

Shaking the Earth: Earthquakes and Volcanoes

Written by Robert E. Slavin and Kate Conway
Success for All Foundation, 2013 ISBN 978-1-941010-10-5

**Reading
Wings** 4th
Edition

T A R G E T E D

Treasure Hunt

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.

***Targeted Treasure Hunt:
Shaking the Earth: Earthquakes and Volcanoes***

© 2014 Success for All Foundation. All rights reserved.

Produced by the Reading Wings 4th Edition Team

President:	Nancy Madden
Director of Development:	Kate Conway
Project Manager:	Wendy Fitchett
Developers:	Kathleen Collins, Victoria Crenson, Richard Gifford, Samantha Gussow, Angie Hale, Allison Hoge, Susan Magri, Terri Morrison, Kimberly Sargeant
Field Advisory Team:	Terri Faulkner, Cathy Pascone
Interactive Whiteboard Developers:	Sarah Eitel, Patricia Johnson, Austin Jones, Becca Slavin
Editors:	Marti Gastineau, Pam Gray, Jodie Littleton, Janet Wisner
Project Coordinator:	Marguerite Collins
Designers:	Devon Bouldin, Debra Branner, Barbra Colquitt, Michael Hummel, Susan Perkins
Illustrator:	James Bravo
Media Team:	Jeffrey Goddard, Tonia Hawkins, Russell Jozwiak, Jane Strausbaugh
Production Artists:	Irene Baranyk, Kathy Brune, Wanda Jackson, Irina Mukhutdinova, Michele Patterson, Karen Poe, Laurie Warner, Tina Widzbor
Proofreaders:	Meghan Fay, Michelle Zahler
Online Tools:	Terri Morrison (chair), Michael Knauer, Victor Matusak, Christian Strama, Mary Conway Vaughan
Rollout Team:	Kate Conway (chair), Marguerite Collins, Wendy Fitchett, Nancy Hutchison, Claire Krotiuk, Terri Morrison, Kenly Novotny, Mary Conway Vaughan

The Success for All Foundation grants permission to reproduce the blackline masters and the student and test sections of this Targeted Treasure Hunt on an as-needed basis for classroom use.



A Nonprofit Education Reform Organization

300 E. Joppa Road, Suite 500, Baltimore, MD 21286

PHONE: (800) 548-4998; FAX: (410) 324-4444

E-MAIL: sfainfo@successforall.org

WEBSITE: www.successforall.org

INFORMATIONAL (6 DAY)

Shaking the Earth: Earthquakes and Volcanoes

Written by Robert E. Slavin and Kate Conway

Summary

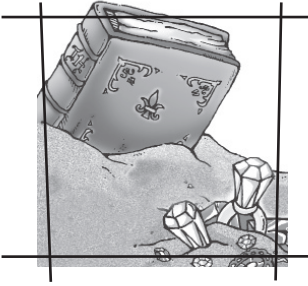
Earthquakes and volcanoes are two natural disasters that can have a powerful impact. Scientists monitor changes in the earth and study past earthquakes and volcanoes. Although it is not always possible to predict a natural disaster, there are ways to prepare for earthquakes and volcanoes.

Instructional Objectives

	Reading	Word Power	Writing
CYCLE 1	Fact and opinion (FO)	Compound words	Write a summary.
	Students will use clue words within the text to identify facts and opinions.	Students will pronounce and determine the meanings of compound words by separating each word in the compound word and thinking about its meaning.	Students will pretend that one of their classmates has been absent from school. They will write a summary about one section from the text to help their classmate catch up.

Teacher’s Note:

- In preparation for Using the Targeted Skill, have opinions and facts written on sentence strips to distribute to each team.
- This book contains a glossary and an index. Point out to students that the bold words in the text can be found in the glossary.

**DAY 1****ACTIVE INSTRUCTION**

Timing Goal: 40 minutes

Rate New Vocabulary Words

- Display the vocabulary words.
- Have students copy the words into their journals and rate their knowledge of each as they arrive for class.

Success Review and Keeping Score **TP**

- Hand out team score sheets and team certificates to each team.
- Point to the Team Celebration Points poster, and celebrate super teams from the previous lesson.
- Remind students how to earn team celebration points. Remind them that team celebration points help them to become super teams.
- Guide teams to set new goals for the cycle.
- Have one student from each team write the team improvement goal on the team score sheet. Note each team's improvement goal on the teacher cycle record form.
- Explain the challenge scores using the rubrics on the team folders.
- Explain the student assessments: fluency, the Student Test, and Adventures in Writing. Tell students there will be questions on the Student Test that are related to the reading skill, vocabulary, and the Word Power skill.

Team Cooperation Goal

- Point out that this lesson's team cooperation goal is **everyone participates**, or choose one based on your class's needs. Point out the related behavior on the team score sheet. Explain, or model, as necessary.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage

- Introduce the text, author, and reading objective.

This cycle we will read *Shaking the Earth: Earthquakes and Volcanoes* by Robert E. Slavin and Kate Conway. As we read, we'll identify facts and opinions in the text. Good readers identify facts and opinions to develop a deeper understanding of the text.

- Point out the strategy target on the team score sheet.

- Point out that the text is informational, or have students explore the text to figure out that it is informational. Review how informational texts differ from literature.
- Tell students that they will use the TIGRRS process as they read, or ask them what process they use when they read informational text. Review the steps of the TIGRRS process: topic, intent of author, graphic organizer, read, reread, summarize.
- Prompt students to identify the topic for the first step of TIGRRS by paging through the text. Use **Think-Pair-Share** to have them point to various text features and identify the text structure. Randomly select a few students to share.



Remember that we use the TIGRRS process when we read informational texts. What is the first step of TIGRRS? *To find the topic. Yes, before we read, we have to identify the topic. How can we identify the topic? We can look at text features, such as pictures, captions, and headings, and words that are repeated. Those are great ways to identify the topic. Take a few moments to look over the text and determine the topic.* Allow students time to look through their texts. **What do you think the topic is?** *The topic is earthquakes and volcanoes. I agree that earthquakes and volcanoes is the topic of our text. The title is a good clue, and so is the picture on the cover. The words *earthquake* and *volcano* are repeated a lot.*



- Use the items below to build or activate background knowledge about the topic.
 - Use **Think-Pair-Share** to have students discuss the types of damage that earthquakes and volcanoes can do. Randomly select a few students to share.
 - Use **Think-Pair-Share** to have students explain how the firsthand accounts they heard helped them to better understand earthquakes and volcanoes, and randomly select a few students to share.
- Prompt students to identify the next step of TIGRRS. Use **Think-Pair-Share** to have them identify the author’s intent. Randomly select a few students to share.

Now that we have identified the topic, what is the second step in TIGRRS? *To figure out the author’s intent. That’s right, we should figure out the author’s intent. What does this mean? The author’s intent is the reason the author wrote the text. Great. Remember what you identified as the topic. Why do you think the author wrote this text?* *To teach readers what earthquakes and volcanoes are and when they have happened in the past. I think you are right. Paging through our books helped us to determine the author’s intent.*

- Refer to the next step in TIGRRS. Use **Think-Pair-Share** to have students identify the graphic organizer they will use to record information from the text. Randomly select a few students to share. Display an idea tree. Use

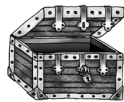
Think-Pair-Share to have students tell what will be written in each part, and randomly select a few students to share.

The third step in TIGRRS is to choose a graphic organizer. We'll use the graphic organizer to help us record information as we read. Let's look at the book to see which graphic organizer will work best. This book has several sections with different titles. The titles tell us what we will read about in each section. Which graphic organizer do you think we should use? *An idea tree.* That's right. When we use an idea tree, what do we write in the section called "Topic"? *The topic of the text.* Correct. What do we write in the circles at the ends of the branches coming from the "Topic" box? *The main ideas in the text.* What do we write on the small lines coming out of the circles? *Supporting details.* Great! Using an idea tree will help us record important information and keep track of what we read.

- Establish the purpose for reading by telling students that they will learn more about the topic as they read.

Vocabulary TP

- Ask teams to have teammates 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 "?."
- Use **Random Reporter** to have teams share one word they know and one word they need to study further. Award team celebration points.
- Introduce the vocabulary words.
- Review the routine for partner study of the vocabulary words, reminding students to review all the vocabulary words. Assign partners for this activity. **SR**
- Use **Random Reporter** to follow up the team review. Model the use of strategies, and correct pronunciations when necessary.
- Award team celebration points.
- Review the procedures for students finding words in their daily reading and for adding words to the **Vocabulary Vault**.



Student Edition, page 1
Student Edition chart does not contain page numbers or identification examples.

Word and Page Number	Identification Strategy	Definition	Sentence
estimates page 8	base word + ending: estimate + s	guesses	Many students gave <i>estimates</i> of how many jelly beans they thought were in the jar on Mr. Engel's desk.
tremendous page 8	chunk: tre-men-dous	huge	A <i>tremendous</i> number of people entered the stadium for the first baseball game of the season.

Word and Page Number	Identification Strategy	Definition	Sentence
indicates page 12	base word + ending: indicate + s	shows	Trinity’s survey <i>indicates</i> that her classmates want to help keep the earth clean.
risk page 15	blend	take a chance	“Since a blizzard is predicted, I will not <i>risk</i> getting stuck on the road,” Sidney’s mom said.
benefits page 15	base word + ending: benefit + s	good things	Some <i>benefits</i> of exercise are that it improves sleep and helps with stress.
constantly page 26	base word + ending: constant + ly	all the time	Mohamed’s little sister is <i>constantly</i> talking, so he has to remind her that he needs quiet sometimes.
sturdy page 28	chunk: stur-dy	very strong	The house was <i>sturdy</i> and had held up well over the years despite many storms.
guidelines page 30	compound word: guide + lines	rules for doing something	Alejandro’s teacher always gives her students <i>guidelines</i> when she assigns a project.

Using the Targeted Skill (Prompt and Reinforce)

- Introduce the skill and its importance in informational text by distributing a sentence strip to each team.
- Use **Team Huddle** to have students decide whether their sentence strip is a fact or an opinion and explain why. Use **Random Reporter** to select students to share.
- Remind students that they can use clues to determine whether a statement is a fact or an opinion. Use **Team Huddle** to have students discuss what those clues are. Use **Random Reporter** to select students to share the answers to questions that you ask them.



