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(Strategy Lessons 33-51)



Before Reading: Activate Prior Knowledge

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Lessons That Prepare Students to Read

“What’s a variable?” a seventh grader blurted out. He was new to this country and to a sixth-grade math class.

“Don’t you know?” echoed around the room. I held my breath, waiting to see what this second-year teacher would do.

After a long pause, she said, “I’m sorry, I didn’t check to see if you studied variables at your other school. Do the best you can now. I’ll help you during a few lunch periods.” The lesson was tough for most students because variables are an abstract concept and didn’t stick with most of them after being introduced in fifth grade.

Later, when the teacher and I debriefed, she explained, “I just assumed Tim learned this last year because everyone at our school did. I guess I should have asked. I should have front-loaded all students—most of them needed it before diving into the chapter. I guess I was trying to save time.”

Though it takes time to build students’ prior knowledge, it’s a great investment. Not only can it deepen students’ understanding, it also can reclaim past learning experiences and support students who have no background knowledge.

Therefore, the strategies you’ll model to prepare students to read and learn information and vocabulary can increase what they know about a topic to the point that they can unpack meaning from a demonstration, the text, or features such as graphs, diagrams, sidebars, photographs, and captions (for a review of these features and more, see pages 78–80). In content subjects, front-loading, or enlarging prior knowledge, is the link you want to capitalize on because most topics are new or not very familiar to students (Alvermann & Phelps, 1998; Beck et al., 1997; Robb, 2003; Vacca & Vacca, 2000). Use the lessons that follow and those in the language arts section to teach reading before students read, think, and discuss to learn.

Strategy Lesson 33

Textbook Treasure Hunt

Purpose

To familiarize students with their textbooks and how textbook organization can support learning

Materials

Subject-area textbook; Textbook Treasure Hunt reproducible (page 264)

How It Helps

The treasure hunt familiarizes students with the basic features in their textbook. Knowing features repeated in each chapter, such as graphs, charts, maps, and sidebars, can show students how these features support their comprehension. The hunt can also be used to introduce teamwork and collaborative learning.

Time

Pairs can spend 10 minutes a day over three days.

Presenting the Lesson

1. Divide the class into teams of four students.
2. Give each team a reproducible to complete (answers can go on a separate sheet of paper).
3. Have teams elect a scribe, the person who records answers.
4. Have teams share one or two items with the class.

Textbook Treasure Hunt

Directions: Use your textbook to answer the questions below. Write your answers on a separate sheet of paper.

1. Find and check out the index. Where is it? How many pages is it? Locate and jot down a topic that has several consecutive pages listed after it (there is information about that topic on each of the pages). Find and jot down a topic that has only a single page listed.
2. Look through the table of contents. Where is it located? How many units does it include? List three units you would like to study. List five other topics covered in this textbook.
3. Glance through the glossary. Where is it located? What information does a glossary contain? Select and jot down two words from the glossary that you know something about and two that are unfamiliar. How can the glossary help you understand the meanings of unfamiliar words?
4. Check out the first page of a chapter. List all the information you find on that page.
5. List three boldface words in that chapter. Find out what each one means by reading around the word. Write the definition in your own words. What else can you use in this textbook to find the meaning of new words?
6. Skim the textbook and find a photograph. Note the page number. Study the photo and read the caption. Write, in your own words, what you learned. How can photos and captions help you understand new topics?
7. Introduce yourself to a graph, chart, diagram, or map. Note the page it's on. Now, study it and read all of the print. In your own words, write what this feature can teach you.
8. Flip through two chapters. What other features do you find in your textbook? How do these features help you learn new information?
9. Take a look at the last page or two of a chapter. What do you find there? How can this help you learn the information?
10. Skim through a chapter. Is there anything that confuses you? Note the page number and ask group members to help you. If they can't, ask your teacher.

Strategy Lesson 34

The Anticipation Guide

Purpose

To improve comprehension and start students thinking about what they know by asking them to agree or disagree with statements about a topic before reading; to motivate students to read to discover whether their opinions can be supported; to adjust opinions after a study

Materials

A topic that's slightly familiar to students

How It Helps

“I love doing these 'cause it's fun to disagree and get to talk to someone.” This fifth grader's words point out why this preparation strategy is a motivator: Interacting with a peer and discussing controversial statements generate enthusiasm for a topic.

To create an anticipation guide and stir disagreement and discussion among students, you create a series of four or five statements. The statements should spark disagreement and build tension among students before the study begins. When small groups discuss their statements, they not only build background knowledge but also develop strong purposes for reading to check their opinions.

The strategy is most effective when students have a small amount of background knowledge—not so much that they've formed well-reasoned opinions but enough to form initial impressions. Ideally, students will disagree. As you tune in to groups' discussions, students' beliefs will emerge and will indicate whether you need to build more background knowledge or can go ahead and start the unit (Duffelmeyer, 1994; Herber & Nelson, 1986; Readence, Bean, & Baldwin, 1998).

Presenting the Lesson

1. In advance, identify the concepts you want students to understand.
2. Present to students four or five highly opinionated statements that can support or challenge their ideas about a topic.

Time

The total time for this lesson is 22–26 minutes. This includes your prep time and before- and after-reading sessions.

3. Have students create an anticipation guide by writing down each of the statements on a journal page.
4. Arrange students in pairs or in small groups. Have them read each statement on their anticipation guide.
5. If they agree, they put a check or "Yes" next to it. If they disagree, they put an "X" or a "No" next to it.
6. Have students discuss their reactions and reasons with their partner or group.
7. Invite them to jot down the main points from their discussion under the statement.
8. Have students return to the anticipation guide after the study. Ask them to reread the statements and mark their responses again.
9. Ask them to explain their reasoning for any responses they've changed.

ANTICIPATION GUIDE

Name Lowell Date _____

Directions: Read each statement below. If you agree under "BeFORE," put a check next to it. If you disagree under "BEFORE," put an "X" next to it. Then, share and discuss with a partner. When the study is complete, reread the statements and adjust under "AFTER."

BEFORE Agree/ Disagree		AFTER Agree/Disagree
<input checked="" type="checkbox"/> 1. Decimals are different from fractions.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 2. Dollars and cents use decimal points		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 3. Decimal points have no connection with everyday life.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 4. Baseball player use decimals points.		<input checked="" type="checkbox"/>

Before: List the high points you and your partner discussed.

