

LEVEL

9

Book 4

Non- Fiction

Volcanoes



SuperLit
Readers

ePlatform



Pre-reading

LEVEL

9

Level 9 Book 4: Volcanoes

Words: 1078

Super Sounds - Revise the phonemes (sounds) below.

a	aw	oor	ore	ey	ea	air	are	ear
eer	dge	tch	ou	o	ui	ea	or	ear
u	oul	er	ar	or*				

Phonics Activity - The phoneme /er/ can have multiple spellings, including 'ear' (learn), 'or' (word), 'ir' (stir), 'ur' (turn) and 'er' (term). Ask the child to create a list of words using the /er/ phoneme and try to use each spelling at least once.

Teaching Tip - 'Lava' is pronounced //ar/v/u/ and 'magma' is pronounced /m/a/g/m/u/. Volcanoes exist on fault lines, which are big cracks in the earth that causes the landmass to split apart and the sections to move independently of each other. The most violent volcanic eruption on record is from Krakatoa. It erupted so violently that the soundwave travelled around the world four times, and the sound was heard nearly 5000 km away and was said to have sounded like a canon. A volcano must have erupted within the last 10,000 years to be considered 'active'.

High Frequency Words

fire	use	another	who
before	come	once	one

* Super Sounds Note - In Level 9 'or' makes two new sounds: /er/ as in 'word' and /u/ as in 'doctor'.

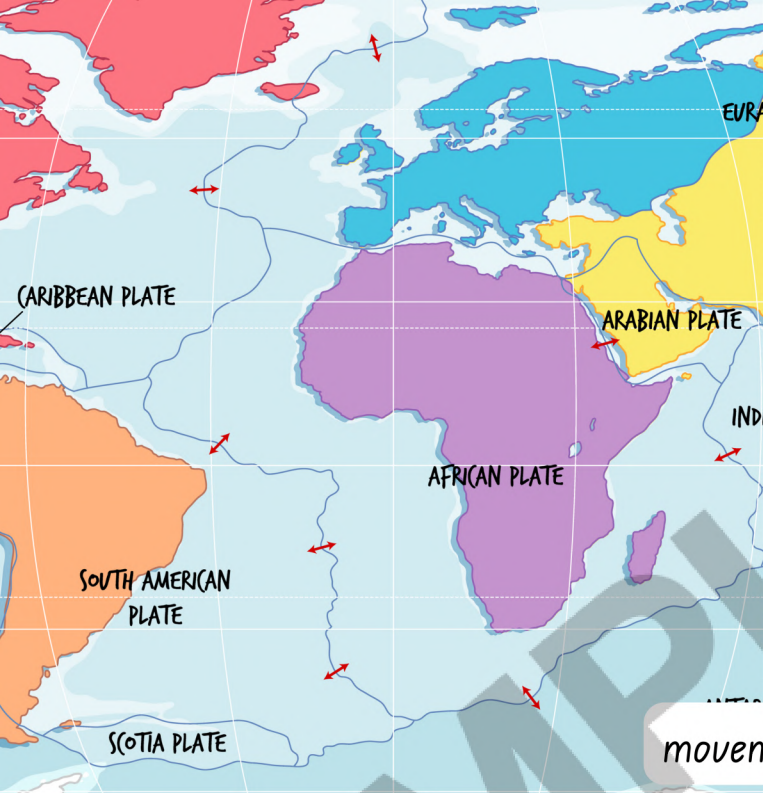
Fuego, Guatemala



Mayon, Philippines



A volcano is an opening, or 'vent', in the earth that lets gas, hot magma and ash escape from beneath the earth's crust. They are most often seen in big, rocky hill-like forms, but they also exist under the sea. Once magma exits the volcano vent, it is then called 'lava'. Volcanoes have greatly shaped Earth, with most landmasses being created by volcanoes. They have also given us very good soils for plant life to grow in. Volcanoes are found all over the world and are most often seen around the edges of tectonic plates. There are volcanoes on every continent - even in the Antarctic! We think there are around 1500 (one thousand five hundred) volcanoes on Earth that are still active today. When a volcano erupts, this can be one of the biggest dangers found on the planet as it creates long-lasting and widespread problems. Volcanoes have so much power that they can explode, leaving behind a massive crater! They can also grow in size.



