This project was developed at the Success for All Foundation under the direction of Robert E. Slavin and Nancy A. Madden to utilize the power of cooperative learning, frequent assessment and feedback, and schoolwide collaboration proven in decades of research to increase student learning.
We wish to acknowledge the coaches, teachers, and children who piloted the program, provided valuable feedback, and appear in classroom and professional-development videos.
Random Reporters share team responses; team reps from other teams may agree, disagree, or add on to these responses. Use the following rubrics to evaluate responses and give specific feedback. Award points to the teams with 100-pt. responses; add the points to the Team Celebration Points poster. Celebrate team successes.

### Strategy Use

**The Random Reporter:**

- **100** gives a 90-pt. response and explains how using the strategy helped in better understanding the text.
- **90** gives an 80-pt. response and describes a problem and a strategy that was used to solve the problem.
- **80** identifies a problem that a team member had understanding the text.

### Word Power

**The Random Reporter:**

- **100** gives a 90-pt. response and expands on the meaning, for example, identifies related words, a second meaning, a word connotation, or an antonym.
- **90** gives an 80-pt. response and explains the meaning in a definition and a meaningful sentence.
- **80** tells a word or phrase added to the word power journal and why it was added (what makes it important or interesting).

### Team Talk (oral and written)

**The Random Reporter:**

- **100** gives a 90-pt. response and connects the answer to the supporting evidence and uses academic language.
- **90** gives an 80-pt. response and includes supporting evidence and examples (from the text or from experience).
- **80** uses full sentences to clearly and correctly answer the question.

### Fluency

**The Random Reporter:**

- **100** gives a 90-pt. response and reads smoothly and with expression (shows emotion and changes with punctuation and dialogue).
- **90** gives an 80-pt. response and reads at just the right pace to understand the text—not too slow and not too fast.
- **80** reads a short passage and pronounces most of the words correctly.

### Summary

**The Random Reporter:**

- **100** gives a 90-pt. response and uses key vocabulary correctly.
- **90** gives an 80-pt. response and clearly connects relevant ideas in a logical order.
- **80** presents main ideas and important details in his or her own words and without personal opinion.

### Graphic Organizer/Notes

**The Random Reporter:**

- **100** gives a 90-pt. response and explains how the graphic organizer helped in understanding the text.
- **90** gives an 80-pt. response and includes main points or events and important details.
- **80** selects a graphic organizer that is appropriate for the text.
Unit Objectives

| Reading: Use both text and visual information to draw conclusions. |
| Writing: Provide supporting facts, examples, or events. |

Unit Overview

In this unit, students will focus on using textual and visual information to draw conclusions. As students read the informational texts, *Hurricanes* in cycle 1 and *Graphing Natural Disasters* in cycle 2, they will encounter a number of diagrams, charts, graphs, maps, and other formats used for presenting detailed information. Students will be required to integrate information obtained from the text and these visual formats to draw conclusions and answer questions related to the various natural disasters that they will read about in the text. The ability to draw conclusions is a critical reading skill because students are increasingly faced with the need to understand the relationship between textual and visual information in today’s print and media environments. The writing projects for this unit ask students to provide supporting facts, examples, or events from the text or other sources. Opportunities to prepare students for this writing goal will occur throughout the unit during direct instruction and cooperative work, such as during Team Talk activities.

Unit Topic/Content

This book provides a detailed description of hurricanes and the impact that they have on communities. The text also follows the efforts of hurricane hunters, meteorologists, rescue workers, and others as they work to track, study, and help people prepare for and recover from these massive storms. The reading for the second cycle discusses natural disasters caused by geological factors, such as earthquakes and volcanoes, and weather-related natural disasters, such as tornados, drought, and floods.

Text and Media Selections

Internet/Media Options

To expand your students’ background knowledge, consider using Internet/media options with lessons. Always preview sites for availability and suitability. Please make sure you have the correct plug-ins.
# At a Glance

## Hurricanes

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Text</th>
<th>Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
<td>pages 4–9</td>
<td>(Embedded) background video: “Hurricane Researcher: Jason Dunion” Dragonfly TV (2:29)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Embedded) “Fluency”</td>
</tr>
<tr>
<td>Lesson 2</td>
<td>pages 9–14</td>
<td>(Embedded) background video: “Science Nation: Dropsondes”</td>
</tr>
<tr>
<td>Lesson 3</td>
<td>pages 15–21</td>
<td>(Embedded) background video: “Hurricane Huntress: Robbie Hood” Dragonfly TV</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>pages 22–27</td>
<td>(Optional) background video: “Hurricane Katrina: Wetland Destruction” PBS Learning Media</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.pbslearningmedia.org/content/ess05.sci.ess.watcyc.katrinawet">www.pbslearningmedia.org/content/ess05.sci.ess.watcyc.katrinawet</a></td>
</tr>
<tr>
<td>Lesson 5</td>
<td></td>
<td>writing in response to reading</td>
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<td>Lesson 7</td>
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<td>self-selected reading</td>
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<td>Lesson 8</td>
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<td>Getting Along Together</td>
</tr>
</tbody>
</table>

## Graphing Natural Disasters

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Text</th>
<th>Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 1</td>
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</tr>
<tr>
<td>Lesson 2</td>
<td>pages 10–15</td>
<td>(Embedded) background video: “Tracking Tsunamis”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Embedded) “Team Talk Response”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Optional) background video: “Alaska Tsunami”</td>
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<td></td>
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<td>PBS Learning Media (3:17) <a href="http://www.pbslearningmedia.org/content/ean08.sci.ess.watcyc.oceanfury">www.pbslearningmedia.org/content/ean08.sci.ess.watcyc.oceanfury</a></td>
</tr>
<tr>
<td>Lesson 3</td>
<td>pages 16–21</td>
<td>(Embedded) background video: “Meteorologist: Howie Bluestein” Dragonfly TV</td>
</tr>
<tr>
<td>Lesson 4</td>
<td>pages 22–25</td>
<td>(Optional) background video: “Avalanche Town”</td>
</tr>
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<td>PBS Learning Media (4:19) <a href="http://www.pbslearningmedia.org/content/ess05.sci.ess.watcyc.iceland">www.pbslearningmedia.org/content/ess05.sci.ess.watcyc.iceland</a></td>
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<td></td>
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<td>Lesson 8</td>
<td></td>
<td>Getting Along Together</td>
</tr>
</tbody>
</table>
Lesson 1

Reading Objective: Use both text and visual information to draw conclusions.

Teacher Background

This cycle’s Big Question asks students to imagine living in a coastal area two hundred years ago and to evaluate whether they would have faced a greater danger from hurricanes then than if they lived in a coastal area today. As students answer this question, encourage them to use their background knowledge to describe the dangers that hurricanes pose and how advances in communication, construction, and transportation have changed how people respond to these destructive storms.

Show the video (2 min. 29 sec.) to build background about modern hurricane forecasting and the work of hurricane researchers.

Active Instruction

(22 minutes)

Big Question

Post and present this cycle’s Big Question. Have students write a response to the question as they arrive for class.

The Big Question: Imagine living near the coast two hundred years ago. Do you think you would have faced greater or less danger from hurricanes than if you lived near the coast today? Why?

Set the Stage

1. Refer students to today’s Big Question. Use Think-Pair-Share to ask:

   Imagine living near the coast two hundred years ago. Do you think you would have faced greater or less danger from hurricanes than if you lived near the coast today? Why?

   I think that if I had lived near the coast two hundred years ago, I would have faced greater danger from hurricanes than if I lived near the coast now. Two hundred years ago, there was no television, Internet, or radio, so it would probably have been a lot harder for people to get information about approaching hurricanes. Also, homes probably weren’t built as well as they are today, and there were no cars, so I would probably have had a harder time getting out of an area that was about to be hit by a hurricane.

2. Ask students to review their cycle goal. Remind students how to earn team celebration points. Remind them that team celebration points help them to become super teams. Tell them that they earn team celebration points during the Lightning Round.
3. Introduce the text, author, and reading objective.

4. Introduce the video “Hurricane Researcher: Jason Dunion.” Point out that weather forecasting has greatly improved during the last two hundred years. Tell students to jot down the facts that they learn about hurricane forecasting as they watch the video. Explain that after viewing the video, teams will compile their facts, and then you will ask Random Reporters to report the facts.

5. Show the video. Allow teams one minute to discuss and compile their facts. Use Random Reporter to debrief. Facts might include:

   - Hurricane forecasting and research happens at the National Hurricane Center (NHC) in Miami, Florida.
   - Satellites and other measuring equipment at the NHC are used to forecast hurricanes.
   - Hurricane hunters fly planes into hurricanes and drop devices on parachutes to collect information on pressure, temperature, and winds.
   - There is a lot researchers don’t know about how to predict where a hurricane will hit and how strong it will be.

6. Distribute copies of the book Hurricanes. Have students preview the text. Use Think-Pair-Share to ask:

   Is this literature or informational text? How do you know?

   This text is informational. The table of contents, chapter titles, and headings are evidence that the text is informational.

7. Use Think-Pair-Share to have students predict the topic and identify clues. Randomly select a few students to share.

8. Prompt students to identify the next step of TIGRRS. Use Think-Pair-Share to have them predict the author’s intent. Randomly select a few students to share.

9. Point out that the next step in the TIGRRS process is to choose a graphic organizer for making notes. Choices include, but are not limited to:

   - Venn diagram
   - timeline/sequence chain
   - T-chart
   - web
   - outline

   Use Think-Pair-Share to ask:

   Which graphic organizer(s) will work best with this text? Why?

   Accept reasonable responses. For example, I think a sequence chain would be the best graphic organizer to use. Judging from the chapter titles in the table of contents, it looks like this book is following the sequence of events of a hurricane: when it’s out at sea, when it strikes land, and what happens after the storm passes.
Interactive Read Aloud

1. This cycle our reading objective is to use text and visual information to draw conclusions. Use **Think-Pair-Share** to ask:

   **What do you think we mean by visual information? Can you give some examples of visual information in **Hurricanes**?**

   **Visual information probably means the information that you get from looking at something, for example, pictures, photos, or videos. Some examples of the visual information in **Hurricanes** include photos and diagrams like the ones on pages 14 and 23.**

   Point out that in this unit, students will focus on interpreting information in the text and interpreting information presented in visual form, including videos. They will put that information together, or integrate it, to draw some conclusions. Remind students that when we draw conclusions, we cite evidence to support those conclusions.

2. Read page 4 aloud. A sample Think Aloud follows.

   **Sample Think Aloud**

   I’m going to begin reading **Hurricanes**. Remember, this is the first “R” in TIGRRS. I’m going to read and think aloud so I can share my thoughts with you. Then you and your partner will use the read-aloud/think-aloud process with the next piece of text.

   **(Read the first paragraph on page 4.)**

   I think I can draw a conclusion based on what I just read, the picture of the plane on page 5, and information from the video. I can draw the conclusion that being a hurricane hunter is a very dangerous job. From the text, I learned that the plane is getting tossed around like a match stick, so much so that the equipment has to be tied down. In the picture, I can see that the plane is flying in the middle of a huge storm. The meteorologist in the video said flying through a hurricane is a very bumpy ride. The text doesn’t directly say that hurricane hunters have a very dangerous job, but I think I can safely draw that conclusion.

   **(Read to the end of page 4.)**

   Now I’m going to begin using my sequence chain to take notes. In the first box on the sequence chain, I’m going to write, “Hurricane hunters fly planes into hurricanes and tropical storms to collect important information.” I’m also going to write “DC: It is a very dangerous job.” This note shows a conclusion that I was able to draw, even though it was not stated directly in the text.

   **(Write notes in the sequence chain.)**
3. Point out that you used information in the text and visual information—from the photo and the video—to draw a conclusion.

4. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read page 6.

Based on what you have just read, what conclusions can you draw about the photograph on page 6?

I can draw the conclusion that the photograph is of a tropical depression or storm because that is what the text describes. I can also conclude that the photograph was probably taken over a warm part of the ocean because that is where tropical depressions form and turn into tropical storms.

Use Random Reporter to debrief.

5. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use Random Reporter to debrief.

What events did you add to the sequence chain?

Tropical depressions form over warm waters and turn into tropical storms.

Add student responses to the graphic organizer.

A sample graphic organizer follows.

Sample Graphic Organizer

<table>
<thead>
<tr>
<th>Sequence Chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricane hunters fly into hurricanes and tropical storms to collect important information.</td>
</tr>
<tr>
<td>[DC] It is a very dangerous job.</td>
</tr>
<tr>
<td>Tropical depressions form over warm ocean waters and turn into tropical storms.</td>
</tr>
<tr>
<td>[DC] Page 6 photo taken over warm part of ocean</td>
</tr>
</tbody>
</table>

Teacher: Restate important ideas in the text, and add notes to the graphic organizer.

Partner pairs: Read aloud/think aloud with the next passage to practice the skill/strategy.

Partner pairs: Review, reread to clarify, and add to the graphic organizer.
6. Refer students to the Summarizing Strategy Card for informational text in their team folders.

**Summarizing**

**Informational Text**

1. **Think:** What clues can help you identify the important events or ideas?
   - titles
   - headings
   - bold text
   - captions
   - sidebars

2. As you read, make notes about important points and supporting details from the text.

3. Use your notes to briefly restate the important ideas or events in your own words.


**Literature**

1. As you read, note what you learn about:
   - main characters
   - setting
   - story problem or conflict
   - important events
   - solution and ending

2. Use your notes to briefly retell the main events of the story in your own words.


Explain that the strategy card can help them as they read and restate the important ideas in the text. Review the steps on the card. Encourage students to refer to the Summarizing Strategy card as they read and restate with their partners.

**Teamwork**

(20 minutes)

**Partner Prep**

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 7–9 aloud with partners.

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.
Team Discussion

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

Team Talk Questions

1. Why do you think scientists study hurricanes? [DC] (Team Talk rubric)
   (Answers will vary.)
   100 = I think scientists study hurricanes so they can help people stay safe during the storms and lessen the impacts of the storms. Hurricanes are very powerful, dangerous storms. They cause a lot of damage to property and injuries to people. By studying hurricanes, scientists can warn people where a hurricane is going to strike. This warning gives people a chance to prepare for the hurricane or leave the area.

   90 = I think scientists study hurricanes so they can help people stay safe. Hurricanes are very powerful, dangerous storms. They cause a lot of damage and injuries. Scientists can warn people where a hurricane is going to strike.

   80 = I think scientists study hurricanes so they can help people stay safe.

2. Why does the dropsonde operator want to target the eye of the hurricane? (Write) [DC, MI] (Team Talk rubric)
   100 = The dropsonde has weather equipment that collects data about the storm. The operator wants to target the eye of the hurricane because that is where the dropsonde can collect the most accurate measurements. This information helps scientists track the storm’s location and intensity.

   90 = The dropsonde has weather equipment that collects information about the storm. The operator wants to target the eye of the hurricane because that is where the dropsonde can collect the best measurements.

   80 = The operator wants to target the eye of the hurricane to take measurements.

continued
### Team Talk Questions continued

3. How is a hurricane different from a tropical storm? Use evidence from the text to support your answer. [DC, SA] (Team Talk rubric)

   **100** = *A hurricane has much stronger winds than a tropical storm. Hurricane winds blow at more than 73 miles per hour, while tropical storms have winds of 38–72 miles per hour. According to the text, a hurricane has much more power and is “the most destructive weather force on earth.”*

   **90** = *A hurricane has much stronger winds than a tropical storm. Hurricane winds blow more than 73 miles per hour, while tropical storms have winds of 38–72 miles per hour.*

   **80** = *A hurricane has much stronger winds than a tropical storm.*

4. What part of the hurricane is the most dangerous for the hurricane hunters to fly through? Use information from the text and photograph captions on page 9 to support your answer. [DC, SA, RE] (Team Talk rubric)

   **100** = *The eye wall is the most dangerous part of the hurricane. The text describes the eye wall as “punishing.” According to the photograph caption on page 9, the winds are fastest and the thunderstorms are strongest in the eye wall. For these reasons, the eye wall is the most dangerous part of the hurricane to fly through.*

   **90** = *The eye wall is the most dangerous part of the hurricane. The winds are fastest and the thunderstorms are strongest in the eye wall.*

   **80** = *The eye wall is the most dangerous part.*

---

Cue students to discuss strategy use, graphic organizers, and word power journals.
Randomly select team representatives who will share:
- strategy use
- oral and written Team Talk responses
- word power discussions
- fluency selection

Show the video “Fluency.”

Class Discussion
(18 minutes)

Lightning Round

1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

3. Show the video “Fluency.”

Celebrate

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   How many points did your team earn today?

   How can your team earn more points?

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.

Remind students of the Read and Respond homework assignment.
Lesson 2

**Reading Objective:** Use both text and visual information to draw conclusions.

**Teacher Background**

In today’s reading, students will learn how hurricane hunters and meteorologists track and study hurricanes. The text also describes the 1900 hurricane that devastated Galveston, Texas, and explains that thousands of people died because the city was unprepared and no one evacuated. A diagram that explains how hurricanes form is provided with the text.

**Active Instruction**

(25 minutes)

**Partner Vocabulary Study**

1. Display the vocabulary words. Have students copy the words in their word power journals and rate their knowledge of each as they arrive for class.

2. Spot check the Read and Respond homework.

**Vocabulary**

1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.

2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Award team celebration points.

3. Introduce the vocabulary for this cycle. Read each word aloud, and model chunking as needed. Then read the meaning of each word.

