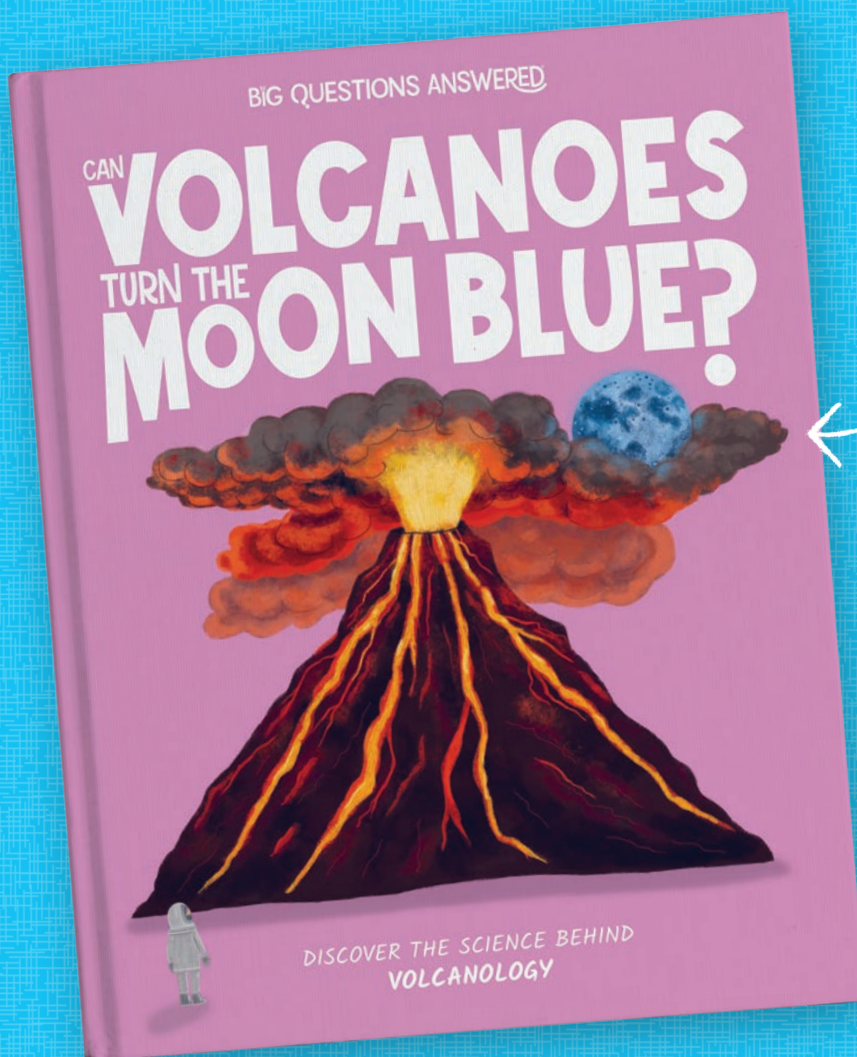


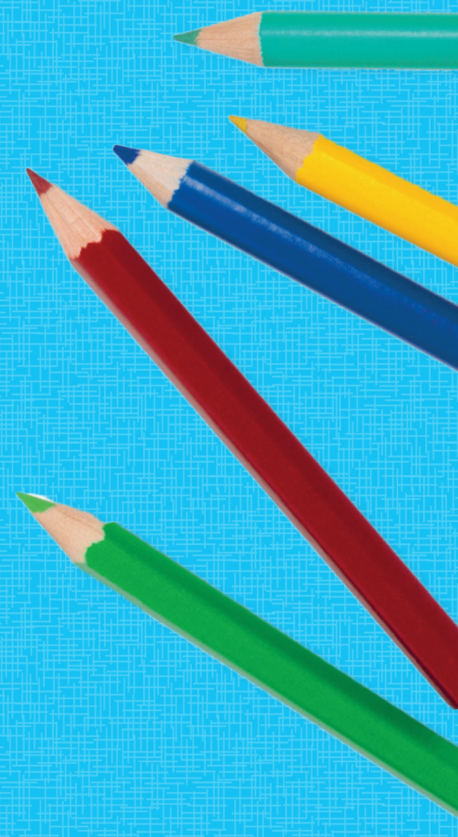
THE BIG QUESTIONS ANSWERED

YOUNG VOLCANOLOGISTS'

