Teachers are architects of active learning environments and place students at the center of “meaning making” in content classrooms (Vacca & Vacca, 2005). Diversity has increased, therefore traditional lecture/read, recite methods are no longer the only appropriate means of instruction. Teachers now need to use text as an important piece of learning while incorporating trade books, electronic text, and varied strategies to lead all students along the path to a lifetime of learning.

**Importance of Strategies**

According to the research, we know that students who naturally use learning strategies are more successful in school than those who do not (Biemiller & Meichenbaum,
1992). Generally, the gifted students automatically use strategies as they read. We realize, therefore, it is important to model the use of effective strategies within the classroom so that all students can be knowledgeable about using them. All students—whether they are English language learners, diagnosed special education, or considered slow learners—can benefit by being introduced to these strategies, but they will benefit more if these strategies are modeled and reinforced in the classroom and used across all content areas. As all students learn how to apply these strategies in their reading, particularly with content area materials, they will become more self-directed in their learning. This leads to more effective learners in our classrooms, which leads to greater student achievement in our schools.

The Origin of Strategies

In 1946, F. P. Robinson published the book, Effective Study, which provided a detailed description of the SQ3R method of study. It was from Survey, Question, Read, Recite, and Review (SQ3R) that a myriad of learning strategies evolved. By the late 1960s and early 1970s, many types of directed reading thinking lessons were presented along with structured overviews, note taking systems, study guides, and instructional frameworks. In 1970, H. L. Herber published Teaching Reading in Content Areas, which contained many of the original forms of learning strategies used today all over the United States. By the late 1970s, cognitive psychologists explored the effects of prior knowledge on comprehension. By the 1980s, it became apparent through research that students who took an active strategic role in their learning performed more successfully. In the 1990s and early 2000s, some teachers started using a few of the strategies that are outlined in our book. By developing a comprehensive manuscript that purports the theory along with practical applications regarding content area reading, the idea of providing students with independent learning through self-owned strategies evolved.

Supportive Research for Our Strategies

A large body of research supports the process and strategies presented in this book. Prior knowledge (Chapter 2) is one of the major keys to comprehension of text. The research states that students get more out of reading when their background knowledge is activated, built, or focused. This includes prereading knowledge of content, text structure, and vocabulary. Background knowledge is motivated and activated through clearly stated purposes, tasks, and prereading questions (Block & Pressley, 2001; Rumelhart, 1980; Armbruster & Anderson, 1984; Bartlett, 1978; Beck, Perfetti, & McKeown, 1982; Johnson, Toms-Bronowski, & Pittelman, 1981; Schacter, 1978; Brown, Campione, & Day, 1981; Kintsch & Van Dijk, 1978; Anderson et al., 1977; Fass & Schumacker, 1981).

The chapters on prior knowledge, instructional frames, vocabulary, talking to learn, writing to learn, studying text, and integration of strategies are supported by research that states students who are actively involved in their learning are more effective learners. Students who generate questions, take notes, make summaries and contribute to discussions, and help determine the direction of lessons are more efficient learners (Blachowicz & Ogle, 2001; Cohen, 1983; Brown, Campione, & Day, 1981; Kintsch & Van Dijk, 1978; Andre & Anderson, 1979; Frase & Schwartz, 1975). The more students write and talk about what they are reading, the more they comprehend and remember what they have just
read. If what is learned is not acted upon, it is quickly forgotten (Loftus, 1980; Doctorow, Wittrock, & Marks, 1978; Craik & Lockhart, 1972; Bower, 1970). The strategies in the chapters on prior knowledge, instructional frames, vocabulary, talking to learn, writing to learn, studying text, and integration of strategies all require that the students are actively presenting what they have learned through their own interpretation of the information.

Research on cooperative learning (Vacca & Vacca, 2005; Johnson & Johnson, 1985) supports the use of learning strategies, which lead to increased student achievement. The more students tutor each other, the greater their achievement. Greater learning occurs when students work together to accomplish a learning task (Dansereau, 1987; Palincsar & Brown, 1985; Slavin, 1980).

When students generate their own questions, are exposed to higher-order questions, and are asked questions about text organization, their comprehension is increased (Harvey & Goudvis, 2000; Andre & Anderson, 1979; Wixson, 1983; Redfield & Roussear, 1981). All chapters in this book involve questioning before, during, and after reading. Good high-level questions, student-generated questions about content, and questions about text structure lead to greater learning. The importance of prior knowledge; active participation through reading, writing, and talking; cooperative grouping; and good teacher and student questioning are supported by replicated research. The strategies in this book lead to student-owned strategic learning.

Why Teachers Need Strategies

As teachers plan to present content area material, as well as language arts lessons, we realized that lesson planning is no longer a simple matter. That is why having the strategies as well as the templates provided through this book is so helpful. Preparing a class presentation incorporates prereading and studying; composing and duplicating appropriate graphic organizers; activating background knowledge for student motivation and engagement; and previewing text to analyze structure and take advantage of embedded graphs, pictures, charts, maps, and examples; and previewing end questions. The teacher then needs to determine if the lesson plan goals match the objectives of the text chosen, the outcomes of the district, and the standards of the state in which they teach as well as the national standards. The main focus is to find the “hook” for students to use as a springboard into learning.

Teachers need to suggest that students reflect as they read. Students must ask, “Is the selection following the path they initially thought?” They may need to repredict before they move on, for reading with understanding is a series of predicting, proving, disproving, and predicting again. As students read, graphic organizers, study guides, or instructional frames provide support that helps the students interact and respond to difficult texts with meaning and purpose. At the conclusion of reading, students reflect and participate in discussion through small group or class venues. All students should be able to participate on a level that is individually meaningful.

Using the strategies included in this book will be a first step for many teachers to help make learning real for students. GO SLOW. Be sure to model the selected strategy a time or two so students know where you are headed and what you will be expecting from them. When modeling the strategy, use an overhead if at all possible. Talk your way through the modeling and say aloud what you are thinking. State how you arrive at the answers you are selecting. Get the class
involved in your modeling, use their ideas, and value their thoughts.

Teachers, however, also need to know which strategies to model if they want all of their students to become successful readers. They need assistance with which strategies to use in their curriculum and how to apply them in their classroom.

This book is designed to provide all teachers with knowledge of which strategies will work with which content areas. Resources, such as Mosaic of Thought (Keene & Zimmerman, 1997) present what good readers do to learn. This book gives teachers the tools to apply the directions, models, and templates to enhance their teaching process.