Remember that there are a lot of clues that we can use to help us determine whether a statement is a fact or an opinion. What clues can we use to identify a fact? A number in the statement. What kinds of numbers are clues? Dates, times, and measurements. Why are these kinds of numbers clues? They can be

proven by counting or measuring. Good. Numbers within a statement help us to identify facts. How can we determine whether a statement is an opinion? The words used tell how a person feels. Yes, that's right. What words are clues that a statement is an opinion? Best, worst, favorite, and "I think" are clues. Correct. There are a lot of clue words to watch out for as we read.

- Tell students that they will use these clues to identify facts and opinions as they read the text.

Listening Comprehension

- Introduce the text, and remind students that it is informational. Remind them you will use the TIGRRS process as you read.
- Remind students of the topic, intent of the author, and the graphic organizer.
- Tell students that you will start reading the text and applying the skill. Tell them that you will also record the important ideas on the graphic organizer.
- Read pages 2 and 3 aloud.
- Point out to students that on pages 2 and 3, there is a sidebar with the word *eyewitness*, and define this word. Remind students that they may have noticed this word on several other pages when they flipped through the book.

On pages 2 and 3, there is a sidebar with the word *eyewitness*. You may have noticed this word on a lot of pages when you flipped through the book. In those sidebars, a person describes what it was like when a natural disaster happened. The word *eyewitness* means a person who sees something happen.

- Use **Think-Pair-Share** to have students identify whether an eyewitness shares facts or opinions, and randomly select a few students to share. *An eyewitness probably shares both facts and opinions. Someone who sees something happen likely feels a certain way about it. However, an eyewitness also can share exactly what happened.*
- Use a **Think Aloud** to model identifying an opinion on page 2.



On page 2, in the first sentence, the author writes that “Earthquakes and volcanoes can be scary...” This is an opinion. I know because of the word *scary*. This tells how someone feels about earthquakes and volcanoes. As I read further, I’ll see if I can identify any facts.

- Read pages 4 and 5 aloud, and add main ideas to the idea tree as needed.
- Use a **Think Aloud** to model identifying a fact on page 5.

The authors explain that vibrations from seismic waves are strongest near the epicenter. I think this is a fact. This is something that scientists can prove. It does not tell how the authors feel about something.

- Read pages 6 and 7 aloud, and add main ideas to the idea tree as necessary.

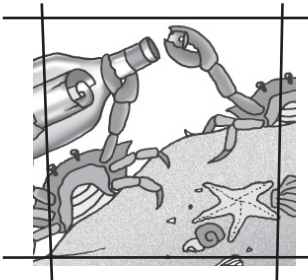
Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #1, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students' reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

Student Edition, page 2

Team Talk
1. Read the following sentence from page 10 of the text: "In 1970, an earthquake in Peru set off huge avalanches...." Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) FO
2. Why were more animals than people able to survive the tsunami in Japan? CE
3. How does the diagram at the top of page 12 help you better understand the text? TF
4. Why do scientists still study Krakatoa, which erupted in 1883, today? DC

- Randomly assign team leaders.



TEAMWORK

Timing Goal: 45 minutes

Partner Reading **TP**

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students read and restate: **SR** pages 8–17 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them begin looking over the Team Talk questions.

Team Discussion **TP**

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion. **SR**

- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

Team Talk

1. Read the following sentence from page 10 of the text: “In 1970, an earthquake in Peru set off huge avalanches...” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|

100 points = *This sentence is a fact because it can be proven. It includes the date that an earthquake happened. The clue was the phrase “in 1970” because 1970 is a year. Dates can be proven.* **90 points** = *This sentence is a fact because it can be proven. It has the phrase “in 1970.”* **80 points** = *Fact because it can be proven. “In 1970.”*

2. Why were more animals than people able to survive the tsunami in Japan? |CE|

100 points = *More animals than people survived the tsunami in Japan because they may have known that there was danger. It is possible that they felt shaking in the ocean. To stay safe, animals may have made it to higher ground.* **90 points** = *More animals than people survived the tsunami in Japan because they may have known that there was danger. It is possible that they felt shaking in the ocean.* **80 points** = *They may have known there was danger.*

3. How does the diagram at the top of page 12 help you better understand the text? |TF|

100 points = *The diagram on page 12 helps me understand the different parts of a volcano. For example, the diagram shows me what the vent and cloud of ash look like. The authors explain what happens in a volcano and how it erupts, but it is hard to imagine without seeing the diagram.* **90 points** = *The diagram on page 12 helps me understand the different parts of a volcano. For example, the diagram shows me what the vent and cloud of ash look like. It is hard to imagine without the diagram.* **80 points** = *It helps me understand the different parts of a volcano.*

4. Why do scientists still study Krakatoa, which erupted in 1883, today? |DC|

100 points = *Even though Krakatoa erupted in 1883, I think scientists still study it because it did so much damage. Thousands of people died, and there was a lot of ash in the air. The ash blocked the sun for a year. Scientists want to know if it will erupt again so people can prepare.* **90 points** = *Even though Krakatoa erupted in 1883, I think scientists still study it because it did so much damage. Thousands of people died, and there was a lot of ash in the air.* **80 points** = *It did so much damage.*

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

Class Discussion TP

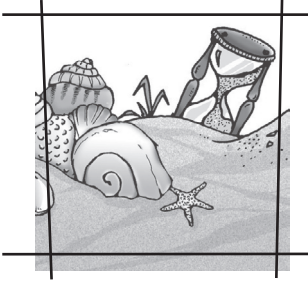
- Ensure participation by calling on teams to share responses to all discussions.
- Remember to add individual scores to the teacher cycle record form.



Strategy-Use Discussion	<ul style="list-style-type: none"> – Use Random Reporter to select two or three students to describe their team’s strategy use with the class. – Award team celebration points.
-------------------------	--

Think-and-Connect Discussion	<ul style="list-style-type: none"> – Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill. – Allow students time to discuss your questions. – Use Random Reporter to select students to respond to your questions.
	Team Talk Extenders
<p>Aside from people losing their homes, what might be some other effects of an earthquake?</p> <p>If you had the chance to live near a volcano, would you want to? Explain why or why not.</p>	
<ul style="list-style-type: none"> – Award team celebration points. 	

Write-On Discussion	<ul style="list-style-type: none"> – Use Random Reporter to ask one or two students to read their written answers to the skill question to the class. If desired, display student answers on the board. – Award team celebration points. – Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.
---------------------	---



FLUENCY IN FIVE **TP**

Timing Goal: 5 minutes

- Explain to students that when they read correctly, smoothly, and with expression, it shows that they understand what they are reading.
- Tell students to look at the Fluency rubric as you model fluent reading.
- Explain and model reading fluently. Read a passage from the student text. Then reread it, first incorrectly, then choppily, and finally without expression to show a lack of fluency skills.

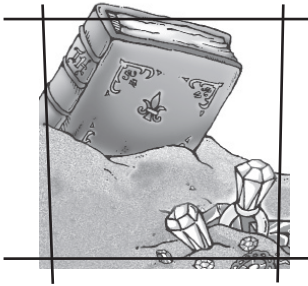
Page 15

- Ask students to use the Fluency rubric as they practice giving you feedback.
- Explain that students will practice reading fluently with partners on days 2 through 4.
- Tell students that they will receive an informal fluency score. Tell them they may read aloud to you for their score when they feel ready on days 2 through 4.

Team Celebration Points

Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.

- How many points did you earn today?
- How well did you use the team cooperation goal and behavior?
- How can you earn more points?



DAY 2

ACTIVE INSTRUCTION

Timing Goal: 30 minutes

Team Cooperation Goal

- Remind students of this lesson's team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

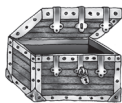
Set the Stage



- Display and have students complete the Two-Minute Edit to start the class. **TP**
- Use **Random Reporter** to check corrections.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.

Vocabulary **TP**

- Ask teams to have teammates 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 "?."
- Use **Random Reporter** to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. **SR**
- Use **Random Reporter** to check the review.
- Open the **Vocabulary Vault**, and celebrate students' words. Have each team record their **Vocabulary Vault** words on the team score sheet.
- Award team celebration points.



Strategic Review

- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use **Random Reporter** to have students share these items with the class.
- If appropriate, have students survey the section of text that they will read today and predict the topic of this section. Model this if necessary. Use **Random Reporter** to share the predictions with the class.
- Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.

Why did more animals than people survive the tsunami in Japan?

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the important ideas from yesterday’s reading.

Yesterday we learned about some famous earthquakes that occurred throughout history, in addition to famous volcanoes that erupted in the past. We learned about the different parts of a volcano and what causes one to erupt. Although volcanoes are thought of as dangerous, some people live near volcanoes.

- Tell students that you will continue to record important ideas on the graphic organizer.
- Read pages 18 and 19 aloud, and use **Think-Pair-Share** to have students discuss two facts found on these pages. Randomly select a few students to share.



We read about Mount Saint Helens, the most famous volcanic eruption in the U.S. How many people were killed as a result of this eruption? Fifty-seven people. Yes. How do you know that is a fact? It can be proven. You could look up old records. That’s correct. Numbers are useful clues that help us to identify facts. We also read about Mauna Loa, the world’s largest volcano. The authors say that it is the site of scientific research. Is this a fact or an opinion? It is a fact. How do you know that is a fact? It can be proven. People who study Mauna Loa write about what they learn there and share their findings. In this case, there was not a clue word to help us identify this statement as a fact, but we still knew that it could be proven.

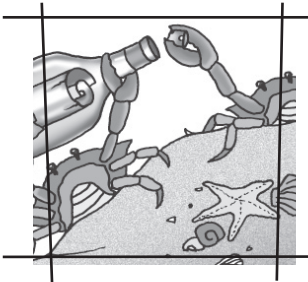
- Read pages 20–23 aloud, stopping to make points, ask questions, or focus students’ attention as needed, and fill in the idea tree with main ideas.

Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #1, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

Team Talk

1. Read the following sentence from page 24 of the text: “It could be exciting to be a seismologist.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|
2. Describe the impact of tools such as GPS. |DC|
3. After a volcanic eruption or an earthquake, it is still dangerous because— |CE|
 - a. you are wearing goggles over your eyes.
 - b. trees and buildings can fall down.
 - c. people are riding their bikes outside.
 - d. dogs are searching for trapped people.
4. Why did the authors include information about the American Red Cross and FEMA? |AP|



TEAMWORK

Timing Goal: 45 minutes

Partner Reading TP

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students read and restate: **SR** pages 24–31 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.