- numbers with \cdot look different from fractions
- money does use \cdot
- we never think of decimals in our lives

After: Explain the information that helped you adjust you "before hunch."

- decimals & fractions look different - they name the same amounts
- baseball averages use decimals
- on most packages weight uses decimals - 16.8 lb.
- 23.86 - decimals - used everyday

ANTICIPATION GUIDE

Name Katie Date _____

Directions: Read each statement below. If you agree under "BeFORE," put a check next to it. If you disagree under "BEFORE," put an "X" next to it. Then, share and discuss with a partner. When the study is complete, reread the statements and adjust under "AFTER."

BEFORE Agree/ Disagree		AFTER Agree/Disagree
<input checked="" type="checkbox"/> 1. Hobos became a large group during the Great Depression.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 2. President Roosevelt did nothing to help U.S. citizens get jobs during the depression.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 3. The Great Depression broke up many families and children had to work or starve.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 4. The government created jobs and put men and women back to work.		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 5. The rich families had plenty of money to spend during the depression.		<input checked="" type="checkbox"/>

Before: List the high points you and your partner discussed.

- We weren't sure what hobos are - we just put a check
- We didn't know what the gov. did
- The rich weren't hurt - only worker & poor

After: Explain the information that helped you adjust you "before hunch."

- Roosevelt & gov. made jobs for people - public works - build parks, roads, libraries. Made social security
- Families torn apart - kids sent away to find work
- rich lost most of there money

Strategy Lesson 35

Preview/Connect/Predict

Purpose

To broaden the traditional book or article preview (reading the title, headings, boldface words, graphics, and captions); to make connections among these features and add personal connections and connections to world issues; to use a limited amount of information to make logical predictions about what the textbook chapter or informational text is about

Materials

A section from a textbook; any informational trade book with textbook features

Time

This lesson takes about 8–10 minutes.

How It Helps

After eighth graders preview a chapter about Franklin D. Roosevelt and the New Deal by taking turns reading the title, headings, boldface words, and captions, I bend down next to a group of four students and ask, “Can you tell me how the preview you just completed will help you read and better understand this chapter?” The students looked up and shrugged their shoulders. I gently prodded them to answer with words.

Silence prevailed—a silence that seemed to last forever, but I waited and said nothing. Finally, Rita said, “I don’t know. It’s what we do—and then read.” Two things struck me: the fact that the students accepted this routine without thinking about why they were doing it, and the realization that such mechanical previewing would be unlikely to truly help them comprehend. This rote previewing takes place in content classrooms all across the country. We teachers know previewing a text is important. But the traditional preview doesn’t do enough to build prior knowledge and initiate real thinking about a topic.

When students preview and make connections between the ideas read as well as connections to their own experiences and world issues, they build background knowledge, extend the ideas, and start showing how sections relate to one another and to personal and world issues. By asking students to use a limited amount of information to predict, you can determine what they’ve absorbed. In addition, students’ predictions become purposes for reading that they’ve set. After reading, predictions can become discussion prompts that pairs or small groups can use to spark conversations.



Presenting the Lesson

1. Tell students that you will model the preview/connect/predict strategy, which will help them get ready to read. Then invite students to work with a partner to write three or four predictions that show what they may learn in this text.
2. Here's what the process sounds like when I think aloud using the *Storyworks* article "Harriet Tubman and the Freedom Train":

The title, "Harriet Tubman and the Freedom Train," and the photo of Harriet Tubman make me think that she had a lot to do with the Underground Railroad because that was the freedom train for slaves. I can connect this to the subhead that tells me Harriet had experienced the cruelties of slavery and she helped others escape. I can connect the mode of escape to the freedom train. The picture on the next page shows an African American in a box. The caption tells me the man is Harry Brown, a slave taken from Virginia to Pennsylvania in a sealed box. The sidebar, "The Man in the Box," recounts Harry Brown's escape and uses quotes from his biography. This was another kind of "freedom train." The heading "Rescuing Her Family" I can connect to Tubman helping free her family. The next heading, "The Underground Railroad," might be the way Tubman's family escaped slavery. The last heading, "The Moses of Her People," connects Tubman to Moses in the Old Testament, who freed the Israelites from Egyptian slavery. The reproduction of a poster advertising a \$100 reward for anyone who turned in a runaway slave, I can connect to the dangers involved and the courage of Harriet Tubman and those in the Underground Railroad who took grave chances to act on their beliefs. The boldface phrase "Slave catchers" connects to this poster as do the words abolitionist (it says in the article that this is an antislavery person) and perils. I think network might connect to the Underground Railroad. And it says a fugitive is a runaway slave. I know illiterate from my work, it means not able to read. I'm making the connection that many slaves couldn't read.

Note how I'm careful to use the word *connect* to make clear this process of linking ideas. Adding connections to the preview takes it far beyond simply saying phrases and words. By linking ideas, learners start thinking before reading. It's also obvious how the connections enlarge ideas and add to learners' background knowledge.

3. Have students fold a journal page in half lengthwise. On the left-hand side, students write their predictions, leaving four or five lines between each. Students can use this journal page with the after-reading lesson Discuss and Take Notes on page 284.



4. Invite pairs to write four predictions that start with the prompt *I think I'll learn . . .* Here's what one pair of fifth graders wrote:

- ◆ I think I'll learn how Harriet T. rescued her family.
- ◆ I think I'll learn more about the man in the box.
- ◆ I think I'll learn what the Underground Railroad was.
- ◆ I think I'll learn why Tubman was compared to Moses.

Partners will come up with slightly different predictions. This is fine as long as the predictions are logical and grow out of the preview. Their predictions become purposes for reading.

Tips for Students Completing and Extending the Strategy Independently

1. Organize students into pairs. This strategy works best when students talk and exchange ideas and connections with a peer.
2. Ask students to fold a journal page in half lengthwise. Students write their predictions on the left-hand side, leaving three or four lines after each one. After their discussion, they jot down notes from memory on the right-hand side.
3. Have pairs record their predictions in a double-entry journal, leaving space after each prediction. Students can use this prompt to start their predictions:
I think I'll learn . . .
4. Ask pairs to discuss their predictions, citing specific details from the text.
5. Have students independently write everything they recall from their discussion on the right-hand side of their journal page.

The image shows a handwritten student entry in a journal page. At the top left, it says "Judy" and "p. 362-364 'Crusaders For Women's Rights'". At the top right, it says "Nov. 3". Below this, the student has written "I think I will learn:" followed by three numbered points: "1. about temperance workers", "2. what rights women wanted", and "3. what Susan Anthony did".