A chart of the various strategies that teachers can use with particular subject areas is shown below.
Teachers also need to make sure that they are teaching to appropriate national, state, and local standards. The following chart shows the relationship of the content area learning strategies the authors felt were related to the Standards for the English Language Arts as well as the impact that this application has on student learning (NCTE & IRA, 1996):

<table>
<thead>
<tr>
<th>Science and Health (continued)</th>
<th>Fine Arts: Music, Art, Drama</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frayer Model</td>
<td>Anticipation Guide</td>
</tr>
<tr>
<td>GIST</td>
<td>Compare/Contrast Organizer</td>
</tr>
<tr>
<td>GRASP</td>
<td>Cloze</td>
</tr>
<tr>
<td>Heading through a Picture Walk</td>
<td>Concept Circles</td>
</tr>
<tr>
<td>Inquiry-Chart</td>
<td>Concept Diagram</td>
</tr>
<tr>
<td>Internal Text Structure/Notes and Frames</td>
<td>Discussion Web</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>Double-Entry Journal</td>
</tr>
<tr>
<td>KWLH+</td>
<td>First, The Questions</td>
</tr>
<tr>
<td>List-Group-Label</td>
<td>Four-Step Summary</td>
</tr>
<tr>
<td>Magic Squares</td>
<td>Framed Paragraph</td>
</tr>
<tr>
<td>Magnet Summaries</td>
<td>Jigsaw</td>
</tr>
<tr>
<td>Partner Knowledge Rater+</td>
<td>List-Group-Label</td>
</tr>
<tr>
<td>Picture Walk</td>
<td>Magic Squares</td>
</tr>
<tr>
<td>Possible Sentences</td>
<td>Magnet Summaries</td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
</tr>
<tr>
<td>Anticipation Guide</td>
<td>Jigsaw</td>
</tr>
<tr>
<td>Carousel Brainstorming</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Classification Organizer</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Compare/Contrast Organizer</td>
<td>KWHL+</td>
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<tr>
<td>Cloze</td>
<td>KWHL+</td>
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<tr>
<td>Concept Circles</td>
<td>KWHL+</td>
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<tr>
<td>Concept Diagram</td>
<td>KWHL+</td>
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<tr>
<td>Critical Thinking Summary</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Discussion Web</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Double Entry Journal</td>
<td>KWHL+</td>
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<tr>
<td>First, The Questions</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Four-Square Reciprocal Teaching</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Four-Step Summary</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Framed Paragraphs</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Frayer Model</td>
<td>KWHL+</td>
</tr>
<tr>
<td>GIST</td>
<td>KWHL+</td>
</tr>
<tr>
<td>GRASP</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Heading through a Picture Walk</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Inquiry-Chart</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Internal Text Structure/Notes and Frames</td>
<td>KWHL+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipation Guide</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Carousel Brainstorming</td>
<td>List-Group-Label</td>
</tr>
<tr>
<td>Classification Organizer</td>
<td>Magnet Summaries</td>
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<tr>
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<td>KWHL+</td>
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<td>KWHL+</td>
</tr>
<tr>
<td>Inquiry-Chart</td>
<td>KWHL+</td>
</tr>
<tr>
<td>Internal Text Structure/Notes and Frames</td>
<td>KWHL+</td>
</tr>
</tbody>
</table>
## Learning Strategies Connected to Literacy Standards

### Wide and Varied Reading

Students read a wide range of print and nonprint texts to build understanding and comprehension (NCTE/IRA, 1996, p. 3).

**Sources**
- Electronic Text
- Libraries
- Media Centers
- Text Books
- Trade Books

**Strategies**
- Anticipation Guide
- Cloze
- Compare/Contrast, Graphic and Summary
- Concept Circles
- Concept Diagram
- Critical Thinking Summary
- Discussion Web
- Double-Entry Journal
- First, The Questions
- Four-Step Summary
- Four-Square Reciprocal Teaching
- Frayer Model
- GIST
- GRASP the Headings
- Incomplete Framed Paragraphs
- Inquiry-Chart
- Internal Text Structure and Notes
- Heading through a Picture Walk
- Jigsaw
- KWL+
- KWLH+
- List-Group-Label

### Varied Genre

Students read a wide range of literature from many periods in many genres to build understanding (NCTE/IRA, 1996, p. 3).

**Sources**
- Anthologies
- Electronic Text
- Libraries
- Media Centers
- Text Books
- Trade Books

**Strategies**
- Anticipation Guide
- Cloze

<table>
<thead>
<tr>
<th>Wide Range of Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts (NCTE/IRA, 1996, p. 3).</td>
</tr>
</tbody>
</table>

#### Before Reading

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipation Guide</td>
<td>Picture Walk</td>
</tr>
<tr>
<td>Directed-Reading-Thinking-Activity</td>
<td>Possible Sentences</td>
</tr>
<tr>
<td>First, The Questions</td>
<td>Prediction Pairs</td>
</tr>
<tr>
<td>Heading through a Picture Walk</td>
<td>Story Impressions</td>
</tr>
<tr>
<td>KWL+</td>
<td>THIEVES</td>
</tr>
<tr>
<td>KWLH+</td>
<td>Think-Aloud</td>
</tr>
<tr>
<td>List-Group-Label</td>
<td>Think-Aloud with Questions</td>
</tr>
</tbody>
</table>

#### During Interaction with Text

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept Diagrams</td>
<td>Proposition/Support</td>
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<tr>
<td>Critical Thinking Questions</td>
<td>Question the Text</td>
</tr>
<tr>
<td>Double-Entry Journal</td>
<td>Seed Discussion</td>
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<tr>
<td>Four-Square Reciprocal Teaching</td>
<td>SQR</td>
</tr>
<tr>
<td>Graphic Organizers</td>
<td>Stop-the-Process</td>
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<td>GRASP the Headings</td>
<td>Story Map</td>
</tr>
<tr>
<td>Internal Text Structures</td>
<td>Text Talk</td>
</tr>
</tbody>
</table>

#### After Reading, Writing, Talking

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Summary</td>
<td>Question the Text</td>
</tr>
<tr>
<td>Discussion Web</td>
<td>Pyramid Frames</td>
</tr>
<tr>
<td>Incomplete Paragraph Frames</td>
<td>Radio Reading</td>
</tr>
<tr>
<td>Four-Step Summary</td>
<td>RAFT</td>
</tr>
<tr>
<td>GIST</td>
<td>Readers’ Theater</td>
</tr>
<tr>
<td>GRASP the Headings</td>
<td>Response Journal</td>
</tr>
<tr>
<td>Inquiry-Chart</td>
<td>Seed Discussion</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>Semantic Feature Analysis</td>
</tr>
</tbody>
</table>
### Vocabulary
- Classification and Categorization
- Cloze Procedure
- Concept Circles
- Frayer Model
- List-Group-Label
- Magic Squares
- Magnet Summaries
- Partner Knowledge Rater+
- Possible Sentences
- RIVET
- Semantic Feature Analysis
- Story Impressions
- Think-Pair-Share
- Word Map

### Communications: Spoken, Written, Visual
Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes (NCTE/IRA, 1996, p. 3).