Iceland

movement crack

Volcanoes are often found where tectonic plates meet or move away from one another, or where there are other cracks in the Earth's crust where there is movement. Tectonic plates are gigantic sheets of the planet's crust. There are fifteen plates in total – seven major and the rest are minor. There are also volcanoes that can occur where the planet's crust is thin and weak. This weakness can create movement that can turn into volcanic activity. There is a place on Earth called the 'Ring of Fire'. This is a ring that contains around seventy-five percent of the volcanoes found on Earth, and it travels around the coastlines of many continents. Many of the volcanoes around this ring are underneath the sea. There are hundreds of volcanoes in this ring. When a volcano erupts or when there is an earthquake, it is likely that it happens in this ring.



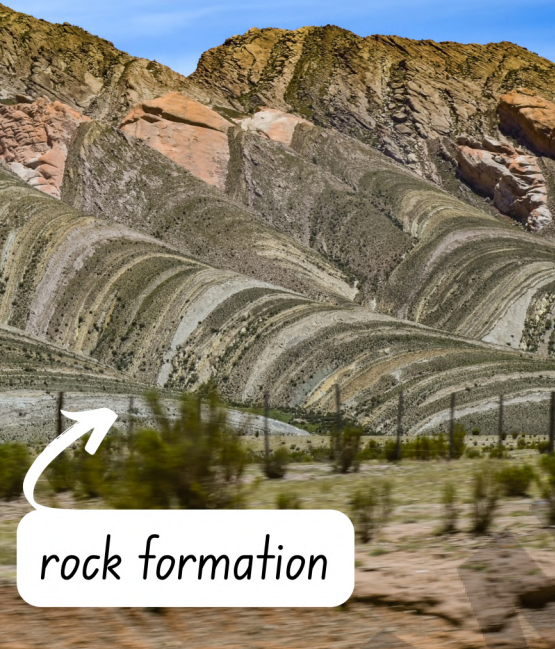
Hawaii

magma

Iceland

Volcanoes have erupted many times in the past, ranging from a little lava trickling out of a crack to exploding massively with the effects being felt around the globe. The magma, which is molten rock beneath the earth, contains gases that have dissolved, which is what makes most volcanoes erupt. As the magma rises, the gases get freed from the magma liquid (called 'melt'). It then travels up and releases over the ground into the air or sea. The more the gas compresses, the more explosively it erupts. In the time of early humans, around 74,000 BP, one volcano erupted so explosively that we think the number of humans on the planet may have been reduced to between only three to ten thousand. We think this event also created a volcanic winter spanning up to a decade and sending the world into a cooling event.

Devils Backbone, Argentina



rock formation



Hawaii

The movement of tectonic plates is very slow, but due to their sheer size, the impact is felt very strongly. When tectonic plates hit one another, it forces big chunks of land to rise up, creating hills and ranges. This movement can also break open weak spots in the earth's crust, pushing magma up into this space as it expands. As the magma pushes up, it will cool and form a landmass. This landmass cools and solidifies into higher ground. This process takes a very long time and can form just one volcano or a line of volcanoes, particularly when a long line of the plate shifts. As more and more magma pushes into the volcano, it reaches a tipping point and forces the volcano to erupt, sending the magma out of the vent. This could be as a slow leak or an explosive event. A volcano can also be set off by an earthquake. When this happens, it can make lava, gas and rocks come out of the side of a volcano due to the sides being weak from holding too much magma inside the volcano.



Mexico

As a volcano erupts, it sends great plumes of ash, gas and bits of little volcanic matter high into the sky. This can drift in the air over a lot of land before settling on the earth. Volcanic ash can be very good for growing plants, and the land around volcanoes has rich soil. Volcanoes can create new landmasses or expand existing landmasses bordering the sea. There are many different kinds of volcanic rocks, which can be used in cosmetic products, metal polish and even concrete.