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Definition</th>
<th>Sample Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>torrential</td>
<td>tor-ren-tial (taw-REN-shuhl)</td>
<td>flowing powerfully</td>
<td>The torrential rain lasted for days and caused Sara’s street to flood.</td>
</tr>
<tr>
<td>intensity</td>
<td>in-ten-si-ty (in-TEN-si-tee)</td>
<td>strength</td>
<td>The intensity of the blizzard made it impossible to travel on the roads.</td>
</tr>
<tr>
<td>surveillance</td>
<td>sur-veil-lance (ser-VAY-luhns)</td>
<td>close watch</td>
<td>The police kept the bank under surveillance after they got a tip that it was going to be robbed.</td>
</tr>
</tbody>
</table>

*continued*
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Definition</th>
<th>Sample Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>veers (verb)</td>
<td>veers (VEERS)</td>
<td>changes direction</td>
<td>The car veers toward the side of the road as the driver falls asleep.</td>
</tr>
<tr>
<td>evacuate (verb)</td>
<td>e-vac-u-ate (ih-VAK-yoo-eyt)</td>
<td>to leave a dangerous area</td>
<td>Everyone in the coastal town had to evacuate as the hurricane approached.</td>
</tr>
<tr>
<td>erratic (adjective)</td>
<td>er-rat-ic (ih-RAT-ik)</td>
<td>not steady; unpredictable</td>
<td>The bird’s flight became erratic after it injured its wing.</td>
</tr>
<tr>
<td>devastation (noun)</td>
<td>dev-as-ta-tion (dev-uh-STAY-shuhn)</td>
<td>destruction</td>
<td>The devastation from the earthquake left thousands of people homeless.</td>
</tr>
<tr>
<td>catastrophic (adjective)</td>
<td>cat-a-stroph-ic (kat-uh-STROF-ik)</td>
<td>causing widespread damage</td>
<td>When the tornado hit the small town, it caused catastrophic damage.</td>
</tr>
</tbody>
</table>

4. Use **Random Reporter** to have teams share a new sentence that uses one of their vocabulary words. Award team celebration points.

5. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Set the Stage**

1. Ask students to review their team’s goal for this cycle and assess their progress.

2. Review the Team Celebration Points poster, and challenge teams to build on their successes.

3. Remind students of the text, author, and reading objective.

4. Refer students to today’s reading, pages 10–14 in *Hurricanes*.

5. Remind students to make notes about the important ideas on a graphic organizer as they read. Review the graphic organizer that students selected in the previous lesson.

6. To build background about how hurricane scientists collect data, show the video “Science Nation: Dropsondes.” Use **Think-Pair-Share** to debrief.

**What new information did you learn from the video?**

*We learned that dropsondes have sensors in them that collect data about temperature, humidity, wind speed, and air pressure as they drop through the atmosphere. We also learned that dropsondes were used to collect data about the atmosphere above Antarctica.*
How does this connect to the information in *Hurricanes*?

*We read about how hurricane hunters drop dropsondes in the eye of a hurricane to collect data that will help forecasters predict a hurricane’s path and intensity.*

**Interactive Read Aloud**

1. Refer students to the reading objective. Remind them that they are focusing on interpreting visual information and information in the text to help them draw conclusions.

2. Read page 10 aloud. A sample Think Aloud follows.

   **Sample Think Aloud**

   Now, I’m going to continue reading *Hurricanes*. Remember, this is the first “R” in TIGRRS. As I read, I’m going to think aloud again so I can share my thoughts with you.

   *(Read the first paragraph on page 10.)*

   I can draw another conclusion based on what I have read and the picture of the destruction caused by the 1900 hurricane that hit Galveston. In the text, I read that in the past there was no way to predict where or when a hurricane would strike. In the picture, I can see the massive damage that a hurricane can cause. Thinking about all this information, I can draw the conclusion that hurricane hunters have a crucial job. The work that they do to measure the strength of hurricanes and to help predict where and when they will strike helps save many lives. I’m going to continue taking notes in my sequence chain.

   In the next box, I’m going to write, “Hurricane hunters use instruments to determine when the wind reaches 74 mph and the tropical storm turns into a hurricane.” I’m also going to use “DC” again to note the conclusion I drew about hurricane hunters.

   *(Write notes in the sequence chain.)*

3. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read page 11 (including the caption on the photo).

   Use **Think-Pair-Share** to ask:

   **Based on what you have just read and the picture on page 11, what conclusions can you draw about the hurricane that hit the New England coast in 1938?**

   *I can draw the conclusion that a lot of people were probably injured or killed by the 1938 hurricane. The text describes how many people were killed in Galveston because people weren’t warned about the storm. The caption to the photograph on page 11 says many people in New England in 1938 didn’t know the storm was coming either. Also, I can see from the photo that it was a serious storm.*

   Use **Random Reporter** to debrief.
4. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use Random Reporter to debrief. Add student responses to the graphic organizer.

**What did you add to the sequence chain?**

_Hurricane hunters help predict where and when hurricanes will strike so there will not be great loss of life (ex: Galveston, 1900 and New England, 1938)._  

A sample graphic organizer follows.

---

**Sample Graphic Organizer**

### Sequence Chain

- Hurricane hunters use instruments to determine when the wind reaches 74 mph and the tropical storm turns into a hurricane.

  [DC] Hurricane hunters have a crucial job to save lives.

  ▼

- Hurricane hunters help predict where and when hurricanes will strike so there will not be great loss of life (ex: Galveston, 1900 and New England, 1938).

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5. Use Think-Pair-Share to ask:

**Could this skill—using visual and text information to draw conclusions—be helpful to you in other classes? How?**

_In social studies, we read a lot of texts with photographs. Using the information in the text and the pictures would help me answer questions in class._

6. Refer students to the Summarizing Strategy Card for informational text. Remind them that the strategy card can help them as they read and restate the important ideas in the text. Review the clues that can help them identify important events or ideas.
Teamwork

(20 minutes)

Partner Prep

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: \(\text{pages 12-14 aloud with partners.}\)

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

<table>
<thead>
<tr>
<th>Team Talk Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Why were the residents of Galveston unprepared for the hurricane that hit the city in 1900? Use evidence from the text to support your answer. ([\text{DC, SA}]) (Team Talk rubric)</td>
</tr>
<tr>
<td>100 = \text{in the past, scientists could not accurately predict where hurricanes would strike. Therefore, the people of Galveston were not prepared for the hurricane that hit the city in 1900. According to the text, 6,000 people died during the hurricane. No one warned them to evacuate because no one knew the hurricane was coming.}</td>
</tr>
<tr>
<td>90 = \text{in the past, scientists could not tell where hurricanes would strike. The people of Galveston were not prepared for the hurricane that hit the city in 1900.}</td>
</tr>
<tr>
<td>80 = \text{in the past, scientists could not tell where hurricanes would strike.}</td>
</tr>
</tbody>
</table>

continued
2. How do meteorologists track and study hurricanes? [DC] (Team Talk rubric)

100 = Meteorologists track and study hurricanes by using information that they gather with satellites and weather balloons. In addition, they get data from radar and reports from people on ships and on land. This information is put into giant computers. The meteorologists use this information to try to predict where the hurricane is going.

90 = Meteorologists track and study hurricanes by using information that they gather with satellites and weather balloons. They also get information from radar and reports from people on ships and on land. This information is put into giant computers.

80 = Meteorologists use information that they gather with satellites and weather balloons.

3. Explain why hurricanes and tropical storms threaten coastal areas but lose their force as they move inland. (Write) [DC, MI] (Team Talk rubric)

100 = Hurricanes and tropical storms form over warm ocean waters. The cycle that fuels the storms as they travel and grow requires warm ocean water, as shown on page 14. If a hurricane hits land and moves inland, it will lose force because there is no warm water to keep the cycle going.

90 = Hurricanes and tropical storms form over warm ocean and need warm ocean water to get bigger. When they hit land and move inland, they lose force.

80 = Hurricanes and tropical storms need warm ocean waters to get bigger.

4. According to the text, what items do people put in a hurricane kit? What other items would you put in a kit? Explain. [DC, SA] (Team Talk rubric)

100 = According to the text, people put flashlights, batteries, and drinking water in hurricane kits. I would also put a radio, canned food, and a Swiss army knife in the kit. The radio would help me get emergency information, and the canned food would enable me to eat if I were stuck somewhere without food for a long time. The knife has a can opener that I could use to open the canned food, and the knife also has other useful tools. These items would help me survive after a hurricane.

90 = People put flashlights, batteries, and drinking water in hurricane kits. I would also put a radio, canned food, and a Swiss army knife in the kit. The radio would help me get emergency information, and the canned food would be good if I were stuck somewhere without food for a long time. I could use the can opener on the knife to open the canned food.

80 = People put flashlights, batteries, and drinking water in hurricane kits. I would also put a radio and canned food in the kit.

5. What is an example of something that could cause devastation? Explain your answer. [CV]

A house fire is something that could cause devastation. Devastation means destruction, and a house fire can often destroy a whole house.
4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.

Class Discussion
(15 minutes)

Lightning Round
1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

Celebrate
1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   How many points did your team earn today?

   How can your team earn more points?

Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

• Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Definition</th>
<th>Sample Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>torrential</td>
<td>tor-ren-tial</td>
<td>flowing powerfully</td>
<td>The <em>torrential</em> rain lasted for days and caused Sara’s street to flood.</td>
</tr>
<tr>
<td>intensity</td>
<td>in-ten-si-ty</td>
<td>strength</td>
<td>The <em>intensity</em> of the blizzard made it impossible to travel on the roads.</td>
</tr>
<tr>
<td>surveillance</td>
<td>sur-veil-lance</td>
<td>close watch</td>
<td>The police kept the bank under <em>surveillance</em> after they got a tip that it was going to be robbed.</td>
</tr>
<tr>
<td>veers</td>
<td>veers</td>
<td>changes direction</td>
<td>The car <em>veers</em> toward the side of the road as the driver falls asleep.</td>
</tr>
<tr>
<td>evacuate</td>
<td>e-vac-u-ate</td>
<td>to leave a dangerous area</td>
<td>Everyone in the coastal town had to <em>evacuate</em> as the hurricane approached.</td>
</tr>
<tr>
<td>erratic</td>
<td>er-rat-ic</td>
<td>not steady; unpredictable</td>
<td>The bird’s flight became <em>erratic</em> after it injured its wing.</td>
</tr>
<tr>
<td>devastation</td>
<td>dev-as-ta-tion</td>
<td>destruction</td>
<td>The <em>devastation</em> from the earthquake left thousands of people homeless.</td>
</tr>
<tr>
<td>catastrophic</td>
<td>cat-a-stroph-ic</td>
<td>causing widespread damage</td>
<td>When the tornado hit the small town, it caused <em>catastrophic</em> damage.</td>
</tr>
</tbody>
</table>
Lesson 3

Reading Objective: Use both text and visual information to draw conclusions.

Teacher Background
Today’s reading describes the conditions as a hurricane approaches and strikes land and the precautions people take to prepare for the storm. It also addresses the difficult decisions that officials have to make, such as whether to evacuate an area, and the consequences if they make the wrong call.

Show the video to build background about the challenges of hurricane forecasting.

Active Instruction
(25 minutes)

Partner Vocabulary Study
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

Vocabulary
1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.
2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Use Random Reporter to have teams report on a new sentence using a vocabulary word. Award team celebration points.
3. Choose an important word from the text or class discussion, and model how to explore it in a word power journal entry. A sample Think Aloud and word map follow.

Sample Think Aloud
I think that the word surge is interesting. I’ve heard it before, and we read it on page 11. The text talked about a “fifteen-foot storm surge” that hit Galveston during the 1900 hurricane. I’m going to check it out in the dictionary. (Consult the dictionary.) Hmmm. I see that surge can be a verb or a noun. Well, I think it's definitely used as a noun in the text. There are a few definitions in the dictionary of surge as a noun. The first definition of surge is “large motion or sudden increase,” and the example provided is of the sea rushing forward. Yes, that sounds like the way it is used in this part of the text. The “fifteen-foot storm surge” was the sea rushing forward and flooding Galveston.

I’ve also heard this word used in the term surge protector—the device that protects computers from a surge or sudden increase in electrical current.
Sample Word Map

<table>
<thead>
<tr>
<th>means large motion or sudden increase</th>
<th>can also be used as verb: The crowd surged forward.</th>
</tr>
</thead>
<tbody>
<tr>
<td>surge</td>
<td></td>
</tr>
<tr>
<td>Storm surge refers to the sea rushing forward.</td>
<td>A surge protector protects from sudden increases in electric current.</td>
</tr>
<tr>
<td>from Latin surgere: to rise up or stand up</td>
<td></td>
</tr>
</tbody>
</table>

4. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

Set the Stage

1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and reading objective.
4. Introduce and show the video “Hurricane Huntress: Robbie Hood.” Use Think-Pair-Share to debrief the video.

What new information did you learn from the video?

*I learned that NASA is involved in hurricane research to figure out what makes hurricanes work. Also that when there is a series of hurricanes, one can churn up cold water and that affects how strong the next hurricane will be.*
How does this information connect with what you have read in Hurricanes?

*I read that hurricanes form over warm water so it makes sense that if the water gets cooler, a hurricane might weaken.*

5. Refer students to today's reading, pages 15–21 in Hurricanes.

6. Remind students to make notes about the important ideas on a graphic organizer as they read. Review the graphic organizer that students selected in the previous lesson.

Interactive Read Aloud

1. Read the first paragraph of page 15 aloud. Refer students to the book’s glossary and the definition of the words in bold, *hurricane watch*, and then read the definition aloud. Use Think-Pair-Share to prompt use of the skill or strategy.

   *Why do you think the National Hurricane Center issues a hurricane watch at this point?*

   *The National Hurricane Center issues a hurricane watch because the storm still has winds above the 74 mph speed of a hurricane and its current direction is toward land. People need to be aware that a hurricane might hit their area so they have enough time to prepare for the high winds.*

2. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read the rest of page 15. Use Think-Pair-Share to ask:

   *Why are people staying close to radios and television?*

   *They are staying close to radios and televisions so they can quickly get information about where and when the hurricane will strike. If the National Hurricane Center issues a hurricane warning for their area, it means that the hurricane will hit land in twenty-four hours and they may need to evacuate.*

   Use Random Reporter to debrief.

3. Ask partners to reread this section of text, check their understanding with each other, and add notes to their graphic organizers.

   Use Random Reporter to debrief. Add student responses to the graphic organizer.
Sample Graphic Organizer

Sequence Chain

<table>
<thead>
<tr>
<th>Hurricane hunters help predict where and when hurricanes will strike.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meteorologists use satellites and other technology to help them study and track hurricanes.</td>
</tr>
<tr>
<td>The National Hurricane Center issues a hurricane watch. People in the hurricane's path prepare for the storm.</td>
</tr>
</tbody>
</table>

4. Remind students to use the Summarizing Strategy Card to help them as they read and restate the important ideas in the text. Point out step 4 on the card: Keep it short. Remind students that when they summarize, they should leave out the details that don’t directly support the main ideas.

Teamwork

(20 minutes)

Partner Prep

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 16–21 aloud with partners.

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.
Team Discussion

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

Team Talk Questions

1. Why is it a problem when officials call for an evacuation that turns out to be unnecessary? Use evidence from the text and your own thinking to support your answer. [DC, SA] (Team Talk rubric)

   100 = It is a problem when officials are wrong when they call for an evacuation because thousands of people have to leave their homes and jobs. Businesses have to close. People and businesses lose a lot of money. It is dangerous traveling on the roads with so many people trying to escape the hurricane. Another outcome could be that people will be less likely to leave the next time and end up in danger.

   90 = It is a problem when officials are wrong when they call for an evacuation because thousands of people have to leave their homes and jobs. It is dangerous traveling on the roads with so many people trying to escape the hurricane.

   80 = It is a problem when officials are wrong when they call for an evacuation because thousands of people have to leave their homes and jobs.

2. After reading the text and watching the video, what conclusion have you reached about what people living along the coast should do when a hurricane warning is announced? Explain your answer. [DC, SA] (Team Talk rubric)

   100 = A hurricane warning means that the hurricane will hit in twenty-four hours. I conclude that the best action for people to take is to board up their windows and then move inland away from the coast. The caption on page 17 says that roads start to flood “two to four hours before the hurricane hits,” so it would be important to move quickly before the roads are no longer passable.

   90 = A hurricane warning means that the hurricane will hit in twenty-four hours. I think the best action for people to take is to board up their windows and then move inland away from the coast before the roads flood.

   80 = I think the best action for people to take is to board up their windows and then move inland away from the coast.

continued
3. What are the dangers of ignoring an evacuation order? (Write) [DC, MI] (Team Talk rubric)

100 = You are exposed to many dangers when you ignore an evacuation order. For example, the hurricane winds can tear the roof off the building that you are in or hurl branches and debris that can crush you. You can get trapped by flood waters. Waves or a storm surge can sweep you away. Tornadoes from the storm can hit your area and knock down buildings where you take shelter. It is not safe to ignore an evacuation order.

90 = If you ignore an evacuation order, there are many dangers. The hurricane winds can tear the roof off the building that you are in or hurl branches and debris that can crush you. You can get trapped by flood waters. Waves or a storm surge can sweep you away. Tornadoes from the storm can hit your area and knock down buildings where you take shelter.

80 = The hurricane winds can tear the roof off the building that you are in or hurl branches and debris that crush you.

4. Summarize the information on pages 19 and 20. [MI] (summary rubric)

100 = Before the hurricane makes landfall, thousands of people head inland. As the hurricane gets closer, the wind and rain grow in strength. The coastal area looks like a ghost town. Buildings are damaged and destroyed by the hurricane’s flood waters, wind, and rain.