Strategy Lesson 36

List/Group/Categorize

Purpose

To activate what students know about content through word association and organization; to ask students to generate, then organize, a large vocabulary list (15 to 25 words) related to a topic or chapter

Materials

A textbook, informational trade book, or magazine article; chart paper and markers

How It Helps

Developed by Taba (1967), this strategy was originally conceived to improve students' vocabulary in social studies and science. You can also use it in math. The strategy is most effective when students know something about a topic so they can create a rich list of words. Thinking of categories, organizing words under these, and explaining why a word can be listed under two different categories develops students' ability to see connections among the words they will use during the unit.

Time

This lesson takes 20 minutes; it can be split into two days.

Presenting the Lesson

1. Make sure students have had many experiences with the topic. In this example, fifth graders complete a list/group/categorize for addition and subtraction of fractions and mixed numbers.
2. Organize students into pairs or small groups.
3. Invite students to browse through the textbook chapter or an informational book.
4. Ask pairs or small groups to discuss the topic for two or three minutes and think of words and phrases they associate with it.
5. Have students write all the words they can recall in their journals.
6. Ask students to share their words and phrases; record them on chart paper. Students in grades 6 and up can add words from the chart that aren't in their journals. Here's the list of words fifth graders compiled:

<i>add</i>	<i>fraction</i>	<i>perimeter</i>
<i>common factor</i>	<i>fractions</i>	<i>reduce to lowest terms</i>
<i>denominator</i>	<i>improper fraction</i>	<i>solution</i>
<i>difference</i>	<i>least common denominator</i>	<i>subtract</i>
<i>equation</i>	<i>like denominators</i>	<i>sum</i>
<i>equivalent</i>	<i>mixed number</i>	<i>unlike denominators</i>
<i>estimate</i>	<i>numerator</i>	

7. Model how you create a heading and group words under it. The heading fifth-grade teacher Ross Mulry creates is “Kinds of Fractions.” Under the heading, he lists “equivalent,” “improper,” and “mixed number.”
8. Ask pairs to group words that go together and create headings for the groups. Tell them they can list words in more than one category, as long as they can explain their reasoning.
9. When pairs have grouped all the words, have them share their headings and words; write them on chart paper. Have students explain why they categorized a word or phrase as they did. This encourages them to think more about terminology and discuss the concepts related to the topic. Here’s a sampling of what fifth graders came up with:

<i>Operations</i>	<i>Related to Fractions</i>	<i>Measurement</i>
<i>add</i>	<i>least common denominator</i>	<i>perimeter</i>
<i>sum</i>	<i>like denominators</i>	<i>estimate</i>
<i>subtract</i>	<i>unlike denominators</i>	
<i>difference</i>	<i>common factor</i>	
<i>reduce to lowest terms</i>		



Strategy Lesson 37

How to Read and Interpret a Graph

Purpose

To provide students with guidelines that will enable them to collect information from graphs and use the data to answer factual questions and draw conclusions

Materials

This lesson will use the graphs on pages 274–275. You can also use a circle, line, or bar graph from a science, history, or math textbook or article.

Time

This lesson takes about 10 minutes per graph.

How It Helps

“I never read graphs. It’s confusing. I don’t know what to look at, so I don’t,” a sixth grader tells me during a reading interview. I worry that so many students feel this way, yet graphs often contain information that can help learners increase their prior knowledge about a topic and foster improved comprehension and recall. Now that mandated standardized tests evaluate students’ ability to read and interpret graphs, it’s more important than ever to teach students how to approach a graph and learn from it. Moreover, when students understand graphs, they can organize data from a survey into a graph of their own, making the data accessible to others.

Guidelines for the Circle Graph:

“U.S. Energy Sources”

1. Photocopy the graphs included with this lesson. Pairs can share a copy.
2. Model how you approach a circle graph:
 - ◆ Read the title, subtitle, and any text to figure out the topic.
 - ◆ Connect the graph’s topic to the topic being studied.
 - ◆ Read the labels and data in the graph and link these to the title.
3. Show how you answer factual questions such as, What percentage of energy comes from oil? From natural gas? From renewable resources?

Continue modeling how to read a graph; turn the process over to students so they can help you answer both factual and inferential questions.

4. Invite students to help answer factual questions once you've modeled.
5. Show students how to connect ideas and draw conclusions by asking, "How can the United States' dependence on oil and natural gas affect the daily lives of families?" Model your thinking for them.

Guidelines for the Bar Graph: "U.S. Most Recycled Materials"

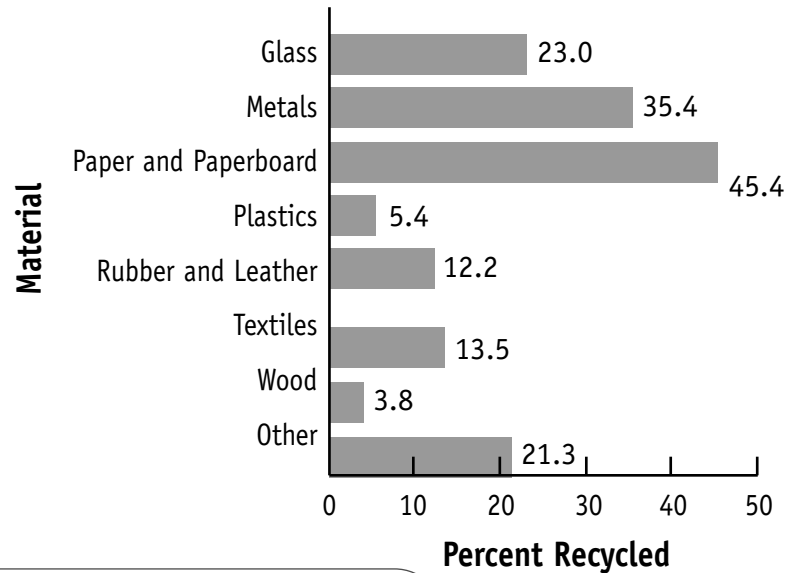
1. Photocopy the graphs included with this lesson. Pairs can share a copy.
2. Model how you approach a bar graph:
 - ◆ Read the title, subtitle, and any text to figure out the topic.
 - ◆ Connect the graph's topic to the topic being studied.
 - ◆ Read the labels and data in the graph and link these to the title.
3. Read the information on the left-hand side (the y-axis or vertical line) and the bottom (the x-axis or horizontal line). Connect this information to the graph's title and the topic being studied.
4. Show how you answer factual questions such as, Which three materials were recycled the most in 2000?
5. Invite students to help answer factual questions once you've modeled.
6. Show students how to connect ideas and draw conclusions by asking, "How can the information on this bar graph help me draw conclusions about our reservoir of natural resources?" Model how you think this question through.