ACTIVITY PACK



*Full of fun and
exciting activities to
accompany this book!*



CONTENTS:

Diary Entry: Creative Writing	3
Explosive Eruptions: Word Search	4
Crafty Cavemen: Spot the Difference	5
Label the Volcano: Label the Parts	6
Word Eruption: Word Scramble & Words Within a Word	7
Create Your Own Underwater Volcano Scene: Creative Drawing	8
Volcanologists' Toolkit: Cut and Stick	9
Extreme Earth: Fill in the Blanks	10
Lost in the Sky: Maze	11
Volcano Verdict: Reflective Writing	12
Explosive Volcano Facts: Fact File	13
Volcano Mysteries: True or False?	14
Natural Disaster Detective: Match Up	15
Write Your Own Volcanology Story: Creative Writing	16
More Fun Activities: Coloring Sheets and More!	17
Activity Answers	28

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(t = top, b = bottom, m = middle, l = left, r = right)

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CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "A Devastating Eruption: Scene 2".

www.thebigquestionsanswered.com



EXPLOSIVE ERUPTIONS

Find and circle the words listed below, in the grid. Words can be found in any direction (including diagonals) and can overlap each other.

U	M	C	M	Z	J	M	A	C	D	L	A	C	M	M	J	A	N	I	T
J	A	F	W	B	V	M	B	R	T	X	G	N	J	U	A	E	B	D	S
F	P	B	I	F	M	E	L	A	V	A	Q	I	C	G	O	F	N	C	U
G	D	X	O	R	Y	A	R	T	T	A	D	I	L	F	R	E	Y	R	P
K	Q	E	W	O	V	O	T	E	W	I	O	U	U	K	M	K	Q	V	X
K	N	C	X	Y	I	T	V	R	W	V	R	E	S	F	H	Y	C	K	N
R	R	U	J	C	S	Z	X	R	J	M	M	K	U	R	G	N	V	J	D
N	J	B	M	K	L	D	B	Z	K	K	A	W	Q	X	X	A	G	C	V
H	Z	V	C	A	Z	O	V	J	J	G	N	L	D	E	O	V	S	A	K
A	F	O	Q	H	G	H	U	T	V	Z	T	W	C	N	F	Q	I	C	D
A	R	Q	A	A	R	M	U	D	I	R	U	D	A	V	X	E	N	T	X
O	E	O	S	X	S	S	A	Y	K	F	L	C	E	U	K	W	L	I	Z
B	B	E	A	L	F	H	J	E	G	Q	L	M	Q	S	U	U	M	V	L
P	H	Y	Z	E	A	C	Y	A	R	O	T	G	T	U	K	R	T	E	S
V	Q	Y	C	S	U	M	J	M	V	U	Y	C	V	D	I	S	L	Z	C
M	A	C	T	S	T	S	G	N	S	T	P	A	B	L	B	M	X	C	G
B	P	E	Q	X	K	X	L	E	V	K	W	T	S	X	W	C	S	P	X
F	O	E	F	H	J	R	U	E	F	K	U	U	I	N	K	Y	Z	G	H
G	P	B	E	F	B	S	P	I	U	A	I	E	W	O	W	O	G	F	W
V	I	P	I	H	K	C	E	X	P	L	O	S	I	O	N	C	B	M	T

VOLCANO
ERUPTION
LAVA
MAGMA

ASH
ROCKS
CLOUD
CRATER

EXPLOSION
GAS
ACTIVE
DORMANT

CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Blue Moon Through Time: Scene 3".