90 = Before the hurricane makes landfall, thousands of people head inland. As the hurricane gets closer, the wind and rain grow in strength. Buildings are damaged and destroyed by the hurricane’s flood waters, wind, and rain.

80 = Before the hurricane makes landfall, thousands of people head inland. Buildings are damaged and destroyed by the hurricane’s flood waters, wind, and rain.

5. The dictionary says that surge comes from a Latin word, surgere, which means to rise up or stand up. How does the meaning of surgere relate to the meaning of surge? [CV]

A storm surge happens when the water rises or stands up in a big wave that rushes forward over the land.

4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.
Class Discussion
(15 minutes)

Lightning Round
1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

Celebrate
1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   How many points did your team earn today?

   How can your team earn more points?

Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Lesson 4

Reading Objective: Use both text and visual information to draw conclusions.

Teacher Background
In today’s reading, students continue to learn about the damage that hurricanes can cause when they strike land. The text also describes conditions and recovery efforts in the aftermath of a hurricane. The Saffir-Simpson scale that is used to rate hurricanes is also explained.

The optional video builds background about natural buffers that protect land from storm surge in a hurricane, specifically in New Orleans.

Active Instruction
(25 minutes)

Partner Vocabulary Study
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

Vocabulary
1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.
2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Use Random Reporter to have teams report on a new sentence using a vocabulary word. Award team celebration points.
3. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

Set the Stage
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and reading objective.
4. (Optional) Introduce and show the video “Wetland Destruction” beginning at the one-minute mark. Use **Think-Pair-Share** to debrief the video.

**How do wetlands help protect cities like New Orleans from hurricanes?**

*Wetlands help protect cities like New Orleans from hurricanes by partly blocking the storm surge that results. They also starve the storm of warm ocean water.*

**How are the wetlands outside of New Orleans like the beaches of Galveston Island?**

*The New Orleans wetlands are like the Galveston beaches because both help to block the storm surge resulting from hurricanes.*

**Interactive Read Aloud**

1. Read the text at the top of page 23 and the text in the category 2 panel aloud. Use **Think-Pair-Share** to prompt use of the skill or strategy.

**What conclusions can you draw about category 1 hurricanes?**

*A category 1 hurricane probably causes relatively little damage compared to other hurricanes. The text describes the damage as “minimal.” The storm surge is 4 to 5 feet, so I don’t think the flooding would be bad. Category 1 hurricanes are the least dangerous category of hurricane.*

2. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read the rest of page 23. Use **Think-Pair-Share** to ask:

**What conclusions can you draw about category 5 hurricanes?**

*A category 5 hurricane causes a huge amount of destruction. They are the most dangerous category of hurricane and are labeled “catastrophic,” which means causes widespread damage. The picture that accompanies the description of a category 5 hurricane shows wind speeds of over 156 mph, houses and trees blown down, and a storm surge of over 19 feet flooding the land.*

Use **Random Reporter** to debrief.

3. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use **Random Reporter** to debrief. Add student responses to the graphic organizer.

A sample graphic organizer follows.
The National Hurricane Center issues a hurricane watch. People in the hurricane’s path prepare for the storm.

As the hurricane gets closer to land, officials have to issue a hurricane warning and give the order to evacuate.

When the hurricane makes landfall, it causes widespread damage.

4. Refer to the reread and review step of the TIGRRS process. Reread the “Categories” section on page 23 aloud. Model this step with the text. A sample Think Aloud follows.

Sample Think Aloud

If I review the hurricane classifications, I can compare the damage levels for each category. Categories 1 and 2 are described as minimal and moderate damage levels. So if I heard that a category 1 or 2 hurricane was approaching, I don’t think I would expect to be evacuated. Damage levels for categories 3, 4, and especially 5, are described as extensive, extreme, and catastrophic. I think evacuation would be necessary, especially in the case of an approaching category 4 or 5 hurricane. Rereading and reviewing the page helped me understand the range of hurricane intensity. I wonder if Hurricane Katrina was a category 5 hurricane?
Teamwork (20 minutes)

Partner Prep
1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 24–27 aloud with partners.
2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.
3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion
1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.
2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.
3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

Team Talk Questions
1. What section of text did you choose to reread and why? What new connection did you make by rereading and reviewing your notes? (strategy-use rubric) (Answers will vary.)
   100 = I chose to reread the captions to see how the information connected with the text and the pictures. By rereading the captions, I learned that a category 4 hurricane can cause flooding damage far inland from the coastline where it hit. This means that people who are going to be evacuated would need to have time to move far away from the coast to be unaffected by the storm.
   90 = I chose to reread the captions to see how the information connected with the text and the pictures. I learned that a category 4 hurricane can cause flooding damage far inland from the coastline where it hit.
   80 = I chose to reread the captions. I learned that a hurricane can cause major flooding away from the coast.
2. Write a summary of the section of text you reread. *(Write) [MI]* (summary rubric)

100 = A category 4 hurricane like Hurricane Andrew with wind speeds up to 155 mph can knock down buildings and cause massive destruction. It can also cause flooding many miles inland. Agencies like the Salvation Army assist hurricane victims with emergency supplies.

90 = A hurricane like Hurricane Andrew can knock down buildings and cause a lot of damage. It can also cause flooding inland. Hurricane victims get help from volunteers who bring food and supplies.

80 = A hurricane can cause a lot of damage and flooding inland. Hurricane victims get help from volunteers.

3. What dangers might the people face in the photograph on pages 24 and 25? *(DC, RE)* (Team Talk rubric)

100 = The people in the photograph might need to be careful of broken glass and other debris on the ground. *According to the text,* after a hurricane, there is also a chance of fire because of broken gas lines. Also, electrical lines hang from leaning poles, creating more hazards. Furthermore, the people might come across poisonous snakes that have been displaced by the hurricane. An area that has been hit by a hurricane is a very dangerous place.

90 = The people in the photograph might need to be careful of broken glass and other stuff on the ground. After a hurricane, there is also a chance of fire because of broken gas lines and electrical lines hanging from leaning poles. The people also might come across poisonous snakes.

80 = The people in the photograph might need to be careful of broken glass and other stuff on the ground.

4. After a hurricane, why is the National Guard sent into an area before repair crews and the Red Cross? Use evidence from the text to support your answer. *(DC, SA)* (Team Talk rubric)

100 = The National Guard is the first group sent into an area in the aftermath of a hurricane so they can keep looters out and clear the streets. This makes it safe for the crews to come in to repair dangerous broken gas and power lines. After that, the Red Cross can come in to help people. It would be too dangerous to enter the area before the National Guard has done their work.

90 = The National Guard keeps looters out and clears the streets. This makes it safe for the repair crews and staff from the Red Cross to come in and help people.

80 = The National Guard keeps looters out and clears the streets.

5. What is an example of something that can have different intensities? Explain your answer. *(CV)*

An example of something that can have different intensities is light. A light can be dim like a candle light or very bright like a flood light. Another example of something that can have different intensities is pain. One can feel a little pinch of pain or severe pain of greater intensity.
4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.

Class Discussion (15 minutes)

Lightning Round

1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

Celebrate

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**
   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   • Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Lesson 5

**Writing Objective:** Provide supporting facts, examples, or events.

**Teacher Background**
This writing project’s goal is to have students provide supporting facts, examples, or events as they explain how weather scientists are able to warn people about where and when hurricanes will strike. During the Model a Skill portion of the lesson, emphasize how developing a web helps students meet this goal by visually organizing information from the text to support their answer to the writing prompt.

**Active Instruction**
(10 minutes)

**Partner Vocabulary Study**
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

**Vocabulary**
1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.
2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Award team celebration points.
3. Use Random Reporter to have teams share a new sentence that uses one of their vocabulary words. Award team celebration points.
4. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Set the Stage**
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the texts, authors, and writing objective.
4. Refer students to the writing prompt and writing objective for this cycle. Remind students that during this cycle, they put together visual information and text information to draw conclusions. Point out that they regularly used information from the text to support their answers to Team Talk questions and during class discussions.

5. Refer students to the following writing prompt in their student editions. Read the writing prompt aloud.

<table>
<thead>
<tr>
<th>Writing Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain how weather scientists are able to warn people about where and when a hurricane will strike. Support your answer with information from the text.</td>
</tr>
</tbody>
</table>

Use Think-Pair-Share to ask:

**Read the prompt. What is it asking you to do: support a claim with reasons, explain ideas or information on a topic, or write a literary response? How do you know?**

*The prompt is asking me to explain information. I know this because the prompt asks me to explain how scientists warn people of coming hurricanes.*

6. Refer students to the following writer’s guide in their student editions. Point out that this is the criteria for writing to inform or explain. Point out that using the writer’s guide will help them write a quality response.

<table>
<thead>
<tr>
<th>Writing to Inform or Explain</th>
</tr>
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<tbody>
<tr>
<td><strong>Ideas</strong></td>
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<tr>
<td>• Develop the topic with relevant details.</td>
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<tr>
<td><strong>Organization</strong></td>
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<tr>
<td>• Begin by introducing the topic.</td>
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<td>• In the middle, provide facts, examples, or events that help a reader understand the information.</td>
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</tr>
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<td><strong>Style</strong></td>
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<td>• Use words and phrases that help a reader understand how the facts or events are related.</td>
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Briefly review the guide, noting the four aspects of writing: ideas, organization, style, and mechanics.
Use **Think-Pair-Share** to ask:

**Which guidelines relate to our writing objective: provide supporting facts, examples, or events?**

The ideas guideline, “Develop the topic with relevant details,” relates to our writing objective. Also, the organization guideline, “In the middle, provide facts, examples, or events that help a reader understand the information,” relates to the writing objective.

7. Tell students that this 10-minute writing project is practice to prepare them to write a quality answer for the writing section (part II) of the cycle test. Remind them that this section of the test is worth one third of their test score.

**Model a Skill**

1. Tell students that when a writing prompt asks them to explain something and asks for supporting information or evidence from the text, a web can be a valuable graphic organizer for planning their answer.

2. Draw an oval on the board. Explain that students can write the question from the writing prompt in the middle of the web. Write “how scientists warn people where/when a hurricane will strike” in the oval.

3. Explain that students can list the different things that scientists do to predict where and when hurricanes will strike around the oval. Model referring to pages 12 and 13 of *Hurricanes*. Draw a line out from the oval, and then write “meteorologists track/study hurricanes when still tropical depression” outside the oval.

4. Tell students that they can note a direct quote from the text that supports this point. Use **Think-Pair-Share** to ask:

   **Look at page 12 in Hurricanes. What passage from the text supports the point that “Meteorologists track and study hurricanes when they are still tropical depressions”?**

   The text says, “They study the storm’s progress with the help of weather satellites and weather balloons.”

5. Model drawing a line and writing “study the storm’s progress with the help of weather satellites and weather balloons.” Point out that you included quotation marks to indicate that this is a direct quote from the text.

6. Write “p. 12” next to the quotation. Explain that you included the page number of the quote in case you need to refer to the text as you write your answer.
Sample Graphic Organizer

how scientists warn people where/when hurricanes will strike

meteorologists track/study hurricanes when still tropical depression

“study the storm’s progress with the help of weather satellites and weather balloons.”

p. 12

Teamwork

(20 minutes)

Independent Work

Tell students that they have 10 minutes to plan and write drafts of their responses to the writing prompt. Remind them to write on every other line to leave room for revisions. Suggest that they refer to the writing prompt to be sure that they include all the required elements and to the writer’s guide to check the quality of their response.

Team Discussion

1. Refer students to the peer feedback checklist in their student editions, and review how to get/give feedback.

2. Have students share their drafts in teams. Allow 5 minutes for students to revise their writing projects based on feedback and to edit them using the editing checklist in their student editions.

3. Have teams put their writing projects in a pile in the middle of their tables so a writing project can be randomly selected.
Class Discussion

(30 minutes)

**Lightning Round**

Randomly select a writing project from one or two teams’ piles without revealing their authors. Display a writing project, and read it aloud.

Refer students to the writer’s guide Writing to Inform or Explain and the writing objective—provide supporting facts, examples, or events.

Using the writer’s guide, discuss and evaluate the selected writing project(s) with the class.

For example, ask:

- **Does the writer clearly introduce the topic?**
- **Does the writer include facts and examples from the text to help a reader understand the information?**
- **Does the writer end with a closing statement that supports the information?**

Award points to teams whose writing projects meet the criteria. Record these points on the team poster. Celebrate team successes.

**Reflection on Writing**

Have students reflect on their use of the writing process. Ask:

How did creating and using a graphic organizer work for you? How did it help you write your draft?

*Answers will vary.*

What was the most useful feedback that you received? How did it affect your revisions?

*Answers will vary.*

How did you find supporting facts and examples for your answer?

*Answers will vary.*
Celebrate team successes!

The top team chooses a cheer.

Remind students of the Read and Respond homework assignment.

**Celebrate**

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Writing Prompt

Explain how weather scientists are able to warn people about where and when a hurricane will strike. Support your answer with information from the text.

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Lesson 6

**Reading Objective:** Use both text and visual information to draw conclusions.

**Writing Objective:** Provide supporting facts, examples, or events.

**Teacher Background**
During today’s cycle test, students will use textual and visual information to draw conclusions. The text that students will read for the test describes windstorms other than hurricanes, such as tornadoes and dust storms.

**Active Instruction**
(5 minutes)

**Partner Vocabulary Study**
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

**Set the Stage**
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and reading and writing objectives.
4. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Prepare Students for the Test**
(5 minutes)

**Partner Review**
1. Remind students that they have been practicing using both text and visual information to draw conclusions and providing supporting facts, examples, or events. Use **Think-Pair-Share** to ask:

   What have we done this cycle to practice using text and visual information to draw conclusions?
As we read Hurricanes, we discussed this skill. We also answered questions that asked us to draw conclusions based on the text that we have read and pictures or diagrams in the book.

Tell students that they will use this skill as they take the cycle test.

2. Have partners review their notes and word power journals for this cycle. Allow 2 or 3 minutes for this activity.

Test Directions

1. Remind students that the test is independent work. Students should not ask their partners for help as they read, but they may use sticky notes if they would like.

2. Distribute the test so students can preview the questions. Point out that some of the test questions are multiple choice for which they will choose the best answer. Other questions require them to write a short answer or create a graphic organizer. Part II of the cycle test requires them to write a long answer. Remind them that their writing project was practice for writing the long answer for part II of the test.

3. Point out that questions #2 and #4 ask about interpreting information.

4. Ask students to identify key words or phrases in question #4.

4. In the aftermath of the hurricane pictured on page 25, the National Guard is first on the scene. What dangers would the soldiers face? [DC]

5. Introduce the text that students will read. Tell what it is about, but do not give additional information or details.

The text that you will read today describes tornadoes and other types of windstorms.

Test

(30 minutes)

Tell students that they have 30 minutes for the test and that they may begin. Give students a 5-minute warning before the end of the test.
Teamwork

(10 minutes)

Team Discussion
1. Pass out a colored pen to each student.
2. Explain or review, if necessary, the student routine for team discussions after the test.
3. Have teams discuss their answers to the test questions. As you monitor team discussions, ask additional questions to prompt their thinking about the important ideas in the reading and about the skills and strategies that they have been using.

Class Discussion

(10 minutes)

Lightning Round
1. Use Random Reporter to have teams share team discussions of the test questions and explain their thinking.
   
   **How are dust storms, tornadoes, and blizzards like hurricanes?**

   *(Answers will vary.) All these storms can cause damage as a result of their high winds.*

2. Award team celebration points.
3. Collect test answers. Score original answers, and add extra points for improved answers.

Celebrate
1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:
   
   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.
   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Interpret Information

Cycle 1 Test

Interpret Information

**Directions:** Read *Hurricanes*, pages 28–30. Use the TIGRRS process, and answer the following questions on a separate piece of paper. Some of the questions are based on today's reading, and other questions are about the text that you read in previous lessons. You may refer to your notes from this cycle.

**Part I. Comprehension** (100 points)

1. What is the topic?
   
   *5 points = The topic of this text is hurricanes and other windstorms.*

2. What is the author's intent?
   
   *5 points = The intent of the author is to present information about hurricanes and other windstorms.*

3. Write a short summary of the text that you read today. Include the graphic organizer or notes that you used to organize the information and your thoughts. [MI, AP]
   
   *10 points = Windstorms can be very destructive. Dust storms occur when a windstorm hits very dry land. Dust storms can bury large areas under sand or dirt. Tornadoes are funnel-shaped storms with winds that can blow as fast as 300 miles per hour. During a blizzard, winds blow at 35 miles per hour or more, and snow falls so hard that visibility is near zero.*

4. How are tornadoes different from dust storms? [DC, RE]
   
   *20 points = Tornadoes spin and have higher wind speeds than dust storms. A tornado can have wind speeds up to 300 mph. Tornadoes can occur anywhere. Dust storms, on the other hand, have slower wind speeds of up to 60 mph. Dust storms occur where there are dry, desertlike conditions. The higher wind speeds of tornadoes make them more deadly than dust storms.*

5. 15 points = Tornadoes spin and have higher wind speeds than dust storms. Tornadoes have wind speeds up to 300 mph. Dust storms happen where there are dry, desertlike conditions and have slower wind speeds.

6. 10 points = Tornadoes spin and have higher wind speeds than dust storms.