Team Discussion TP

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion. **SR**
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

Team Talk

1. Read the following sentence from page 24 of the text: “It could be exciting to be a seismologist.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|

100 points = *This sentence is an opinion because not everyone may agree with this statement. Some people may think being a seismologist is boring. The clue word in this sentence is exciting because it is a descriptive word and cannot be proven.* **90 points** = *This sentence is an opinion because not everyone may agree with this statement. The clue word in this sentence is exciting because it is descriptive.* **80 points** = *An opinion because everyone may not agree. Exciting is the clue.*

2. Describe the impact of tools such as GPS. |DC|

100 points = *Tools such as GPS help scientists to understand the changes in Earth so they can better predict earthquakes. With the help of GPS, scientists know about changes even if the changes are very small. They can take a reading after an earthquake to see how much the earth shifted.* **90 points** = *Tools such as GPS help scientists to understand the changes in Earth so they can better predict earthquakes. With the help of GPS, scientists know about changes even if the changes are very small.* **80 points** = *Scientists can better predict earthquakes.*

3. After a volcanic eruption or an earthquake, it is still dangerous because— |CE|
 - a. you are wearing goggles over your eyes.
 - b. trees and buildings can fall down.
 - c. people are riding their bikes outside.
 - d. dogs are searching for trapped people.

4. Why did the authors include information about the American Red Cross and FEMA? |AP|

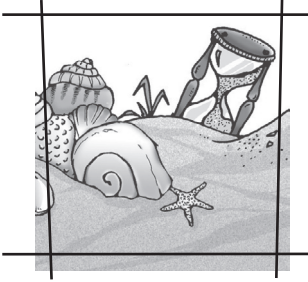
100 points = *I think the authors included information about the American Red Cross and FEMA because it shows that help is available after natural disasters. The authors explain many effects of earthquakes and volcanoes. The information about these groups shows that people can get the help they need after a disaster.* **90 points** = *I think the authors included information about the American Red Cross and FEMA because it shows that help is available after natural disasters. The authors explain many effects of earthquakes and volcanoes.* **80 points** = *It shows that help is available after natural disasters.*

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

Class Discussion TP



<p>Strategy-Use Discussion</p>	<ul style="list-style-type: none"> - Use Random Reporter to select two or three students to describe their team’s strategy use with the class. - Award team celebration points.
<p>Think-and-Connect Discussion</p>	<ul style="list-style-type: none"> - Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill. - Allow students time to discuss your questions. - Use Random Reporter to select students to respond to your questions.
<p>Team Talk Extenders</p>	<p>The authors include a list of items for a toolkit to have ready in case of a natural disaster. Can you think of any other items to include?</p> <p>In your opinion, which is more dangerous—an earthquake or a volcano? Use specific information from the text to support your answer.</p>
<p>Write-On Discussion</p>	<ul style="list-style-type: none"> - Award team celebration points. - Use Random Reporter to ask one or two students to read their written answers to the class. If desired, display student answers on the board. - Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.



FLUENCY IN FIVE **TP**

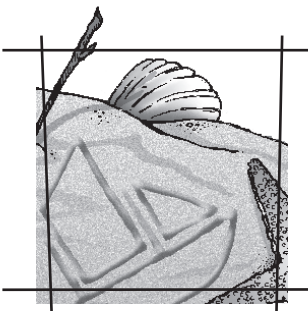
Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency. **SR**
- Tell students the page numbers and the paragraphs of the fluency passage. Write or display these on the board.

Student Edition, page 1

Page 29 (stopping at “If the electricity...”)

- Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.
- Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.
- Assign individual fluency goals as needed, monitor practice, and assign scores.
- Select two or three students to read the fluency section that they practiced for a score.
- Award team celebration points. Remember to add individual scores to the teacher cycle record form.



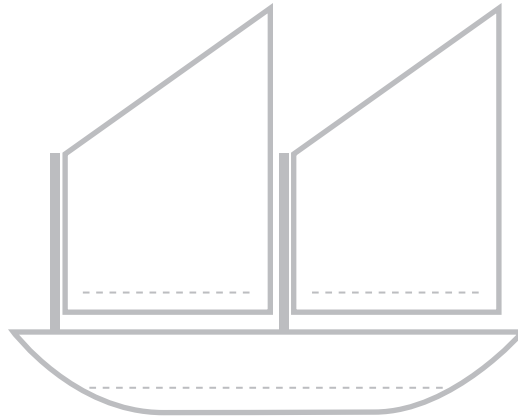
WORD POWER **TP**

Timing Goal: 10 minutes

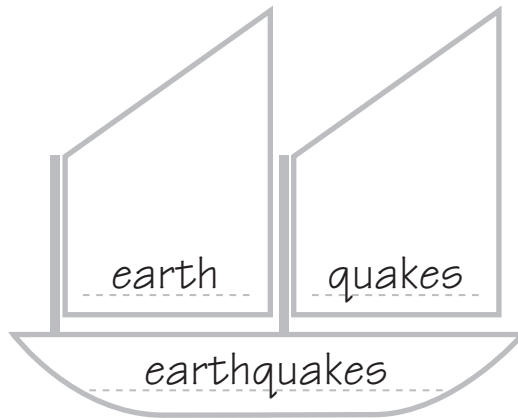
Preparation: Display a sailboat with two sails of equal size.

- Tell students that Captain Read More has sent another message. Display the Word Treasure clue (a sailboat with two sails of equal size).

Blackline master provided.



- Use **Think-Pair-Share** to have students figure out what the Word Treasure clue means. Randomly select a few students to share. *Two sails that are the same size mean that there are two whole words.*
- Write the word “earthquakes” on the bottom of the boat. Point out that this word is used in the subtitle of this cycle’s book.
- Remind students that a word made of two whole words is called a compound word.
- Use **Think-Pair-Share** to have students determine which words belong on the sails. Randomly select a few students to share. *The words earth and quakes.*
- Write these words on the sails.



- Use the sails to read the word, and have students say the word with you. Remind students that thinking about the meaning of each word in a compound word helps us to define the compound word.
- Use **Team Huddle** to have students define the meaning of *earthquakes*, and use **Random Reporter** to select students to share. *This word means disasters that happen when the earth shakes.*
- Reveal the Word Treasure (skill).

<h2 style="margin: 0;">Word Treasure</h2>	<p>Sometimes two words combine to make one word.</p> <p>If you're having trouble reading a compound word, read the two words separately, and then read the whole word.</p>
---	--

- Tell students that Captain Read More has found a word in their vocabulary list that is a compound word. Remind them to look for this word the next time they review vocabulary.
- Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.
- Explain, or have the team leaders review as necessary, the Word Power activity before having students begin. **SR**

Student Edition, page 2

Skill Practice

Write each compound word in your journal. Write the two words that make up the compound word, and write a definition for each word.

1. landslide *land + slide; when land slides down*
2. waterproof *water + proof; something safe from getting wet*

Building Meaning

estimates	tremendous	indicates	risk
benefits	constantly	sturdy	guidelines

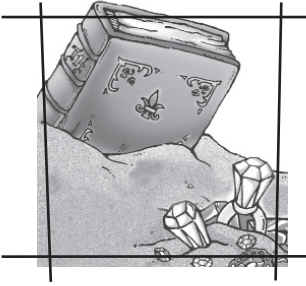
3. Choose a word from the vocabulary list, and write a meaningful sentence for that word.

100 points = *The sentence uses the word correctly and includes details to create a mind movie.* **90 points** = *The sentence uses the word correctly and includes one detail.* **80 points** = *The sentence uses the word correctly.*
4. Before painting their house, Mr. and Mrs. Dubrow got estimates of how much it would cost. *Estimates* means—
 - a. samples.
 - b. guesses.
 - c. colors.
 - d. gallons.

- Use **Random Reporter** to check responses on the skill-practice items.
- Award team celebration points.
- Use **Random Reporter** to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.

- Use **Random Reporter** to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the **Vocabulary Vault** tomorrow.

Team Celebration Points	
Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.	<ul style="list-style-type: none">- How many points did you earn today?- How well did you use the team cooperation goal and behavior?- How can you earn more points?



DAY 3

ACTIVE INSTRUCTION

Timing Goal: 30 minutes

Team Cooperation Goal

- Remind students of this lesson's team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

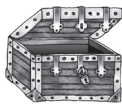
Set the Stage

- Display and have students complete the Two-Minute Edit to start the class. **TP**
- Use **Random Reporter** to check corrections.
- Award team celebration points.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.



Vocabulary **TP**

- Ask teams to have teammates 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 "?."
- Use **Random Reporter** to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. **SR**
- Use **Random Reporter** to check the review.
- Open the **Vocabulary Vault**, and celebrate students' words. Have each team record their **Vocabulary Vault** words on the team score sheet.
- Award team celebration points.



Strategic Review

- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use **Random Reporter** to have students share these items with the class.
- If appropriate, have students survey the section of text that they will reread today and predict that ideas will become more clear. Model this if necessary. Use **Random Reporter** to share the predictions with the class.

- Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.

Why is GPS important to scientists?

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the important ideas from yesterday’s reading.

When we read yesterday, we learned about the importance of the Richter scale and GPS to scientists. We also read about how people can prepare for natural disasters and the help that is available afterward.

- Tell students that as you reread you will look for details about the important ideas and add them to the graphic organizer. Tell students that you will also add any important information you missed the first time you read.
- Reread pages 2 and 3 aloud, and use **Think-Pair-Share** to have students identify one opinion and one fact from the “Eyewitness” box on page 3. Randomly select a few students to share.



Think about what we just read in the “Eyewitness” box on page 3. What is an opinion here? *An opinion is that the mountain was the most amazing thing the person had ever seen. The word amazing is an opinion word. It tells how someone feels about something. Not everyone may think the mountain was amazing.* **What is a fact here?** *A fact is that smoke began pouring out of the top of the mountain. This could be proven.* **Why did the authors include facts and opinions in this text instead of just facts?** *Opinions help a reader get a firsthand account of some of the events that he or she reads facts about. Yes, opinions give a reader a firsthand account. In many cases, opinions help a reader to better understand the facts. For example, the author explains a volcano’s destruction. The eyewitness says that he did not know what to do when he saw a volcano erupt.*

- Reread pages 5–7 aloud, stopping to make points, fill in the idea tree, ask questions, and focus students’ attention as needed.

Preview Team Talk

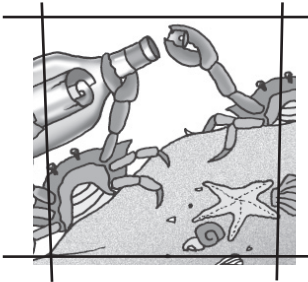
- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #2, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.