### Strategies
- **Carousel Brainstorming**
- **Concept Diagram**
- **Critical Reading Summary**
- **Discussion Web**
- **Double-Entry Journal**
- **Four-Square Reciprocal Teaching**
- **Four-Step Summary**
- **GIST**
- **GRASP the Headings**
- **Incomplete Paragraph Frames**
- **Inquiry-Chart**
- **Jigsaw**
- **Proposition/Support**
- **Pyramid Frame**
- **Radio Reading**
- **RAFT**
- **Reader/Response**
- **Readers' Theater**
- **Response Journal**
- **Seed Discussion**
- **Stop-the-Process**
- **Story Map**
- **Text Talk**
- **THIEVES**
- **Think-Pair-Share**
- **Two-Column Notes**

### Wide Range of Writing Strategies
Students employ a wide range of strategies as they write and use different writing elements appropriately to communicate with different audiences for a variety of purposes (NCTE/IRA, 1996, p. 3).

### Essay Writing and Research
- **Inquiry-Chart**
- **Questions, Organize, First Draft, Public Writing**
- **Six Steps: Local Subject, Notetaking, Organization, First Draft, Respond and Revise, Publish, Evaluate and Grade**

### Knowledge of Language Structure and Conventions
Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts. Teacher expectations dictate that all strategies require proper use of grammar, usage, rhetoric, and mechanics (NCTE/IRA, 1996, p. 3).

### Strategies
- **Carousel Brainstorming**
- **Concept Circles**
- **Concept Diagram**
- **Critical Reading Summary**
- **Discussion Web**
- **Double-Entry Journal**
- **Four-Square Reciprocal Teaching**
- **Four-Step Summary**
- **GIST**
- **GRASP the Headings**
- **Incomplete Paragraph Frames**
- **Inquiry-Chart**
- **Jigsaw**
- **Proposition/Support**
- **Pyramid Frame**
- **Radio Reading**
- **RAFT**
- **Reader/Response**
- **Readers’ Theater**
- **Response Journal**
- **Seed Discussion**
- **Stop-the-Process**
- **Story Map**
- **Text Impressions**
- **THIEVES**
- **Think-Pair-Share**
- **Two-Column Notes**
- **Possible Sentences**

### Research: Gather, Evaluate, and Synthesize Data
Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purposes and audience (NCTE/IRA, 1996, p. 3).

### Strategies
- **Critical Thinking Summary**
- **Discussion Web**
- **Double-Entry Journal**
- **Four-Square Reciprocal Teaching**
- **GRASP the Headings**
- **Inquiry/Research Focus**
- **KWLH++**
- **Magnet Summaries**
- **Picture Walk**
- **Question the Text**
- **Response Journal**
- **Semantic Feature Analysis**
- **THIEVES**
- **Two-Column Notes**
- **Word Maps**
The Importance of Modeling Strategies

Once teachers gain an understanding of the strategies that have been identified as important through the research, they can model with students. Since they are now knowledgeable of which ones apply to specific content areas as well as the national standards, teachers are empowered to create their own lessons that integrate learning. Students will be able to acquire the knowledge to meet their learning goals as identified through the standards movement. As teachers integrate state and local goals with the lesson objectives through repeated applications of the learning strategies in the classroom, the students will ultimately show gains in student achievement on local, state, and national assessments.

This book presents the research that supports various learning strategies for teachers to incorporate in their classroom. It also presents examples of tried and true lessons that have been modeled by professionals with students. It gives staff members templates that they can use to design their instruction. By combining sound theory with effective practice, teachers are assured of success in preparing students for self-directed learning.

A Case Study in Content Area Reading

At the end of the two-year staff development process, we evaluated our overall progress in teaching content area learning strategies. We posed the question, “Was our plan to provide staff development in content area reading strategies actually providing students with the tools they needed to be successful learners?” We used qualitative research to arrive at an answer by triangulating the data from teacher surveys, the Illinois Standards Achievement Test results, and informal observations in the classrooms by the administrators in each school. The teachers across the district had many positive comments to make about the use of strategies and about the impact the strategies had on student learning. A sampling is provided next:

• “The time invested in working through a strategy is time well spent. Students are more involved in the subject matter and retain the information longer.”
- “I no longer teach Science or Social Studies without some type of strategy. I think the reading strategies are that valuable.”
- “The biggest area of growth was in vocabulary retention. Students scored far better on words for which a vocabulary strategy was employed than on words that we simply reviewed orally.”
- “Using GIST helped students dramatically to gain the ‘key’ concepts of the chapter—as long as I keep the sections brief.”
- “Students know how to preview a content area lesson.”
- “Students automatically reread sections in Social Studies and Science when they can’t answer the focus question.”
- “At the beginning of the year when I was using a strategy in Science, a student asked ‘Are you going to teach Science like this all year?’ I explained how we were using reading strategies. She said, ‘Wow this is easy!’ What a wonderful comment about learning.”
- “Stop The Process helped many of my students who were struggling with comprehension. My students have evolved into readers who have now learned to think critically about the material.”
- “The reading strategies refreshed my lesson plans and provided so many opportunities for my students to be successful.”

A comparison of the Illinois Standards Achievement Test over the past two years was made to show indicators of increased student success. The charts are shown below:

### 3rd Grade Reading

<table>
<thead>
<tr>
<th>School Year</th>
<th>Academic Warning</th>
<th>Below Standards</th>
<th>Meets Standards</th>
<th>Exceeds Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>2</td>
<td>18</td>
<td>53</td>
<td>27</td>
</tr>
<tr>
<td>2001</td>
<td>3</td>
<td>24</td>
<td>50</td>
<td>24</td>
</tr>
</tbody>
</table>

**Note:** At the third grade level, 80% of our students met or exceeded the Illinois Learning Standards during the 2002 school year as measured on the Illinois Standard Achievement Test as compared to 74% the previous year. Only 18% of our students were below standards in the 2002 school year as compared to 24% the year before.

### 5th Grade Reading

<table>
<thead>
<tr>
<th>School Year</th>
<th>Academic Warning</th>
<th>Below Standards</th>
<th>Meets Standards</th>
<th>Exceeds Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>0</td>
<td>21</td>
<td>42</td>
<td>37</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>25</td>
<td>39</td>
<td>35</td>
</tr>
</tbody>
</table>

**Note:** At the fifth grade level, 79% of our students met or exceeded the Illinois Learning Standards as measured on the Illinois Standard Achievement Test during the 2002 school year as compared to 74% the prior year. Only 21% of our students scored below standards during the 2002 school year as compared to 25% the year before.
This information gave us some indication that student scores were increasing in the meets and exceeds categories and decreasing for the academic warning and below standards categories. Finally, informal observations of teachers in the classroom by administrators proved that a unique environment for student learning was being created.

**Conclusion**

The teachers were looking at text in new ways—they now had tools to scaffold student learning—and content area reading was becoming “interesting” and “fun” for them. A few of the teachers felt that the strategies were a lot of work—and they were—but the majority of the teachers were excited and empowered by the new strategies they had learned. To observe the lessons and listen to the overwhelmingly positive comments from teachers at every level reflecting on the fact that students were enjoying their work and retaining the text information longer when strategies were employed was incredible!

