Lesson: Comprehension Strategies for Informational Science Texts

Objectives

- Utilizes strategies to self-monitor comprehension during reading
- Recognizes when a comprehension fix-up strategy is needed and applies the appropriate strategy

Evidence of Student Success

- Independently utilizes the taught strategy to monitor comprehension as demonstrated by completed handout and acceptable comprehension of the text.

Preparation

1. Read Lesson.
2. Choose which comprehension strategy you will teach: Coding or Read, Remember, Represent, Retell or Graphic Aid Monitoring.
3. Based on the strategy you chose to teach, copy the handout for each student: Coding Text Handout, Read, Remember, Represent, Retell Handout, Graphic Aid Monitoring Handout. (handouts found at the bottom of lesson plans)
4. Prepare chart (or overhead) that is exactly the same as the handout to use during your demonstration.
5. Choose a read aloud to use in your demonstration of the strategy.

Strategy One: Coding Text

50-55 minutes

1 Set Purpose: Explain to students that today they will be coding their text while reading. Tell them that this is one way good readers monitor their own comprehension because it helps them keep
track of what they are thinking as they read.

2. Introduce Procedure (10 minutes):

- Display the coding chart that you have prepared.
- Give each student a copy of the Coding Text Handout.
- Read each statement aloud. Discuss what the statement means.
- After you have read each statement, draw the corresponding symbol next to the statement on your chart. (You can use the sample code shown below or have your students suggest symbols for each statement.)
- Invite students to draw the corresponding symbols onto their handout.
- You may want to have students glue the handout into their Writer’s Notebooks.

<table>
<thead>
<tr>
<th>Sample of Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Question Mark]</td>
</tr>
<tr>
<td>![Sad Face]</td>
</tr>
<tr>
<td>![Exclamation Point]</td>
</tr>
<tr>
<td>![Light Bulb]</td>
</tr>
<tr>
<td>![Eyes]</td>
</tr>
<tr>
<td>![Smile]</td>
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</tbody>
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3. Model Strategy during Read Aloud (10 minutes) – Read aloud a science informational text about your topic (or a portion of an informational text). As you read aloud, think aloud. Show students spots where you are confused, surprised, make a connection, or have a question. Model
how to code the text by using post-it notes, highlighters, or markers to mark the text using the symbols in the coding chart.

While you are reading, make sure that you are also demonstrating and explaining nonfiction reading strategies such as:

- Ordering the way you read the text on the page: text, sidebars, captions, charts, labels, etc.
- Using organizational features such as headings and subheadings to prepare your mind for what is coming next
- Pausing to think about what you have read (retell it to yourself) and to ask questions
- Using the glossary to help with difficult words
- Paying attention to print features such as italicized or bold print

4. Model Writer’s Notebook (5 minutes) Now, model for students how to go back through the portion of text that you just read and record your thoughts into your Writer’s Notebook. Here’s how:

- Flip through the text until you come to a spot that is coded.
- Stop, copy the code and page number into your Writer’s Notebook.
- Next, write the thoughts you had when you placed that code – record your question, connection, write why you were surprised, confused, etc.

Remind students that they may want to include these thoughts in their letter to their pen pal. They need to clearly explain their thinking so they can easily recall it when they are writing their letter.

5. Guided Practice (5 minutes) Provide all students with the same small section of text to code. After a few minutes, ask several students to share what they coded within that text and why.

6. Independent Practice (15 minutes): Allow students to independently read and code their informational science text. We suggest that during this time you circulate around the room to be available for assistance, but also to take your own notes about who is using the strategy
appropriately/who needs additional instruction.

7. Student Share (5-10 minutes): It is important not only for students to monitor their comprehension and mark the text accordingly, but also for them to follow through and clear up confusion, answer questions, and share connections. After they have coded the text, give your students the opportunity to talk about the notes they have made with others. Peers can often explain the content that students do not understand. As the teacher, you also need to be available to help students fill in the gaps and answer questions after they have coded text. Sometimes a group discussion works well because students might have common questions and misunderstandings about the text.

Strategy Two: Read, Remember, Represent, and Retell 60 minutes

1. Set Purpose: Explain to students that many people (including Richard Feynman, the famous Nobel Prize-winning scientist) say that unless you can explain something to someone else, you really don’t understand it. Tell students that the strategy they will learn today (Read, remember, represent, retell) will help them to remember and understand what they read by recalling it in three ways: 1) to yourself in your own head, 2) on paper in writing and 3) to a friend. Inform students that these activities help them make connections to what they have just read and thus, make it easier for them to remember the content and to verbalize it.

2. Introduce Procedure: Display the procedure chart that you have prepared. Give each student their Read, Remember, Represent, Retell Handout and explain that they can take notes on the steps directly onto their handout. Explain each of the steps to your students:

- **READ:** Read a small selection of text.
  Explain that the amount of text is a personal choice. You need to read enough that you have at least one main idea and supporting details to remember. However, you don’t want to read so much that you cannot recall enough information to explain the idea to someone else.

- **REMEMBER:** Try to remember what you have just read.
  Explain that this is a silent process. You’re thinking in your head about what you have just read – imagining that you’re retelling it to somebody else. Note that if students are having
trouble at this step, they need to STOP and reread (perhaps a smaller section of text) before proceeding to the next step!

- **REPRESENT:** Draw a sketch or Make a word web about what you have just read.
  Explain that during this third step students get to make a choice. Tell students that they may want to make the choice based on which method appeals to them more (the method you like more will probably help you remember the content best). However, they may also find that some sections of text lend themselves more to a sketch while others would be difficult to sketch, but easy to web.