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CRAFTY CAVEMEN

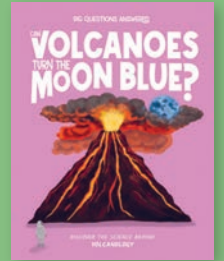
These crafty cavemen are trying to catch us out! Can you spot the **10** differences between the two scenes? Circle them when you spot them.



CAN VOLCANOES TURN THE MOON BLUE?

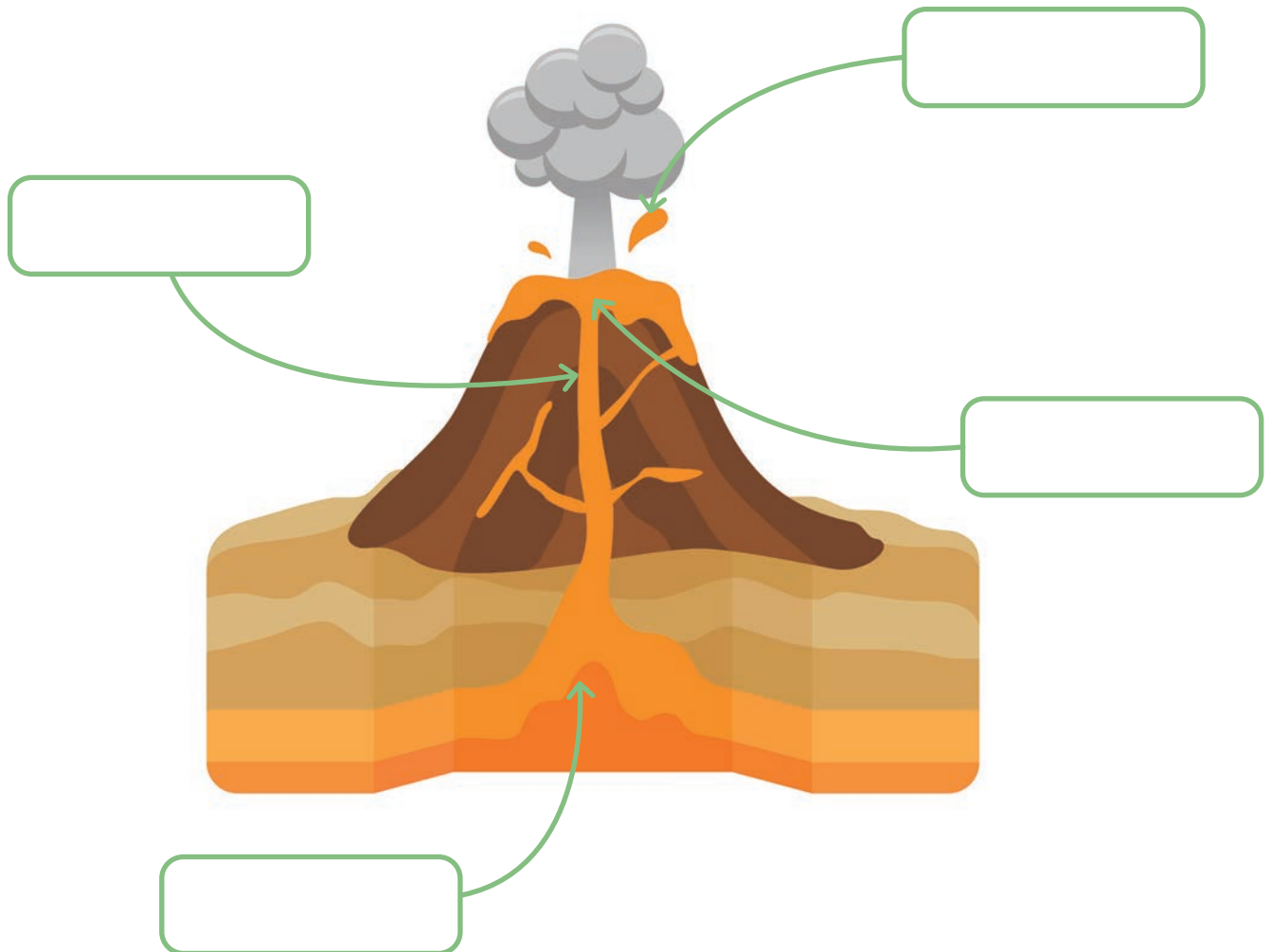
For reference to the Teachers' & Parents' Resources, this goes with "Inside the Volcano: Scene 4".