Guidelines for the Line Graph: "Fuel Efficiency of U.S. Cars, 1975–2000"

1. Photocopy the graphs included with this lesson. Pairs can share a copy.
2. Model how you approach a line graph:
 - ◆ Read the title, subtitle, and any text to figure out the topic.
 - ◆ Connect the graph's topic to the topic being studied.
 - ◆ Read the labels and data in the graph and link these to the title.
3. Read the information on the left-hand side (the y-axis or vertical line) and the bottom (the x-axis or horizontal line). Connect this information to the graph's title and the topic being studied.
4. Show students how you answer factual questions such as, How many miles per gallon could a car go in 1990?
5. Invite students to help answer factual questions once you've modeled.
6. Show students how to evaluate data on the line graph by asking, "How would you evaluate the rate of fuel efficiency from 1975 to 2000? Do you feel it was good or poor?" Model your thinking for them.

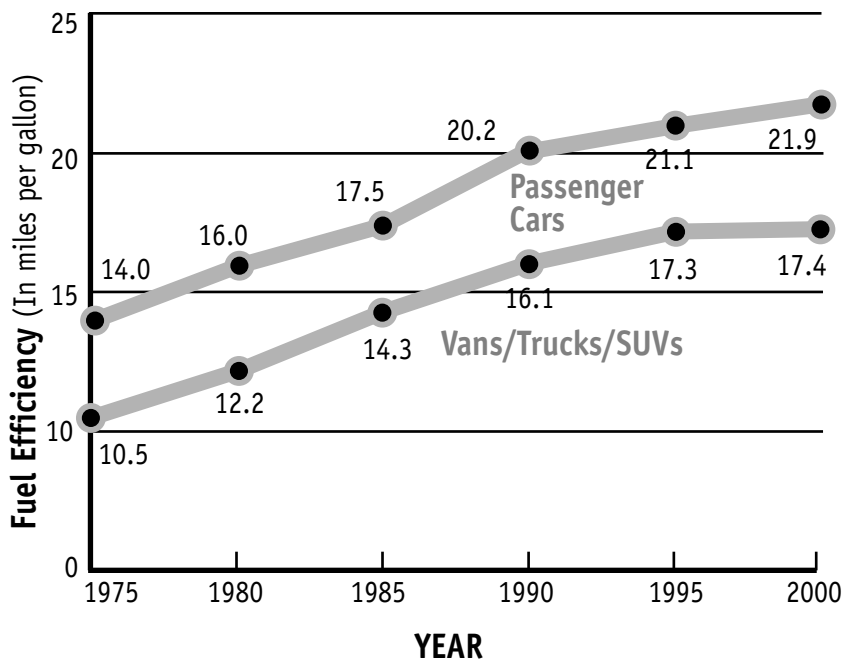
U.S. Most Recycled Materials

Today, the U.S. recycles about 30 percent of its waste, three times more than in 1980. Recycling now prevents more than 50 million tons of waste from ending up in landfills and incinerators each year. Which materials are recycled the most in the U.S.?



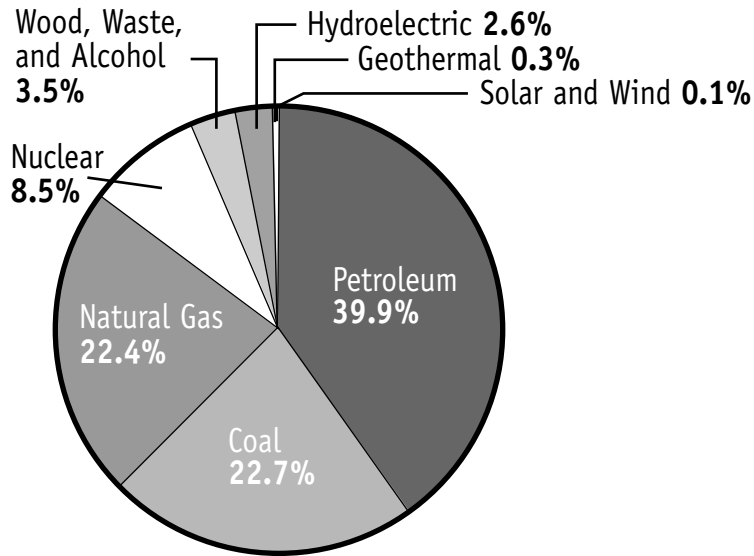
Fuel Efficiency of U.S. Cars, 1975-2000

There are almost 200 million cars in the U.S., and American drivers log an average of 13,000 miles on the road each year. How fuel-efficient are the cars we drive?



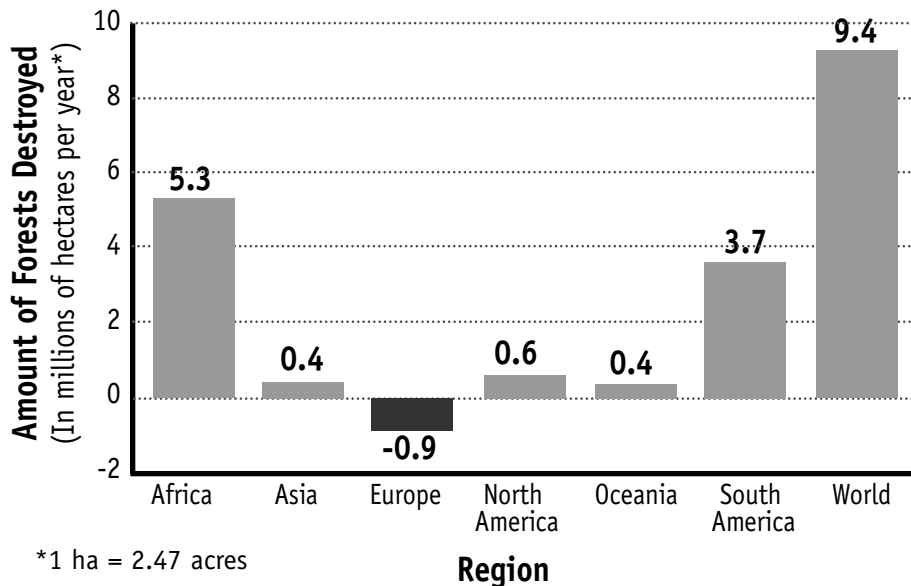
U.S. Energy Sources

Most of the energy that people in the U.S. use comes from fossil fuels, including petroleum, coal, and natural gas. Nuclear plants and hydroelectric dams also produce part of our energy. A small percentage of our energy comes from alternative resources such as solar, wind, and geothermal power. Which energy sources are the most important to the U.S.?