3. What would you include in a blizzard emergency kit in your car? How would this be different from a hurricane emergency kit? [DC, SA]
   
   *20 points = I would include a heavy sleeping bag and extra gloves and clothes to help keep me warm. I would include some food in the emergency kit in case I was stuck in the blizzard for a long time. In addition, I would put a shovel in the kit to use for digging out my car and some flares to make it easy for rescuers to see me. An emergency kit for a hurricane probably would not need the sleeping bag, extra clothes, or shovel. These are items that would be used specifically for dealing with the cold and snow.*
15 points = I would put in a heavy sleeping bag and extra clothes to help keep warm. I would put some food in the emergency kit. Also, I would put a shovel in the kit to use for digging out my car. An emergency kit for a hurricane probably would not need the sleeping bag, extra clothes, or shovel.

10 points = I would put in a heavy sleeping bag. I would put some food in the emergency kit and a shovel. An emergency kit for a hurricane probably would not need the sleeping bag or shovel.

4. In the aftermath of the hurricane pictured on page 25, the National Guard is first on the scene. What dangers would the soldiers face? [DC]

20 points = Dangers the National Guard would have to face include dangling power lines and the danger of fire from broken gas lines. The collapsed buildings, fallen trees, broken glass, and debris everywhere are conditions that make it dangerous to move around. Dealing with looters could be dangerous too. The text on page 24 also mentions venomous snakes as a danger. These conditions would make it very hazardous for the National Guard.

15 points = Dangers the National Guard would have to face are dangling power lines and broken gas lines. The collapsed buildings, fallen trees, and broken glass also make it dangerous. The text on page 24 also mentions venomous snakes as a danger.

10 points = Dangers the National Guard would have to face are dangling power lines, broken gas lines, and fallen trees.

5. Do you think it is possible to build a house that could survive a category 4 hurricane? Explain your answer. [DC]

20 points = I think building a house that could survive a category 4 hurricane is possible. The house could be built of materials like concrete and steel, instead of wood or glass, so the building could survive strong winds of 131–150 mph. The house could even be built underground so flying debris would not be a danger. The only problem would be if the area flooded, so the structure would have to be watertight.

15 points = I think building a house that could survive a category 4 hurricane is possible. The house could be built of concrete instead of wood or glass. It could even be built underground so flying stuff would not be a danger.

10 points = I think it is possible to build a house that could survive a hurricane if it is built with things that can withstand strong winds.
Part II. Writing (100 points)

Write at least a paragraph to answer the following questions:

How and why do meteorologists collect data on hurricanes? Why is it important? Support your answer with information from the text.

Meteorologists collect data on hurricanes to find out how powerful they are and to predict where and when they might hit land. This information is important because the meteorologists can use it to warn people when a hurricane is approaching so people can prepare for it. According to the text on page 12, meteorologists collect data using weather satellites, weather balloons, and radar. They also use information from hurricane hunters who fly back and forth through the hurricane’s eye and collect data about wind speed, air pressure, and intensity. Meteorologists continue collecting data about a storm as it moves so they can find out if it is getting stronger, for example, increasing from a category 3 storm to a category 4 and whether it is necessary to evacuate areas to save lives.

The following guide is used to score part II of the cycle test.

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</table>
Part III. Vocabulary (100 points)

1. Write a meaningful sentence using the word evacuate. [CV]
   
   *For example: City officials ordered the people who lived in houses along the river to evacuate because of the floodwaters.*

2. Which of the following is not an example of catastrophic damage? Explain why. [CV]
   
   A. buildings burn down
   B. town destroyed by a volcano
   C. scratching the paint on a car
   D. flooding of a city
   
   *Catastrophic damage is widespread damage. Scratching the paint on a car is minor damage.*

3. The ________ rain caused the river to rise and flood the towns along its banks.

   Choose the word that belongs in the blank. [CV]
   
   A. torrential
   B. veer
   C. intensity
   D. devastation

4. Write a meaningful sentence using the word surveillance. [CV]

   *For example: Some stores use surveillance cameras to catch shoplifters.*

5. The __________ of the wind was so great that it knocked trees down all along their street.

   Choose the word that belongs in the blank. [CV]
   
   A. torrential
   B. surveillance
   C. catastrophic
   D. intensity

6. Which of the following is not an example of erratic driving? Explain why. [CV]

   A. driving into a ditch
   B. *parking in a driveway*
   C. veering from lane to lane
   D. backing into another car

   *Erratic driving is driving that is not steady. Parking in a driveway is normal driving.*

7. Write a meaningful sentence using the word veer. [CV]

   *For example: The sailboat had to veer to the left to keep from hitting the Jet Ski that passed in front of it.*
8. The ________ from the hurricane knocked out the city’s power for a whole week.

Choose the word that belongs in the blank. [CV]

A. veer
B. erratic
C. intensity
D. devastation

9. What is one word that you or your teammates explored in your word power journal this cycle? Give the meaning of this word, and then use it in a meaningful sentence. [CV]

A word that we explored is surge. It means a large motion or a sudden increase. A sentence is: I felt a surge of energy when I heard that our team was going to the championship.

10. As used in the sentence “Torrents of rain lash the plane as it flies through the tropical storm,” lash most nearly means— [CV]

A. hit.
B. paint.
C. touch.
D. fall.

Explain how you figured out the meaning of lash.

I used the context. If a plane is flying through a storm, it will get hit by rain. I think lash must mean hit.

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<table>
<thead>
<tr>
<th>Question Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>[DC]</td>
<td>Make inferences; interpret data; draw conclusions.</td>
</tr>
<tr>
<td>[SA]</td>
<td>Support an answer; cite supporting evidence.</td>
</tr>
<tr>
<td>[AP]</td>
<td>Identify author's intent or purpose.</td>
</tr>
<tr>
<td>[MI]</td>
<td>Identify the main idea that is stated or implied.</td>
</tr>
<tr>
<td>[RE]</td>
<td>Analyze relationships (ideas, story elements, text structures).</td>
</tr>
<tr>
<td>[CV]</td>
<td>Clarify vocabulary.</td>
</tr>
<tr>
<td>[AC]</td>
<td>Author's craft; literary devices</td>
</tr>
</tbody>
</table>
Lesson 7

**Reading Objective:** Use both text and visual information to draw conclusions.

**Teacher Background**
During Class Discussion, students orally present evaluations of their homework reading selections. During Teamwork, students use their Read and Respond notes and answers to the homework questions to make final preparations for these presentations. Team members share their responses and give one another feedback. During the oral presentations, students use their revised responses to the questions to describe the kind of texts they read, the strategies that helped them understand the text, and whether they will recommend their reading selections to others.

**Active Instruction**

(20 minutes)

**Two-Minute Edit**
1. Display and have students complete the Two-Minute Edit as they arrive for class.
2. Use **Random Reporter** to check corrections. Award team celebration points.

**Vocabulary**
Ask teams if they have a Vocabulary Vault word that they would like to share. Award team celebration points.

**Set the Stage**
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Have students get out their reading selections and Read and Respond forms. Remind them that today, with the help of their teams, they will each prepare a presentation about their individual reading selections.

   Challenge students to think about the strategies and skills that they used to read their self-selected texts, share their answers to the Read and Respond questions, discuss their thinking, and prepare evaluations of their selections.

4. Remind students to add to the notes on their Read and Respond forms as they discuss their selections and prepare oral presentations about their selections. Students will use their answers to the questions on the Read and Respond form as the basis for their presentations.
Teamwork

(25 minutes)

Team Discussion

1. Tell students that they will use the Read and Respond questions as a guide as they discuss their homework reading and prepare evaluations of their reading selections to share with their teams.

2. As students prepare their answers, check in with those students for whom you do not have individual scores for graphic organizer/notes, written Team Talk responses, word power journal, and/or a fluency score. Have them show you examples from the cycle. Point out areas of success, and give feedback to improve student performance.

3. As you visit teams, take this opportunity to check students’ homework for completion (Read and Respond forms). Enter the information on your teacher cycle record.

Teacher’s Note:

Have students who are ready for a new selection take turns choosing reading material from the classroom library. Make sure that every student has a Read and Respond form for next cycle.

Read and Respond Questions

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<table>
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<tbody>
<tr>
<td>1. Is your selection informational or literature? Summarize your reading.</td>
<td>summary rubric</td>
</tr>
<tr>
<td>2. Why did you choose this reading? What is your purpose for reading?</td>
<td>Team Talk rubric</td>
</tr>
<tr>
<td>3. Choose a word, phrase, or passage that you did not understand at first. How did you figure it out?</td>
<td>strategy-use rubric</td>
</tr>
<tr>
<td>4. Write down a question that you had or a prediction that you made as you read. Were you able to answer or confirm it? Explain.</td>
<td>strategy-use rubric</td>
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<tr>
<td>5. Would you recommend this selection to others to read? State your opinion, and support it with reasons.</td>
<td>Team Talk rubric</td>
</tr>
<tr>
<td>6. Choose a short section of the text that you think is important or especially interesting. Tell your teammates why you chose it. Read it aloud smoothly and with expression.</td>
<td>fluency rubric</td>
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Class Discussion

(15 minutes)

Lightning Round

Use Random Reporter to have students present their evaluations of their homework reading selections (responses to the Read and Respond questions). Use rubrics to evaluate responses, give specific feedback, and award points.

Celebrate

1. Tally up this cycle’s points on the poster.
2. Tell students that their scored tests will be returned at the beginning of the next lesson. Poster points and the teams’ test scores will determine which teams earn the status of super team, great team, or good team for the cycle.
3. Be sure to record each team’s total celebration points from the poster into the teacher cycle record form. Remind students that team celebration points and team test averages are used to determine team scores.
4. Collect students’ Read and Respond forms, and pass out new forms.
5. Tally up the number of Read and Respond signatures on students’ forms, and record the number on the teacher cycle record form after class.
Lesson 8

Objectives: Celebrate successes, and set new goals. Hold a Class Council meeting.

Teacher Background
In the first part of this lesson, students review their test results and their final scores for the cycle and compare them with their goals. They celebrate success and set new objectives for further improvement.

In the second part of the lesson, students participate in Class Council.

Active Instruction

Two-Minute Edit
(2 minutes)

Two-Minute Edit
1. Display and have students complete the Two-Minute Edit as they arrive for class.
2. Use Random Reporter to check corrections. Award team celebration points.

Celebrate/Set Goals
(20 minutes)

1. Distribute students’ scored cycle tests. Allow a few moments for students to review them.
2. Distribute team score sheets to teams and celebration certificates to students. Remind students that the cycle’s top-scoring teams are determined by their points on the poster and their test scores.
3. Recognize and celebrate the super, great, and good teams. Remind the teams of the impact of bonus points that are added to team members’ cycle scores.
4. Have each team discuss and set a goal for the next cycle and record it on their team score sheet. Use the questions below to analyze and discuss the students’ scores.

What was your team’s highest score?
What score do you want to improve?
What can the team do to improve that score?

Use Random Reporter to ask:
What is your team’s goal for the next cycle? Why did you choose that goal?
Accept supported answers.
5. Use the poster to award team celebration points for responses that include the team's reasons for choosing the goal, thus beginning the accumulation of points for the next cycle.

6. Have students record their cycle test scores and their areas of greatest strength and improvement on their progress charts.

**Class Council**

(30 minutes)

1. Share class compliments.

2. Review the class goal that was set at the last Class Council. Using the agreed-upon measure of progress, was the goal met? Why or why not?

3. Discuss a class concern, or use the scenario and discussion hints provided.

4. Have teams discuss and then use Random Reporter to share responses.

5. After debriefing how they resolved the problem, help students set a goal and a measure of progress that they can use at the next Class Council.

**Brain Game**

(5 minutes)

1. Choose a brain game from the card set, and then play the game.

2. Use the following questions to debrief and remind students of self-regulatory strategies:

   **What did this game require your brain to do?**

   **How will use of this skill improve your success in other classes?**
Lesson 1

Reading Objective: Use both text and visual information to draw conclusions.

Teacher Background

Today you and your students will begin reading *Graphing Natural Disasters.* This informational text makes use of a variety of graphs and tables as it describes geological and weather-related natural disasters, such as volcanoes, earthquakes, and cyclones. The Big Question this cycle asks students which type of natural disaster poses the biggest threat to the area in which they live and what steps should be taken before, during, and after this type of disaster. Answering this question will foster a personal link between students and the topic of the text that they are reading. It will also require students to tap into their background knowledge about natural disasters and the way communities deal with them.

Active Instruction

(22 minutes)

Big Question

Post and present this cycle's Big Question. Have students write a response to the question as they arrive for class.

The Big Question: What kind of natural disaster do you think poses the biggest threat to the area where you live? If this natural disaster was expected to hit your area, what would be the most important steps that people would need to take to stay safe before, during, and after the disaster?

Set the Stage

1. Refer students to today's Big Question. Use Think-Pair-Share to ask:

   What kind of natural disaster do you think poses the biggest threat to the area where you live? If this natural disaster was expected to hit your area, what would be the most important steps that people would need to take to stay safe before, during, and after the disaster?

   I live near a national forest, and wildfires are the biggest threat that we face. We can’t start any open fires during dry periods. We have cleared out any trees growing close to our house to lessen the chances of a fire reaching our house. If there is a wildfire nearby, we have to pay close attention to the local news so we know when to leave if the fire moves in our direction. It’s important not to return to the area until we’re sure the firefighters have the fire under control.
2. Ask students to review their cycle goal. Remind students how to earn team celebration points. Remind them that team celebration points help them to become super teams. Tell them that they can earn team celebration points during the Lightning Round.

3. Introduce the text, author, and reading objective.

4. Distribute copies of Graphing Natural Disasters. Have students preview the text. Use Think-Pair-Share to ask:

   **Is this literature or informational text? How do you know?**

   *This text is informational. The table of contents, chapter titles, and headings are evidence that the text is informational.*

5. Use Think-Pair-Share to have students predict the topic and identify clues. Randomly select a few students to share.

6. Prompt students to identify the next step of TIGRRS. Use Think-Pair-Share to have them predict the author’s intent. Randomly select a few students to share.

7. Point out that the next step in the TIGRRS process is to choose a graphic organizer for making notes. Choices include, but are not limited to:
   - Venn diagram
   - timeline/sequence chain
   - T-chart
   - web
   - outline

   Use Think-Pair-Share to ask:

   **Which graphic organizer(s) will work best with this text? Why?**

   *Accept reasonable responses. For example, I think the best graphic organizer would be an outline because the chapter titles and headings indicate that we will read about different types of disasters and learn facts about each type. I think an outline would work best to record main ideas and details for each type of disaster.*

   **T:** Natural disasters
   **I:** To provide detailed information about natural disasters
   **G:** Outline

   **What else can you tell me that you already know about volcanoes and other natural disasters?**

   *Answers will vary.*
Interactive Read Aloud

1. Refer to the reading objective, and review the skill if necessary.

2. Read page 4 aloud. Use Think-Pair-Share to prompt use of the skill or strategy.

   Based on the text, what conclusions can you draw about the area pictured on page 4?

   (Answers will vary.) This area was probably hit by a weather-related natural disaster. Heavy rains from some type of storm could have caused the flooding seen in the photograph.

3. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text.

   Have students read the rest of page 5. Use Think-Pair-Share to ask:

   Using information from the text and the table and bar graph on page 5, what conclusions can you draw about future property damage in the United States from tornadoes? Explain.

   In the future, property damage from tornadoes in the United States will probably be more than $752 million per year. The information from the table shows that in 2006 tornadoes caused about $752 million worth of property damage in the United States. The text explains that storms are becoming more frequent and powerful, probably because of global warming.

   Use Random Reporter to debrief.

4. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

   Use Random Reporter to debrief. Add student responses to the graphic organizer.

   What main ideas and details did you add to your outline?

   One main idea is that there are different types of natural disasters. Some supporting details include: geological disasters, such as volcanoes and earthquakes, are caused by the way the earth is formed; other natural disasters, such as hurricanes and drought, are caused by the weather. Another main idea is that the number of natural disasters is increasing.

   What information from the table and bar graph did you add to your outline?

   I added that floods cause the most property damage and tornadoes cause the second-most damage.
A sample graphic organizer follows.

### Sample Graphic Organizer

#### Natural Disasters

I. Types of natural disasters
   A. geological disasters caused by way earth is formed: volcanoes, earthquakes, tsunamis
   B. weather-related disasters: hurricanes, tornadoes, flood, drought
      1. floods cause most property damage in U.S.: $3.8 billion a year
      2. tornadoes cause second-most damage: more than $750 million a year

II. Occurrence of natural disasters
   A. increasing: scientists say cause is global warming
   B. loss of life decreasing: due to early warning

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**Partner Prep**

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: **pages 6–9 aloud with partners.**

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

**Team Discussion**

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.
Team Talk Questions

1. What are some types of geological disasters? How are they different from weather-related natural disasters? Support your answer with evidence from the text. **[DC, SA]** (Team Talk rubric)

   *100 = Types of geological disasters include volcanoes, earthquakes, and tsunamis. According to the text on page 4, geological disasters happen because of the way the earth is formed. Natural disasters like cyclones and tornadoes are caused by bad weather. The geological cause makes volcanoes and earthquakes different from hurricanes or tornadoes.*

   *90 = These disasters are volcanoes, earthquakes, and tsunamis. They happen because of the way the earth is formed. Natural disasters like cyclones and tornadoes happen because of bad weather.*

   *80 = These disasters are volcanoes, earthquakes, and tsunamis. They do not happen because of bad weather.*

2. Does the table or the bar graph on page 5 make it easier to quickly see which type of natural disaster did the most property damage in 2006? Explain. **[DC, SA]** (Team Talk rubric)

   *100 = The bar graph on page 5 makes it easier to see that flash floods caused the most property damage in 2006. This is because you can quickly identify which bar is longest and see that it represents flash floods. It is harder to identify which number in the table goes with flash floods and compare it to all the other numbers. The bar graph is a better format for comparing the information.*

   *90 = The bar graph makes it easier to see that flash floods caused the most property damage in 2006. This is because you can quickly see which bar is longest and see that it is the one for flash floods. It is harder to see which number in the table goes with flash floods and compare it to all the other numbers.*

   *80 = The bar graph makes it easier to see that flash floods caused the most property damage in 2006.*

3. What does the bar graph on page 7 tell you about the eruption of Kilauea in Hawaii? **(Write)** **[DC]** (Team Talk rubric)

   *100 = The bar graph shows the VEI or volcanic explosivity index, or power of different volcanic eruptions. The most powerful volcanic eruption is 7 on the index. Kilauea is only 2 on the index, so the eruption is not very explosive and has been going on for a long time, since 1983. It is the least powerful volcano shown on the graph.*

   *90 = The bar graph shows the power of different volcanic eruptions. The most powerful volcanic eruption is 7. Kilauea is 2, so the eruption is not very explosive and has been going on for a long time, since 1983.*

   *80 = The bar graph shows the power of different volcanic eruptions. Kilauea is a number 2.*

   continued
4. Suppose an earthquake had a magnitude of 3. What damage would you expect from this earthquake? Cite two pieces of evidence from pages 8 and 9 to support your answer. [DC, SA] (Team Talk rubric)

100 = According to the text on page 8, an earthquake with a magnitude of 2 is not usually felt. I think an earthquake with a magnitude of 3 would not cause any damage. Also, the table on page 9 shows that there are 130,000 earthquakes with magnitude 3 to 3.9 every year. If each of these caused damage, we would hear more about them in the news.

