

Orientation

Ensure that you have read about using the plan in the Program Guide.

Book summary

Read the following summary to the student.

The effects of volcanic eruptions range from fires to tsunamis, and the destruction and loss of life can be enormous. Find out which eruption made the loudest known sound on Earth and which explosion was more powerful than 10 million tons of dynamite.

Introduction

Foster interest and activate the student's background knowledge. Be concise – focus on motivating and involving the student. Encourage prediction by using the text and illustrations on the cover of the book. Discuss new vocabulary and remind the student to use the glossary (when applicable). Also remind the student to ask him/herself questions before, during and after the reading.

Read the title aloud and discuss personification. The author has given volcanoes human qualities by saying that they "awake."

Discuss the specialist vocabulary in the blurb, such as eruptions (when lava, rock, and ash is ejected from a volcano), and tsunamis (huge ocean waves that are caused by volcanoes).

Explain that volcanic eruptions have secondary effects, such as fires and tsunamis, which can cause as much damage as the actual eruption. Encourage the student to find other effects as they read.

Conferencing

Check how well the student reads

When you are conferencing, the student reads all or part of the book to you. Then:

- praise, pause, and prompt appropriately;
- check for accuracy (by counting mistakes) and fluency;
- check for understanding by using one or more of the following methods:
 - asking the comprehension questions provided and any others that seem necessary;
 - asking the student to retell the story in their own words;
 - asking questions about and discussing aspects of the story, such as the theme, plot, main ideas, sequence and characters;
 - encouraging the student to confirm the predictions they made during the orientation.

Decide what the student does next

Next recommend that the student:

- practices some more on the same book, with or without the audio;
- completes one of the activities provided that is related to the book;
- practices with another book from the same level; or
- is assessed for promotion to the next level.

Comprehension questions

1. What were the effects of the Krakatoa eruption?
2. How do scientists keep people safe from volcanoes?
3. What signs of eruption should people who live near volcanoes look out for?
4. What is the most amazing fact that you read? What makes it the most amazing fact?
5. Who do you think should read this book? Why?

Answers to the Comprehension questions

1. Accept any of the following: it produced the loudest known sound on earth; it created tsunamis; thirty thousand people were killed; dust and ash spread around the earth.
2. Accept any of the following: measure earthquakes and temperature changes in the ground; record any bulging of the volcano and gases coming from cracks; warn people when an eruption might happen.
3. Accept any of the following: earthquakes; temperature changes, bulges, or cracks in the ground; smoke or gases coming from cracks; the smell of sulfur.
4. Answers will vary.
5. Answers will vary.

Supporting English Language Learners

The following are suggestions for optional lessons to take with your English language learners. See the overview chart in the Program Guide for a summary of the text features of this book.

Purpose

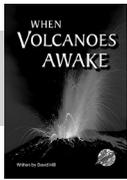
Using standard inflections

Introduce the concept and practice

Rewriting a text from the present tense to the past tense requires the student to focus on how verb forms change to indicate time.

When the student has read the book, reread page 2 together. Explain that this page (except for the final sentence) is set in the present which is shown by the verb endings "s" or "es." Together, find examples of these verb endings, such as "plows," "notices," and "sees." Help the student to rewrite the first two paragraphs in the past tense. This will involve changing verb forms, for example, "feels" to "felt," "have" to "had," "they've" to "they'd," and so on. Point out patterns such as the "ed" ending as you work.





Name: **Date:**

Introduction: The effects of volcanic eruptions range from fires to tsunamis, and the destruction and loss of life can be enormous. Find out which eruption made the loudest known sound on Earth and which explosion was more powerful than 10 million tons of dynamite.

Errors
M S

On February 20, 1949, in the Mexican village of Paricutin, farmer Dionisio Pulido felt his house shaking. Small earthquakes had been _____ Paricutin for two weeks, _____ every day they grew _____.

As he plowed his cornfield, Dionisio _____ that the soil _____ strangely warm although the _____ temperature was cold. When _____ reached the corner of _____ field, Dionisio saw a _____ crack in the earth. _____ ground rumbled beneath him. _____ rose from the crack, _____ flames gushed out, setting _____ to nearby trees. The _____ of sulfur filled the _____ as Dionisio turned to _____.

Flames and red-hot liquid _____ poured from the crack _____ the earth behind him. _____ the next morning, a _____ hill 40 feet (13 meters) _____ had grown from the _____. Two days later, it _____ doubled in size, and _____, smoke, and liquid rock _____ still pouring from it.

Accuracy Chart (Exact word replacement only)

Words Entered	Score	Level
More than 11 correct		Independent
10 or 11 correct		Instructional
Fewer than 10 correct		Frustration

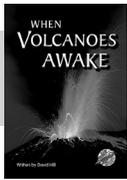
Errors

M = Meaning (makes sense) ____ **S** = Syntax (sounds right) ____

Heard Seen Unseen

Comments:





On February 20, 1949 in the Mexican village of Paricutin, farmer Dionisio Pulido felt his house shaking. He noticed that the soil felt strangely warm, and he saw a huge crack in the earth. The ground rumbled beneath him. Smoke rose from the crack, then flames gushed out. The smell of sulfur filled the air, and red-hot liquid rocks poured from the crack in the earth.

