literal questions. Queries are questions that ask students to look for gaps in their comprehension and see if those gaps are addressed by the text. For example, "What is the author trying to say here?" "Is there something the author is not telling us here?" "Do you think this would be more clear if . . . Why?" Queries perform three key functions:

■ They guide students during initial reading and throughout the reading process.

■ They create confident, constructive readers who are able to wrestle with challenging ideas within a text.

■ They shift discussion from a student-teacher dynamic to a student-to-student forum in which authors' ideas are probed and evaluated.

Applications to Specific Content Areas

How Text Structures Differ From One Content Area to Another

With so much research pointing to the importance of being able to see the organizational patterns of texts (Derewianka, 1990; Dickson, 1995; Just & Carpenter, 1987; Pearson & Comperell, 1994), it seems appropriate to focus on the relationship between specific disciplines and the text structures commonly found in those disciplines' textbooks. We deal here with the disciplines of science, social studies, and math—the most textbook-driven subject areas.

In general, text structures stretch across several paragraphs of text, sometimes even whole sections of a chapter. The discipline that is the exception is math, where readings tend to come in smaller units and are commonly interrupted by problem sets or demonstrations. Because modeling and practicing using visual organizers has proven to be one of the most effective ways of teaching students how to see a text's structure, we have outlined the most common text structures in each subject area and provided useful organizers for each structure. To use them in the classroom and build student independence, follow the same steps as those provided for Text Structure and Visual Organizers, discussed earlier.

Common Text Structures in Science

The most common text structures in science textbooks are as follows:

Topic structures, or main idea structures explain a topic or central idea, the main subtopics, and key supporting details; see Figure 1.4.

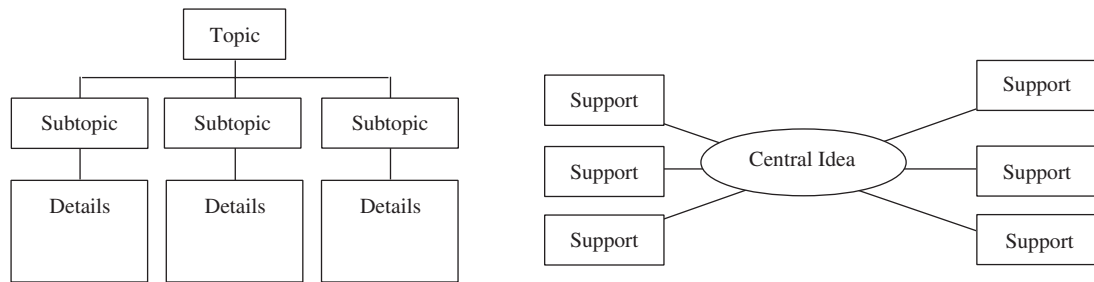**Figure 1.4.** Organizers for Topic or Main Idea Structures in Science Texts

Figure 1.5. An Organizer for a Descriptive Structure in Science Texts

Useful Organizer:

Item	Criteria

Descriptive structures lay out a number of items and the criteria distinguishing each; see Figure 1.5.

Compare-and-contrast or classification structures explain two or more topics simultaneously, highlighting the similarities and differences between them; see Figure 1.6.

Generalization structures describe a general principle or idea (e.g.*, a key idea in biological structure is that form fits function*) and the applications of that principle or idea; see Figure 1.7.
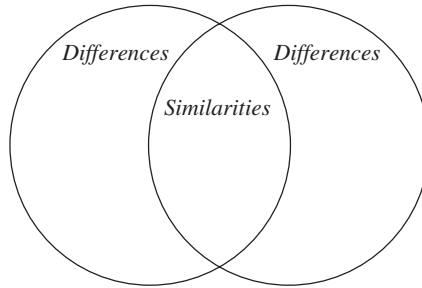
Problem-solution structures identify problems and describe their solutions, and *cause-effect structures* show the relationship between one set of events or ideas and another set of events or ideas; see Figure 1.8.