90 = An earthquake of 2 is not usually felt. I think an earthquake of 3 would not cause any damage. Also, there are 130,000 earthquakes of 3 to 3.9 every year.

80 = I think an earthquake of 3 would not cause any damage.

4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.

Class Discussion

18 minutes

Lightning Round

1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.
Celebrate

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   • Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Lesson 2

**Reading Objective:** Use both text and visual information to draw conclusions.

**Teacher Background**

Today’s reading describes tsunamis, hurricanes, cyclones, tornadoes, and the damage caused by these natural disasters. Text features, such as maps, diagrams, graphs, and tables, provide detailed information about how scientists measure and classify different types of disasters.

Show the video about tracking tsunamis to build background about these destructive geological natural disasters.

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**Active Instruction**

(25 minutes)

**Partner Vocabulary Study**

1. Display the vocabulary words. Have students use the vocabulary study routine as they copy the words in their word power journals and rate their knowledge of each as they arrive for class.

2. Spot check the Read and Respond homework.

**Vocabulary**

1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.

2. Use **Random Reporter** to have the teams share one word that they know and one word that they need to study further. Award team celebration points.

3. Introduce the vocabulary for this cycle. Read each word aloud, and model chunking as needed. Then read the meaning of each word.

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<td>related to physical structure of an area</td>
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<tr>
<td>(adjective)</td>
<td>(jee-uh-LOJ-ik-uhl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>page 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>debris</td>
<td>de-bris</td>
<td>pieces of something that has been destroyed</td>
<td>Debris from the building that collapsed littered the ground.</td>
</tr>
<tr>
<td>(noun)</td>
<td>(duh-BREE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>page 7</td>
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<td>da-ta</td>
<td>factual information</td>
<td>Scientists rely on accurate data to develop theories about disease.</td>
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4. Use **Random Reporter** to have teams share a new sentence that uses one of their vocabulary words. Award team celebration points.

5. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Set the Stage**

1. Ask students to review their team’s goal for this cycle and assess their progress.

2. Review the Team Celebration Points poster, and challenge teams to build on their successes.

3. Remind students of the text, author, and reading objective.

4. Have teams discuss and report on their preview of the text and explain their thinking. Use **Random Reporter** to share team responses.

   **T:** Weather-related natural disasters
   
   **I:** To provide detailed information about weather-related natural disasters
   
   **G:** Outline
5. Show the video “Tracking Tsunamis.” Use **Think-Pair-Share** to debrief the video.

**What new information did you learn from the video?**

*We learned that tsunamis are giant waves that can do a lot of damage when they hit land. They are caused by earthquakes in the ocean. Scientists are putting instruments on the ocean floor to send signals when there are earthquakes. They are also putting floating instruments around the oceans to gather information about where and when a tsunami might hit land.*

**Interactive Read Aloud**

1. Read the first paragraph on page 10 aloud. Use **Think-Pair-Share** to prompt use of the skill or strategy.

**Based on the text I just read and the picture on page 10, what conclusions can you draw about what people should do if they hear a tsunami warning?**

*(Answers will vary.) People should probably get as high up in a building or on high land as they can. Tsunamis can be very high, but in the photo it looks like the roofs of the tallest buildings were not damaged.*

2. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read the rest of page 10. Use **Think-Pair-Share** to ask:

**Using information from the text, what conclusions can you draw about the people who lived in the area pictured in the photograph on page 10?**

*Many of the people who lived in that area were probably injured or killed. You can see in the photo that the tsunami caused a lot of damage, and the text says that people caught by tsunamis are often injured or killed.*

Use **Random Reporter** to debrief.

3. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use **Random Reporter** to debrief. Add student responses to the graphic organizer.

4. Point out that there is more than one way to organize an outline. Remind students that for this outline it works to use capital letters to list the main sections or ideas of the text, which are usually types of natural disasters. Numbers can be used to list supporting details.

A sample graphic organizer follows.
Natural disasters

III. Geological disasters

A. Volcanoes
   1. shoot ash, dust, smoke, and lava
   2. destroy buildings, forests, livestock, pollute water
   3. bury areas in ash and debris

B. Earthquakes
   1. caused by movement of tectonic plates along fault lines
   2. measured with seismographs
   3. cause buildings to crumble; people often trapped in rubble

C. Tsunamis
   1. caused by earthquakes/volcanic eruptions
   2. can be up to 100 ft. high, travel as fast 450 mph
   3. may be one or many waves
   4. crush buildings, trees; injure/kill people
   5. saltwater affects freshwater/destroys crops

Teamwork

(20 minutes)

Partner Prep

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 11–15 aloud with partners.

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.
3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

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<tr>
<td><strong>1.</strong> What made Hurricane Katrina such a serious natural disaster? <strong>[DC]</strong> (Team Talk rubric)</td>
</tr>
<tr>
<td>100 = New Orleans is a low-lying city that is protected by levees. The storm surge from Hurricane Katrina flooded the city by pushing water over and through the levees. In addition, many people did not evacuate the city, and the rescue efforts were disorganized. All these conditions made Hurricane Katrina a very serious natural disaster.</td>
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<td>90 = New Orleans is a low city that is protected by levees. Hurricane Katrina flooded the city by pushing water over and through the levees. Many people did not leave the city, and the rescue efforts were disorganized.</td>
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<td>80 = Hurricane Katrina flooded New Orleans by pushing water over and through the levees.</td>
</tr>
<tr>
<td><strong>2.</strong> If the maximum winds of a hurricane are 120 miles per hour, what category is it on the Saffir-Simpson scale? How does the graph on page 13 provide this information? <strong>[DC, SA]</strong> (Team Talk rubric)</td>
</tr>
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<td>100 = A hurricane with maximum winds of 120 miles per hour is a category 3 storm. The graph on page 13 is a pictogram of the Saffir-Simpson scale. It uses light-blue pictures to indicate the maximum winds of the different hurricane categories. The graph shows that category 3 hurricanes have maximum winds of about 110–130 miles per hour.</td>
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<td>90 = A hurricane with winds of 120 miles per hour is a category 3 storm. The graph uses light-blue pictures to show the wind speeds of the different hurricane categories.</td>
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<td>80 = A hurricane with maximum winds of 120 miles per hour is a category 3 storm. The graph uses light-blue pictures to show the difference.</td>
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<td><strong>3.</strong> If you were a storm chaser studying tornadoes, where and when would you have the greatest chance of tracking one? Give evidence to support your answer. <strong>(Write)</strong> <strong>[DC, SA]</strong> (Team Talk rubric)</td>
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<tr>
<td>100 = A storm chaser would have the greatest chance of tracking tornadoes in an area where they happen frequently. One area is Tornado Alley in the central U.S. as shown in the map on page 15. More tornadoes occur in this area in the months of May and June according to the bar graph, so that would be the best time for storm chasers to track a tornado. (Students may identify the highest frequency in this area as being the white area on the map spanning parts of Tennessee, Alabama, Georgia, and Arkansas.)</td>
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<td>90 = A storm chaser would have the greatest chance of tracking tornadoes in an area where they happen often. One area is Tornado Alley in the central U.S. More tornadoes happen in this area in the months of May and June.</td>
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Team Talk Questions continued

4. From 1950 to 2004, in which two months did the most tornadoes occur in the United States? Why do you think that is? Use evidence from the text and graphs on pages 14 and 15 to support your answer. [DC, SA] (Team Talk rubric)

100 = From 1950 to 2004, in the United States, the most tornadoes occurred in the months of May and June. According to the text, tornadoes are formed when warm wet air hits cool dry air to create thunderstorms. I think these weather conditions must occur a lot in May and June as spring turns into summer and temperatures are changing.

90 = From 1950–2004, the most tornadoes happen in the months of May and June. I think it is because of weather. Tornadoes happen when warm wet air hits cool dry air to create thunderstorms.

80 = The most tornadoes were in the months of May and June because of the weather then.

5. Which one of your vocabulary words is an antonym for the word livable? (Remember an antonym is a word that means the opposite of another word.) Explain how you figured this out. [CV]

The word uninhabitable is an antonym of livable. I figured this out because a place that is uninhabitable is so messed up that you can’t live in it. A place that is livable would be good enough for some to live in it.

4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.
**Class Discussion**

(15 minutes)

**Lightning Round**

1. Use **Random Reporter** to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

3. Show the video “Team Talk Response.”

**Celebrate**

1. Tally the team scores on the poster, and celebrate teams who are accumulating points. Have teams reflect on the following questions:

   - **How many points did your team earn today?**
   - **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   - **Something to cheer about:** Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
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Lesson 3

**Reading Objective:** Use both text and visual information to draw conclusions.

**Teacher Background**

In today’s reading students will learn about floods, avalanches, and landslides. Charts, graphs, and tables provide information such as the frequency and location of water-related disasters and avalanche triggers. On page 21, the same information on the number of landslide deaths in 2007 is displayed in table and bar graph form. This provides a valuable opportunity to discuss the particular strengths and weaknesses of different visual formats used to present detailed information.

Show the video “Meteorologist: Howie Bluestein” (2 min. 7 sec.) to build background about tornadoes and the scientists who study them.

**Teacher’s Note:**

Use the Interactive Read Aloud if your students need additional support. Otherwise, go directly to teamwork after working on vocabulary. Adjust partner reading page numbers accordingly.

---

**Active Instruction**

(15–25 minutes)

**Partner Vocabulary Study**

1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.

2. Spot check the Read and Respond homework.

**Vocabulary**

1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.

2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Use Random Reporter to have teams report on a new sentence using a vocabulary word. Award team celebration points.

3. Choose an important word from the text or class discussion, and model how to explore it in a word power journal entry. A sample Think Aloud and word map follow.

---

**Students use the vocabulary study routine to rate their knowledge of each vocabulary word:**

+ I know this word and can use it.

✓ This word looks familiar; it has something to do with...

? I don’t know this word; it’s totally new to me.

Teams discuss their vocabulary ratings.

Model exploring a word in the word power journal.
Sample Think Aloud

I want to study this word *cyclone* some more. A cyclone is one of the natural disasters listed on page 4 of the text. I can see from the way the word is used that a cyclone is a type of storm that involves a lot of wind or rain or both. I'm going to look up its exact definition in the dictionary. (Consult the dictionary.) The dictionary says that a cyclone is “a large-scale storm system with heavy rain and winds that rotates counterclockwise in the northern hemisphere and counterclockwise in the southern hemisphere.” That sounds a lot like a hurricane. I think cyclones are related to hurricanes in some way. I also see that *cyclone* comes from the Greek work *kyklon*, which means moving in a circle. I wonder if the word *cyclone* is also related to the word *cycle*?

Sample Word Map

- large-scale rotating storm with heavy winds and rain
- could be related to hurricanes
- related words: *cycle*, *bicycle*
- comes from Greek word *kyklon* — moving in a circle

4. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Set the Stage**

1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and reading objective.
4. Show the video “Meteorologist: Howie Bluestein.”

Use Think-Pair-Share to debrief the video.

How does Professor Bluestein’s team measure the wind speed of a tornado?

The team uses Doppler radar to measure a tornado’s wind speed.

How might the work of a meteorologist like Professor Bluestein be valuable?

(Answers will vary.) By studying tornadoes, a meteorologist might be able to better predict when and where a tornado might strike.

Interactive Read Aloud

1. Read page 16 (including the caption on the photo) aloud. Use Think-Pair-Share to prompt use of the skill or strategy.

What do you think caused the flood in the picture on page 16? Explain.

I think heavy rainfall caused the flood in the photo. The caption says the photo is of a flood in China in 2008, and the text says heavy rainfall caused flooding in China in 2008.

2. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text. Have students read page 17. Use Think-Pair-Share to ask:

What conclusions can you draw about water-related disasters worldwide? Explain your thinking.

I conclude that countries in Asia experience a lot of flooding. The bottom pie chart shows that the largest percentage of water-related disasters occur in Asia. The top pie chart shows that floods make up 50 percent of all water-related disasters. In the text I read that heavy rains caused massive floods in China in 2008. From all this information, I can conclude that floods happen a lot in Asia.

Use Random Reporter to debrief.

3. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use Random Reporter to debrief. Add student responses to the graphic organizer.
Sample Graphic Organizer

Natural disasters

IV. Weather-related disasters

A. Hurricanes
   1. develop in warm ocean waters
   2. winds of 74 mph or greater
   3. spins around an eye
   4. cause fewer deaths than 100 years ago b/c forecasting and rescue efforts are better now

B. Tornadoes
   1. caused by warm, wet air hitting cool, dry air
   2. winds can reach more than 300 mph
   3. very unpredictable

C. Floods
   1. caused by heavy rain or broken dams, dikes, levees, tsunamis
   2. levees and dams used to try to control
   3. make up 50% of all water-related disasters
   4. most flooding in Asia

Teamwork

(25–30 minutes)

Partner Prep

1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 18–21 aloud with partners.

   (if skipping Interactive Read Aloud, pages 16–21)

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

Cue students to use their student routines for partner reading, word power, fluency, and the TIGRRS process.
Team Discussion

1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion. [SA]

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

<table>
<thead>
<tr>
<th>Team Talk Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What conditions make avalanches more likely? Use evidence from the text to support your answer. [SA] (Team Talk rubric)</td>
</tr>
<tr>
<td>100 = According to the text, most avalanches occur in late winter or early spring after a heavy snow. The new snow puts extra stress on the old snow. A few days of warm weather can melt and weaken the snow underneath. However, even with these conditions, some other event, like a falling rock or loud noise, may be needed to trigger an avalanche.</td>
</tr>
<tr>
<td>90 = Most avalanches happen in late winter or early spring after a heavy snow. The new snow puts extra stress on the old snow. A few days of warm weather can melt and weaken the snow underneath.</td>
</tr>
<tr>
<td>80 = Avalanches are most likely after a heavy snow.</td>
</tr>
<tr>
<td>2. Why does the author include the pie chart and sidebar on page 19? What does she want readers to understand? (Write) [DC, AP] (Team Talk rubric)</td>
</tr>
<tr>
<td>100 = The author includes the pie chart to show that 90 percent of the time, the victims of avalanches are the ones who trigger them. She includes the sidebar to explain the danger codes that are posted to warn people about avalanches. For example, black is the color that indicates the most-extreme avalanche danger. I think the author wants the reader to understand that paying attention to warning signs can prevent the triggering of avalanches.</td>
</tr>
<tr>
<td>90 = The author wants to show readers that 90 percent of the time, the victims of avalanches are the ones who trigger it. The sidebar explains the danger codes that are posted to warn about avalanches. For example, black is the color for the most-extreme avalanche danger.</td>
</tr>
<tr>
<td>80 = The author wants to show that avalanches are triggered by victims most of the time. The sidebar explains the avalanche danger codes.</td>
</tr>
</tbody>
</table>

continued
Team Talk Questions continued

3. Why would building a house on the side of a hill make a landslide more likely? [DC] (Team Talk rubric)
   100 = Disturbing the soil on a hillside can cause a landslide. When homes are built, a lot of soil is disturbed by the actual building of the house. In addition, just getting equipment, like bulldozer and trucks to the building site would affect the soil. With the slope of a hillside, the disturbed soil would increase the likelihood of a landslide.
   90 = When homes are built, a lot of soil is disturbed by the actual building of the house. Also, just getting equipment, like bulldozer and trucks to the building site would affect the soil.
   80 = When homes are built, a lot of soil is disturbed by the building of the house.

4. In 2007, which country had the highest number of deaths from landslides? What might explain this? Use evidence from the text and your own thinking to support your answer. [DC, SA] (Team Talk rubric)
   (Answers may vary.)
   100 = In 2007, China was the country with the greatest number of deaths from landslides. China has a greater population than other countries so more people might have built homes on hillsides. This could be a reason that there were more deaths. Another factor could be that there were more landslides in China due to weather conditions, such as the heavy rains and flooding pictured on page 16.
   90 = In 2007, China was the country with the greatest number of deaths from landslides. This may be because they have more people in China and more building on hillsides that disturbs soil.
   80 = China was the country with the most deaths from landslides. I think this could be because they have more people in China, and it is crowded.

