



About the Book

Text Type: Nonfiction/Informational Page Count: 24 Word Count: 2,415

Book Summary

Volcanoes is a factual text that describes how different kinds of volcanoes are formed and how they behave. Readers also learn about ancient myths that were fueled by fear of volcanoes. The book gives details about some of the more famous volcanoes, including Mount Vesuvius, Mount St. Helens, Mauna Loa, and Mount Fuji. Photographs, maps, and diagrams support this informative text.

Book and lesson also available at Levels S and V.

About the Lesson

Targeted Reading Strategy

- Summarize

Objectives

- Use the reading strategy of summarizing to understand the text
- Identify the main idea and supporting details
- Differentiate between the uses of commas in a list, after introductory words, and in separating clauses
- Identify and understand the use of the prefixes *re-* and *under-*

Materials

Green text indicates resources available on the website

- Book—**Volcanoes** (copy for each student)
- Chalkboard or dry erase board
- World map
- **Main idea and details/summary, commas, prefixes worksheets**
- **Discussion cards**



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting book on interactive whiteboard or completed with paper and pencil if books are reused.)

Vocabulary

*Bold vocabulary words also appear in a pre-made lesson for this title on VocabularyA-Z.com.

- **Content words:**

Story critical: **dormant** (adj.), **geothermal** (adj.), **magma** (n.), **seismic** (adj.), **surge cloud** (n.), **tectonic plates** (n.)

Enrichment: **airborne** (adj.), **billowed** (v.), **caldera** (n.), **cinders** (n.), **crater** (n.), **debris** (n.), **evacuate** (v.), **extinct** (adj.), **forge** (n.), **geysers** (n.), **lahar** (n.), **obliterated** (v.), **pyroclastic flow** (n.), **teeming** (v.), **threshold** (n.), **traverse** (v.), **tremendous** (adj.), **viscous** (adj.), **volcanologists** (n.)

Before Reading

Build Background

- Write the word *volcanoes* on the board. Ask students to tell what they already know about volcanoes. Show students the cover of the book and ask them what they see.

- Show students the world map and point out the mountainous regions. Ask a volunteer to tell where in the world he or she thinks volcanoes are located. Talk about the possible dangers associated with humans and wildlife inhabiting the land around volcanoes.

Preview the Book

Introduce the Book

- Give students their copy of the book. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name).
- Ask students to turn to the table of contents. Remind them that the table of contents provides an overview of the book. Ask students what they expect to read about in the book based on what they see in the table of contents. (Accept all answers that students can justify.)

Introduce the Reading Strategy: **Summarize**

- Explain to students that one way to understand and remember information in a book is to write a summary, or a brief overview of the most important information in the text. Point out that a summary includes the main idea and one or two supporting details. It often answers the questions *who, what, when, where, why, and how*.
- Model how to summarize.
Think-aloud: As I read this book, I am going to stop every now and then to remind myself about the information I have read so far about volcanoes. Doing this helps me remember what I'm reading and makes me think about new information. When I finish reading the book, I will be able to tell, in my own words, some of the information from each section about volcanoes that I have read.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Comprehension Skill: **Main idea and details**


- Explain that sometimes the amount of information about a topic is so large that it is grouped into sections, and each section of the book has its own main idea.
- Write the following list of words on the board: *volcanic mountains, plains, valleys, and oceans*. Ask students to describe what these words refer to (landforms). Point out that the definitions of these words help to identify a main idea. (Many different landforms make up the topography of the world.) The words *volcanic mountains, plains, valleys, and oceans* are details that support this main idea.
- Model using the table of contents to infer supporting details in the text.
Think-aloud: When I look at the table of contents on page 3, I see that the word Eruption is part of a section title. I already know that volcanoes erupt, so what happens when they erupt is probably a supporting detail in the book. When I read, I know that I will find out even more details about volcanoes. As I read, I will pause after every few pages to review in my mind the important details. This strategy will help me make sure I understand what I'm reading. I know that good readers do this when they read, so I am going to look for supporting details as I read this book.
- Have students turn to the table of contents and list some of the supporting details about volcanoes (Vesuvius, Composite, Lava Domes, and so on).

Introduce the Vocabulary

- As students preview the book, ask them to talk about what they see in the photographs and illustrations. Reinforce the vocabulary words they will encounter in the text.
- Model how to apply word-attack strategies. Have students find the word *geothermal* on page 22, and write it on the board. Point out the *geo-* prefix and explain that recognizing prefixes and suffixes can help students break up longer words and help them read these words. Ask a volunteer what the root word is (*thermal*) and underline it on the board. Point to the *geo-* prefix and remind students how it is pronounced. Explain that the prefix *geo-* pertains to the word "Earth."


- Have students look for clues to the word's meaning in the sentence containing the word *geothermal*. Read the sentence aloud and have students tell you what the word means. Explain that clues are not always present in the same sentence, but that other information in the paragraph often explains the word.
- Explain to students that sometimes they will not find any context clues that define an unfamiliar word. Model how students can use the glossary or a dictionary to locate a word's meaning. Have a volunteer read the definition for *geothermal* in the glossary. Have students follow along on page 22 as you read the sentence in which the word *geothermal* is found to confirm the meaning of the word.