World Deforestation by Region

Forests cover about 30 percent of the Earth's land area. But many trees are being cut down to make room for a growing population. How much of the world's forests are destroyed each year? And in what region are forests being regrown?



Use this bar graph for extra practice.



Lessons That Foster Self-Monitoring During Reading

I've invited you to use the self-monitoring and fix-up strategies presented on pages 98–104 in the Language Arts section. Work on one strategy at a time—in fact, you may want to focus on one or two that you feel are ideal for the subject you teach. Twice a week, set aside three or four minutes of a class period and have students practice and access a fix-up strategy if needed. With continued practice, using your subject materials, students can absorb the strategy and apply it when they read on their own.

In this section, I've included two scaffolding strategies that can support the learning of content among your weaker readers: questioning the author and paired reading and questioning. These self-monitoring strategies can be used during reading and when rereading a challenging section of text.



Strategy Lesson 38

Questioning the Author

Purpose

To provide students with a strategy that enables them to connect to and understand a text; to foster self-monitoring

Materials

A section from a textbook or a reading selection that relates to your curriculum; chart paper; marker pens

How It Helps

Questioning the author (QtA) supports students' learning because it engages them in an active search for meaning. The strategy, developed by Beck et al. (1997), invites readers to explain information in a text to themselves as well as with partners and forces them to reread in order to clarify understandings. It enables students to read strategically by making connections between sentences and self-monitoring for understanding.

Time

This lesson takes 10–20 minutes.

Presenting the Lesson

1. Write the initiating and follow-up questions on chart paper (see sidebar on next page). These questions are the same for every text because they are trying to get at the author's intent and meaning.
2. Model how you use these questions to interpret and comprehend text. Start with the initiating queries. If these don't help, select follow-up queries that can help. Here is the section of text I use for modeling with "The Volcano That Shook the World." I've numbered the sentences and will refer to them this way.

(1) The devastating eruption of Krakatoa changed the world's skies, winds, and weather, not just in the days following the disaster, but also for months to come. (2) The dust cloud caused darkness as far as 250 miles away, and close to the volcano, it stayed dark for three days. (3) Volcanic ash and pumice from the eruption covered parts of the nearby islands, making it difficult for plants to grow for several years. Ash fell on Singapore, 525 miles away.

3. Here's how I model QtA for students, to show them that the strategy helps them move beyond the facts to main points implicit in the facts.



What is the author trying to say here? In the first sentence, I think the author is trying to tell me that when Krakatoa erupted, it affected more than the sea near Java and Sumatra. The eruption changed the weather and winds and what the sky looked like for months. Changes happened all over the world, that's why the author says "world's skies." The author gives details in the second sentence that support her idea. A dust cloud caused darkness 250 miles away. Darkness lasted for three days. The last sentence says that ash from the volcano ended up in Singapore, 525 miles away. The author tells us that the islands near Krakatoa couldn't use the soil to grow things because it was covered with ash. So what the author is telling us is that when a volcano erupts, people at great distances from the volcano feel the effects, because clouds and winds carry the ash and dust far away.

Questioning the author encourages students to unpack meaning, sentence by sentence, and then to put all the information together to figure out what the author is saying and what the passage means.

4. Encourage student feedback and questions. Here are some fourth graders' reactions to the strategy lesson:

It was weird to see you ask the writer questions.

You didn't skip [hard parts], like me.

You reread.

You connected ideas in sentences.

5. Organize students into pairs and invite pairs to use QtA with a short passage.
6. Scaffold the questioning of students who need extra help. Ask follow-up questions that link students to information they've read, and prompt them to explain what and why the author is trying to communicate.
7. Continue to practice until students can apply the strategy to their own reading.

Questioning the Author

Initiating Queries

- ◆ What is the author trying to say here?
- ◆ What is the author talking about?
- ◆ What is the author's message or point?

Follow-Up Queries

- ◆ What did the author mean here?
- ◆ Did the author explain this clearly?
- ◆ Does this make sense based on what the author told us before?
- ◆ How does this connect with what the author has told us here?
- ◆ Does the author tell us why?
- ◆ Why do you think the author tells us this now?



Strategy Lesson 39

Paired Reading and Questions

Purpose

To practice reading and questioning with a partner to make sense of text; to develop the habit of posing sentence-by-sentence questions to self-monitor comprehension and pinpoint unfamiliar words

Material

Passage from a textbook, magazine article, informational trade book, newspaper, or math word problem

Time

This lesson takes 10 minutes to present. Allow for 10-minute practice sessions over four or five subsequent classes.

How It Helps

“I think of better things like playing hoops after school if a textbook page I’m reading is so hard I don’t know what’s up,” a seventh grader told me during a conference. Many students who struggle with comprehending a text will tune out and think of other things. To support them, you can introduce and work on short sections of text with this strategy, an adaptation of Topping’s Paired Reading (1987) and Manzo’s ReQuest procedure (1968). This strategy invites students to examine text closely, one sentence at a time, in order to focus on and process all details by posing and answering questions. Self-monitoring and constructing meaning from a difficult text can improve comprehension and recall. Practicing this strategy with a partner will help students internalize it and use it when they read difficult material on their own.

Presenting the Lesson

1. Ask a proficient reader in your class to work with you and take on the role of the questioner. During this modeling, I take the role of answering the questions.
2. Select a passage from materials you are using. My student partner and I use a math word problem from the Addison Wesley sixth-grade textbook. I’ve numbered the sentences so I can refer to these as the student and I model the process.

(1) Dana memorized 15 state capitals one day, which was three times as many as she memorized on the previous day. (2) If Kevin has memorized five more capitals than Dana, how many has he memorized?



3. We read the first sentence silently. Here are the questions and answers for that sentence.

Questioner: Why does the problem say “three times as many as the previous day”? What does *previous* mean? Why does the problem give information about the “previous day”?