5. The vocabulary word geological comes from the Greek root geo, meaning earth. The suffix -ology means a scientific study of. What do you think the word geology means? [CV]
   I think the word geology means the scientific study of the earth.

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4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.

5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.
7. If some teams finish ahead of others, have them practice their fluency.
8. Award team celebration points for good team discussions that demonstrate 100-point responses.

---

**Class Discussion**

(20 minutes)

**Lightning Round**

1. Use **Random Reporter** to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.
2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

**Celebrate**

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**
   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.
   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.
2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Lesson 4

**Reading Objective:** Use both text and visual information to draw conclusions.

**Teacher Background**

Today’s reading presents information on the effects of droughts and wildfires. The beneficial effects of wildfires are described, and a timeline is used to show the major droughts that occurred around the world from 1849–2006.

(Optional) To connect ideas from previous readings, show the video “Avalanche Town” (4 min. 17 sec.) to build background about the effects of avalanches and how they compare to tsunamis.

**Teacher’s Note:**

Use the Interactive Read Aloud if your students need additional support. Otherwise, build background, and then go directly to teamwork. Adjust partner reading page numbers accordingly.

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**Active Instruction**

**Partner Vocabulary Study**

1. Display the vocabulary words. Have students use the vocabulary study routine as they rate their knowledge of each vocabulary word as they arrive for class.

2. Spot check the Read and Respond homework.

**Vocabulary**

1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”.

2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Use Random Reporter to have teams report on a new sentence using a vocabulary word. Award team celebration points.

3. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.
**Set the Stage**

1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and reading objective.
4. Have teams discuss and report on their preview of the text and explain their thinking. Use Random Reporter to share team responses.
5. (Optional) Show the video “Avalanche Town.” Use Think-Pair-Share to debrief the video.

**How are avalanches like tsunamis?**

*Tsunamis are like walls of water that cause a lot of destruction. Avalanches are like walls of snow that can also cause a lot of damage.*

**What did officials do to try to protect the town from another avalanche?**

*They built a big wall to try to make avalanches veer away from the town.*

**Do you think a solution like this might help protect a city or town from a tsunami? Explain your thinking.**

*(Answers will vary.) I think a big wall could help protect a city or town from a tsunami. It could make the flood waters veer away from areas where people live.*

**Interactive Read Aloud**

1. Read page 22 aloud. Use Think-Pair-Share to prompt use of the skill or strategy.

**What conclusions can you draw about the people who live in the area that we see in the photograph on page 22?**

*(Answers will vary.) These people can’t grow any crops because there’s not enough water, so they have to get food in some other way or starve. They will probably have to move somewhere else.*

2. Partner Practice: Student partner pairs use the read-aloud/think-aloud process to practice the skill or strategy with the next passage in the text.

Use Random Reporter to debrief.

3. Ask partners to review this section of text, check their understanding with each other, reread what they need to clarify, and add notes to their graphic organizers.

Use Random Reporter to debrief. Add student responses to the graphic organizer. A sample graphic organizer follows.

<table>
<thead>
<tr>
<th>Sample Graphic Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural disasters</strong></td>
</tr>
<tr>
<td>F. Drought</td>
</tr>
<tr>
<td>1. low precipitation over long time</td>
</tr>
<tr>
<td>2. Crops won’t grow; people can starve.</td>
</tr>
<tr>
<td>3. Droughts can last for years.</td>
</tr>
</tbody>
</table>
Teamwork
(20–30 minutes)

Partner Prep
1. Explain, or review if necessary, the student routines for partner reading, word power, fluency, and the TIGRRS process before having students read and restate: pages 23–25 aloud with partners.

2. Circulate and check for comprehension, evidence of strategy use, and use of the TIGRRS process, for example, restating ideas on the graphic organizer. Give students feedback. Prompt and reinforce their discussions.

3. If some partners finish ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion
1. Explain, or review if necessary, how to use role cards and the student routines for strategy use and Team Talk discussion.

2. Remind students to use the rubrics on their team folders to prepare each team member to discuss the team’s strategy use, oral and written Team Talk responses, word power, and fluency. Each team member must be able to summarize the text and discuss the team’s graphic organizer/notes during Class Discussion as indicated.

3. Preview the Team Talk questions. If necessary, ask questions to guide students’ reflection as they determine the meaning of the “(Write)” question.

Team Talk Questions

1. What section of text did you choose to reread and why? What new connection did you make by rereading and reviewing your notes? (strategy-use rubric)

   (Answers will vary.) For example, I reread the timeline on page 23 because I could see it had a lot of information about when and where droughts have happened. By rereading, I was able to confirm that severe droughts like the one pictured on page 22 have happened on most continents, including Asia, North America, Australia, and Africa.

2. Write a summary of the section of text you reread. (Write) [MI] (summary rubric)

   (Answers will vary.)
   100 = Droughts cause crop failure. This causes people to go hungry. If droughts last a long time, wind blows the topsoil away and rain causes erosion. When the drought ends the soil might not be able to grow crops anymore. Kenya suffered a severe drought in 2000.

   90 = Droughts cause crop failure. This causes people to go hungry. If droughts last a long time, wind blows the topsoil away and rain causes erosion.

   80 = Droughts cause crop failure. If droughts last a long time, wind blows the topsoil away and rain causes erosion.

   continued
3. What area was affected by drought in the years 1965–1969? What was one consequence of this drought? (Write) [DC, AP] (Team Talk rubric)

100 = During the years 1965–1969, there was a long drought in northern Africa. According to the timeline on page 23, one consequence of this drought was the expansion of the Sahara Desert. I think the desert must have expanded because the extremely dry conditions affected the soil the way those same conditions did in the Dust Bowl.

90 = During those years, there was a drought in northern Africa. The drought caused the Sahara Desert to get bigger. I found this information in the “Timeline of major drought events, 1849–present” on page 23.

80 = In those years, there was a drought in Africa. The Sahara Desert got bigger.

4. How are plant-eating animals helped by wildfires? Use evidence from the text and your own thinking to support your answer. [DC, SA] (Team Talk rubric)

100 = The ash from wildfires makes the soil more fertile. The result is that there is a lot of new plant growth after a wildfire, especially in areas like the grasslands pictured on page 25. The new growth provides food for plant eaters. The new plants sprouted within months after the fire.

90 = The ash from wildfires makes the soil better, so a lot of new plants grow. There is more food for plant eaters.

80 = After a wildfire, more plants grow.

5. What was one reason that views around the world changed regarding how to manage wildfires? [DC, SA] (Team Talk rubric)

(Answers may vary.)

100 = There was a huge fire in Yellowstone National Park in 1988. After twenty years, animals and plants were thriving in the park. This caused people to change their minds about how to manage wildfires. Now, in many areas, natural wildfires are allowed to burn without interference because the fire at Yellowstone proved that the land would recover.

90 = One reason people changed their minds about how to manage wildfires was the huge fire in Yellowstone National Park in 1988. After twenty years, animals and plants were doing well in the park.

80 = What caused people to change their minds about how to handle wildfires was a huge fire in a park.

6. levee uninhabitable

How could the breaking of a levee make a town uninhabitable? [CV]

A levee is kind of like a dam that prevents flooding from a river. If a levee protecting a town broke, the town might be flooded with water. The flooding could make the town not fit for living in or, in other words, uninhabitable.

4. Have students thoroughly discuss Team Talk questions before they write individual answers to the skill question marked “(Write).” Allow students to revise their written answers after further discussion if necessary.
5. Prompt teams to discuss comprehension problems and strategy use (their sticky notes), important ideas that they added to their graphic organizers, and words that a team member added to the word power journal.

6. Circulate and give feedback to teams and students. Use rubrics to give specific feedback. Ask questions to encourage further discussion. Record individual scores on the teacher cycle record form.

7. If some teams finish ahead of others, have them practice their fluency.

8. Award team celebration points for good team discussions that demonstrate 100-point responses.

**Class Discussion**
(20 minutes)

**Lightning Round**
1. Use Random Reporter to have teams share strategy use, oral and written Team Talk responses, word power discussions, and fluency. Ask other teams to agree, disagree, or add on to responses.

2. Use rubrics to evaluate responses and give specific feedback. Award team celebration points for 100-point responses. Record individual scores on the teacher cycle record form.

**Celebrate**
1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Lesson 5

**Writing Objective:** Provide supporting facts, examples, or events.

**Teacher Background**
When you model the skill, show students how using the book's index can help them find the information that they need to support their answers and how to cite that evidence in their writing.

**Active Instruction**

(10 minutes)

**Partner Vocabulary Study**
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

**Vocabulary**
1. Have teams discuss their ratings of the words. Ask teams to make a tent with their hands when they are ready to tell a word the entire team rated with a “+” and a word the entire team rated with a “?”
2. Use Random Reporter to have the teams share one word that they know and one word that they need to study further. Use Random Reporter to have teams report on a new sentence using a vocabulary word. Award team celebration points.
3. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.

**Set the Stage**
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the text, author, and writing objective.
4. Refer to the writing objective. Point out that throughout the cycle, the students have been drawing conclusions and supporting their conclusions with evidence from the text such as facts, examples, and events.
5. Refer students to the following writing prompt in their student editions. Read the writing prompt aloud.
Writing Prompt

According to most scientists, what impact is global warming having on hurricanes and cyclones? Explain why this impact isn’t causing more deaths than occurred one hundred years ago. Use evidence from the text to answer the question.

Use Think-Pair-Share to ask:

Read the prompt. What is it asking you to do: support a claim with reasons, explain ideas or information on a topic, or write a literary response? How do you know?

This prompt is asking me to explain ideas and information. I know because the prompt asks what most scientists believe the impact of global warming is on hurricanes and cyclones. Then the prompt asks me to explain why this impact isn’t causing more deaths than in the past.

6. Refer students to the following writer’s guide in their student editions. Point out that this Writing to Inform or Explain guide is the criteria for writing. Point out that using the writer’s guide will help them write a quality response.

<table>
<thead>
<tr>
<th>Writing to Inform or Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas</td>
</tr>
<tr>
<td>• Clearly introduce the topic.</td>
</tr>
<tr>
<td>• Develop the topic with relevant details.</td>
</tr>
<tr>
<td>Organization</td>
</tr>
<tr>
<td>• Begin by introducing the topic.</td>
</tr>
<tr>
<td>• In the middle, provide facts, examples, or events that help a reader understand the information.</td>
</tr>
<tr>
<td>• End with a closing statement that supports the information.</td>
</tr>
<tr>
<td>Style</td>
</tr>
<tr>
<td>• Use words and phrases that help a reader understand how the facts or events are related.</td>
</tr>
<tr>
<td>• Include details or examples that help a reader make a mind movie.</td>
</tr>
<tr>
<td>Mechanics</td>
</tr>
<tr>
<td>• Use correct punctuation, capitalization, spelling, and grammar.</td>
</tr>
</tbody>
</table>

Briefly review the guide, noting the four aspects of writing: ideas, organization, style, and mechanics.

Use Think-Pair-Share to ask:

Which guidelines relate to our writing objective: provide supporting facts, examples, or events?

The Ideas guideline “Develop the topic with relevant details” relates to our writing objective. Also, the Organization guideline “In the middle, provide facts, examples, or events that help a reader understand the information” relates to the writing objective.

7. Tell students that this 10-minute writing project is practice to prepare them to write a quality answer for part II of the cycle test. Remind them that this section of the test is worth one third of their test score.
Model a Skill
1. Remind students that they have read about global warming on a couple of occasions in this cycle’s text. Explain that many informational texts include an index at the end that lists key concepts and vocabulary and the corresponding page numbers where these items appear in the text.

Have students locate the index for *Graphing Natural Disasters*. Point out that the words are listed in alphabetical order. Ask students on which pages the words *global warming* appear. *Pages 5 and 13.*

2. Use *Think-Pair-Share* to ask:

**How can this index help us write the answer to today’s writing prompt?**

*This index helps us locate information about global warming in the text. When I look at the sections of the text about global warming, I should find information on the impact it is having on hurricanes and cyclones. I can use this information to answer the prompt and provide evidence from the text to support my answer.*

Teamwork

(20 minutes)

Independent Work
Tell students that they have 10 minutes to plan and write drafts of their responses to the writing prompt. Remind them to write on every other line to leave room for revisions. Suggest that they refer to the writing prompt to be sure that they include all the required elements and to the writer’s guide to check the quality of their response.

Team Discussion
1. Refer students to the peer feedback checklist in their student routines, and review how to get/give feedback.

2. Have students share their drafts in teams. Allow 5 minutes for students to revise their writing projects based on feedback and to edit them using the editing checklist in their student editions.

3. Have teams put their writing projects in a pile in the middle of their tables so a writing project can be randomly selected.
Class Discussion

(30 minutes)

Lightning Round

Randomly select a writing project from one or two teams’ piles without revealing their authors. Display a writing project, and read it aloud.

Refer students to the writer’s guide Writing to Inform or Explain and the writing objective—provide supporting facts, examples, or events.

Using the writer’s guide, discuss and evaluate the selected writing project(s) with the class.

For example, ask:

• Does the writer clearly introduce the topic?

• Does the writer include facts and examples to help a reader understand the information?

• Does the writer end with a closing statement that supports the information?

• Does the writer use appropriate academic language and full sentences?

Award points to teams whose writing projects meet the criteria. Record these points on the team poster. Celebrate team successes.

Reflection on Writing

Have students reflect on their use of the writing process. Ask:

How did creating and using a graphic organizer work for you? How did it help you write your draft?

*Answers will vary.*

What was the most useful feedback that you received? How did it affect your revisions?

*Answers will vary.*

What supporting facts and examples in the index helped you answer the question?

*Answers will vary.*
Celebrate

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   - Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Writing Prompt

According to most scientists, what impact is global warming having on hurricanes and cyclones? Explain why this impact isn’t causing more deaths than occurred one hundred years ago. Use evidence from the text to answer the question.

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<tr>
<td><strong>Mechanics</strong></td>
</tr>
<tr>
<td>• Use correct punctuation, capitalization, spelling, and grammar.</td>
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</table>
Lesson 6

**Reading Objective:** Use both text and visual information to draw conclusions.

**Writing Objective:** Provide supporting facts, examples, or events.

**Teacher Background**
In today’s cycle test, students will again be asked to use textual and visual information to draw conclusions. The text that students will read for the test describes how scientists and forecasters use technology to study natural disasters and help predict where and when they might strike. A pie chart presents information on the frequency of different types of natural disasters from 1980–2003.

**Active Instruction**

(5 minutes)

**Partner Vocabulary Study**
1. Display the vocabulary words. Have students use the vocabulary study routine as they rerate their knowledge of each vocabulary word as they arrive for class.
2. Spot check the Read and Respond homework.

**Set the Stage**
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Remind students of the texts, authors, and reading and writing objectives.
4. Remind teams that if they find a word from the vocabulary list used in another place, such as in a magazine, textbook, TV ad, etc., they can bring in or copy the sentence in which the word was used and put it in the Vocabulary Vault to earn team points.
Partner Review

1. Remind students that they have been practicing using both text and visual information to draw conclusions and providing supporting facts, examples, or events. Use Think-Pair-Share to ask:

   What have we done this cycle to practice using text and visual information to draw conclusions?

   We discussed and answered questions that asked us to draw conclusions. We used information in photos, captions, diagrams, and graphs to support our conclusions.

   Tell students that they will use this skill as they take the cycle test.

2. Have partners review their notes and word power journals for this cycle. Allow 2 or 3 minutes for this activity.

Test Directions

1. Remind students that the test is independent work. Students should not ask their partners for help as they read, but they may use sticky notes if they would like.

2. Distribute the test so students can preview the questions. Point out that some of the test questions are multiple choice for which they will choose the best answer. Other questions require them to write a short answer or create a graphic organizer. Part II of the cycle test requires them to write a long answer. Remind them that their writing project was practice for writing the long answer for part II of the test.

3. Point out that questions #1 and #3 ask about interpreting information.

4. Ask students to identify key words or phrases in question #3.

   3. Using the information from the text and the timeline on page 23, what can you conclude about the effects of drought? Explain your thinking. [DC, SA]

5. Introduce the text that students will read. Tell what it is about, but do not give additional information or details.

   Today you will read about how scientists try to predict natural disasters.
Tell students that they have 30 minutes for the test and that they may begin. Give students a 5-minute warning before the end of the test.

**Teamwork**

(10 minutes)

**Team Discussion**

1. Pass out a colored pen to each student.
2. Explain or review, if necessary, the student routine for team discussions after the test.
3. Have teams discuss their answers to the test questions. As you monitor team discussions, ask additional questions to prompt their thinking about the important ideas in the reading and about the skills and strategies that they have been using.

**Class Discussion**

(10 minutes)

**Lightning Round**

1. Use **Random Reporter** to have teams share team discussions of the test questions and explain their thinking.

   **How do scientists use technology to help predict natural disasters?**

   *Scientists use Doppler radar to determine the size and speed of a storm. They also use satellites to track storms and seismographs to measure the earth’s movement.*

2. Award team celebration points.
3. Collect test answers. Score original answers, and add extra points for improved answers.
Celebrate

1. Tally the team scores on the poster, and celebrate teams that are accumulating points. Have teams reflect on the following questions:

   **How many points did your team earn today?**

   **How can your team earn more points?**

   Remind students that top-scoring teams will earn bonus points that will be added to their cycle scores.

   • Something to cheer about: Choose a behavior or learning outcome that you would like to reinforce, and reward that behavior by asking students to lead a cheer of their choice.