Set the Purpose

 Have students read the book to find out more about volcanoes. Encourage them to underline or write on a separate piece of paper the important details in each section.

During Reading


Student Reading

 **Guide the reading:** Have students read to the end of the first paragraph on page 10 (finishing the section). Ask them to remember to underline the important details as they read. Encourage students who finish before everyone else to go back and reread.


- Model identifying the main idea and details.
Think-aloud: *As I read the first section, I noticed that most of the sentences mentioned something about the eruption of Vesuvius. I read that a huge explosion shook the ground in Pompeii on August 24, AD 79. I will underline this information in the book. I also read that dust, ash, and lava poured from the volcano, destroying everything in its path. Buildings collapsed and people died as they tried to flee the land. Eleven hours later, surge clouds fell down the mountain at speeds of 310 mph, and within moments, all of the people of Pompeii and Herculaneum were burned and buried by dust and ash. When the eruption ended, two cities were completely gone. I will underline all of this information as well. Based on what I've read and underlined, I think the main idea of the section is: When Mount Vesuvius erupted in AD 79, the results were catastrophic. Eleven destructive hours after erupting, two cities were completely buried and wiped off the face of the Earth.*
- Write the main idea on the board. Ask students to identify details that support this main idea. (Page 4: Roman city of Pompeii; AD 79; didn't pay attention to earthquakes; always rebuilt their city when damaged; thought Mount Vesuvius was dormant or extinct; lived in Pompeii for centuries without seeing volcanic eruption; volcanic mountain was covered in trees, flowers, and grass. Page 5: August 24; 1:00 pm; a huge explosion; dust, ash, and melted rock blew out of the top, raining down on the city; landed as far away as 10 mi from the mountain; 3:00 pm, lava flowed, destroying all in its path; 6:00 pm, the cloud of dust was 20 mi high; generated lightning bolts; buildings collapsed. Page 6: people tried to flee; demolished homes and farms; many died as they tried to walk through the deep, hot ash; stones fell and killed others; some choked to death; 12:00 am, a poisonous cloud collapsed; pyroclastic flow falling down the mountain at 310 mph. Page 7: surge cloud buried Pompeii and Herculaneum within moments; more surge clouds followed; two Roman cities were completely buried and wiped off the face of the earth; not found again for more than one thousand years.) Write these details on the board.
- Model summarizing the main idea and details from the first section.
Think-aloud: *To summarize, I decide which information is most important to the meaning of a section. To do this, I can identify the main idea and important details and then organize that information into a few sentences. When I look at the main idea and details on the board, a summary of this section might be: In AD 79, the people of Pompeii thought beautiful Mount Vesuvius was dormant. But that year, its eruption caused catastrophic results—lava, hot ash, stones, and poisonous gas that destroyed all life. The powerful surge clouds that followed eleven*


hours after the eruption completely buried the two cities of Pompeii and Herculaneum. They were not uncovered again for more than one thousand years.

- Write the summary on the board. Have students identify the main idea and details within the summary. Discuss how you used your own words to create the summary.

 **Check for understanding:** Have students read pages 10 through the first paragraph on page 14 (finishing the section). Invite them to share the important details they underlined in the section titled “Where and Why Volcanoes Form.” Write these details on the board. Divide students into groups and have them work with their group to identify the main idea from the details of the section. Discuss their responses as a class and write a main idea on the board.

- Ask each group to use the main idea and details of the section to write a brief summary on a separate piece of paper. Have them share what they wrote.

 Ask students to read the remainder of the book. Remind them to continue to underline important details in the book as they read. Add these to the board once everyone has finished reading.

 Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

After Reading

- Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Reflect on the Comprehension Skill

- Ask students what words they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.
- Discuss how stopping to review the important details helped students remember the facts and better understand the information in the book.
- Invite students to share the important details they underlined for the section “Composite Volcanoes.” Write these details on the board. Divide students into small groups. Have each group work together to identify the main idea from the details and write this information on a separate piece of paper. Discuss their responses as a class.
- **Independent practice:** Introduce and explain the [main-idea-and-details/summary worksheet](#). Have them write the main idea and supporting details for the section titled “Shield Volcanoes”. Encourage them to also include information given in the captions. If time allows, discuss their responses.

Reflect on the Reading Strategy

- Review with students how the main idea and details from each section can be used to develop a summary. Discuss with them the benefits of summarizing information they read (to understand the main point of a larger piece of writing). Invite students to share instances of when summarizing might be helpful.
- Review the details written on the board from pages 14 through 18. Invite students to return to their small groups. Have each group work together to write a summary for the section titled “Composite Volcanoes” on a separate piece of paper. Discuss their responses as a class.
- **Independent practice:** Have students complete their main-idea-and-details/summary worksheet by writing a summary for the section titled “Shield Volcanoes.” If time allows, discuss their responses.
- **Enduring understanding:** People have been both drawn to volcanoes and terrified by them throughout history. Scientists have studied volcanoes extensively, and people are now better able to understand them—and can even predict eruptions. Now that you know this information, how does it help you to appreciate the advances of modern science?