![Word Web Example](image)

- **RETELL:** Retell it to a partner.
  Remind students that during the traditional tales unit, they had lots of practice with retelling! Explain that even though the genre has changed, the key retelling principles remain the same. Students need to engage their listener, retell as much as possible and try to use the vocabulary that was used in the actual text. Also tell students that when their job is to listen to their partner’s retelling, they need to respectfully listen and ask clarifying questions as needed. Remind students that answering their partner’s questions will help them remember the content even more!

3. **Model Strategy During Read Aloud:** Using a portion of a topic- based read aloud, model the
strategy of read, remember, represent, retell.

4. Guided Practice: Provide all students with the same small section of text (perhaps another section from your read aloud) to try out the strategy. Circulate to provide assistance. When students demonstrate that they are ready, move on to independent practice.

5. Independent Practice (15 minutes): Allow students to get in pairs to try the strategy with their own informational science text. (Students do not need to be reading the same text – in fact, it is better if they are trying to explain their text to someone unfamiliar with it.) We suggest that during this time you circulate around the room to be available for assistance, but also to take your own notes about who is using the strategy appropriately/who needs additional instruction.

6. Student Share (5-10 minutes): It is important not only for students to monitor their comprehension and use the strategy, but also for them to follow through and clear up confusion, answer questions, and share connections. After they have had time to utilize the strategy, give your students the opportunity to talk about the experience and share any issues they encountered.

Strategy Three: Graphic Aid Monitoring 60 minutes

As students read nonfiction, they encounter numerous graphic aids that are meant to provide additional information about the topic at hand. Without instruction on how to make meaning from these graphic aids, students may ignore these aids, miss out on information and build misconceptions by misinterpreting the information being presented. In this lesson, students are taught to pay attention to the graphic aids! They’re also instructed on how to make meaning from different forms of visual information. During reading, students keep track of the graphic aids they encounter in their books and practice summarizing the information being presented in each aid.

1 Set Purpose (10 minutes):

Ask students why they think science texts use graphic aids. Make sure that students understand graphic aids provide data that:

1) supports the information provided in the text or
2) provides new information

Explain that sometimes it is more effective to share information visually. Ask students to brainstorm what types of information are easier to understand in graphic form. Discuss why these types of information are better in graphic form. (visual impact, clear, more concise…)

Using a page from one of the informational science texts about your topic, demonstrate reading a page spread (2 pages) without reading any of the graphic aids. Then, read the graphic aids. Discuss how much more information you gained by reading the graphic aids. Make it clear that graphic aids contribute to the comprehension of the text!

2. Introduce Procedure (10 minutes):

• Display the Graphic Aid Monitoring Handout overhead that you have prepared.
• Discuss with students how the chart is to be used: for every graphic aid that you come across while reading, you record in column 1: the page number, in column 2: the type of graphic aid, and in column 3: a summary of what you learned from the graphic aid.
• Ask students what type of graphic aids they may encounter in their science text. Make a list of the graphic aids they mention.

3. Model Strategy during Read Aloud (10 minutes) – Read aloud a science informational text about your topic (or a portion of an informational text). As you read aloud, think aloud about the graphic aids. Model how to record each graphic aid onto your chart. While you are reading, make sure that you are also demonstrating and explaining how to read the different types of graphic aids. Be as explicit as possible in your explanations. For example, when demonstrating how to read a bar graph, point out that you’re paying attention to the title and axes labels. Show that you’re thinking about what information each bar is telling you. Also be sure to always demonstrate good nonfiction reading skills such as:

• Ordering the way you read the text on the page: text, sidebars, captions, charts, labels, etc.
• Using organizational features such as headings and subheadings to prepare your mind for
what is coming next

- Pausing to think about what you have read (retell it to yourself) and to ask questions

### 4. Guided Practice:
Allow groups to gather that are reading the same text. Invite them all to examine the first 2 pages together and complete their charts. Circulate around the groups asking several students to share what graphic aids they are finding/what they are learning from the graphic aids.

### 5. Independent Practice (15 minutes):
Allow students to independently read and complete their graphic aid monitoring handout using their informational science text. We suggest that during this time you circulate around the room to be available for assistance, but also to take your own notes about who is using the strategy appropriately/who needs additional instruction.

### 6. Student Share (5-10 minutes):
It is important not only for students to monitor their comprehension of graphic aids, but also for them to follow through and clear up confusion, answer questions, and share connections. After they have completed their graphic aid monitoring handouts, give your students the opportunity to talk about the notes they have made with others. Peers can often explain the content that students do not understand. As the teacher, you also need to be available to help students fill in the gaps and answer questions. Sometimes a group discussion works well because students might have common questions and misunderstandings about the text.
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<tr>
<th>Statement</th>
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<tbody>
<tr>
<td>I have a question.</td>
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<td>I am confused.</td>
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<td>I am surprised.</td>
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<tr>
<td>I’ve made a connection.</td>
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<tr>
<td>I can visualize what is happening on this page in my mind.</td>
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<tr>
<td>I know something about this idea already.</td>
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Name_________________________ Comprehension Strategy: Read, Represent, Remember, Retell

Take notes as your teacher explains each step of the strategy to help you remember the procedure.

<table>
<thead>
<tr>
<th>Read</th>
<th>Represent</th>
<th>Remember</th>
<th>Retell</th>
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**VISUAL INFORMATION**

<table>
<thead>
<tr>
<th>Title of Science Informational Text Book:</th>
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<table>
<thead>
<tr>
<th>Page number of graphic aid</th>
<th>Type of Graphic Aid</th>
<th>What the Graphic Aid Taught Me</th>
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