2. As a reminder, refer students to the Read and Respond homework assignment described in their student editions.
Interpret Information

Cycle 2 Test

Interpret Information

Directions: Read Graphing Natural Disasters, pages 26 and 27. Use the TIGRRS process, and answer the following questions on a separate piece of paper. Some of the questions are based on today’s reading, and other questions are about the text that you read in previous lessons. You may refer to your notes from this cycle.

Part I. Comprehension (100 points)

1. What is the topic?

   5 points = The topic of this text is natural disasters.

What is the author’s intent?

   5 points = The intent of the author is to use text and graphics to present detailed information about natural disasters.

Write a short summary of the text that you read today. Include the graphic organizer or notes that you used to organize the information and your thoughts. [MI, AP]

10 points = Technology helps us predict when storms are coming. Doppler radar uses radio waves to help determine the size and speed of storms. Satellites collect data that help scientists study and track storms. Seismographs record information during earthquakes, volcanic eruptions, and tsunamis. This technology helps save lives.

2. What types of natural disasters made up the greatest percentage of all the natural disasters worldwide between 1980 and 2003? Explain your answer. [DC, SA]

   20 points = Between 1980 and 2003, storms, tornadoes, and blizzards made up the greatest percentage of all natural disasters that occurred worldwide. I can look at the pie graph on page 27 and see that the yellow section is the biggest slice in the pie. It makes of 38 percent of the whole. I can then look at the key and see that the yellow section represents storms, tornadoes, and blizzards, so they made up the greatest percentage during that time period.

   15 points = Between 1980 and 2003 storms, tornadoes, and blizzards made up the greatest percentage of all natural disasters that occurred worldwide. On page 27, I see that these disasters make up 38 percent of the total pie. I can then look at the key and see what the yellow section represents.

   10 points = Storms, tornadoes, and blizzards made up the greatest percentage of all natural disasters.
3. Using the information from the text and the timeline on page 23, what can you conclude about the effects of drought? Explain your thinking. [DC, SA]

20 points = I conclude that there are several effects of drought, for example, crop failure, famine, and starvation in the affected area. This is what happened in China in 1876 when nine million people died of starvation, in Russia in 1921, and recently in Kenya and other parts of Africa. Another effect of drought is that when the topsoil dries out, it is blown away in the wind like in the Dust Bowl on the Great Plains. This leaves the soil too poor to grow crops, so famine continues.

15 points = Drought can cause crop failure, famine, and starvation. This is what happened in China in 1876 when nine million people died of starvation. Also topsoil dries out and is blown away in the wind like in the Dust Bowl on the Great Plains.

10 points = Drought can cause crop failure and starvation.

4. Why does the author include information about the wildfires in Yellowstone National Park and on the Serengeti Plains in Africa? What does she want the reader to understand? [DC, AP]

20 points = The author wants the reader to understand that the land can recover after a wildfire’s destruction. Plants and animals returned to both Yellowstone and the Serengeti Plains after those wildfires. The photo shows the new trees sprouting all across the African plain. Wildfires are destructive, but they also make soil more fertile, so over time plant and animal species can return.

15 points = The author wants the reader to understand that the land can get better after wildfires. Plants and animals returned to both Yellowstone and the Serengeti Plains after wildfires. The photo shows the new trees sprouting all across the African plain.

10 points = She wants the reader to understand that land can get better after wildfires.

5. What would you put in a care package to send to victims of a tsunami? Use the information and photograph found on page 10 and your own thinking to provide a reason for each item that you select for the care package. [DC, SA]

20 points = If I were putting together a care package for the victims of a tsunami, I would include bottled water, canned food, and tents. I would also put flashlights, radios, and lots of batteries into the care package. According to the text, after a tsunami, the salt water from the ocean affects the fresh water and the crops in the area, so people would need bottled water and canned food in the care package. Tsunamis destroy or damage homes, so people would need tents to sleep in. Also, from studying the photograph, it looks like the damage is so great that power lines would be knocked out. It would be very useful to have flashlights, radios to get information, and batteries to power the flashlights and radios.
15 points = *I would put bottled water, canned food, and tents in the care package.* A tsunami destroys homes, so people would need tents. The text says that after a tsunami, salt water gets into the water supply and ruins crops, so people would need bottled water and canned foods.

10 points = *I would put bottled water, canned food, and tents in the care package because the tsunami brings salt water and destroys homes.*

**Part II. Writing** (100 points)

Write at least one paragraph to answer the following questions:

Why do most scientists believe that the number of natural disasters is increasing? Is the number of deaths caused by natural disasters going up? Use evidence from the text and your own thinking to answer the question.

*Most scientists believe that the number of natural disasters is increasing because of global warming. According to the text, global warming is causing storms like hurricanes to occur more frequently and the storms are more powerful. Since hurricanes form over warm water, it is logical that global warming would lead to more frequent and powerful storms. The number of deaths from natural disasters is not going up. In fact, deaths from natural disasters are decreasing. The text says that early warning systems are saving lives. For example, weather forecasters are able to alert people days in advance where a hurricane might strike land. Officials can then order people to leave the areas that are in danger. In addition, rescue efforts that are usually well organized help reduce the number of deaths caused by storms.*

The following guide is used to score part II of the cycle test.

<table>
<thead>
<tr>
<th>Writing to Inform or Explain</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Ideas</strong></td>
<td></td>
</tr>
<tr>
<td>• Clearly introduces the topic</td>
<td>0–25 pts.</td>
</tr>
<tr>
<td>• Develops the topic with relevant details</td>
<td></td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
</tr>
<tr>
<td>• Begins by introducing the topic</td>
<td>0–25 pts.</td>
</tr>
<tr>
<td>• In the middle, provides facts, examples, or events that help a reader understand the information</td>
<td></td>
</tr>
<tr>
<td>• Ends with a closing statement that supports the information</td>
<td></td>
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<tr>
<td><strong>Style</strong></td>
<td></td>
</tr>
<tr>
<td>• Uses words and phrases that help a reader understand how the facts or events are related</td>
<td>0–25 pts.</td>
</tr>
<tr>
<td>• Includes details or examples that help a reader make a mind movie</td>
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<tr>
<td><strong>Mechanics</strong></td>
<td></td>
</tr>
<tr>
<td>• Uses correct punctuation, capitalization, spelling, and grammar</td>
<td>0–10 pts.</td>
</tr>
<tr>
<td><strong>Writing Objective</strong></td>
<td></td>
</tr>
<tr>
<td>• Provide supporting facts, examples, or events.</td>
<td>0–15 pts.</td>
</tr>
</tbody>
</table>
Part III. Vocabulary (100 points)

1. Write a meaningful sentence using the word *debris*. [CV]
   
   Accept responses that show that the student knows the meaning of the word and can use it correctly. For example, Debris from the car crash was scattered all over the road.

2. Scientists collect _______ on how tornadoes form so they can better predict where the tornadoes will strike.

   Choose the word that belongs in the blank. [CV]
   
   A. epicenter
   B. levee
   C. data
   D. magnitude

3. **debris** — **epicenter**

   Would you expect to find debris at the epicenter of an earthquake? [CV]

   Debris is the pieces of something that has been destroyed, so I would expect to find a lot of debris at the epicenter of an earthquake.

4. What is an antonym for the word *unpredictable*? [CV]

   An antonym for unpredictable is predictable.

5. The word *geological* comes from the Greek root *geo*, meaning earth. How does the meaning of *geo* relate to the meaning of *geological*? [CV]

   The word geological has to do with the physical structure of an area. Another way to say the “physical structure” of an area is the “shape of the earth” in an area.

6. The building was _______ after the tornado knocked down one of its walls.

   Choose the word that belongs in the blank. [CV]
   
   A. uninhabitable
   B. magnitude
   C. data
   D. debris

7. Write a meaningful sentence using the word *magnitude*. [CV]

   Accept responses that show that the student knows the meaning of the word and can use it correctly. For example: The magnitude of the earthquake was not great, so the building only shook slightly.
8. During the storm, the ________ kept the river’s water from flooding our house.

Choose the word that belongs in the blank. [CV]

A. uninhabitable  
B. levee  
C. data  
D. debris

9. What is one word that you or your teammates explored in your word power journal this cycle? Give the meaning of this word, and then use it in a meaningful sentence. [CV]

A word that we explored was cyclone. A cyclone is similar to a hurricane in that it is a rotating storm with strong winds and heavy rain. A sentence is: We went to the basement when we heard a cyclone was coming to remain safe from the strong winds of the storm.

10. As used in the sentence “First, weather forecasters warn people of coming storms days in advance,” forecasters most nearly means— [CV]

A. hurricane hunters.  
B. people who act.  
C. people who predict.  
D. rescue workers.

Explain how you figured out the meaning of forecasters.

I used the context. If forecasters warn people of storms days ahead of when they come, they must be predicting what the weather will be like.

<table>
<thead>
<tr>
<th>Question Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[DC]</td>
<td>Make inferences; interpret data; draw conclusions.</td>
</tr>
<tr>
<td>[SA]</td>
<td>Support an answer; cite supporting evidence.</td>
</tr>
<tr>
<td>[MI]</td>
<td>Identify the main idea that is stated or implied.</td>
</tr>
<tr>
<td>[CV]</td>
<td>Clarify vocabulary.</td>
</tr>
<tr>
<td>[AP]</td>
<td>Identify author’s intent or purpose.</td>
</tr>
<tr>
<td>[RE]</td>
<td>Analyze relationships (ideas, story elements, text structures).</td>
</tr>
<tr>
<td>[AC]</td>
<td>Author’s craft; literary devices</td>
</tr>
</tbody>
</table>
Lesson 7

Reading Objective: Use both text and visual information to draw conclusions.

Teacher Background
During Class Discussion, students orally present evaluations of their homework reading selections. During Teamwork, students use their Read and Respond notes and answers to the homework questions to make final preparations for these presentations. Team members share their responses and give one another feedback. During the oral presentations, students use their revised responses to the questions to describe the kind of texts they read, the strategies that helped them understand the text, and whether they will recommend their reading selections to others.

Active Instruction
(20 minutes)

Two-Minute Edit
1. Display and have students complete the Two-Minute Edit as they arrive for class.
2. Use Random Reporter to check corrections. Award team celebration points.

Vocabulary
Ask teams if they have a Vocabulary Vault word that they would like to share. Award team celebration points.

Set the Stage
1. Ask students to review their team’s goal for this cycle and assess their progress.
2. Review the Team Celebration Points poster, and challenge teams to build on their successes.
3. Have students get out their reading selections and Read and Respond forms. Remind them that today, with the help of their teams, they will each prepare a presentation about their individual reading selections.
   Challenge students to think about the strategies and skills that they used to read their self-selected texts, share their answers to the Read and Respond questions, discuss their thinking, and prepare evaluations of their selections.
4. Remind students to add to the notes on their Read and Respond forms as they discuss their selections and prepare oral presentations about their selections. Students will use their answers to the questions on the Read and Respond form as the basis for their presentations.
**Teamwork**

(25 minutes)

**Team Discussion**

1. Tell students that they will use the Read and Respond questions as a guide as they discuss their homework reading and prepare evaluations of their reading selections to share with their teams.

2. As students prepare their answers, check in with those students for whom you do not have individual scores for graphic organizer/notes, written Team Talk responses, word power journal, and/or a fluency score. Have them show you examples from the cycle. Point out areas of success, and give feedback to improve student performance.

3. As you visit teams, take this opportunity to check students’ homework for completion (Read and Respond forms). Enter the information on your teacher cycle record.

**Teacher’s Note:**

Have students who are ready for a new selection take turns choosing reading material from the classroom library. Make sure every student has a Read and Respond form for next cycle.

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**Read and Respond Questions**

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>Is your selection informational or literature? Summarize your reading. (summary rubric)</td>
</tr>
<tr>
<td>2.</td>
<td>Why did you choose this reading? What is your purpose for reading? (Team Talk rubric)</td>
</tr>
<tr>
<td>3.</td>
<td>Choose a word, phrase, or passage that you did not understand at first. How did you figure it out? (strategy-use rubric)</td>
</tr>
<tr>
<td>4.</td>
<td>Write down a question that you had or a prediction that you made as you read. Were you able to answer or confirm it? Explain. (strategy-use rubric)</td>
</tr>
<tr>
<td>5.</td>
<td>Would you recommend this selection to others to read? State your opinion, and support it with reasons. (Team Talk rubric)</td>
</tr>
<tr>
<td>6.</td>
<td>Choose a short section of the text that you think is important or especially interesting. Tell your teammates why you chose it. Read it aloud smoothly and with expression. (fluency rubric)</td>
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</table>
Lightning Round

Use Random Reporter to have students present their evaluations of their homework reading selections (responses to the Read and Respond questions). Use rubrics to evaluate responses, give specific feedback, and award points.

Celebrate

1. Tally up this cycle’s points on the poster.
2. Tell students that their scored tests will be returned at the beginning of the next lesson. Poster points and the teams’ test scores will determine which teams earn the status of super team, great team, or good team for the cycle.
3. Be sure to record each team’s total celebration points from the poster into the teacher cycle record form. Remind students that team celebration points and team test averages are used to determine team scores.
4. Collect students’ Read and Respond forms, and pass out new forms.
5. Tally up the number of Read and Respond signatures on students’ forms, and record the number on the teacher cycle record form after class.
Lesson 8

**Objectives:** Celebrate successes, and set new goals. Hold a Class Council meeting.

**Teacher Background**
In the first part of this lesson, students review their test results and their final scores for the cycle and compare them with their goals. They celebrate success and set new objectives for further improvement.

In the second part of the lesson, students participate in Class Council.

**Active Instruction**

**(2 minutes)**

**Two-Minute Edit**
1. Display and have students complete the Two-Minute Edit as they arrive for class.
2. Use Random Reporter to check corrections. Award team celebration points.

**Celebrate/Set Goals**

**(20 minutes)**

1. Distribute scored cycle tests. Allow a few moments for students to review them.
2. Distribute team score sheets to teams and celebration certificates to students. Remind students that the cycle’s top-scoring teams are determined by their points on the poster and their test scores.
3. Recognize and celebrate the super, great, and good teams. Remind the teams of the impact of bonus points that are added to team members’ cycle scores.
4. Have each team discuss and set a goal for the next cycle and record it on their team score sheet. Use the questions below to analyze and discuss the students’ scores.
   - **What was your team’s highest score?**
   - **What score do you want to improve?**
   - **What can the team do to improve that score?**

Class celebration! Celebrate team successes with a class cheer.
Each team sets a team goal for the next cycle.
Use Random Reporter to ask:

**What is your team’s goal for the next cycle? Why did you choose that goal?**

*Accept supported answers.*

5. Use the poster to award team celebration points for responses that include the team’s reasons for choosing the goal, thus beginning the accumulation of points for the next cycle.

6. Have students record their cycle test scores and their areas of greatest strength and improvement on their progress charts.

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### Class Council

(30 minutes)

1. Share class compliments.

2. Review the class goal that was set at the last Class Council. Using the agreed-upon measure of progress, was the goal met? Why or why not?

3. Discuss a class concern, or use the scenario and discussion hints provided.

4. Have teams discuss and then use Random Reporter to share responses.

5. After debriefing how they resolved the problem, help students set a goal and a measure of progress that they can use at the next Class Council.

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### Brain Game

(5 minutes)

1. Choose a brain game from the card set, and then play the game.

2. Use the following questions to debrief and remind students of self-regulatory strategies:

   **What did this game require your brain to do?**

   **How will use of this skill improve your success in other classes?**
**Word Power Journal Sample Entries**

**Sample Word Map**

**Cycle 1**

- **Surge**
  - means large motion or sudden increase
  - can also be used as verb: The crowd surged forward.
  - Storm surge refers to the sea rushing forward.
  - A surge protector protects from sudden increases in electric current.
  - from Latin *surgere*: to rise up or stand up

**Sample Word Map**

**Cycle 2**

- **Cyclone**
  - large-scale rotating storm with heavy winds and rain
  - could be related to hurricanes
  - comes from Greek word *kyklon* — moving in a circle
  - related words: *cycle*, *bicycle*
1. Team score sheets for this unit should be distributed during lesson 1. Students will use this modified version of the team score sheet to review their goals, track their progress through the six-step research process, and tally team celebration points throughout each lesson.

2. All teams will have the same team goal for this unit—to earn as many team celebration points as possible.

3. The teacher cycle record form has also been modified for the research unit.
   - Track student completion of the research steps, using check marks to indicate done or not done.
   - Note the writing purpose that each student selects to evaluate the individual research presentations.
   - Record the writing/presentation score for each student based on the scoring guide for writing that each student chose. This is the only score from the research unit that will roll up into the averages on the classroom assessment summary for the grading period.
   - Record tallies for completion of Read and Respond homework.

4. This is a short, focused research opportunity. While a one-page written product and a three-minute presentation are recommended at this level, please consider your available time and research materials and your students’ Internet access and needs to choose a product that is appropriate for your class.

Unit Overview

This research unit follows the level 6 unit Interpret Information: Hurricanes and Graphing Natural Disasters.

The focus for this unit is planning for future natural disasters. This focus motivates students to generate questions and stimulates new thinking about the books that they read in the previous unit.

In this unit, you will present a mini-lesson on doing Internet research.
Lesson 1

Teacher Background

1. Many students have experience using the Internet for socializing or entertainment but are less experienced with using it for academic research. This mini-lesson introduces how to do digital research and evaluate the credibility of sources.

Determine how students will access the Internet. If possible, arrange time with a librarian who has expertise in using library resources such as databases, online books and journals, and primary sources for academic research by students.