www.thebigquestionsanswered.com



LABEL THE VOLCANO

Volcanoes can sometimes look different, but they all have the same parts! Can you fill in the boxes to label the volcano? Each answer can only be used once.



MAGMA CHAMBER

A large space underground filled with magma (melted rock).

PRIMARY VENT

The main tunnels that magma rises up through to reach the surface. The primary one is the biggest, and usually goes straight up.

CRATER

The mouth of the volcano where the lava, ash, and gas erupt from.

LAVA

Once magma comes out of the volcano, it is called lava. It shoots out of the top and runs down the outside of the volcano, destroying the things it touches!



CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Volcanic Lightning: Scene 5".

www.thebigquestionsanswered.com



WORD ERUPTION

Oh no! The volcanic eruption has mixed up a bunch of words! Test your word-solving skills by trying to unscramble the words. They are all related to volcanoes and eruptions! There is a list of the correct words below to help you.

NOCAVOL
THINGNIGL
ATRAKOAK
TANMORD
TMUAINON
TRACER
EPLONXISO

MOUNTAIN

KRAKATOA

CRATER

LIGHTNING

EXPLOSION

DORMANT

VOLCANO

EXTRA ACTIVITY - WORDS WITHIN A WORD

How many words can you find within the word "volcanoes"?

1. You can only use the letters within the word "volcanoes".
2. Each of these letters can only be used once – V, L, C, A, N, E, S.
3. "Volcanoes" has two letter O's, so you can use them twice.
4. You can't use any other letters from the alphabet.

Example: you can make the word COOL using the letters in VOLCANOES.

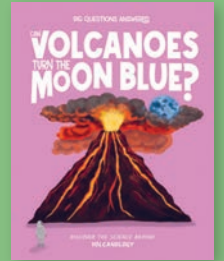
VOLCANOES



CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Deep Sea Volcanoes: Scene 6".

www.thebigquestionsanswered.com



CREATE YOUR OWN UNDERWATER VOLCANO SCENE

Volcanologists know there are lots of volcanoes at the bottom of the ocean, deep down where only machines can explore. Try drawing your own underwater volcano, and a clever machine capable of studying it.

Draw your volcano scene in here!

What will you call the volcano you've drawn?





CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Investigating Volcanologists: Scene 7".

www.thebigquestionsanswered.com



VOLCANOLOGISTS' TOOLKIT

Volcanologists use lots of tools and wear protective clothing when working near a volcano. Match the name of the tool or protective clothing to the correct description.

GOGGLES

GAS MASK

HEAT SUIT

GLOVES

MAGNIFYING GLASS

CAMERA

ROD

Something that is used to take photos of things.

Something that is worn to protect the body from extreme temperatures.

A pair of items that are worn to protect the person's hands.

Something that is used to make things look bigger.

A piece of equipment that's worn over the mouth and nose to protect the person from harmful gases.

Something that is worn over the eyes to protect them from dust and harmful flying objects.

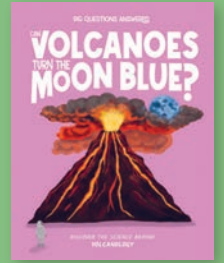
A long tool that is used to pick up really hot lava.



CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Tracking Earthquakes: Scene 8".

www.thebigquestionsanswered.com



EXTREME EARTH

Can you use the words below to fill in the blanks and uncover some amazing earthquake and volcano facts? Each answer can only be used once.

tremors

evacuate

predict

sensors

shake

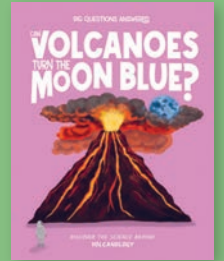
natural disaster

1. Earthquakes cause the Earth's surface to _____. Earthquakes can be small or very strong and powerful.
2. Volcanologists worked out that small earthquake _____ sometimes happen before a volcanic eruption.
3. Scientists can track earthquakes by placing _____ around volcanoes that measure the seismic waves that earthquakes make before an eruption.
4. Understanding the link between earthquakes and volcanoes means scientists have found another way to try and _____ eruptions.
5. Volcanic eruptions are one example of a _____ that scientists try to predict. Other examples include hurricanes and tornadoes.
6. Predicting eruptions means that scientists can inform people who live and work nearby that they need to _____. This can help keep people safe.

CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Drone Patrol: Scene 9".

www.thebigquestionsanswered.com



LOST IN THE SKY

Oh no! This drone has lost its way and needs help getting back to the volcano.
Can you help the drone complete the maze and reach the volcano?





CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Positive Volcano Abilities: Scene 10".

www.thebigquestionsanswered.com



VOLCANO VERDICT

Volcanology is exciting, as scientists are always learning more. Read the questions below and think about your answers before writing them down.

What do you find most interesting about volcanoes?

.....

.....

.....

Would you like to live near a volcano? Why or why not?

.....

.....

.....

Do you think volcanoes are good or bad? Why?

.....

.....

.....

If you were a volcanologist, what would be your favorite – collecting volcanic samples or studying them?

.....

.....

.....



CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "The Strength of Volcanoes: Scene 11".

www.thebigquestionsanswered.com



EXPLOSIVE VOLCANO FACTS

Choose a well-known volcano – any you like – and see what amazing things you can find out about it! Draw the volcano, color it in, and fill in all of the information below.

Draw your volcano in here!

This volcano is called:

It is found in a country called:.....

This volcano is tall.

The last time it erupted was

The eruption was number on the Volcanic Explosivity Index scale.

My favorite fact about the volcano is:

.....

.....



What do you think is the most exciting part of a volcanologist's job?

CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "The Secret of the Blue Moon: Scene 12".

www.thebigquestionsanswered.com



VOLCANO MYSTERIES

Can you use what you've learned about the blue Moon and volcanoes to work out which of the sentences are true and which are false?

	SENTENCE	TRUE	FALSE
1	The scientists who study volcanoes are called selenologists.		
2	The Moon has only turned blue once before.		
3	The lava that comes out of volcanoes is made of melted rock.		
4	Volcanoes can make lightning within their ash clouds!		
5	Volcanic eruptions can make the Moon look green.		
6	Volcanic ash can spread really far, and make the Moon look blue even far away from the volcano!		

CAN VOLCANOES TURN THE MOON BLUE?

For reference to the Teachers' & Parents' Resources, this goes with "Powerful Forces of Nature: Scene 13".

www.thebigquestionsanswered.com



NATURAL DISASTER DETECTIVE

Can you match the photograph of the natural disaster with its name and description? Draw a line between each picture and their description.

I am a...
VOLCANO



○

I am a...
HURRICANE



○

I am a...
TSUNAMI



○

I am a...
WILDFIRE



○

○

I am a giant sea wave that is incredibly high, fast, and strong.

○

I am a storm that brings strong winds and heavy rains.

○

I am an uncontrolled fire which can travel very quickly through areas of nature.