The triangulation of our data, regarding the surveys, observations, and achievement test comparison scores indicated that positive results were occurring in the district. Although we can never assume that any qualitative research study be transferred to any other situation, we can report the positive results we feel were achieved in Homewood.

We can only predict that school districts engaged in using *Applications of Reading Strategies within the Classroom* will increase student achievement. By providing Explanations, Models, and Teacher Templates for content areas in grades three through twelve, students can become self-directed learners.
Prior Knowledge

Prior Knowledge Strategies

Connecting
KWLH+
KWL
Story Impressions—Nonfiction
Story Impressions Chart—Fiction

Curiosity and Background
Anticipation Guide
Picture Walk
Heading through a Picture Walk
Think-Aloud

Questioning
Think-Aloud with Questions First, The Questions

Raising expectations and generating interest about the text’s meaning naturally creates a context, which enables students to read with purpose and anticipation (Vacca & Vacca, 2005).

Research Preview
Recent research stresses if the students have prior knowledge before reading then comprehension will be increased. The more information that a student has about the content, the clearer the text will become. Based on the research of Anderson and Pearson (1984), the National Reading Panel Report (February, 2000) states, “Schema theory holds that comprehension depends upon the integration of new knowledge with a network of prior knowledge.” It is helpful for the teacher to provide background information if they sense that the
students do not have adequate information. This provides a building block for greater understanding of the content materials that students encounter in today’s classrooms.

**English Language Arts Standard**
Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (NCTE and IRA, 1996, p. 25).

**Connections to Research**

Comprehension has been defined as “Building bridges between the new and the known” (Pearson & Johnson, 1978, p. 24). “Prior knowledge is a combination of culture, context, and experience—not just a collection of facts, but also an understanding of relationships among concepts and principles” (North Central Regional Educational Laboratory, 2000, p. 53). The established information, known as prior knowledge, is the foundation upon which the new information builds. Without appropriate prior knowledge, a reader cannot draw relevant inferences. This prior knowledge has been derived from schema theory (Anderson & Pearson, 1984).

Schema provides a framework for seeking and selecting information that is relevant to the purpose of reading. It allows the reader to make inferences about the text. Inferences occur where you anticipate content and text structure and make predictions.

A schema helps the reader organize text information. This process allows the reader to organize and integrate new information into an old knowledge structure or prior knowledge. This gives the reader the ability to retain and remember the new and old information.

A schema helps elaborate upon information. The reader uses deeper levels of thinking, insight, judgment, and evaluation. The reader literally engages in a conversation with the author. According to Pearson, Roehler, Dole, and Duffy (Samuels & Farstrup, 1992), research studies have emphasized the following:

1. Students with greater prior knowledge comprehend and remember more (Brown et al., 1977; Pearson, Hansen, & Gordon, 1979).
2. Merely having prior knowledge is not enough to improve comprehension; the knowledge must be activated, implying a strong metacognitive dimension to its use (Bransford & Johnson, 1972).
3. Young readers and poor readers often do not activate their prior knowledge (Paris & Lindauer, 1976).
4. Good readers use their prior knowledge to determine the importance of information in the text (Afflerbach, 1986).
5. Good readers use their prior knowledge to draw inferences from and elaborate on text (Gordon & Pearson, 1983; Hansen & Pearson, 1983).

This research information emphasizes the importance of using reading strategies that engage students in activating prior knowledge or building their knowledge base prior to reading.

When reading content materials, there are three types of prior knowledge that students should consider (Griggs & Gil-Garcia, 2001). The first is topic knowledge, which means having knowledge that is relevant or accurate about the topic. If the student has inaccurate information or misconceptions, it is very important that these be changed prior to reading. The second type of prior knowledge relates to text structure and organization. Students need to know how the text is organized in order to relate to the narrative...
or expository text. The third type of prior knowledge relates to understanding the vocabulary in content area reading materials. This helps students learn unfamiliar words and develop strategies for identifying new words.

Prior knowledge comes from many sources. These include television, radio, trips, parents, grandparents, peers, teachers, neighbors, books, and movies. Students could construct a class map to illustrate how members have learned about content materials prior to reading a selection.

Some general techniques that students can use before, during, or after reading to activate prior knowledge, evaluate what they are reading, and review how effectively they have incorporated their prior knowledge during reading are outlined below (Griggs & Gil-Garcia, 2001):

**Before Reading**
- Preview the content area material to be read.
- Look at the cover, pictures, title of chapter, and text.
- Discuss what students know about the above elements.
- Connect past personal experiences, observations, and knowledge obtained from various sources with new knowledge to be taught and learned.
- Look for familiar vocabulary words.
- Examine ways in which the text is organized and structured.

**During Reading**
- Assist students in applying their prior knowledge.
- Brainstorm ideas regarding where, how, and when students’ prior knowledge can be accessed.
- Model how one’s prior knowledge can be applied to unknown materials and information to assist in learning new information and concepts.
- Encourage the use of inferencing skills as students test the application of prior knowledge.
- Correct inaccurate prior knowledge.

**After Reading**
- Evaluate how effectively students are able to use their prior knowledge to make connections between what they know and what they are trying to learn.
- Have students write, create graphic organizers, or make oral presentations to demonstrate their understanding of designated learning tasks.

These ideas are further elaborated with specific prior knowledge strategies that teachers can introduce to students in the classroom. Many of these strategies can be incorporated with language arts, math, science, and social studies. As students learn how to use these strategies to read content area materials, their comprehension will increase. Prior knowledge is 40 to 60 percent of a person’s comprehension. This makes it extremely important for teachers to assist students in learning how to utilize prior knowledge strategies before, during, and after reading. While some good readers already employ some of these strategies, they may learn additional ones. Poor readers really need not only to be introduced to the prior knowledge strategies but also to be actively engaged in applying these strategies to their reading. This chapter outlines specific strategies for teachers to incorporate in their instruction of content area materials.

In order to generate interest and create a context where students will read content material with questions and curiosity, prior knowledge must be activated. Various prior knowledge strategies can be utilized to enhance comprehension and interest. These strategies can be tied to content areas such
as math, science, and social science as well as language arts. Examples of the following strategies and their relationship to various content areas provide the scaffolding necessary for instruction.