Mount Fuji, Japan



monitoring equipment



Osorno, Chile

There are many people who live close to volcanoes. As they can erupt quickly and explosively, lots of people are at risk if a volcano in their vicinity erupts. To help humans actively prepare for danger, volcanologists (volcano experts) use different tools to closely monitor active volcanoes. Volcanoes can negatively affect the globe when they erupt due to how much matter they eject into the sky. This can make the planet get cooler as big plumes will block out the sunlight. The ash and volcanic matter in the sky can hang around up there for some time, polluting the air and making acid rain. The biggest destructive power when a volcano erupts is from the flow of lava, ash, gas and rocks.



active

Mayon Volcano,
Philippines



dormant

Mount Taranaki,
New Zealand



Mount Vesuvius, Italy

extinct

Diamond Head Resort,
Hawaii

There are three kinds of volcanoes: active, dormant and extinct. An active volcano is a volcano with volcanic activity. It often has lava we can see and releases gases until it erupts. A dormant volcano is one that has not had any activity recently but is likely to erupt at some point. These volcanoes grow plant life. An extinct volcano is one that is very unlikely to erupt again. This could be due to a lack of magma below. An extinct volcano is a great place for plant and animal life. There are even some resorts and towns that have been created on top of extinct volcanoes.



Earth is not the only planet with volcanoes. Active volcanoes can also be found on Venus, one of Saturn's moons, one of Neptune's moons and one of Jupiter's moons. Non-active volcanoes can be found on Mercury, Mars and Earth's moon. Venus has at least thirty-seven active volcanoes. The largest volcano that we know of is not on Earth but is instead located on Mars. It is about the size of Mount Everest and contains about one hundred times the volume as the largest volcano on Earth. Did you know that the word 'volcano' comes from the word 'Vulcano'? Vulcano is a little volcanic landmass in Italy that gets its name from 'Vulcan', the Roman god of fire and metalworking.

Quick Questions

1. How are volcanoes formed?
2. What do you call magma once it reaches Earth's surface?
3. Would you ever visit a volcano? Why or why not?

Word Watch: erupt (verb)

When an active volcano sends out ash, lava and gases.

Morphological Awareness

The root word 'erupt' can have the suffixes 's', 'ed', 'ing', 'ion' and 'ions'. Try using each one of these in a sentence.

Partner Prompt

Have you ever seen a volcano erupt or do you know of any events in which volcanoes have erupted? Tell your partner about it. If not, imagine what you might see if you saw a volcano erupt.

Super Words

Read these decodable words as quickly as you can!

explosive	movement	power	pushing
world	minor	danger	

(Colour-coded according to level)

Revise the Level 9 focus phonemes (sounds)

<u>s</u> oup	<u>t</u> o	<u>s</u> uit	<u>b</u> read
<u>w</u> ord	<u>l</u> earn	<u>p</u> ut	<u>sh</u> ould
<u>s</u> ister	<u>s</u> olar	<u>d</u> octor	

High Frequency Words

LEVEL

9

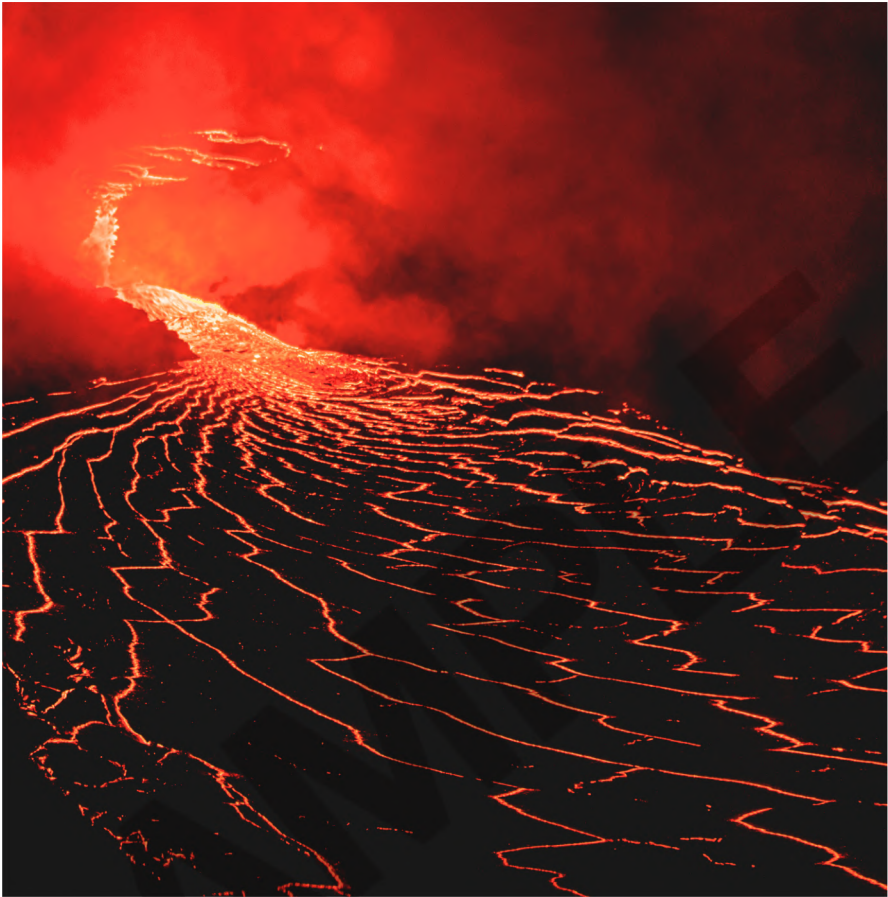
Practise reading these words.