Responder: [I reread the sentence out loud] *Previous* means the day before. The problem gives the detail “three times as many” because I have to use that information to find out how many capitals Dana memorized in all. Three times five is fifteen, so Dana memorized five capitals on the previous day and fifteen the next day, for a total of twenty capitals.

Questioner: How do I figure out how many Kevin memorized?

Responder: It says he memorized five more than Dana, so that should be twenty-five state capitals.

4. Continue to model. You and your partner may switch roles.
5. Call for student feedback and observations. Several sixth graders agreed that questioning the information in the first sentence helped them see that they had to find the number memorized the previous day.
6. Establish behavior guidelines, such as talking in a soft voice, before you turn the process over to students, pair them up, and ask them to work together (Tierney & Readence, 2000).
7. Explain what you want students to do once they’ve practiced the strategy together, since pairs will complete their assignment at different times.
8. Circulate and work with pairs who need your support.



Tips for Pairing Students

Forming partnerships for lessons can be tricky. If you know ahead of time how students work together, that knowledge can support your decisions. Avoid pairing a struggling reader with a proficient reader. The stronger reader will dominate the discussions, and the weaker reader will have little to contribute. As much as possible, pair students who can learn from each other. If your class has several struggling readers, you can pull the group together and work with them until they have developed enough skill to support a partner.



Lessons That Encourage Reflection After Reading

“I’m connecting! I’m connecting! Listen!” These words, spoken by fourth grader Ryan, caught her group’s attention—and mine and her teacher’s as well. Reading two years below grade level, Ryan struggled with texts on her instructional level because she called out words but rarely linked meaning to what she already knew or made personal connections to content. “I know why Rosa Parks was important. She stood up for her rights to sit after working. I’m connecting it to protesting like the marches. I’m connecting it to the letters eighth graders wrote against the dress code. It’s all protesting.” Blurted out in one long breath, Ryan’s excitement and pleasure in making these connections marked a turning point in her reading life. Observing her teacher present strategy lessons, listening to her classmates applying these strategies, and the scaffolding her teacher supplied all contributed to Ryan’s new engagement with text.

Students’ recall and their ability to understand and make connections with content can be improved when you offer experiences to them that encourage reflection (Alvermann & Phelps, 1998; Gillet & Temple, 2000; Harvey, 1998; Robb, 2003; Vacca & Vacca, 2000; Vaughan & Estes, 1986). On the following pages, you’ll find a wide range of after-reading strategies and experiences that promote reflection by inviting students to discuss, create their own questions, write to clarify understandings, make inferences, and review a unit.



After-Reading Lessons Take More Time

These experiences will take more than 10 minutes, as most move beyond teacher modeling to inviting students to discuss and write. I’ve included approximate times, but know that the amount of time you need will vary with the lesson, the students in your class, and your experience.



Strategy Lesson 40

Skimming a Text

Purpose

To show students how to locate essential information that can help them answer a question, fill out a graphic organizer, or study for a test

Materials

A textbook chapter or informational text students have read

How It Helps

“I don’t know how to skim,” a fifth grader tells me. “I never learned, so I just turn pages and look at anything that catches my eye.” This student’s words convey the difficulty learners face when asked to use a strategy they haven’t studied or practiced.

Teach students that skimming is a quick-and-easy way to locate information. Skimming helps them answer questions for class, locate information needed for a study or review sheet, and relocate details or a diagram in informational materials that are part of research for a project or a writing assignment.

Time

This lesson takes 10 minutes to model.

Presenting the Lesson

1. Skimming asks students to use boldface headings and words or other text features (see next step) to locate information they need for a discussion or for answering questions. Words in a question can also help students skim to locate a specific section of text. If the text is about plants and root systems, then students can skim for the words *roots* and *plants*.

Skimming enables learners to find sections of text they need without continually rereading entire parts. It is a time-saving and efficient strategy for locating a part of the text that needs rereading.

2. Explain to students that certain text features such as these are useful when skimming:
 - ◆ section headings in a textbook chapter
 - ◆ chapter titles in nonfiction trade books
 - ◆ illustrations, photographs, graphs, diagrams, maps, math examples
 - ◆ captions
 - ◆ boldface words

- ◆ boxes and sidebars
 - ◆ the index
 - ◆ key words in questions
3. Think aloud and show students how you skim to locate information. The goal is to find the section that explains what a volcano is in the article “The Volcano That Shook the World.” Here’s my think-aloud:

I’m pretty sure that information was on the first page. You’d have to know what a volcano is to understand the text of the article. Here it is. The heading says: “What Is a Volcano?” I’ll quickly reread that section so I can write an answer in my own words.

4. Model with several features so students can observe how each one supports skimming for information.
5. Gather feedback from students. Encourage them to pose questions about your process and share their take on skimming. Fifth graders wonder, “What if there isn’t a spotlighted feature? How can you locate details?” Show students how key words in a question can help them solve this problem.

On Another Day

1. Demonstrate again how you use key words in a question to locate details. Here’s a question about Krakatoa that I write on the chalkboard: “Can you explain the word ‘dormant’ and relate it to Krakatoa?” Here’s the think-aloud I share:

This article doesn’t have boldface words. But I remember that dormant had quotation marks around it. That can help me find the word. I’ll look down the first column of the article. There it is at the bottom of the column. It means “quiet” and connects to the article because it says the Krakatoa was quiet or dormant for over two hundred years. That means the eruption took everyone by surprise. There was no time to leave the area.

2. Continue modeling and practicing until students can skim to locate information and explain to you why this strategy is helpful.



Strategy Lesson 41

Discuss and Take Notes

Purpose

To show how the preview/connect/predict strategy on pages 267–269 can be used as a discussion prompt and for taking notes and writing to remember

Materials

Predictions written in the double-entry format; section from a textbook

How It Helps

“I can’t take notes in my own words,” a sixth grader tells his history teacher. This is a typical reaction from middle-grade and middle-school students who attempt to take notes without instruction and modeling from their teachers. The preview/connect/predict strategy invites students to use what they remember from reading and discussion to take notes. The strategy encourages careful listening and returning to the text to locate details and inferences that relate to students’ predictions.

Time

This lesson takes 25–30 minutes or more, depending on the length of the article.