- Ask students to tell what key words or phrases they underlined and to state the question in their own words.

Student Edition, page 3

Team Talk

1. On page 9, the eyewitness uses a lot of figurative language to describe what he saw. Select one example, and explain what it helps you understand. |FL|
2. Read the following sentence from page 11 of the text: “By the time some of the waves reached land, they were 20 feet tall.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|
3. What do the three pictures at the bottom of page 12 suggest about the power of a volcano? |DC|
4. Why are the minerals found in volcanic rocks so important? |DC • CE|



TEAMWORK

Timing Goal: 45 minutes

Partner Reading **TP**

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students reread and restate: **SR**
pages 8–17 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.

Team Discussion **TP**

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion. **SR**
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

Team Talk

1. On page 9, the eyewitness uses a lot of figurative language to describe what he saw. Select one example, and explain what it helps you understand. |FL|
(Answers will vary.) **100 points** = *The eyewitness says, “Buildings crumbled like card houses.” This helps me understand how easily the buildings fell down. I know that it is very easy for card houses to fall down, and they can fall down quickly. This simile shows me that the earthquake was very powerful.* **90 points** = *The eyewitness says, “Buildings crumbled like card houses.” This helps me understand how easily the buildings fell down. I know that card houses can fall down quickly.* **80 points** = *“Buildings crumbled like card houses” helps me understand how easily the buildings fell down.*

2. Read the following sentence from page 11 of the text: “By the time some of the waves reached land, they were 20 feet tall.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|
100 points = *This sentence is a fact because the height of the waves could be measured. The clue was the phrase “20 feet tall.” Measurements can be proven, and they show that a statement is a fact.* **90 points** = *This sentence is a fact because the height of the waves could be measured. The clue was the phrase “20 feet tall.”* **80 points** = *Fact because the waves could be measured.*

3. What do the three pictures at the bottom of page 12 suggest about the power of a volcano? |DC|
100 points = *The three pictures at the bottom of page 12 suggest that a volcano is very powerful. The first picture shows Mount Saint Helens a day before the eruption, and the second picture shows what disappeared in the eruption. It looks like the top of the mountain completely disappeared. A volcano must be strong for so much of the mountain to disappear.* **90 points** = *The three pictures at the bottom of page 12 suggest that a volcano is very powerful. The second picture shows what disappeared in the eruption. It looks like the top of the mountain completely disappeared.* **80 points** = *A volcano is very powerful.*

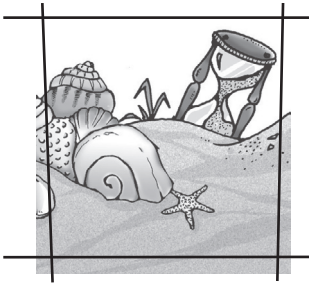
4. Why are the minerals found in volcanic rocks so important? |DC • CE|
100 points = *Minerals found in volcanic rocks are so important because minerals are one reason that some people choose to live near a volcano. Many companies mine near volcanoes because of the silver and gold there. Also, the minerals make the soil near volcanoes very rich.* **90 points** = *Minerals found in volcanic rocks are so important because they are one reason that some people choose to live near a volcano. Many companies mine near volcanoes because of the gold there.* **80 points** = *They are one reason that some people choose to live near a volcano.*

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

Class Discussion TP



Strategy-Use Discussion	<ul style="list-style-type: none"> – Use Random Reporter to select two or three students to describe their team’s strategy use with the class. – Award team celebration points. 	
Think-and-Connect Discussion	<ul style="list-style-type: none"> – Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill. – Allow students time to discuss your questions. – Use Random Reporter to select students to respond to your questions. 	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #cccccc; padding: 5px;">Team Talk Extenders</td> <td style="padding: 5px;"> <p>Look at the map on page 14. What questions might you want to ask before moving to one of the locations along the Ring of Fire?</p> <p>Describe how you think people feel after they experience a natural disaster.</p> </td> </tr> </table>	Team Talk Extenders
Team Talk Extenders	<p>Look at the map on page 14. What questions might you want to ask before moving to one of the locations along the Ring of Fire?</p> <p>Describe how you think people feel after they experience a natural disaster.</p>	
Write-On Discussion	<ul style="list-style-type: none"> – Award team celebration points. – Use Random Reporter to ask one or two students to read their written answers to the class. If desired, display student answers on the board. – Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it. 	



FLUENCY IN FIVE **TP**

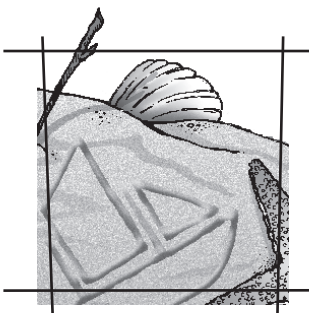
Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency. **SR**
- Tell students the page numbers and the paragraphs of the fluency passage. Write these on the board.

Student Edition, page 1

Page 29 (stopping at “If the electricity...”) or **pages 10 and 11 (including sidebar)**

- Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.
- Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.
- Assign individual fluency goals as needed, monitor practice, and assign scores.
- Select two or three students to read the fluency section that they practiced for a score.
- Award team celebration points. Remember to add individual scores to the teacher cycle record form.



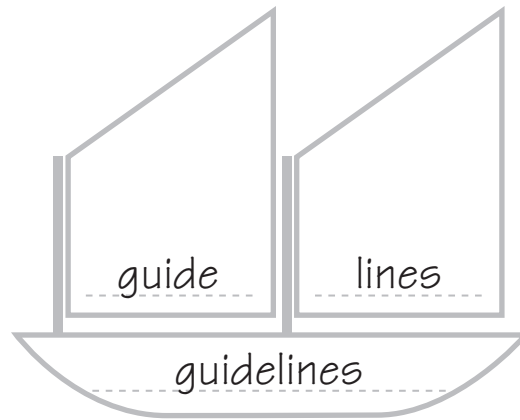
WORD POWER **TP**

Timing Goal: 10 minutes

- Remind students of the Word Power skill (compound words) and, if necessary, the Word Treasure clue that Captain Read More uses (a sailboat with two big sails).
- Display the Word Treasure clue (a sailboat with two big sails).



- Use **Team Huddle** to have students identify the compound word in their vocabulary list and the two words that make it up. Use **Random Reporter** to select students to share, and record their answers on the boat. *Guidelines: guide + lines.*



- Remind students that we can use the meanings of the two words to help us figure out the meaning of the compound word. Use **Think-Pair-Share** to have students discuss the word's meaning. Randomly select a few students to share. *Guide means to help, and lines means something you can follow.*
- Compare the students' responses with the definition (rules about how to do something) provided in the vocabulary chart to further clarify students' understanding of the word.
- Point out to students that the definition in the vocabulary chart does not match the meanings of *guide* and *lines* exactly. Remind them that in some cases, you cannot just join the two meanings of each word in a compound word.
- Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.
- Explain, or have the team leaders review, as necessary, the Word Power activity before having students begin. **SR**

Student Edition, page 3

Skill Practice

Write each compound word in your journal. Write the two words that make up the compound word, and write a definition for each word.

1. aftershocks *after + shocks; shocks that happen after something*
2. flashlight *flash + light; a light you can flash on and off*

Building Meaning			
estimates	tremendous	indicates	risk
benefits	constantly	sturdy	guidelines

3. Choose a word from the vocabulary list, and write a meaningful sentence for that word, or revise your sentence from yesterday.

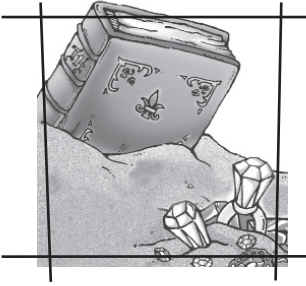
100 points = *The sentence uses the word correctly and includes details to create a mind movie.* **90 points** = *The sentence uses the word correctly and includes one detail.* **80 points** = *The sentence uses the word correctly.*

4. Choose the word that best fits in the blank.

It took a tremendous amount of strength for the movers to lift the heavy box off the truck.

- Use **Random Reporter** to check responses on the skill-practice items.
- Award team celebration points.
- Use **Random Reporter** to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.
- Use **Random Reporter** to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the **Vocabulary Vault** tomorrow.

Team Celebration Points	
Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.	<ul style="list-style-type: none"> - How many points did you earn today? - How well did you use the team cooperation goal and behavior? - How can you earn more points?



DAY 4

ACTIVE INSTRUCTION

Timing Goal: 30 minutes

Team Cooperation Goal

- Remind students of this lesson's team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

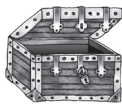
Set the Stage

- Display and have students complete the Two-Minute Edit to start the class. **TP**
- Use **Random Reporter** to check corrections.
- Award team celebration points.
- Remind students of the text, author, and reading objective.
- Point out the strategy target printed on the team score sheet.



Vocabulary **TP**

- Ask teams to have teammates 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 "?."
- Use **Random Reporter** to have teams share one word they know and one word they need to study further. Award team celebration points.
- Have the teams review the vocabulary words. Ask them to use the vocabulary words in new meaningful sentences, if possible, rather than reading the sentences provided. **SR**
- Use **Random Reporter** to check the review.
- Open the **Vocabulary Vault**, and celebrate students' words. Have each team record their **Vocabulary Vault** words on the team score sheet.
- Award team celebration points.



Strategic Review

- Ask teammates to summarize the ideas recorded on their graphic organizers from the passage they read/reread the previous day. Use **Random Reporter** to have students share these items with the class.
- If appropriate, have students survey the section of text that they will reread today and predict that ideas will become more clear. Model this if necessary. Use **Random Reporter** to share the predictions with the class.

- Ask students if they can think of a good question to ask about the text at this point in their reading. Allow volunteers to pose their questions to the class. Model these questions if necessary; an example follows.

What is important about minerals found in volcanic rocks?

Listening Comprehension

- Review the topic and the author’s intent with students.
- Remind them of the graphic organizer you are using to help you remember the text.
- Review the information you added to your graphic organizer during yesterday’s reading.

Yesterday when we reread, we learned more about the impact of some famous earthquakes. We also found more details about how lava forms and how powerful it can be.

- Tell students that as you reread you will look for details about the important ideas and add them to the graphic organizer. Tell students that you will also add any important information you missed the first time you read.
- Reread pages 18 and 19 aloud, and use **Team Huddle** to have students identify whether the information about the cloud of ash after Mount Saint Helens erupted is a fact or an opinion and how they know. Use **Random Reporter** to select students to share.