Process and cycle structures show the steps, phases, or events that make up a larger process; see Figure 1.9.

Figure 1.6. Organizers for Compare-and-Contrast and Classification Structures in Science Texts

Useful Organizers:

Differences	Differences
Similarities	

Differences   Differences

Similarities

Topic	Topic	Topic
Characteristic	Characteristic	Characteristic

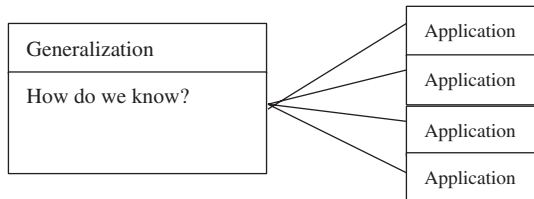**Figure 1.7.** An Organizer for a Generalization Structure in Science Texts

Useful Organizer:

Generalization	Application
How do we know?	Application
	Application
	Application

Figure 1.8. Organizers for Problem-Solution and Cause-Effect Structures in Science Texts

Useful Organizers:

Problem	Solution	Result

Cause	Effect

Figure 1.9. Organizers for Process and Cycle Structures in Science Texts
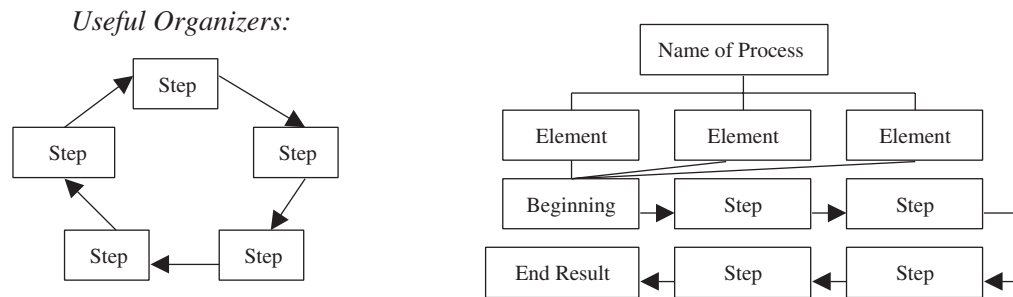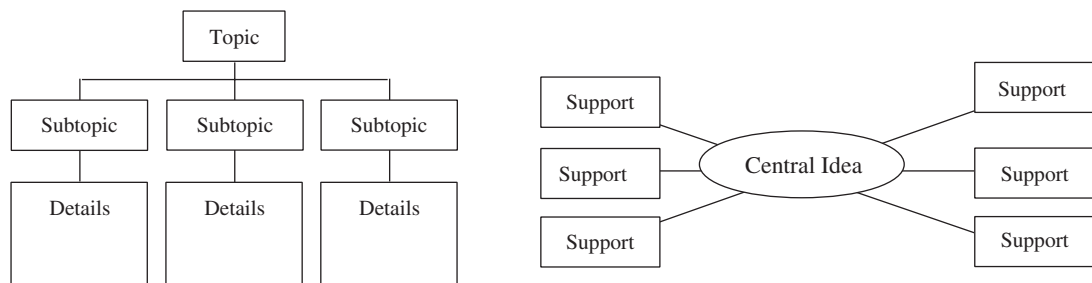
Useful Organizers:

Figure 1.10. Organizers for Topic and Main Idea Structures in Social Studies Texts

Common Text Structures in Social Studies

The most common text structures in social studies textbooks are the following:

Topic structures or main idea structures explain a topic or main idea, the main subtopics, and key supporting details; see Figure 1.10.

Generalization structures describe a general principle or idea (e.g., *the Nile River was central to Egyptian life*) and the applications of that principle or idea; see Figure 1.11.

Sequence structures present a set of related events in chronological order or show how specific events affect history; see Figure 1.12.