because	colour	called	friend
favourite	love	does	brother
front	wolf	fire	mother
ball	out*	many	then*
me*	so*	some	would*
her*	boy*	make*	like*
down*	has	good*	two
our	take*	go*	saw*

* Denotes high frequency words that are also decodable

Glossary

1. **compresses** - flattens or presses together with pressure.
2. **continents** - big land masses that contain one or more countries (such as Europe, Africa, Australia, etc.). Earth has seven continents.
3. **cooling event** - a decrease in global temperatures making the environment colder.
4. **crater** - a big cavity or dip in a planet or moon, usually made by an explosion.
5. **dissolved** - when a solid mixes into a liquid and breaks down, becoming part of that liquid.
6. **lava** - magma that has erupted from a volcano and is now on the earth's surface.
7. **magma** - molten rock below the earth.
8. **molten rock** - rocks that have been heated up so much that they turn into a liquid.
9. **tectonic plates** - giant slabs of rock that make up Earth's surface/crust.



Great reading!

Scan the QR code for worksheets & more ..



This work is protected under Australian copyright law. International copyright treaties also provide protection in relevant countries. You may not copy, reproduce, store, or transmit any part of this publication in any way without Wheelers ePlatform Ltd's written permission. Limited exceptions apply for purposes like personal study or fair dealing. By purchasing this publication, you agree not to lend, resell, hire out, or distribute it in any unauthorized format or binding. You may not alter the publication's original condition.

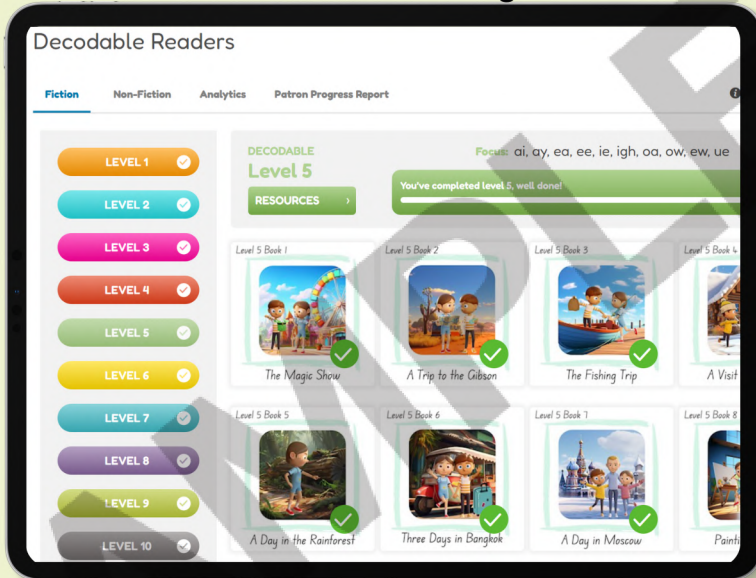
*Wheelers ePlatform Ltd
228/117 Old Pittwater Road
Brookvale NSW 2100 Australia*

*Written by SuperLit Literacy Team
Illustrated by SuperLit Creative Team*

*Acknowledgments & Credits - please visit:
<https://www.eplatform.co/acknowledgements>*

Volcanoes

Online Phonics Program



Read-aloud

Worksheets

Progress Reports

www.eplatform.co

ebooks@eplatform.co



.. or school eLibrary
QR code sticker here

Scan for more features
related to this title



9781761657443

All rights reserved.

©Wheeler's ePlatform Ltd 2024

9781761657443 978-1-76165-744-3 EPLDEC0001044

ISBN 978-176165744-3