2. Review your school’s policies on using the Internet, and review it with your students. Adjust instruction based on the skill level of your students.

3. Use the following information as needed.

![The Anatomy of a URL, or Uniform Resource Locator]

- The top-level domain may be:
  - .org (usually a not-for-profit organization)
  - .edu (usually an educational institution, such as a university)
  - .com or .net (usually a commercial or for-profit organization)
  - .gov (usually a government organization or agency)
  - .mil (usually a military organization or branch of the armed forces)

In addition, letters may be added to indicate the location of the publisher of the site. For example, uk.co indicates a company in the United Kingdom, and md.us.edu would indicate an educational organization in Maryland in the United States.
Active Instruction

Generate Questions (15 minutes)
1. Post the research purpose and focus. Have students write their focus-related questions as they enter the classroom.

<table>
<thead>
<tr>
<th>Research Purpose: In this unit, you will ask questions, find and organize information, and present your findings to others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Focus: Planning for future natural disasters</td>
</tr>
</tbody>
</table>

2. Have teams use the Questioning Formulation Technique (QFT: Rothstein, 2012) to write as many questions about the research focus as they can in ten minutes.
   - Ask as many questions as you can.
   - Do not stop to answer, discuss, or judge the questions.
   - Write down every question just as you hear it.
   - If a teammate makes a statement, turn it into a question.

3. Use Random Reporter to select a student from each team to share a question or two.

Prioritize and Improve Your Questions (10 minutes)
1. Present the research product: You will write at least one page that answers your research question and include at least one text feature that helps to inform the audience. You will prepare and deliver a three-minute presentation of your written information.
2. Present the materials that students will use to research their questions.
3. Have each student use the team list to choose up to three questions that he or she finds important or interesting.
4. Have students share their questions with their teams and discuss how realistic it is to research each question, given the time and materials available. Teammates help one another narrow down questions to make them more researchable. Each student chooses one question to research.
5. Have students choose the scoring guide that they will use based on the research project (Writing to Support a Claim with Reasons or Writing to Inform or Explain).
6. Use Random Reporter, and award team celebration points to teams whose representatives can share the research question and scoring guide that they chose and explain why.
Have students review their research purpose, team goal, and team cooperation goal for this cycle. Tell teams to discuss how they are going to earn more team celebration points during this unit, and have them write that goal in the allotted space.

8. Explain to students that they will earn super, great, or good team status based only on the team celebration points that they earn in this unit.

9. Tell students that the only score they will earn this cycle is a writing score that will be based on the scoring guide that they select for evaluation of their research presentation.

10. Tell students to initial each step of the writing process as it is completed during the unit.

**Interactive Skill Instruction** (25 minutes)

1. Present the mini-lesson on Internet searches. Using Thumbs Up or Down ask students:

   **Have you ever started searching on the Internet for something, and before you knew it, time passed and you were looking at something else? There is so much information available online that it is very easy to get distracted.**

   Explain that when you use the Internet for academic research, the first and most important step is to have a plan. A search is only as good as the thinking you do before you start.

2. Refer students to the following steps in an Internet Research Plan in their student editions. Review and discuss each step. Have partners work together on step 2 to identify the key terms and phrases that they will use to research their questions and to identify + terms and – terms that will help them narrow their searches.

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**An Internet Research Plan**

**Step 1:** Think about your question. Are they closed-ended or open-ended? Are you looking for a specific answer, or are you trying to find evidence to support your ideas?

For example:
- Answer: What year did the Americans enter World War II?
- Open-ended: Why did the Americans enter World War II?

**Step 2:** Narrow your search. Write your query (question) or the keywords that you will enter in the search box. For a closed-ended question, you can use natural language to find the answer. For example: “What year did the Americans enter World War II?”

For a more open-ended question, you may need to provide additional terms. The more specific that you will be in your search, the more focused information you will receive. For example:
- “Communications: What year did the Americans enter World War II?”
- “Open-ended: Why did the Americans enter World War II?”

**Step 3:** Use all the help you can get. Your librarian is an expert on how to find information. Use all the help you can get, including the librarians at your school or library and your school’s reference librarian.

- **Narrow your search.** Write your query (question) or the keywords that you will enter in the search box.
- For example: “What year did the Americans enter World War II?”
- For an open-ended question, you can use natural language to find information. For example: “Why did the Americans enter World War II?”
- For example: “Communications: What year did the Americans enter World War II?”
- “Open-ended: Why did the Americans enter World War II?”

**Step 4:** Check your sites for credibility. Think like a detective. Be skeptical.

- **Always check your sources:** Use your library if possible. Use the Internet if you need more information.
- Be cautious about the information you find. Be sure to verify the accuracy and reliability of the information you find.
- Use search engines that are designed for students. Search engines are computer programs that use huge collections of computer programs to search for information. Each search engine is a little different. There are terms, such as direct search, that are designed to be student-friendly.
- Search engines cannot find information that must be paid for or is not available to everyone. However, your library will have online subscriptions to many useful databases that contain the kinds of information that students often need.

**Step 5:** Look back at the sites that you think are most written by what you need. Be familiar with the time you need.
3. Use **Random Reporter** to share team practice answers, and then award team celebration points.

4. Present the target(s) for scoring from the scoring guides: ideas, organization, style, and mechanics.

**Start Digging** *(10 minutes)*

1. Have students use the research materials to search for information, and have them use a graphic organizer or notecards to make notes and record source information. For example:

   **Sample Notes**
   - Country – Republic of India
   - Capital – New Delhi
   - Geography – 3.29 million sq. km., about 1/3 U.S.
   - Mountainous (Himalayas), West – flat river valleys and deserts

   **Source:** Background Note, U.S. Department of State. April 17, 2012. www.state.gov

   **Sample Note Cards**
   - Country
   - Capital
   - Geography
   - Source

   **Sample Notes**
   - Country – Republic of India
   - Capital – New Delhi
   - Geography – 3.29 million sq. km.
   - Mountainous (Himalayas), West – flat river valleys, deserts

   **Source:** Background Note, U.S. Department of State. April 17, 2012. www.state.gov

2. Ask students to write the research question in the center of the web or on the first notecard.

3. Circulate, check students’ progress, and record each completed step on the teacher cycle record form. Spot check the Read and Respond homework.

4. Commend students for their progress through the research process during the lesson as recorded in the Research Process section of their team score sheets.

5. Add up the team celebration points earned by each team during the lesson, and record them on the Team Celebration Points poster.

Encourage partners to share relevant information.

Blackline master provided.

Remind students of the Read and Respond homework assignment.
An Internet Research Plan

**Step 1:** Think about your questions. Are they closed-ended or open-ended? Are you looking for a specific answer, or are you trying to find evidence to connect several ideas?

For example:
- Closed-ended: What year did the Americans enter World War II?
- Open-ended: Why did the Americans enter World War II?

**Step 2:** Narrow your search. Write your query (question) or the keywords that you will enter in the search box. For a closed-ended question, you can use natural language to find an answer. Just enter “What year did the Americans enter World War II?”

- For an open-ended question, you may also use precise, natural language, but sometimes that will yield too much information or not enough reliable sites.
- You may need to use key terms or phrases. To search with keywords, there are a few tricks that are useful to know. First, make two lists of words that: Must Appear and Must Not Appear.
- Putting words in quotation marks will find sites that use those words together in that exact order, for example, "The Three Musketeers."
- Putting a minus sign (not a hyphen) in front of a word or several words in quotation marks will exclude those words from the search results. For example, “The Three Musketeers”-“candy bar” will eliminate information about the treat and find information about the historical figures.
- Another way to narrow a search is to connect two ideas. For example, to find out what President Kennedy said in speeches about going to the moon, try: “President Kennedy” + “moon.”

**Step 3:** Use all the help you can get. Your librarian is an expert on how to find information. You can go to the library and get help from the librarian there, or you can go online to get help. You can use your school, community, or university libraries to get help.

- If you find a URL (the Internet address for a site) that you like but need more information, try the home page of the site, review the site map (there is usually a clickable button on the bottom of the home page), or try trimming the URL back to get to more general information. For example, www.jfklibrary.org/JFK/JFK-in-History will bring you to President Kennedy’s speech about going to the moon. To know more about him, try just www.jfklibrary.org/JFK.
- Use search engines that are designed for students. Search engines are computer programs that use huge clusters of computers to search the web. Each search engine is a little different. There are some, such as Sweet Search, that are designed to be student friendly.
- Search engines cannot find information that must be paid for or information in databases. However, your library will have subscriptions to very useful databases that contain the kind of information that students often need.
Step 4: **Check your sites for credibility.** Think like a detective. Be skeptical.

Always check your answers at more than one site.

- Primary sources, databases, and books online can be accessed through your school or library and are usually more trustworthy than commercial sites (these have URLs that end in .com or .net). Librarians can teach you how to use these databases, for example, the American Revolution Reference Library or American Decades: Primary Sources. The information that you find here has been checked by experts in the field.

- Know how the information got to a site. Wiki sites can be useful, but they are open to anyone to post information. You must check who put it there and if others have verified the information.

- Do not assume that the first several sites that come up are the best or the most accurate. There are many reasons besides quality that a site is on the first page. Always dig deeper.

- If you suspect that a site is not original but is just copied from another site, search with some key phrases or sentences from the site and see if they come up on other sites. Then check the reliability of those sites. (By the way, this is also how your teacher can tell if you stole someone else’s words.)

- To decide if a site is reliable, ask these questions:
  
  Are the author and publisher of the site well-respected authorities? You can search their names to find out more about their backgrounds.

  Why did the writer create this site? Be very critical of sites that blend information and advertisements.

  Is the writer asking you to buy anything or give information about yourself? Don’t do it!

  Does the site have a social or political bias? For example, whitehouse.gov is not neutral on presidents. Is the information current? Check when the information was published or last updated.

- Remember that blogs (short for web logs) are logs, journals, diaries, or editorials that people keep online to spread information or exchange thoughts with others. They are informal and may spark ideas, but information must be verified elsewhere.

Step 5: **Keep track of the sites that you visit.** Keep a written record of what you use. Use bookmarks to save time.
Sample Notes

3.29 million sq. km

1/3 size of U.S.

Geography of India

Himalayas—mountains

flat river valleys, deserts in west

(Source: Background Note: India. U.S. Department of State. April 17, 2012. www.state.gov)

Sample Note Cards

| Country – Republic of India |
| Capital – New Delhi |
| Geography – 3.29 million sq. km, about 1/3 U.S. |
| Mountainous (Himalayas), West – flat river valleys and deserts |

Source:
Background Note: India. U.S. Department of State. April 17, 2012. www.state.gov
Lesson 2

Teamwork

Keep Digging: Search and Process (50 minutes)

1. Have students review their research purpose, team goal, and team cooperation goal as recorded on their team score sheets. Remind teams that they will earn super, great, or good team status based on how many team celebration points they earn.

2. Have students continue to use the research materials to search for information, and have them use their graphic organizer or notecards to record relevant information.

3. Circulate, check students’ progress, and record each completed step on the teacher cycle record form.

4. Spot check the Read and Respond homework.

5. Ask partners to share what they have found with each other and prepare to share an important piece of information and its source with the class prior to class discussion.

Class Discussion (10 minutes)

1. Use Random Reporter to have students share an important piece of information, the source, and why they think the information is important with the class. Award team celebration points.

2. Award extra team celebration points to volunteers who answer the following question: “Did your research change your question or your thinking about what you thought you would find?”

3. Commend students for their progress through the research process during the lesson as recorded in the Research Process section of their team score sheets.

4. Add up the team celebration points earned by each team during the lesson, and record them on the Team Celebration Points poster.
Lesson 3

Teamwork

During this class period, students review their research and write an answer to their questions.

Put It All Together: Draw Conclusions, Write, and Practice (30 minutes)

1. Have students review their research purpose, team goal, and team cooperation goal as recorded on their team score sheets. Remind teams that they will earn super, great, or good team status based on how many team celebration points they earn.

2. Have students make a plan for his or her written product and review it with a teammate.

3. Ask each student to draft his or her paragraph (or other product). Have students record the type of writing (writing to support a claim with reasons or writing to inform or explain) at the top of the page.

Team Feedback (20 minutes)

1. Have each team member share his or her presentation with another member of the team.

2. Ask team members to use the evaluation form to give feedback.

3. Tell students to make improvements and prepare for their presentations.

4. Circulate, check students’ progress, and record each completed step on the teacher cycle record form.

5. Spot check the Read and Respond homework.

Class Discussion (10 minutes)

1. Award team celebration points to Random Reporters who can report a strength that teammates shared with them about their presentations.

2. Award extra team celebration points to volunteers who share what they have learned about the research, writing, and presentation process.

3. Commend students for their progress through the research process during the lesson as recorded in the Research Process section of their team score sheets.

4. Add up the team celebration points earned by each team during the lesson, and record them on the Team Celebration Points poster.

Remind students of the Read and Respond homework assignment.
Lesson 4

Present and Evaluate

In this lesson, students will present their research to groups other than their own teams, and students will use the evaluation form to provide a written evaluation of each presentation that they hear. There will be four rounds of presentations, during which each student will have three minutes to present.

Choose group assignments in advance, or use the following process:

- Count the number of teams.
- Have students count off from 1 to the number of teams. There will be four or five students with each number.
- Have the students who counted off as 1s go to table 1, 2s go to table 2, and so on.

Allow a volunteer to give the first presentation, or designate an individual within each group. Presentations then proceed to the right until everyone has presented. As each presentation concludes, the evaluators complete the evaluation sheets and give them to the presenter.

Present (30 minutes)

1. Have students review their research purpose, team goal, and team cooperation goal as recorded on their team score sheets. Remind teams that they will earn super, great, or good team status based on how many team celebration points they earn.

2. Review the criteria for evaluating a presentation, and demonstrate how to complete the evaluation. Remind students that you will collect the evaluation forms.

3. Designate group assignments, and pass out evaluation forms.

4. Have students move to their designated groups. Begin the presentations.

5. Make sure that each student presents and receives evaluations after the presentation.

Team Discussion (20 minutes)

1. When all presentations are finished, have students return to their teams to review the feedback that they received.

2. Ask team members to share their strengths and suggestions in each category.
Class Discussion (10 minutes)

1. Review each target, and ask for a show of hands indicating areas of strength and areas that need improvement.

2. Use Random Reporter to hold a discussion during which students reflect on the research process and the products that they produced and draw conclusions about successes and areas in need of improvement. Award team celebration points.

3. Collect the written materials, including the plans, drafts, and evaluations. Plan to score and return the research products by the end of the next unit. Award up to 100 points for evidence that the chosen targets were met.

4. Review the total number of team celebration points earned by each team. Use the poster overlay to determine team status (super, great, or good) for this unit.

5. Enter the writing, Read and Respond, and team celebration points scores into the Member Center.

6. Generate the teacher cycle record results report to review team and class averages for the unit.

Remind students of the Read and Respond homework assignment.
# Research Evaluation

**Writing Purpose** (circle one): To inform or explain  To support a claim with reasons

**Writing Quality:** Note one area of strength, and give evidence to support your choice.

<table>
<thead>
<tr>
<th>Ideas</th>
<th>Organization</th>
<th>Style</th>
<th>Mechanics</th>
</tr>
</thead>
</table>

Note: Make a suggestion for improvement and a reason for your suggestion.

**Research Skills** (Note one or two strengths.)

<table>
<thead>
<tr>
<th>Answers a focused question</th>
<th>Uses multiple sources</th>
<th>Quotes and paraphrases sources</th>
<th>Cites trustworthy sources</th>
</tr>
</thead>
</table>

**Presentation Skills** (Note one or two strengths.)

<table>
<thead>
<tr>
<th>Good eye contact</th>
<th>Good volume</th>
<th>Clear pronunciation</th>
<th>Enthusiastic presentation</th>
</tr>
</thead>
</table>
Common Core State Standards

The following Common Core State Standards are addressed in this unit. Full program alignments can be found on the Reading Edge online resources. Contact your SFA coach for more information.

<table>
<thead>
<tr>
<th>Level 6</th>
<th>Interpret Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Language Arts Standards: Science and Technical Subjects</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Integration of Knowledge and Ideas</strong></td>
<td></td>
</tr>
<tr>
<td><em>RST.6-8.7.</em> Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).</td>
<td></td>
</tr>
<tr>
<td>RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.</td>
<td></td>
</tr>
<tr>
<td><strong>Craft and Structure</strong></td>
<td></td>
</tr>
<tr>
<td>RH.6-8.5. Describe how a text presents information (e.g., sequentially, comparatively, causally).</td>
<td></td>
</tr>
<tr>
<td><strong>English Language Arts Standards: Writing in History/Social Studies/Science</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Text Types and Purposes</strong></td>
<td></td>
</tr>
<tr>
<td>WHST.6-8.1b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.</td>
<td></td>
</tr>
<tr>
<td><strong>Research to Build and Present Knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>WHST.6-8.7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</td>
<td></td>
</tr>
<tr>
<td>WHST.6-8.8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.</td>
<td></td>
</tr>
<tr>
<td>WHST.6-9. Draw evidence from informational texts to support analysis reflection, and research.</td>
<td></td>
</tr>
<tr>
<td><strong>English Language Arts Standards: Speaking and Listening</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Presentation of Knowledge and Ideas</strong></td>
<td></td>
</tr>
<tr>
<td>SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.</td>
<td></td>
</tr>
<tr>
<td>SL.6.5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</td>
<td></td>
</tr>
<tr>
<td>SL.6.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.</td>
<td></td>
</tr>
</tbody>
</table>

*primary
Media Acknowledgements

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