○

I am like a mountain in shape but can erupt with lava and rocks shooting out!

MORE FUN VOLCANOLOGY ACTIVITIES

COLORING SHEETS & MORE!

The following activities aren't based on any specific scenes in the book.
They can be used on their own or alongside the book as extra activities.

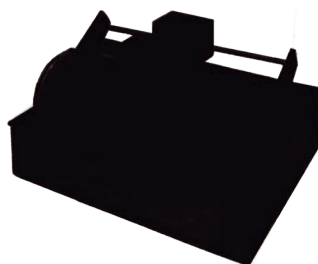
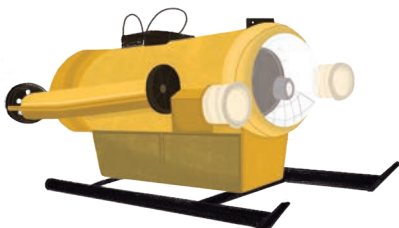
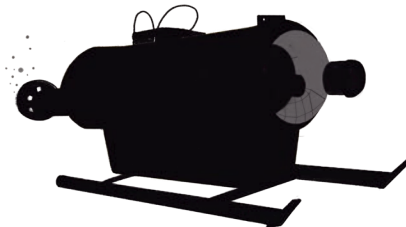
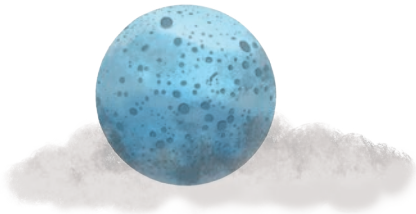
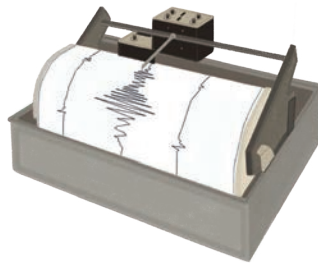
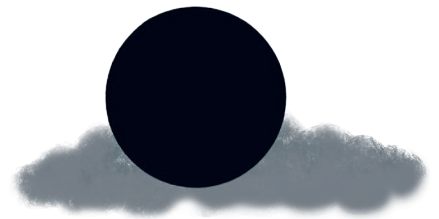
FIND THE SCIENTIST

**There are lots of different scientists below. Can you find the volcanologist?
Circle them when you find them – there's only one!**



MATCH THE SHAPE

Can you match each shadow to the correct picture? Draw a line to connect them.



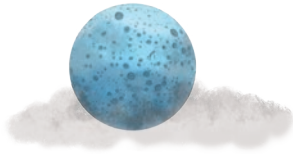
SIMPLE SUMS

Below are 3 objects which represent different numbers.

Work out the sum based on what each object represents and write your answers in the boxes.



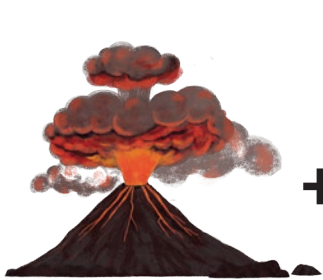
= 1



= 2



= 5



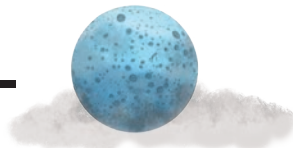
+



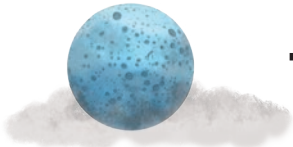
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=



