

# Explosive Volcanoes

PM Level 30

Sapphire

**Text Type** Information Report (Informative), Recount (Informative)

**Running Words** 2633



## Preparing for Guided Reading

### Prior knowledge

- Ask students if they know of any volcanoes near where they live – active, dormant or extinct. If they do have an active volcano nearby, discuss safety plans in the event of an eruption.

### Orientation to the text

- In this book, the reader learns all about volcanoes, including the mechanics behind them and their effect on human and animal life. The text examines a number of famous volcanoes in depth and discusses the work of volcanologists.

## Building the Balanced Reader

### Grammatical conventions

- Discuss the use of adjectives to describe the violence and majesty of volcanic eruptions, e.g. *violent, devastating, massive*. Ask students why such strong words are needed to discuss such a large-scale phenomenon.

### Vocabulary

#### Key vocabulary

*caldera, crater, dormant, emits, eruption, explosive, evacuated, hazardous, mainland, plateau, plume, radar, radiating, remote, seismic, tectonic, thermal, toxic, vent, volcanoes*

### Spelling

- Discuss the origin of the word *volcano* as mentioned on p. 16 of the text. Have students compare the word's spelling to the name of the Roman god from whose name it derives.

### Visual literacy

- Have students look at the illustration on p. 23. Ask them which of the items on the diagram they would and would not have been able to name without the labels.

### Focusing on the book – guided reading

- Ask students to suggest where people in Japan would find safety during a volcanic eruption, particularly if the eruption threatens a city with a large population.

- Have students share thoughts about why the Yellowstone supervolcano is nicknamed the 'Sleeping Giant'. Is there anything that could be done to protect the USA and Canada if the Yellowstone supervolcano has another massive eruption?
- Ask students what they think would happen to living creatures and plant life in the vicinity of an erupting seamount. Are they surprised that some animals, such as tube worms, thrive in the hot water near a seamount?
- Ask students if they think umbrellas and scarves would provide adequate protection for people trying to avoid the hot falling ash of Mount Pinatubo.
- After reading p. 22, ask students how they think volcanologists are able to predict when a volcano will erupt. Have them assess whether they guessed correctly after reading pp. 24–25.
- Discuss the fact that one volcanic eruption can have a huge impact on the world climate, e.g. the eruption of Mount Pinatubo causing a global temperature drop of 0.5°C with the cloud of ash and gas it produced.
- How much warning do students think volcanologists are able to give people before a major eruption? (In the case of Mount Pinatubo, two days.)

### Comprehension

- What materials gush out of the vent of a volcano during an eruption? (*Literal*)
- How long can it take for lava to cool down and harden into rock? (*Inferential*)
- Is it possible that Mount Vesuvius will erupt again? (*Applied Knowledge*)

### Follow-up activities

- Have students prepare a list of questions to email to a volcanologist about one of the most interesting missions they have been involved in.
- Ask students to imagine that a volcano near their home is erupting. Have them describe evacuation procedures that would likely take place. Have them make suggestions of their own as to how people could get away safely.

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## Learning Intentions

- We are learning to apply a range of skills and strategies to gain maximum understanding of both written and visual information in a text.
- We are learning about a range of language effects that add variety and clarity to a text.
- \_\_\_\_\_

## Success Criteria

- I can read written and visual information to better understand information in a text.
- I can read and understand a range of language effects used by the author.
- \_\_\_\_\_

## Guided Reading Notes

Student's name	Reading focus	Observations/notes	For follow-up