The authors explain that after Mount Saint Helens erupted, there was a cloud of ash. Is this a fact or an opinion? How do you know? *It is a fact. Even though there is not a number, it could be proven. There is a picture of a woman sweeping ash. The picture shows that there was ash. There is also a man driving a plow to get the ash out of the street.*

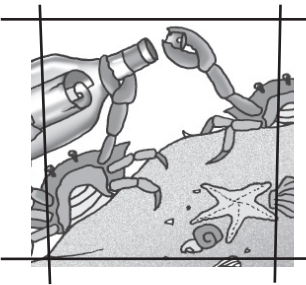
- Reread pages 20–23 aloud, stopping to make points, ask questions, or focus students’ attention as needed.
- Add supporting details for main ideas to the idea tree as you reread.

Preview Team Talk

- Preview the Team Talk questions with the class. Point out that the answer to the Write-On question, #3, must be written individually, after students discuss it in their teams.
- Ask students to underline key words or phrases in the Write-On question, or model this if necessary. Ask questions to guide students’ reflection as they determine the meaning of the question.
- Ask students to tell what key words or phrases they underlined and to state the question in their own words.
- Point out that question #4 asks them to summarize the text using their graphic organizers. Tell them that this will complete the TIGRRS process.

Team Talk

1. What do you think a very long line on a seismograph means? Explain. |DC|
2. Contrast an earthquake that measures between 0 and 1.9 on the Richter scale with an earthquake that measures 8 or higher. |CC|
3. Read the following sentence from page 26 of the text: “Sad to say, no one knows how to predict earthquakes, but someday this might be possible.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. (Write-On) |FO|
4. Use your idea tree to summarize *Shaking the Earth*. |SU|



TEAMWORK

Timing Goal: 45 minutes

Partner Reading TP

- Explain, or review if necessary, the Partner Reading routines for strategy use with sticky notes and TIGRRS before having students reread and restate: **SR** pages 24–31 aloud with partners.
- If some partners finish reading and filling out their graphic organizers ahead of their teammates, have them take turns rereading the pages designated for Fluency in Five.

Team Discussion TP

- Ensure that students discuss the Team Talk questions thoroughly before having students individually write answers to the Write-On question. Have students revise their answers after discussion if necessary.
- Explain, or have team leaders review if necessary, how to use role cards during Team Discussion. **SR**
- Remind students that they will need to prepare each team member to discuss the team’s strategy use, Write-On discussion, and Think-and-Connect discussion to earn team celebration points during Class Discussion.

Team Talk

1. What do you think a very long line on a seismograph means? Explain. |DC|

100 points = *I think a very long line on a seismograph means that an earthquake is large. The text says that the length of a line tells about the size of the earthquake. If the line is very long, it makes sense that it shows an earthquake is very big.* **90 points** = *I think a very long line on a seismograph means that an earthquake is large. The text says that the length of a line tells about the size of the earthquake.* **80 points** = *It means that an earthquake is large.*

2. Contrast an earthquake that measures between 0 and 1.9 on the Richter scale with an earthquake that measures 8 or higher. |CC|

100 points = *An earthquake that measures between 0 and 1.9 is barely noticed, but an earthquake that measures 8 or higher causes a lot of damage. If an earthquake is between 0 and 1.9, scientists only know it is happening if they use a seismograph. When an earthquake is 8 or higher, there is destruction, and buildings fall down.* **90 points** = *An earthquake that measures between 0 and 1.9 is barely noticed, but an earthquake that measures 8 or higher causes a lot of damage. If an earthquake is between 0 and 1.9, scientists only know it is happening if they use a seismograph.* **80 points** = *An earthquake between 0 and 1.9 is barely noticed, but an earthquake 8 or higher causes a lot of damage.*

3. Read the following sentence from page 26 of the text: “Sad to say, no one knows how to predict earthquakes, but someday this might be possible.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue.

(Write-On) |FO|

100 points = *This is an opinion because it tells how someone feels. Some people might think no one will ever predict earthquakes. The clue words were someday and possible. These words tell me what someone thinks will happen. This can't be proven.* **90 points** = *This is an opinion. Some people might think no one will ever predict earthquakes. The clue words were someday and possible.* **80 points** = *It's an opinion. Clue words are someday and possible.*

Team Talk *continued*

4. Use your idea tree to summarize *Shaking the Earth*. [SU]

100 points = Throughout history, there have been many earthquakes and volcanoes. These natural disasters resulted in destroyed buildings and thousands of deaths. Earthquakes happen a lot in places near faults, so people who live there must build carefully. Seismic waves from faults cause earthquakes. Volcanoes are caused by magma turning into very hot lava. Scientists use tools such as GPS to keep track of changes in the earth. It is not always possible to predict whether an earthquake or volcano will happen, but people can prepare by putting together toolkits with important items such as canned food and batteries.

90 points = Throughout history, there have been many earthquakes and volcanoes. These natural disasters resulted in thousands of deaths. Earthquakes happen a lot in countries and cities near faults. Seismic waves from faults cause earthquakes. Volcanoes are caused by lava. Scientists use tools to keep track of changes in the earth. It is not always possible to predict whether an earthquake or volcano will happen, but people can put together toolkits with items such as batteries.

80 points = Throughout history, there have been many earthquakes and volcanoes. Seismic waves from faults cause earthquakes. Volcanoes are caused by lava. Scientists use tools to keep track of changes in the earth. It is not always possible to predict whether an earthquake or volcano will happen.

- If some teams finish ahead of others, have them work on their graphic organizers.
- Award team celebration points for good discussions that demonstrate effective teamwork and that use this lesson’s team cooperation goal.

Class Discussion **TP**

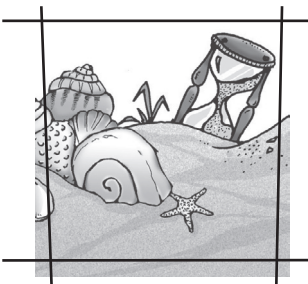


Strategy-Use Discussion

- Use **Random Reporter** to select two or three students to describe their team’s strategy use with the class.
- Award team celebration points.

Think-and-Connect Discussion		<ul style="list-style-type: none"> – Use the Team Talk questions, the Team Talk Extenders, and other appropriate questions (examples below) to ask students if they understood and enjoyed the reading and to reinforce understanding of the skill. – Allow students time to discuss your questions. – Use Random Reporter to select students to respond to your questions.
	Team Talk Extenders	<p>Dogs are trained to find people trapped in buildings. What types of dogs might be trained for this? Why?</p> <p>Why is the Richter scale so important?</p>
		<ul style="list-style-type: none"> – Award team celebration points. – Allow students time to discuss their summaries. – Use Random Reporter to select students to share their summaries.

Write-On Discussion	<ul style="list-style-type: none"> – Use Random Reporter to ask one or two students to read their written answers to the skill question to the class. If desired, display student answers on the board. – Award team celebration points. – Construct a class answer, and display it on the board. Refer to the sample answers given in the Team Talk box. Discuss with students what makes the class answer a good, complete answer or how to improve it.
---------------------	---



FLUENCY IN FIVE **TP**

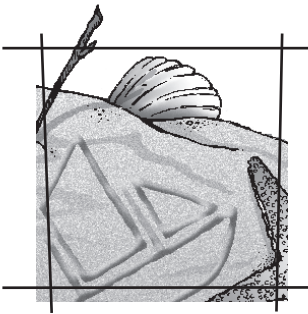
Timing Goal: 5 minutes

- Explain, or have team leaders review if necessary, the routine and rubric for fluency. **SR**
- Tell students the page numbers and the paragraphs of the fluency passage. Write these on the board.

Student Edition, page 1

Page 29 (stopping at “If the electricity...”), pages 10 and 11 (including sidebar), or page 26 (paragraphs 1 and 2)

- Remind students that partners should use the rubric to provide feedback during fluency practice. Model this with a student if necessary.
- Tell the reading students when they should begin reading, and then time them for one minute. Have the listening students identify where the readers stopped, how many words they missed, and if they met their reading goal. Also have partners share their feedback using the Fluency rubric. Have partners switch roles, and repeat the process.
- Assign individual fluency goals as needed, monitor practice, and assign scores.
- Select two or three students to read the fluency section that they practiced for a score.
- Award team celebration points. Remember to add individual scores to the teacher cycle record form.



WORD POWER **TP**

Timing Goal: 10 minutes

tps

- Remind students of the Word Power skill (compound words).
- Use **Think-Pair-Share** to have students identify why it is useful to learn compound words. Randomly select a few students to share. *Compound words are made up of two different words. Understanding the meaning of each word helps us to define the meaning of the compound word.*

Preparation: Display the Word Power Challenge.

Word Power Challenge

stomachache

wallpaper

th



- Direct students' attention to the Word Power Challenge. Have students work in **Team Huddle** to read the words and give the meaning for each word. If necessary, have students use the sail clues and identify the two words in each compound word. Use **Random Reporter** to check pronunciations and meanings. Stomachache: stomach + ache; *an ache or pain that you get in your stomach*; wallpaper: wall + paper; *paper that covers a wall*.
- Tell students that they will practice knowing the meanings of the vocabulary words and the Word Power skill in preparation for the test.
- Explain, or have the team leaders review, as necessary, the Word Power activity before having students begin. **SR**

Student Edition, page 4

Skill Practice

Write each compound word in your journal. Write the two words that make up the compound word, and write a definition for each word.

1. eyewitness *eye + witness; a person who sees something happen*
2. toolkit *tool + kit; a kit with tools in it*

Building Meaning

estimates	tremendous	indicates	risk
benefits	constantly	sturdy	guidelines

3. Choose a word from the vocabulary list, and write a meaningful sentence for that word, or revise your sentence from yesterday.

100 points = *The sentence uses the word correctly and includes details to create a mind movie. 90 points* = *The sentence uses the word correctly and includes one detail. 80 points* = *The sentence uses the word correctly.*

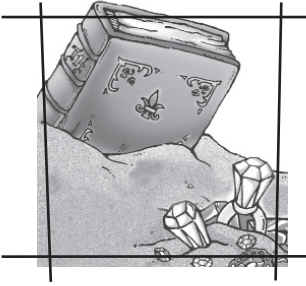
4. Choose the word that best fits in the blank.

Not only is playing a sport fun, but one of the benefits is learning about teamwork.