**KWL** is an acronym for *Know, Want to Know, and Learned* (Carr & Ogle, 1987). According to Doug Buehl (2003), this strategy involves using a three-column graphic organizer. This strategy encourages students to become active thinkers while reading. The active reader makes predictions about what they will be reading. Before starting, active readers consider what they already know about the story or topic. As they read, they confirm whether or not their predictions were on target. Active readers have an idea of what to look for, and when they are done they evaluate what they have learned or experienced. In the first column, readers list what they already know about the story or topic. In the second column, they write the questions they want answered by the article or story. In the third column, they list the information they learned from the article or story. In our KWLH+, active readers organize the material by heading if it is nonfiction and by a story map if it is fiction—thus organizing their thoughts and creating associations and connections. In order to tie this strategy to the science or social science content areas, some examples include the use of chapter headings and subheadings as topics for brainstorming the student’s prior knowledge. This refers to the first step or known column in the KWLH+ strategy (Frank, 1999). In math, use the numbered sample problems as the topics for brainstorming possible solutions to the problem.

**Story Impressions** (McGinley & Denner, 1987) is a prereading strategy that arouses curiosity and allows the students to anticipate what stories might be about. It can just as easily be used as “Text Impressions” where the key concept words arouse curiosity and allow students to anticipate an informational text. In language arts, a **Story Impressions Chart** uses clue words associated with setting, characters, and events in the story to help readers write their own versions of the story prior to reading. After reading the set of clues, the students are asked to create their own comprehensible story in advance of reading the actual tale. The clue words are selected directly from the story and are sequenced with arrows or lines to form a descriptive chain. In science and social science, nonfiction or text impression use concept words from the title, subtitles, bold print, pictures, and captions. These clue words are presented in the order of the text. After reading the set of clues and possibly looking at the pictures and captions, the students write a paragraph describing what the chapter will cover. **Prior knowledge** is based on *schema theory*. This theory acknowledges that if an individual has a concept of a topic and its organization prior to reading, comprehension will be enhanced. Each of the strategies in this chapter focuses the students’ attention on what they already know about the content and its structure.

An **Anticipation Guide** is a series of statements to which students must respond individually before reading the text (Herber, 1978; Moore et al., 1989; Readence et al., 1989; Vacca & Vacca, 2005). The value lies in the discussion that takes place after the exercise. As students connect their knowledge of the world to the prediction task, the teacher must remain open to a wide range of responses. Anticipation guides vary in format but not in purpose. In each case, the readers’ expectations about meaning are raised before they read the text. To create a good anticipation guide in science, social science, math, or language arts, the teacher must analyze the material and determine the major ideas, both implicit and explicit. From the chapter’s objectives listed in the teacher’s manual, a series of statements can be created. These ideas must be written in short, clear declarative statements. There should be no abstractions, but instead clear
statements that reflect the world in which the students live. After the students read the text, they evaluate the statements in light of the author’s intent and purpose. In other words, they grade their own anticipation guides to see if their predictions are correct.

A Picture Walk is from the survey part of Francis Robinson’s 1946 SQ3R strategy (Survey, Question, Read, Recite, and Review). A Picture Walk is simply a careful look through a piece of fiction or nonfiction, reading all the details in pictures and captions, in addition to reading all the titles, subtitles, and bold print. The teacher can also choose to review the end questions with the students. This is all done before reading. The students then predict what the story or chapter will be about. The teacher records these predictions on the board. The students read to verify, reject, or refine their predictions. After reading, the students compose a summary of the actual content in science, social science, language arts, and math. Heading through a Picture Walk (Frank, 2002) activates background knowledge by focusing on text headings.

Using Think-Alouds, teachers make their thinking explicit by verbalizing their thoughts while reading orally. Davey (1983) explained that this process helps readers clarify their understanding of reading and their understanding of how to use strategies. Students will more clearly understand the strategies after a teacher uses Think-Alouds because they can see how a mind actively responds to thinking through trouble spots and constructing meaning from text. Think-Alouds can be used in science, social science, math, and language arts. Davey (1983) suggested four basic steps when using Think-Alouds:

1. Select passages to read aloud that contain points of difficulty, ambiguities, contradictions, or unknown words.
2. While orally reading and modeling thinking aloud, have students follow silently and listen to how trouble spots are thought through.
3. Have students work with partners to practice Think-Alouds by taking turns reading short, carefully prepared passages and sharing thoughts.
4. Have students practice independently using a checklist.

For a Think-Aloud with Questions, the teacher and the students stop to verbally think aloud during the reading of the first few paragraphs of nonfiction (Frank, 2001). The students discuss and record answers to the following questions while reading language arts, science, social science, and math:

- What do you now know about ______? What information will be given in the text?
- What questions do you have? What questions will be answered by the text?

After the teacher and the students stop to think aloud during the reading of the first few paragraphs of fiction, the students answer the following questions.

- Who are the characters?
- What is the setting?
- What is the main character’s problem?
- How do you think the main character’s problem will be resolved?

DRTA identifies a standard Directed Reading Thinking Activity (Stauffer, 1969). This is an excellent strategy to get students to make inferences while reading. Students are guided through a selection to help them formulate questions and make predictions. As they read, students validate or reject their predictions.

In language arts, the standard DRTA is most effective for use with fiction. The following steps are recommended:
1. Activate background knowledge. The students look at the pictures and the title on the first page of the selection, think about what they already know about the topic, and share the ideas with others in the class.

2. Predict and set a purpose. The group predicts what the selection will be about when the teacher asks, “What do you think will happen next?” “Why do you think so?” “What evidence do you find to support your prediction?”

3. Read the selection silently. The teacher reminds students to keep their predictions and purposes in mind as they read. In many cases, it is best if the teacher places the predictions on the board in front of the room.

4. Confirm or reject the predictions. The teacher asks, “What predictions can you prove?” “Why or why not?”

5. Repeat the cycle with the next section of the text.

In science, social science, and language arts, a modified DRTA, First, The Questions (Frank, 1996) uses the questions at the end of the selection:

1. The students are handed a sheet with the end questions or are told to go to the end questions in the book. The students are asked to independently record a short answer to each question.

2. The students then share their answers with a partner and during this process they must come to a consensus on what the exact answer should be.

3. The teacher then records on the board the students’ answers to the prereading questions.

4. Read the selection silently. The teacher reminds students to keep their predictions and purposes in mind as they read.

5. Confirm or reject the predictions. The teacher asks, “What predictions can you prove?” “Why or why not?”
**Explanation for Application of Reading Strategy**

**KWLH+**

KWL (Carr & Ogle, 1987) and KWLH+ (Frank, 1999) encourage students to focus on recalling “known” information about the topic they are about to study. Teachers are also able to gain information to determine what students “want” to learn on this topic and have a means to identify what is “learned” as a result of their reading. The “plus” asks that students end the exercise by summarizing information on the topic. Creating summaries is a challenge to many students and this format allows practice for this skill.

The KWL included is a graphic organizer that can be used with ESL or struggling readers and will require some cutting and folding before use. Once the paper is cut and folded in half, the panels can be lifted. Information is recorded on the inside. Teachers can guide summary writing on the back of the pamphlet.