Presenting the Lesson

1. Use a section from a textbook to model how you preview and make connections between headings, photographs, captions, and so on. Then show how you use the preview/connect to predict what you think you’ll learn. Here’s the preview/connect/predict think-aloud I present for the first two pages of “Harriet Tubman and the Freedom Train”:

I’m thinking that Harriet Tubman had something to do with freedom because of the title. When I read the words under the title I see she was a slave. I’m making a connection between the title and these details: I think “freedom train” means the Underground Railroad because it says that Tubman helped other slaves to freedom even though this endangered her life. The headings on the next page say “Rescuing her Family” and “The Underground Railroad.” I will connect Tubman’s helping others to her family—she helped lead them to freedom. I think there will be information about the Underground Railroad because that was the freedom train and the way slaves escaped to Canada.

2. Now I show students how I predict what I think I’ll learn, using the

information in the preview/connect I just did. To help students, I ask them to use this prompt: *I think I'll learn about . . .*

3. Here are my predictions based on the think-aloud above of what I think I'll learn about:

- ◆ the Underground Railroad
- ◆ who Harriet Tubman helped
- ◆ why she wanted to help others
- ◆ how she rescued her family

Note, these predictions are now my purposes for reading and points I can discuss with a partner.

4. Model preview/connect/predict a few more times or until students show you they understand the process.
5. Ask students to work with a partner and use the preview/connect/predict strategy with sections of their textbooks, reminding them that their predictions can help them with discussions and with headings for taking notes.
6. Set aside ten minutes so that partners who created predictions for a text using the preview/connect/predict strategy before reading (see Strategy Lesson 35, page 267) can revisit their predictions after reading. Ask students to locate the place in the reading that contained the details related to each prediction.
7. Invite partners to choose one prediction from their journals and share what they learned with the entire class. Was their prediction correct? If not, what happened? If time permits, let one or two students add details.
8. Continue asking for predictions, but tell students to choose one that has not been discussed and shared.
9. Have students close their textbooks and jot down on the right-hand side of the journal page as much as they recall from their conversation and reading.
10. Encourage students to check their notes against their reading and add additional details, if necessary, in their own words.
11. Students can use this process—read, discuss, close the book, then take notes—when they do research. This procedure prevents them from simply copying phrases and sentences from a text and at the same time improves their concentration and listening skills, which can result in more-detailed recall of information.

Nov 3

Judy
p. 362-364 "Crusaders For Women's Rights"

I think I will learn:

1. about temperance workers - tried to end heavy drinking
- called the temperance movement

2. what rights women wanted - equal rights for women + men
- wrote a declaration of independence for women - women = to men
- to vote
- to go to any college
- choose what want to be dr.
lawyer, politician, run business

3. what Susan Anthony did - spoke for above rights
- started womens rights movement
- 1872 - she cast 1st ballot on election day

Strategy Lesson 42

Connect and Apply

Purpose

To help students understand how their learning relates to their own lives, to other texts, to family, friends and community, and to world issues

Materials

A chapter in a textbook or an informational text or newspaper article

How It Helps

“Why do I have to learn this?” and “Why are you making us do this?” are two questions students repeatedly ask.

It’s important to move beyond “Because I’m telling you” or “Because the school district requires it.” As you help students link their lives and experiences and community and world issues to what they learn in school, they not only learn information but also gain insights into the relevance and importance of their studies (Harvey & Goudvis, 2000; Keene & Zimmermann, 1997; Robb, 2000, 2003).

Once students see a topic’s relevance, they are more likely to invest energy in studying it. Relevance is a great motivator, and students’ motivation to study a topic can turn into a passion for helping others. Eighth graders Jeannette and Meg organized a human rights club at school after a human rights unit of study. They adopted two area organizations that support latch-key children and raised money for them.

As you work with students on making a connection, you’ll notice that often students blend family with personal, or world issues with school issues. That’s fine.

Time

Reserve 15–20 minutes for each kind of connection.

Presenting the Lesson: Making Personal Connections and Connections to Media

1. Give students prompts that encourage them to connect information from their reading to their own lives, and to family members’ and friends’ lives (see box on page 288).
2. Show how you make personal connections when you read aloud. I read parts of *The School Is Not White!* by Doreen Rappaport (Hyperion, 2005). I connect this to my first experience riding a bus in Florida in the 1950s and watching African Americans go to the back of the bus or stand when there were empty seats in the front. I tell students how I was called “dirty Jew” in seventh grade and how the teacher said my best friend smelled like an immigrant—smelled

of fresh garlic. I connect this book to *The Story of Ruby Bridges* by Robert Coles (Scholastic, 1996) and to the video of Martin Luther King Jr.'s "I have a Dream" speech. Students share connections to television shows, movies, and books such as Mildred Taylor's *The Gold Cadillac* (Dial, 1987).

3. Model how you make connections with materials your class is studying.
4. Organize students into pairs or small groups and have them connect their lives, books they've read, and TV shows and movies they've seen to the topic.

Presenting the Lesson: Connecting to the School Environment

1. Each year, Harry Holloway, a math teacher at my school, has pairs take a walking tour of the school to show how geometric figures are part of their surroundings. Here are a few connections sixth graders made:

GEOMETRIC FIGURE	EXAMPLES
<i>rectangles</i>	<i>doors, windows, books, desks, library tables, computers, notebooks, library books, window glass, bulletin boards, floor of a room, walls, ceilings, steps, playground area, chart paper, chart stand, mirrors in bathrooms</i>
<i>circles</i>	<i>library tables, school library, entrance to school, bathroom sinks</i>

2. Help students understand how many connections there are between science and math and their environment. Here are some connections that sixth graders made:
 - ◆ Geometry is useful—it's in the building and furniture.
 - ◆ Builders need to know geometry—architects do, too. Buildings are based on geometric principles.
 - ◆ Even chalk is a cylinder. It made me aware of geometry in my life. I used to think it was something I had to do in school.

Presenting the Lesson: Connecting to Community and World Issues

1. In a think-aloud show how you connect a read-aloud or material the class is studying to community and world issues. For example, I connect the eruption of Krakatoa and the fact that winds and clouds carry volcanic ash to air quality and the fertility of the land hundreds of miles away. Testing nuclear bombs can create

nuclear fallout, which clouds and winds can also carry to other parts of the world. Events are not always isolated or contained.

2. Show students how global issues of hunger, injustice, terrorism, and human rights violations connect to their studies.
3. Invite pairs and small groups to make these connections. Seventh graders studying child labor laws connect the prohibition of child labor here to its continued existence in China and Thailand. As Marissa pointed out, “We still have a lot to change in the world.”