- Use **Random Reporter** to check responses on the skill-practice items.
- Award team celebration points.
- Use **Random Reporter** to share meaningful sentences. Discuss how students can improve sentences to make them more meaningful. Demonstrate with an example if necessary.
- Award team celebration points.
- Remember to add individual scores to the teacher cycle record form.
- Use **Random Reporter** to check responses on the remaining item for building meaning.
- Award team celebration points.
- Remind students to look for their vocabulary words outside of reading class so they can add them to the **Vocabulary Vault** tomorrow.

Team Celebration Points

Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.	<ul style="list-style-type: none"> - How many points did you earn today? - How well did you use the team cooperation goal and behavior? - How can you earn more points?
---	--

**DAY 5****ACTIVE INSTRUCTION**

Timing Goal: 20 minutes

Team Cooperation Goal

- Remind students of this lesson's team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Set the Stage

- Tell students that their reading test today includes comprehension questions and Word Power items.
- Remind students that their scores on this test will contribute to their team scores.
- Introduce the text that students will read for their test. Relate it to their cycle text by telling what it is about, but do not give additional information or details.

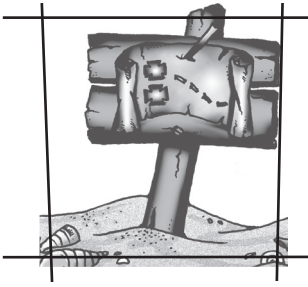
Today you will read about what happened when a cluster of volcanoes erupted thousands of years ago in the United States.

Vocabulary **TP**

- Remind students that the meanings of the vocabulary words and the Word Power skill will be assessed on their written test.
- Have the teams review the vocabulary words. Remind them to use the vocabulary words in new meaningful sentences. **SR**

Prepare Students for the Test

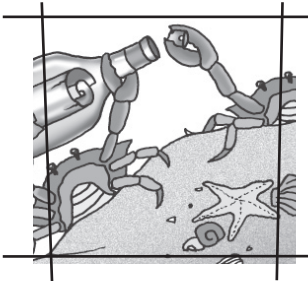
- Distribute the test, and preview it with students without providing information about the answers. Point out that question #3 asks about fact and opinion.
- Ask students to underline key words or phrases in question #3.
- Make sure that students understand that the test is independent work and that they should continue to use their strategies with sticky notes as they read without their partners' assistance.
- Tell students to add any relevant ideas from this reading to their graphic organizers and to do so without assistance.
- Remind students that they have 35 minutes for the test.



TEST

Timing Goal: 35 minutes

- Allow students to begin.
- Help students monitor their timing by indicating once or twice how much time remains.
- When students are finished, collect pencils or pens, but have students retain the test and graphic organizers.



TEAMWORK

Timing Goal: 35 minutes

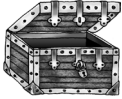
Teacher procedures for Teamwork vary with strategy instruction.

Team Discussion **TP**

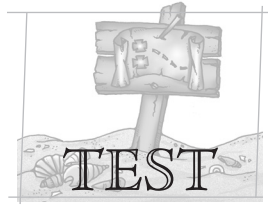
- Modify the procedures for Team Discussion to have students discuss independent strategy use and answers to the test. **SR**
- Remind students that they will need to prepare each team member to discuss the team's strategy use during Class Discussion.
- Pass out a colored pen (e.g., red or green ink) to each student.
- Point to the skill question. Ask students to specifically discuss the skill question.
- Ask students to state the question in their own words and tell what key words or phrases they underlined.
- Have students read their answers to the question. Ask the teams to think about what they like about their answers and what they wish they had said differently. Tell them to use their colored pens to add comments to their answers.
- Circulate during Team Discussion, and listen to discussions about test answers.
- Use **Random Reporter** to have students share additions that they made to the targeted skill question.
- Award team celebration points.
- Have students share the information that they put on their graphic organizers.

Class Discussion TP

- Ask the class to share the comments that they wrote on their test answers. Ask them why these comments made their answers better or more complete.
- Collect the test answers.
- Use **Random Reporter** to have students discuss their strategy use.
- Award team celebration points.
- Use **Random Reporter** to review and celebrate the team discussions, including new information added to test answers and graphic organizers.
- Award team celebration points.
- Open the **Vocabulary Vault**, and celebrate students' words. Have each team record their **Vocabulary Vault** words on the team score sheet.
- Award team celebration points.



Team Celebration Points	
Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Guide team reflection about the points they earned.	<ul style="list-style-type: none"> - How many points did you earn today? - How well did you use the team cooperation goal and behavior? - How can you earn more points?



Test Passage

Read the test passage, and complete a graphic organizer. Then reread the passage, and add more ideas to your organizer.

More than 7,000 years ago, a cluster of volcanoes called Mount Mazama exploded in an enormous eruption. The eruption created a large hole in the earth. The hole filled with water and is now known as Crater Lake. Water cannot flow in or out of the lake because the lake doesn't touch any other bodies of water. It is filled only by rainwater and melted snow. Each year the area receives about forty feet of snow.

Today Crater Lake is nearly 2,000 feet deep. It is in Oregon, and it is the deepest lake in the United States. It is the seventh-deepest lake in the world. The deepest lake in the world is in Russia. That lake is more than twice as deep as Crater Lake.

Crater Lake was named several times before it came to be known by its current name. In 1853, a group of miners named it Deep Blue Lake because of its color. Not long after, another group passed through the area and named it Blue Lake. In 1865, it was renamed yet again. This time it was called Lake Majesty. Finally, in 1869, a local newspaper editor suggested Crater Lake. This was the best name yet. The name stuck. Today the lake and the area around it is a national park.

Sources: U.S. Geological Survey (<http://pubs.usgs.gov/fs/2002/fs092-02/>)

National Park Service

(www.nps.gov/archive/crla/brochures/geology.htm),

(www.nps.gov/crla/index.htm),

(www.nps.gov/archive/crla/brochures/deeplakes.htm)

Comprehension Questions

Use your graphic organizer to answer the following questions. The score for comprehension questions equals 90 points. The graphic organizer is worth 10 points. The total possible score equals 100 points.

20 points

1. What is the topic of this text? How do you know? |MI|

20 points = *The topic of this text is a lake in Oregon called Crater Lake. I know because the text repeats the name of the lake many times. It also tells facts about the lake such as how it was formed and how large it is.*

15 points = *The topic of this text is a lake in Oregon called Crater Lake. I know because the text tells facts such as how the lake was formed.*

10 points = *Crater Lake. It tells facts about it.*

30 points

2. What is the intent of the author? |AP|
- to convince the reader to visit Crater Lake
 - to share information about Crater Lake*
 - to ask the reader to imagine how large Crater Lake is
 - to compare Crater Lake to other deep lakes

How do you know?

20 points = *I know this is the intent of the author because the text tells a lot of information about Crater Lake. It tells about the history and size of the lake. It does not try to convince a reader or tell how Crater Lake is similar to other lakes.* **15 points** = *I know this is the intent of the author because the text tells a lot of information about Crater Lake. It tells about the history and size of the lake.* **10 points** = *It tells about the history and size of the lake.*

20 points

3. Read the following sentence: “Today Crater Lake is nearly 2,000 feet deep.” Is this a fact or an opinion? Explain why and which word or phrase you used as a clue. |FO|

20 points = *This is a fact because it can be proven. The measurement in the sentence is a clue that it is a fact. Scientists could use tools to measure the lake and prove that the lake is 2,000 feet deep.* **15 points** = *This is a fact because it can be proven. The measurement in the sentence is a clue. Scientists could measure the lake.* **10 points** = *It is a fact because of the measurement.*

20 points

4. Use information from your graphic organizer to summarize the text. |SU|

20 points = *Crater Lake was formed when a volcano exploded and a hole formed in the earth. The hole filled with water from rain and melted snow. Crater Lake is in Oregon, and it is one of the deepest lakes in the world. It was renamed many times before it became called Crater Lake.* **15 points** = *Crater Lake was formed after a volcano exploded. It filled with water and is one of the deepest lakes in the world. It was renamed many times before it became Crater Lake.* **10 points** = *Crater Lake was formed after a volcano exploded. It is one of the deepest lakes in the world. Crater Lake was not its original name.*

Word Power

Number your paper from 1 to 12. Write your answers next to the matching numbers on your paper. The total possible score for Word Power questions equals 100 points.

Skill Questions

Write each compound word on your paper. Write the two words that make up the compound word, and write a definition for each word.

- 5 points 1. weekend *week + end; the end of the week*
- 5 points 2. trashcan *trash + can; a can where you put trash*
- 5 points 3. surfboard *surf + board; a board you use for surfing*
- 5 points 4. handwriting *hand + writing; writing you do by hand*

Building Meaning

estimates	tremendous	indicates	risk
benefits	constantly	sturdy	guidelines

- 10 points 5. Write a meaningful sentence for the word *indicates*.

10 points = *Bryant indicates that he sees me by waving hello in the crowded hall.*

5 points = *Bryant indicates that he sees me by waving hello.*

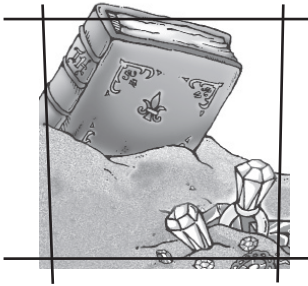
1 point = *Bryant indicates that he sees me.*
- 10 points 6. Trishelle’s dad built a sturdy bookcase that could hold the weight of all her books.
- 10 points 7. Lorenzo did not want to risk getting hurt, so he changed his mind about skateboarding down the steep hill. *Risk* means—
 - a. take a trip.
 - b. take a break.
 - c. take a joke.
 - d. take a chance.
- 10 points 8. Ellie did not understand the guidelines for planning a new dance routine, so she asked her teacher to explain.
- 10 points 9. All the news channels had different estimates of how many people were at the parade, so DeAnne didn’t know how many actually attended.

10 points10. The tremendous force of the wind blew the front door of Javon's house shut.*Tremendous* means—

- a. *huge.*
- b. *silly.*
- c. *tiny.*
- d. *light.*

10 points11. Katia constantly asks questions so she can learn as much as possible.**10 points**12. Mr. Sandoval's job has many benefits such as working from home twice a week.*Benefits* means—

- a. *awful things.*
- b. *mean people.*
- c. *good things.*
- d. *kind people.*



DAY 6

ACTIVE INSTRUCTION

Timing Goal: 25 minutes

Set the Stage

- Introduce the writing goal.

Today you will write a summary of a section from the text *Shaking the Earth*. Imagine that one of your classmates has been sick and absent from school. While your classmate was out, you read a lot about how the earth moves, erupts, and shakes. You want to write a summary for your classmate so he or she can catch up with the class.