**Before Reading**

Students will use **H** text headings and prior knowledge to predict content. Brainstorm and discuss what students know about each text heading. Write information on the chalkboard or a transparency for all to view. Students consider all the discussed prior knowledge, then note their knowledge of the text heading under the **K** on the worksheet. Questions will arise from the prereading discussion and from thinking about the anticipated information in text. These questions form the **W**, which expresses what the students want to learn.

**During Reading**

It is best to model this strategy several times so students are comfortable with the procedure and realize the steps and processes involved. First, read a section of the material and record new information under appropriate headings. Guide students into generating questions as they read. As students read and learn, additional questions may be added to the **W** section. Students constantly think about what they read, monitor their learning, and learn to generate additional questions to guide their reading.

**After Reading**

Students will share information on their KWLH+ graphic organizer with a partner. Using the headings and the recorded information, students write a summary sentence for each category, which leads a well written paragraph.
# Model of Application of Reading Strategy

**KWLH+**

**Topic:** Early Explorers to America (1497–1610)

<table>
<thead>
<tr>
<th><strong>K (Known)</strong></th>
<th><strong>W (Want to Know)</strong></th>
<th><strong>L (Learned)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>List the headings and guess in pencil what will be stated in the sub-sections.</td>
<td>Make questions out of the headings.</td>
<td>As you read, take notes in pen. Add or correct the information you wrote in pencil.</td>
</tr>
</tbody>
</table>
| **H The Voyage of John Cabot** | Where did John Cabot go on his voyage? | The Voyage of John Cabot  
To find route to Asia  
Landed Newfoundland, 1497  
Northwest Passage |
| **H French Explorers** | Who were the French explorers? | French Explorers  
Jacque Cartier, 1534  
Sailed up St. Lawrence River  
Samuel deChamplain  
Started settlement, 1609 |
| **H Henry Hudson’s Voyages**  
**H Dutch Explorer** | Where did Henry Hudson go on his voyages? | Henry Hudson’s Voyages  
Sailed Hudson River, 1609  
Sailed a Canadian bay, 1610  
Now Hudson’s Bay |

**Summary:** John Cabot hoped to find a route to Asia. He landed in Newfoundland in 1497, thinking he found the Northwest passage. French explorers include Jacque Cartier, who sailed up the St. Lawrence River in 1534, and Samuel Champlain, who started a settlement in 1609. Henry Hudson, a Dutch explorer sailed the Hudson river in 1609 and in 1610 found the Hudson Bay.
**TEMPLATE FOR APPLICATION OF READING STRATEGY**

**KWLH+**

<table>
<thead>
<tr>
<th><strong>K</strong> (Known)</th>
<th><strong>W</strong> (Want to Know)</th>
<th><strong>L</strong> (Learned)</th>
</tr>
</thead>
</table>
| List the headings and guess in pencil what will be stated in the subsec-
tions. | Make questions out of the headings. | As you read, take notes in pen. Add or correct the information you wrote in pencil. |
| Subheading 1: | Subheading 1: | |
| Subheading 2: | Subheading 2: | |
| Subheading 3: | Subheading 3: | |

**Summary:** Write a sentence summary for each heading. The sentence summary should answer the question made from the subheading. Combine the sentence summaries into a paragraph summary of the chapter.
**Directions:** Using scissors, cut the two heavy vertical lines to the halfway mark. Then fold your sheet in half. Lift each panel and write your information for each section. (Suggested applications: ESL, struggling readers, LD resource.)

### KWL

<table>
<thead>
<tr>
<th>What I知</th>
<th>What I想</th>
<th>What I学</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know</td>
<td>Want</td>
<td>Learned</td>
</tr>
<tr>
<td></td>
<td>to find out</td>
<td></td>
</tr>
</tbody>
</table>
Story Impressions (McGinley & Denner, 1987) are a great way to arouse curiosity for reading a selection while encouraging students to anticipate the text. Clue words from the story as well as setting, characters, and events help to give the student an “impression” of the story. Words, including vocabulary, can be written sequentially with arrows or lines to form a descriptive chain. This chain of clue words will trigger some type of mental impression, which in turn allows students to write a “story guess.”

**Before Reading**

Introduce the strategy by alerting students to the fact that their task will be to “make up” a story using selected clues. Read the clues together and explain that the arrows link one clue to the next in a logical order.

**During Reading**

Brainstorm some story ideas that could connect the clues in the order presented and ask what they think the story could be about.

Demonstrate how to write a story guess by using the ideas generated to compose a class-generated story linking all the clues. This could be executed on an overhead for all to see.

**After Reading**

Students read the actual story silently alone or in a small group.

Have students discuss the class-composed prediction compared to the author’s story. How are they alike? How are they different?
Directions: Look at the following list of words and phrases taken from the chapter on exploring western lands. The arrows link the words in a logical order. Brainstorm and write a paragraph describing the information that will be given in this chapter. Use the words and phrases from the story chain below to write the story.

**Story Chain**

Thomas Jefferson
↓
expedition
↓
western lands
↓
Meriwether Lewis
↓
William Clark
↓
Corps of Discovery
↓
Missouri River
↓
journals
↓
notes and maps
↓
plants and wildlife
↓
Mandan
↓
Sacagawea
↓
Shoshone
↓
Snake River
↓
Columbia River
↓
Pacific Ocean

**Story Guesses**

President Thomas Jefferson wanted to have an expedition to explore the western lands of the country. He sent Meriwether Lewis and William Clark to lead the Corps of Discovery. They led their group up the Missouri River. They had to keep journals, make maps, and keep notes about plants and wildlife they came across. The Mandan tribe helped the explorers. They met a trader and his wife, Sacagawea, who showed them the way. She was a Shoshone. The explorers followed the Snake River and the Columbia River to reach the Pacific Ocean.
Directions: Look at the following list of words and phrases taken from the chapter/text. The arrows link the words in a logical order. Brainstorm and write a paragraph describing the information that will be given in this chapter. Use the words and phrases sequentially from the story chain below to write the story.

<table>
<thead>
<tr>
<th>Story Chain</th>
<th>Story Guesses</th>
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<tbody>
<tr>
<td>↓</td>
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</tr>
</tbody>
</table>
The teacher creates a “Story Impressions” worksheet, using words about the setting, characters, problem, events, and ending. All the words need to be pronounced aloud.