The Mexican farmer had witnessed the birth of the volcano Paricutin. What happened in Dionisio's field began deep inside the Earth where there are two layers of red-hot rock called the upper and lower mantle. The crust that covers the upper mantle is cracked into several giant pieces, or plates.

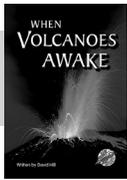
The plates slowly push against or pull apart from one another, causing earthquakes. Magma is red-hot liquid rock from the upper mantle. It is under enormous pressure and it squeezes through the cracks in the crust to reach the surface, sometimes exploding violently.

When magma reaches the Earth's surface, it is called lava. If the lava explodes from the Earth, the release of pressure can create an enormous boom. The 1883 eruption of Krakatoa in Indonesia produced the loudest known sound on the earth. The eruption also created enormous waves known as tsunamis.

The dust and ash that were released into the air by the explosion eventually spread around the Earth, causing the sky to glow red after sunset. Clouds of volcanic ash pose a danger to airplanes, but lahars pose a more immediate danger. Lahars are enormous mudflows.

They are created when a volcano's crater lake suddenly empties or when the snow or ice on a mountain melts in the fierce heat of an eruption. In 1980, giant lahars from Mount St. Helens, Washington, destroyed hundreds of homes and 57 people lost their lives. No one can be certain of what will happen when sleeping volcanoes awake.





Name: **Date:**

Words can be found in these directions:



The letter in each square can only be used in one word.

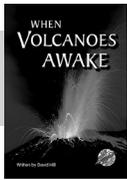
t	f	s	u	r	r	o	u	n	d	i	n	g	f	c	b
m	e	i	s	o	m	e	t	i	m	e	s	f	l	r	e
o	e	m	e	v	i	l	l	a	g	e	u	r	o	e	h
u	n	g	p	r	f	l	a	m	e	s	p	o	o	a	a
n	o	r	e	e	c	f	a	r	m	e	r	m	r	t	v
t	r	a	r	m	r	e	v	o	l	c	a	n	o	e	i
a	m	d	u	i	g	a	a	l	t	h	o	u	g	h	o
i	o	u	p	l	r	s	t	b	e	n	e	a	t	h	r
n	u	a	t	l	o	u	t	u	a	r	o	u	n	d	a
s	s	l	i	i	u	r	h	h	r	w	e	r	e	a	s
l	i	l	o	o	n	f	r	b	a	e	e	a	r	t	h
o	n	y	n	n	d	a	o	o	s	p	s	a	w	k	c
w	e	v	e	r	y	c	u	t	a	m	p	t	o	n	r
l	o	c	e	a	n	e	g	t	o	r	e	e	a	o	a
y	f	i	e	l	d	l	h	l	v	f	e	l	n	w	c
p	r	e	s	s	u	r	e	e	l	o	t	a	l	n	k

Words to find:

- | | | | | |
|----------|----------|-----------|-----------|-------------|
| although | earth | from | ocean | surrounding |
| area | enormous | gradually | of | temperature |
| around | eruption | ground | pressure | through |
| as | every | happen | saw | to |
| behavior | farmer | in | slowly | up |
| beneath | field | known | smell | village |
| bottle | fierce | lot | sometimes | volcano |
| crack | flames | million | surface | were |
| create | floor | mountain | | |

Use the letters that are left to make the word that tells what magma is known as when it reaches the Earth's surface.





- ★ Spin the numbered spinner.
- ★ The highest number starts.
- ★ You need to spin the exact number to move onto the END square.

START
You are a scientist monitoring volcanoes.

1

2

3 You notice that the earth feels strangely warm although the air temperature is cold. Miss a turn.

19

20 You warn people living near a volcano to evacuate. Spin again. Go forward that number.

21

22

4

18 You warn the crew of a plane not to fly through an ash cloud. Go on to 22.

END
You can never be certain what will happen when sleeping volcanoes awake.

23 You have learned a lot about the creation and behavior of volcanoes. Go forward two spaces.

5 You see a huge crack in the earth. Name two numbers. If you spin one of them, go back to 2.

17

30

24

6

16 Flames and red-hot rocks pour from the crack in the earth. Go back to 13.

29

25

7

15

28

27

26 Giant lahars tear down riverbeds, breaking bridges like toys. Spin again. Go back that number.

8 The ground rumbles beneath you. Spin again. If you spin an even number, go back to 4.

14

13

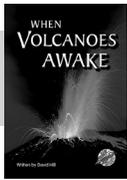
12 The smell of sulfur fills the air. Go back three spaces.

11

10

9





Name: **Date:**

Pretend you are the teacher. Write questions for your students that will encourage them to research volcanoes. Develop at least two questions for each kind in the list. Make them really challenging!

Kind of question	Your questions
Fact-based (Who? What? How?)	Example: What is a lahar?
Inquiry (Why? Do you think?)	
Cause/effect (What makes ... happen?)	
Vocabulary (What words describe ...?)	
Experience (Have you ever ...?)	
Evaluative (How did the author use ...?)	
Perspective (How did ... feel?)	
Comparison (What's the difference between ...?)	

Write on the back of this page if you need more space.



Make sure your questions require your students to think carefully about the information in the book and to use a wide variety of resources to find the answers.