Team Cooperation Goal

- Remind students of this lesson's team cooperation goal. Point out the related behavior on the team score sheet.
- Tell students that you will award team celebration points to teams whose members practice the team cooperation goal and related behavior.

Build Background

- Introduce the activity, writing a summary, by explaining how a summary is different from a full text.

Summaries are useful because they provide the most important information in a shortened format. When you write a summary, you only include the most important information that a reader needs to know, and you restate that information in your own words. A book may give you many examples or details about something, but a summary does not provide many details. It provides the most basic information. At the library, you might find summaries of the books there. If you use the library's computer to look up a book in the database, it may give you a summary of the book. This could help you figure out whether the book has the information you need in it or you would be interested in reading it.

- Display the following summary, and read it aloud to students.

Blackline master provided.

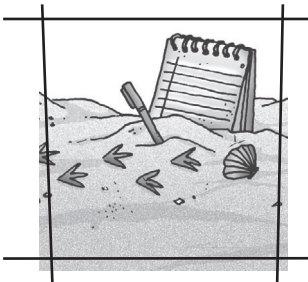
Wolves were domesticated by humans thousands of years ago. Initially, humans used these wolves to help them hunt animals for food, but as humans started farming, the wolves took on other jobs. Soon humans had dogs for every job. Now different breeds of dogs do different tasks, including hunting, herding, pulling heavy objects, and rescuing or protecting people. Not only do dogs do many different jobs, they have also become faithful companions to humans.



- Remind students that this passage is a summary about the domestication of wolves. Use **Team Huddle** to have students explain how they can tell that this is a summary and not a full text. Use **Random Reporter** to select students to share.

This is a summary about the domestication of wolves. Let's see how it differs from a complete text about how wolves became dogs. Does it tell why humans domesticated wolves? *Yes. We learn why humans wanted wolves.* **Does it tell exactly how humans domesticated wolves?** *No. It does not tell how humans may have captured or trained them.* **Does it tell exact dates or times that the domestication of wolves took place?** *No. We know it happened thousands of years ago, but we do not know specific dates when humans started using wolves for more than hunting or when the oldest dog breeds developed.* **Does the summary explain how we created so many breeds of dogs?** *No. It tells us the jobs that different dogs do, but it does not explain exactly how humans trained dogs to do these jobs.*

- Point out that in a summary, students will share the most important information. Remind students that a summary gives a reader a big picture, or overview, of a topic.
- Tell students that they will begin planning their summaries of a section from *Shaking the Earth*.



ADVENTURES IN WRITING

Timing Goal: 65 minutes

Planning

- Introduce the activity.

Remember that today you will write a summary of a section of *Shaking the Earth* for a classmate who has been absent from school.



- Introduce the prompt and scoring guide. Use **Think-Pair-Share** to have students clarify the prompt by identifying the topic, audience, purpose, and format.

Writing Prompt

One of your classmates has been sick at home and has just returned to school. Write a summary of a section from *Shaking the Earth* to help him or her catch up. You will write a summary of one of the following sections:

“Famous Earthquakes,” pages 8–11

“What happens in a volcano?” pages 12–15

“Understanding Earthquakes and Volcanoes,” pages 20–23

“What’s in a seismologist’s toolkit?” pages 24–26

Your summary should mention at least four of the most important facts or main ideas in the section. Remember that a summary talks about the main ideas of the text it summarizes and restates these ideas in the writer’s own words. Your work should be in paragraph form. Be sure to write in complete sentences.

Scoring Guide

You write a summary of one section from the text for a classmate who has been absent.	20 points
You mention at least four important facts or main ideas from the section that you summarize.	15 points each (60 points maximum)
Your summary mentions the main ideas of the section and restates them in your own words.	15 points
Your summary is written in paragraph form and in complete sentences.	5 points

- Remind students of the importance of planning their writing before they actually begin to write. Introduce the graphic organizer—the type of organizer and how it is used.

Before we begin writing, it’s very important that we plan what we are going to write. That way, our thoughts and ideas will be organized when we write them down. The best way to plan for writing is to use a graphic organizer. Today we will use a sequence chain. This will help us put our thoughts in the right order as we write our summaries.

- Demonstrate how to draw the graphic organizer, modeling to the extent necessary.
- Use **Think-Pair-Share** to have students discuss what they will include in their writing. Randomly select a few students to share. Then have students draw their organizers and fill them in with these ideas.
- Monitor students as they complete their plans. Give specific feedback to reinforce good planning, and assist students as needed.
- Ask one or two students who have examples of good planning to share their ideas with the class.

Sample Graphic Organizer

Summary of:

Fact 1:

Fact 2:

Fact 3:

Fact 4:

Drafting

- Tell students that they will use their plans to write a first draft.
- Explain how students will use the ideas in their graphic organizers to write their drafts. Remind them to include all of their ideas, writing in sentences and skipping lines to make room for revisions. Also, suggest that they include new thoughts as they occur.
- Discuss restating ideas in one's own words with students.

What does it mean to restate ideas in your own words? It means you cannot copy the sentence word for word from the text. You have to state the idea in another way that makes sense to you but does not change the information.

- Display the following excerpt from the text, and ask a volunteer to read it aloud.

Blackline master provided.

“The most famous volcanic eruption in the U.S. was Mount Saint Helens in Washington state. This volcano erupted in 1980, killing fifty-seven people. An earthquake started the eruption. The eruption put the city of Spokane, 250 miles away, in total darkness from the cloud of ash. People wore masks over their faces to protect them from inhaling the ash.”



- Tell students that this is an excerpt from *Shaking the Earth*. Ask teams to discuss how they might summarize this information by restating it in their own words. Use **Random Reporter** to select students to share.
- Tell students that when they restate information in their own words, it is important not to change the facts.

A summary is very useful for helping you to better understand what you read. When you write a summary and restate the information in your own words, the facts must still be the same. This will show that you fully understand the information you read. If you change the facts, you could provide other people with bad information.

- While they have their plans in front of them, have students review their ideas with partners and begin to write.
- Remind students to periodically check their writing against the prompt and scoring guide to make sure they are meeting the goal for the activity.
- Monitor students as they begin working. Give specific feedback to reinforce good drafting, and assist students as needed.
- As students complete their drafts, have them read their writing aloud to a partner to see that it includes the intended ideas and makes sense.
- Ask one or two students to share their first drafts with the class to celebrate.

Sharing, Responding, and Revising

- Tell students that they will work with partners to improve their writing. They will share and respond to provide feedback for each other’s drafts.
- Using the chart in the student routines, explain and model, or review if necessary, how to share and respond with partners. **SR**
- Ask students to share and respond with their partners.
- Using the chart in the student routines, review how to make revisions. **SR**
- Ask one or two students to share how they might revise their own work based on their partners’ feedback. Then tell the class to make changes as suggested to their own drafts. Monitor students as they work, giving specific feedback to reinforce and assist as needed.

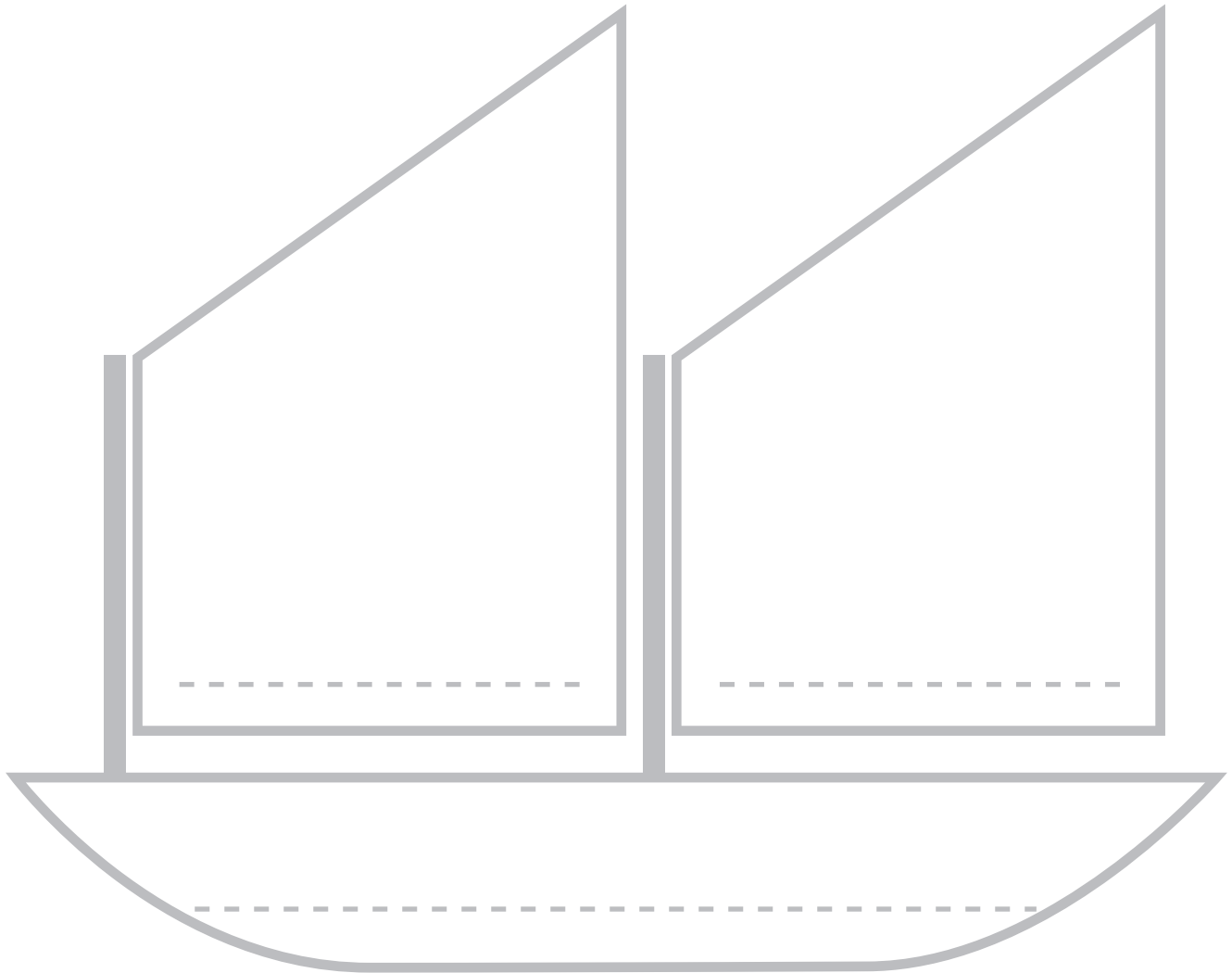
Editing

- Tell students that they will edit their work to get it ready for rewriting.
- Develop a checklist with students by asking them what kinds of errors they should look for when they edit. Add to, or modify, students’ suggestions with your own list of capitalization, punctuation, grammar, and spelling skills. If necessary, go over a few examples of each kind of error.
- If helpful, have students copy the checklist in their journals as a reference.
- Have students reread their first drafts, looking for the types of errors listed and correcting these on their drafts. If your students are familiar with proofreading marks, encourage students to use them.
- Ask students to read their partners’ drafts to check them against the editing list a second time. If they find additional errors, ask them to mark the errors on their partners’ papers.
- Have students share their edits with their partners.