1. The teacher and the students look at the pictures in the text and read the first three or four paragraphs of the story.
2. Using the “filled in” Story Impressions Chart, the students each create a story using as many of the words as they can. Then the students share their stories with their partners or the class.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Characters</th>
<th>Problem</th>
<th>Events</th>
<th>Ending</th>
</tr>
</thead>
<tbody>
<tr>
<td>house</td>
<td>strange unfortunate</td>
<td>old rose crumble</td>
<td>liquid</td>
<td>young again</td>
</tr>
<tr>
<td>laboratory</td>
<td>Mr. Gascon politician</td>
<td>experiment</td>
<td>fresh, lovely rose</td>
<td>fighting</td>
</tr>
<tr>
<td>spider webs</td>
<td>Mr. Medbourne fortune</td>
<td>count on</td>
<td>centuries</td>
<td>old again</td>
</tr>
<tr>
<td>bookcases</td>
<td>Colonel Killigrew soldier</td>
<td>fountain of youth</td>
<td>astonished</td>
<td>surprise</td>
</tr>
<tr>
<td>Widow Wycherly</td>
<td>conceited wrinkled face</td>
<td>drink</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Example:** Strange and unfortunate characters reside in the crumbling rose-colored house. Mr. Gascon, a dishonest politician spent his time on experiments to retain a rose, lovely and fresh in the laboratory. Mr. Medbourne was a greedy, yet fortunate spider. Colonel Killigrew, a sick lonely soldier, searched the bookcases for a book on the fountain of youth while Widow Wycherley with her conceited-looking, yet wrinkled old face continued to drink and encourage his efforts.

**Note:** Information from *English Yes!* by Burton Goodman, 2004, Columbus, OH: McGraw-Hill.
The teacher and the students look at the pictures in the text and read the first three or four paragraphs of the story.

Using words about the setting, characters, problem, events, and ending, fill in the following Story Impressions Chart.

Then, using the “filled in” Story Impressions Chart, the students each create a story using as many of the words as they can. Then the students share their stories with their partners or the class.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Characters</th>
<th>Problem</th>
<th>Events</th>
<th>Ending</th>
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</tbody>
</table>

Example:
An Anticipation Guide (Herber, 1978; Moore et al., 1989; Readence, 1989; Vacca & Vacca, 2005) uses a series of statements to actively involve students in making predictions about what they will be reading. To make predictions, students rely on their prior knowledge.

The teacher identifies ideas from text that may challenge or support student beliefs about the material contained in the text. An organizer of three to ten statements is created to spark student knowledge or beliefs about what they will soon read.

**Before Reading**

Students read the statements on the organizer and, using their prior knowledge, mark whether the statements are true or false. Responses (if desired) can be shared as a prereading discussion.

**During Reading**

Students read to clarify or verify predictions, noting new information.

**After Reading**

Students will return to the organizer and respond to the statements again. Have students discuss any changes that occur in their “before” and “after” responses.
**Anticipation Guide**

**Social Science**

*Directions:* Before reading, place a mark under “likely” if you feel that the statement has any truth. Put a mark under “unlikely” if you feel that it has no truth. Be ready to explain your choices.

<table>
<thead>
<tr>
<th>Before Reading</th>
<th>Statements about Text</th>
<th>After Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely</td>
<td>Unlikely</td>
<td></td>
</tr>
<tr>
<td>1. <strong>Popular sovereignty is guaranteed in the Constitution and means that some people are more popular than others.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. <strong>The system of three branches of government (legislative, judicial, and executive) provides for checks and balances on each branch.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. <strong>Federalism divides power between the national government and the state government.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. <strong>Because of the Bill of Rights, all Americans can do what they want.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After reading, correct your Anticipation Guide.
Directions: Put a mark under “likely” if you feel that the statement is true. Put a mark under “unlikely” if you feel that it has no truth. Be ready to explain your choices.

<table>
<thead>
<tr>
<th>Before Reading</th>
<th>Statements about Text</th>
<th>After Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely</td>
<td>Unlikely</td>
<td>True</td>
</tr>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>6.</td>
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<tr>
<td>7.</td>
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<td></td>
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<tr>
<td>8.</td>
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</tr>
</tbody>
</table>

After reading, correct your Anticipation Guide.
**Before Reading**

Picture Walk is from the survey section of Francis Robinson's 1946 SQ3R strategy, in which students sequentially view and discuss all pictures, charts, and drawings contained in the targeted chapter, section, or story that the class is to read. Read only picture captions and chart information. Do not read text at this time. All discussion answers or ideas are to be perceived as correct as students have not yet read the textual information. Predictions are part of the learning fun. Even though this activity is targeted for content material, it can easily be adapted to preview fictional or historical narrative. This strategy is helpful to ESL and struggling readers.

Some discussion sparkers regarding pictures, charts, and graphics may include the following:

- What do you think is happening in the picture?
- What do you see in the picture?
- How does the picture make you feel about the character or the topic?
- What does the caption have to do with the picture?
- What information have you learned from the picture and caption about the topic, story, setting, or character?
- What do you think the text will say about the topic or characters?
- How does this picture fit in the topic and headings and/or characters and narrative?
- What do the graphics or charts in the chapter tell you about the topic?
- Can we create a summary sentence of what we think this reading will be about? (At this point students can share ideas and create their preview sentence, writing it on the following sheet.)

**During Reading**

Students read to clarify or verify predictions and mentally form new predictions.

**After Reading**

Upon completion of the reading, students fill in the reverse or bottom section of the sheet indicating the actual content of the material.
Picture Walk

I think this will be about . . .

After reading, I found out this was about . . .
Heading through a Picture Walk

The Struggle Over the South’s Future

How did the nation move toward reunion after the Civil War?

Directions: Take a picture and caption walk through the chapter. Note the pictures, headings, charts, and so forth. Use that information and what you already know on the topic to write under each topic heading.

<table>
<thead>
<tr>
<th>The Defeated South</th>
<th>The Freedmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needed rebuilding</td>
<td>They had a lot to learn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>President Johnson’s Plan</th>
<th>Johnson vs. Congress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction</td>
<td>Civil rights upheld</td>
</tr>
<tr>
<td>States govern their citizens</td>
<td>Congress post troops to protect slaves</td>
</tr>
<tr>
<td>Confederate leaders gain power</td>
<td>Congress in control</td>
</tr>
<tr>
<td>South to reject the 14th Amendment</td>
<td></td>
</tr>
</tbody>
</table>

Based on your observations and preview information, read and answer the following questions. Use pencil.

1. Define:
   - Freedmen: men who have newly gained freedom
   - Reconstruction: rebuilding the country after the Civil War
   - Civil rights: rights naturally given in a free society

2. Describe Johnson’s Reconstruction plan. Why did many white southerners support his plan? Why did most northerners oppose it?

   Johnson’s plan left states to decide how to govern citizens. Southern states passed Black Codes. Johnson encouraged southern states not to ratify the 14th Amendment. Whites retained their power. Northerners opposed this as they believed all male citizens should vote.

3. How did Congress’s plan differ from the president’s?

   Congress passed three amendments: 13th (abolish slavery), 14th (give slaves full rights as U.S. citizens), and 15th (all male citizens have the right to vote. The president was a southerner and did not want the amendments to pass.

4. Power struggles between Congress and the president are part of the U.S. political system. What are some current conflicts between two branches of government?

   The war with Iraq.

Model for Application of Reading Strategy: Heading through a Picture Walk
Directions: Take a picture and caption walk through the chapter. Note the pictures, headings, charts, and so forth. Then, using the following headings, write down what information you think will be included in each section.