Build Skills

Grammar and Mechanics: Commas

- Explain that commas may be used by writers in a variety of ways. Some of the uses are: to separate an introductory word or phrase from the rest of the sentence, to separate a list of three or more items, and to separate clauses within sentences.
- Write the following sentence on the board: *Suddenly, a huge explosion shook the area around the mountain.* Ask a volunteer to come to the board and circle the comma. Explain that the word *suddenly* is an introductory word leading into the sentence and that the comma separates it from the rest of the thought. Remind students that this is only one of the many uses for a comma.
- Have students turn to page 10. Ask them to find the following sentence: *Today, scientists use a variety of tools and instruments to help them gather information about volcanoes.* Ask a volunteer to identify the introductory word (*today*). Discuss the location of the comma. Read the sentence aloud, emphasizing how the comma sets off the leading thought.
- Next, explain to students that whenever a list of three or more items is made, a comma must be placed between the items. Listed items can be nouns, verbs, adjectives, or entire phrases or clauses. Remind students that this is only one of the many uses for a comma.
- Have students turn to page 14 and read the following sentence aloud: *The crater is a hollow area where the magma, hot gases, and ash come out.* Explain that when the sentence is read aloud, the commas create a pause between the words. Point out the list of items, the commas used to separate each item, and the use of the word *and* before listing the last item.
- Lastly, have students locate the following sentence from page 14 in their books: *Different volcanoes erupt in different ways, depending on where and why the volcano forms.* Point out the independent clause (*Different volcanoes erupt in different ways*) and the dependent clause (*depending on where and why the volcano forms*). Explain that the comma separates the two clauses. Remind students that this is only one of the many uses for a comma.
- **Check for understanding:** Have students turn to page 4 and reread the second paragraph. Point out that there are many commas used in this paragraph, and that they are used in a variety of ways. Have a volunteer read the sentence that uses commas to separate items in a list. (*...the slopes of Mount Vesuvius were teeming with life and were carpeted with trees, flowers, and grass.*) Ask another volunteer to read the sentence that uses a comma to separate an introductory phrase. (*After all, people had lived in Pompeii for centuries without ever witnessing a volcanic eruption...*) Ask a third volunteer to read the sentence that uses a comma to separate clauses. (*It had been a thousand years since the volcano had erupted, so most people assumed that it was dormant, or even extinct.*)
- **Independent practice:** Introduce, explain, and have students complete the [commas worksheet](#). Discuss answers aloud after students finish.

Word Work: Prefixes *re-*, *under-*

- Write the following prefixes on the board: *re-* and *under-*. Discuss the meaning of each prefix: *re-* (again), *under-* (below).
- Have students turn to page 9 in the text and locate the word *underground*. Ask what this word means (below ground). Have students explain how the meaning of the sentence would be changed if the prefix *under-* were not part of the word. Repeat the process with the words *underneath* (page 11) and *rediscovered* (page 7).
- **Check for understanding:** Write the following words on the board: *awake, paint, arm, and carriage*. Have students identify the meaning of each base word. Then have students add the prefixes *re-* and *under-* (*reawake, repaint, underarm, undercarriage*). Have students identify how the meaning of each word has changed.
- **Independent practice:** introduce, explain, and have students complete the [prefixes worksheet](#).

Build Fluency

Independent Reading

- Allow students to read their book independently. Additionally, allow partners to take turns reading parts of the book to each other.

Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have them practice summarizing different sections of the book with someone at home.

Extend the Reading

Informational Writing and Art Connection

Have students use the Internet to research one of the following volcanoes: Mount Fuji, Mount Rainier, or Mauna Loa. Have them identify the following information about the volcano they choose: its size, location, the type of volcano it is, the characteristics it displays, whether it is still active, when it last erupted, and what happened during its last eruption. Have students present the information in a written report. Require that the report include an introduction and conclusion, and encourage students to add photographs or illustrations to their work.

Visit WritingA-Z.com for a lesson and leveled materials on expository writing.

Science Connection

Locate an instructional video that shows active volcanoes, and explains the chemical reactions that take place when a volcano erupts. Have students watch for an explosive composite volcanic eruption, a gentle but powerful shield volcanic eruption, and a small, brief eruption of a cinder cone volcano. Have them journal their findings, recording what they observed in each eruption. Discuss the differences aloud with the class when finished.

Skill Review

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

Assessment

Monitor students to determine if they can:

- accurately use main idea statements and supporting details to write a summary in their own words
- identify the main idea and supporting details to better understand the text in discussion and on a worksheet
- differentiate between the uses of commas after introductory words, in lists, and to separate clauses during discussion and on a worksheet
- understand the use of prefixes during discussion and on a worksheet

Comprehension Checks

- [Book Quiz](#)
- [Retelling Rubric](#)