Rewriting

- Tell students that they will rewrite their drafts to include their revisions and edits.
- Ask students to begin rewriting, and assist them as needed.
- When they are finished, have students read over their writing and then read it aloud to their partners as a final check.
- Celebrate by asking one or two volunteers to share their work with the class.
- Collect and score the completed writing activities.

Team Celebration Points	
Total any tallies on the team score sheets, and add points to the Team Celebration Points poster. Help students see their team celebration score by using the overlay.	<ul style="list-style-type: none"> - What is your team celebration score? - How well did you use the team cooperation goal and behavior? - How can you earn more points?



Wolves were domesticated by humans thousands of years ago. Initially, humans used these wolves to help them hunt animals for food, but the wolves took on other jobs as humans started farming.

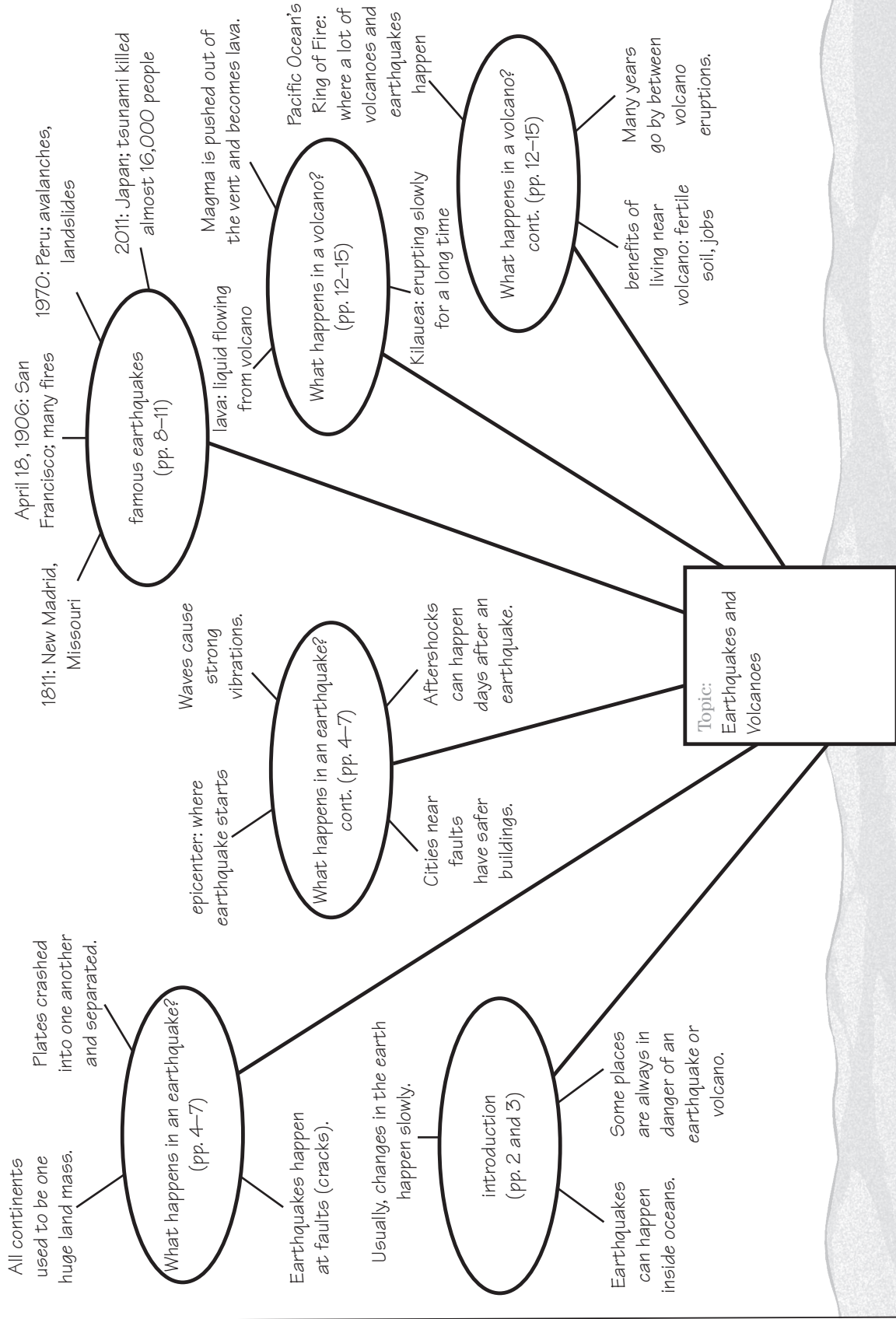
Soon humans had dogs for every job. Now different breeds of dogs do different tasks, including hunting, herding, pulling heavy objects, and rescuing or protecting people. Not only do dogs do many different jobs, they have also become faithful companions to humans.

“The most famous volcanic eruption in the U.S. was Mount Saint Helens in Washington state. This volcano erupted in 1980, killing fifty-seven people. An earthquake started the eruption. The eruption put the city of Spokane, 250 miles away, in total darkness from the cloud of ash. People wore masks over their faces to protect them from inhaling the ash.”



Title: Shaking the Earth: Earthquakes and Volcanoes

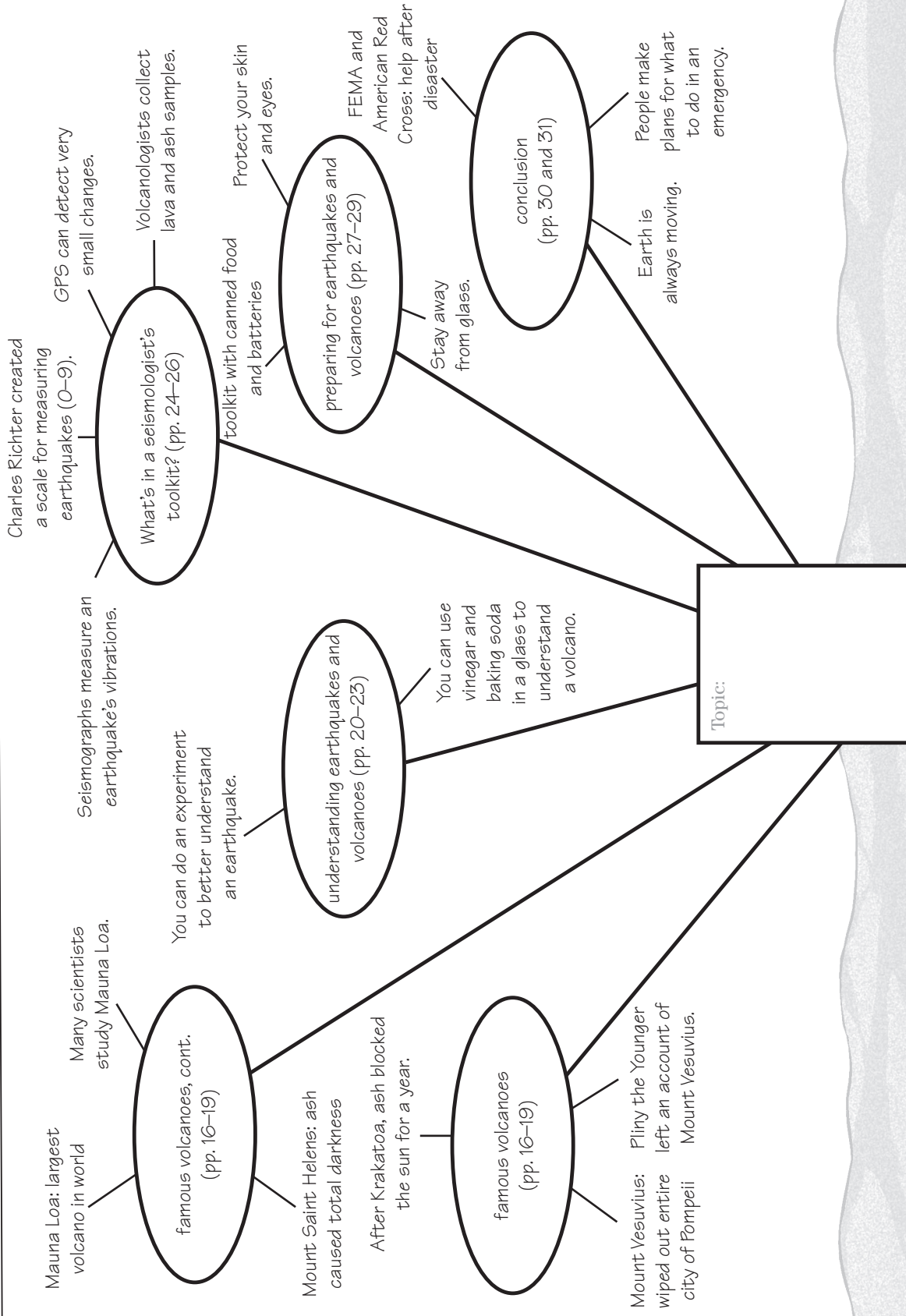
Idea Tree





Title: Shaking the Earth: Earthquakes and Volcanoes, cont.

Idea Tree



Common Core State Standards

The following Common Core State Standards are addressed in this unit. Full program alignments can be found in the Reading Wings section of the SFAF Online Resources. Contact your SFAF coach for more information.

LEVEL 5 / *Shaking the Earth: Earthquakes and Volcanoes*

English Language Arts Standards: *Reading: Foundational Skills*

Phonics and Word Recognition

RF.5.3 Know and apply grade-level phonics and word analysis skills in decoding words.

English Language Arts Standards: *Writing*

Text Types and Purposes

W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