(Heading) (Heading)

(Heading) (Heading)

Based on your observations and preview information, read and answer the following questions. Use pencil.

1.

2.

3.

4.
Think-Alouds (Davey, 1983) model the kind of strategies good readers use. It is especially effective when used to illustrate the mental steps good readers use to cope with a particular comprehension problem. The teacher needs to illustrate how she or he makes a hypothesis or prediction, pictures images, creates an analogy, monitors the comprehension, and consistently uses fix-up strategies.

**Before Reading**

The teacher selects a passage to read aloud that contains points of difficulty, contradictions, ambiguities, and/or unknown words. Students need to follow along silently as the teacher reads aloud. Place the text on a transparency as a visual resource for students to follow.

**During Reading**

Make predictions as you read aloud so that the students see how you develop the hypotheses about the material. “How am I supposed to solve this problem? I need to know how many more boxes Jane has to sell to reach her goal. What do I know—her goal is 40, and she has already sold 25 boxes—I think I will find her goal by either subtracting or adding.”

Describe the picture you are forming in your head from the information. This step demonstrates how to develop images during reading. “I have a pile of 25 boxes of school pencils on one side. Most are printed with the school mascot, and there are a few boxes of plain pencils. Then I have an empty space with a question mark. Then I have an equal sign, and on the other side of the equal sign, I have a pile of 40 boxes of all kinds of school pencils.”

Share an analogy by showing students how to link prior knowledge with new information in the text—the “like-a” step. “We did a problem like this yesterday when we . . . and we did . . .”

Talk through a confusing point to model how you monitor your ongoing comprehension. “Do I need to add or subtract here? Let us see, I need to know what number of boxes plus what number of boxes equals 40 boxes so I must add. No, that cannot be right because 25 and 40 equals 65, and that is more than Jane’s goal. I better reread. I must have to subtract the number of boxes Jane has already sold from the number of boxes that is her goal.”

Demonstrate fix-up strategies that may be used to clear up confusion. Model rereading, reading ahead, looking for context clues about unknown words, and any other strategies you want your students to be aware of in their reading.

**After Reading**

Allow students to share their reactions to the text. After several modeling experiences, have students work with partners to practice think-alouds. Encourage students to practice thinking through material on their own. Reinforce these thinking strategies with selected reading lessons and content reading.
EXPLANATION FOR APPLICATION OF READING STRATEGY

Think-Aloud with Questions

The Think-Aloud with Questions (Frank, 2001) strategy is meant to be modeled by teachers in order to share the process of “thinking” while reading. After the teacher has demonstrated repeatedly, how he or she makes a prediction, creates a picture image, forms an analogy, monitors comprehension, and consistently uses fix-up strategies, the class is ready for a classroom Think-Aloud.

Before Reading

The teacher previews the material with the class, looking at pictures, captions, headings, and questions. The teacher gives the students a copy of text containing the beginning of the selection that has been prepared with a space of about one inch between sentences.

During Reading

The teacher starts reading the passage, stopping after every sentence or two. The students then write what they are thinking on their paper underneath the appropriate sentence.

After Reading

Students then share their predictions, images, and analogies with each other and the class. They discuss how they monitor their comprehension and use fix-up strategies.

After reading the first paragraph or two in this manner, several questions are asked.

If the selection is nonfiction:

What is this about?
What information do you expect to find in the selection?
What questions will be answered in the passage?

If the selection is fiction:

Who is the main character?
What is the setting?
Are there any other important characters?
What is the main character’s problem?
How do you think the main character will solve the problem?

Discussion is held as a class. The students then read the selection, filling in a graphic organizer for nonfiction and a story map for fiction.
“Perseus”

Directions: Direct students to examine the pictures. The teacher leads a classroom Think-Aloud. During this process, the teacher reads aloud, stopping after each small section so that the teacher and the students can interpret the meaning of the passage in their own words.

Once a king named Acrisius asked a prophet about the future. The prophet said, “One day your baby grandson, Perseus, is going to kill you.”

Stop and Think: How would you feel if your grandchild were about to kill you?

So Acrisius put Perseus and Perseus’s mother, Danae, into a large box. He put the box into the ocean. The waves carried the box to the island of Seriphus. There Perseus grew up into a brave young man.

Stop and Think: How would you feel if you were put to sea in a box?

Now the king of Seriphus wanted to marry Danae. Perseus was against the marriage. So the king thought of a plan to get rid of Perseus. The king asked Perseus to kill a terrible monster called Medusa. The brave Perseus accepted the king’s challenge.

Stop and Think: What do you think will happen now?

Questions for class discussion:

What is the name of the main character?

What are the names of the other characters?

What is the setting?

What is the main character’s problem?

Directions: Direct students to examine the pictures on pages ______. The teacher leads a classroom Think-Aloud. During this process, the teacher reads aloud, stopping after each small section so that the teacher and the students can interpret the meaning of the passage in their own words.

(Insert first passage)

Stop and Think:

(Insert second passage)

Stop and Think:

(Insert third passage)

Stop and Think:

Questions for class discussion:

What is the name of the main character?

What are the names of the other characters?

What is the setting?

What is the main character’s problem?
In this prereading strategy, a modified DRTA (Stauffer, 1969), First, The Questions (Frank, 1996), highlights the teacher’s role to guide students to the general and the specifics of a selection. The teacher decides what the students should know at the end of the lesson. This required information is turned into questions.

**Before Reading**

Students read the headings and questions. Using their prior knowledge, they answer the questions. Responses can be shared as a prereading discussion.

**During Reading**

Students read to clarify or verify predictions and to note new information. This can be done individually or in small groups. In their small groups, the students must reach a consensus on the exact answers to questions.

**After Reading**

Have students discuss any changes that occurred in their “before” and “after” responses. Share collaborative responses as a class. The teacher will record answers on an overhead or chalkboard. The class reaches consensus on specific answers. This can now be used to study for the test.
Cold Facts

Directions: Each student must fill in an answer to each question. With a partner, the students come to a consensus on the predicted answers. As a class, the answers are stated and put on the board or overhead. The students read to verify, correct, or modify their answers.

1. What causes the common cold?
   - A virus
   - Dirty hands
   - Sneezing
   - Going outside with wet hair
   - Not getting enough rest

2. Why should cold sufferers stop using nasal sprays or drops after three days?
   - They are addicting.
   - They don’t work any more.

3. Why is a vaccine helpful in preventing the flu but not a cold?
   - A vaccine is aimed at a specific germ.

4. What are three ways to avoid getting a cold?
   - Wash your hands often.
   - Dress warmly.
   - Stay away from sick friends.

Directions: Each student must fill in an answer to each question. With a partner, the students come to a consensus on the specific answers. As a class, the answers are stated and put on the board or overhead. The students read to verify, correct, or modify their answers.

1.

2.

3.

4.