Prompts for Making Personal Connections

- ◆ Did you have a similar experience? How did you feel? What did you think and do?
- ◆ How was your situation the same? Different?
- ◆ How does this information apply to your life?
- ◆ Do you face similar problems?
- ◆ Does the experiment relate to anything in your life? How?
- ◆ How does the math you’re learning connect to things you do?
- ◆ What have you learned about yourself by studying this event?
This person’s life?
- ◆ How is your family the same as or different from the one in the video/historical novel/biography?

Strategy Lesson 43

Visualize

Purpose

To offer students practice with making mental pictures; to show students the connections between visualizing, remembering, and understanding

Materials

A selection from an informational book, magazine article, newspaper, or poem; information in a textbook—a math problem, an experiment, vocabulary

Time

This lesson takes 10–20 minutes, depending on the task.

How It Helps

“If I can’t see it, I can’t remember it,” fourth grader Sally wrote in her journal. How right Sally is, for learners can only visualize what they understand. Visualizing can help students recall a diagram, a sequence of information, a math process, science experiments, maps, and vocabulary.

Once students have developed the ability to make mental pictures, they can replay, reflect on, and ultimately better comprehend material.

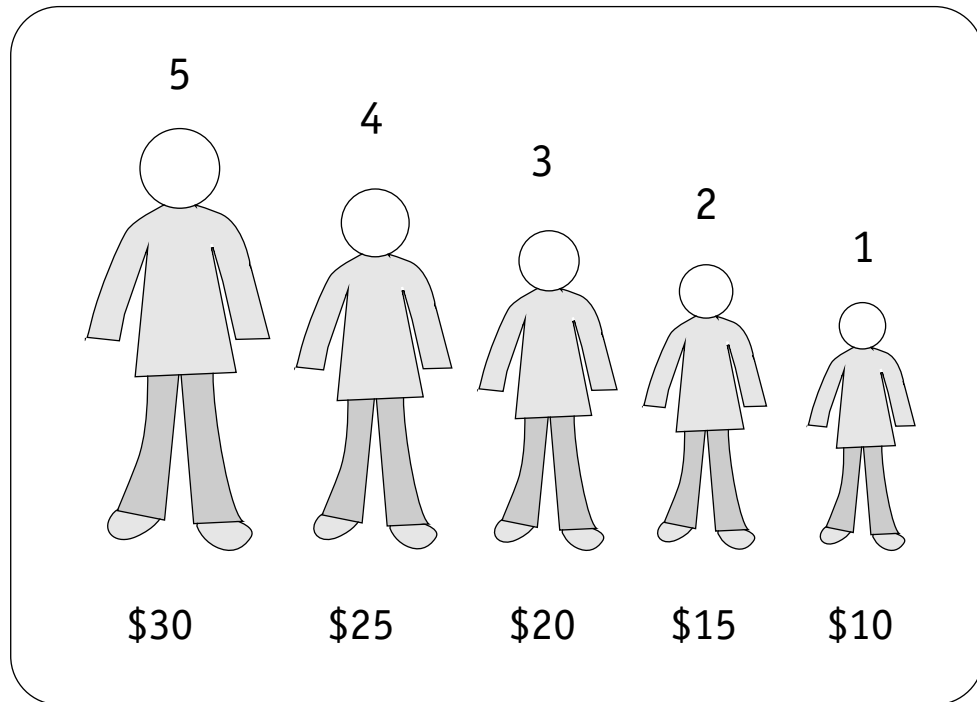
Presenting the Lesson

1. Invite students to visualize information as you read aloud a selection from an informational book, magazine article, newspaper, or poem.
2. Have students draw their visualizations on paper and discuss their drawings with a partner, group, or the class.
3. Tell students that they can use drawings to help them understand math problems or a science process. Present the following math problem and think-aloud to show students how to use mental pictures to understand how to solve a problem.

Sample Math Problem: Ramon took his four younger sisters to the mall to purchase presents for their grandmother’s surprise birthday party. Ramon was given \$30.00 to spend because he was the oldest. The next oldest received \$5.00 less than Ramon. The remaining three sisters each received \$5.00 less than her next older sister. How much did each child receive? How much money did Ramon and his sisters spend?

Think-Aloud: First, I want to make a picture of Ramon and his four sisters, each one younger than the last. I’ll number Ramon five and his

sisters four, three, two, and one. Now that I can see them I know Ramon received thirty dollars. Sister number four, received \$5 less which is \$25. Sister number three had \$20, sister number two had \$15, and sister number one had \$10. Now all I have to do to figure out how much they all spent is add the amounts under the pictures.



Strategy Lesson 44

Admit/Exit Slips

Purpose

To illustrate the power of discussion in helping students comprehend and recall information

Materials

Index cards; a selection from a textbook or informational text that students have read but not discussed

How It Helps

This strategy offers your students an opening and closing structure to studying material that they have read independently (Andrews, 1997). Class opens with each student receiving an index card which is their “admit” slip. In addition to writing their name and date on the card, students note key pieces of information they recall from their reading. If students recall nothing, then they should note that. After a rich discussion on the reading, students complete the “exit” part on the back of the index card and write all the facts they learned and connections they made.

This strategy quickly shows students the benefits of discussion when learning new information. To add more power to the lesson, you can have pairs create their own discussion questions (see Strategy Lesson 45 on pages 293–294).

The strategy also makes assessment easier for you—index cards are quicker to read than a stack of journals.

Time

Set aside 5 minutes at the start of class and 7–8 minutes near the end.

Presenting the Lesson

Admit

1. At the beginning of the class, give each student an index card.
2. Have students write their name, date, and “Admit” at the top of the card.
3. Ask students to write important information they recall from the reading. If students recall nothing, ask them to note that.

During the Class

4. Have partners write several discussion questions for the section they read. Though you may want to use end-of-chapter questions or questions you have created, asking students to write their own questions returns them to the text to skim and reread.
5. Ask partners to use each question to think/pair/share/write (see pages 299–300).



6. Invite partners to choose one question, read it to the class, then share the highlights of their discussion.

Exit

7. About ten minutes before class ends, ask students to turn over their index cards and print “Exit” at the top.
8. Ask students to jot down new information learned during class and any connections they made.
9. Collect index cards and read.

Following Up

Debrief by asking students to share whether the strategy helped them learn the material. Call for suggestions to improve the process.