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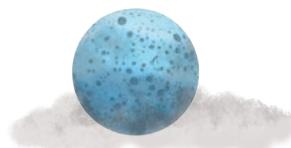
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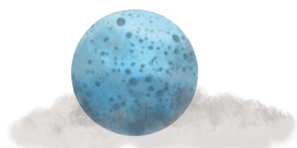
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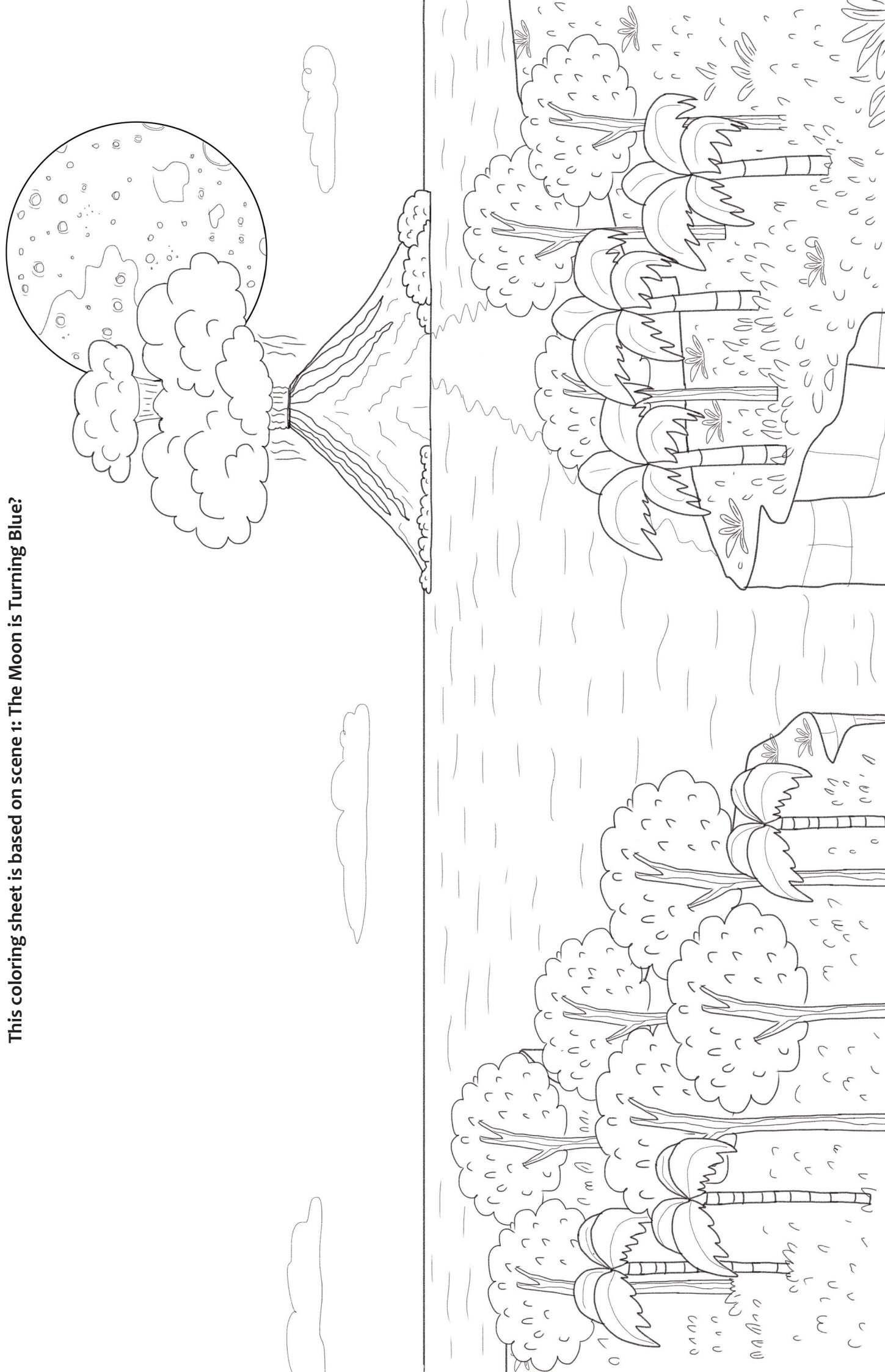
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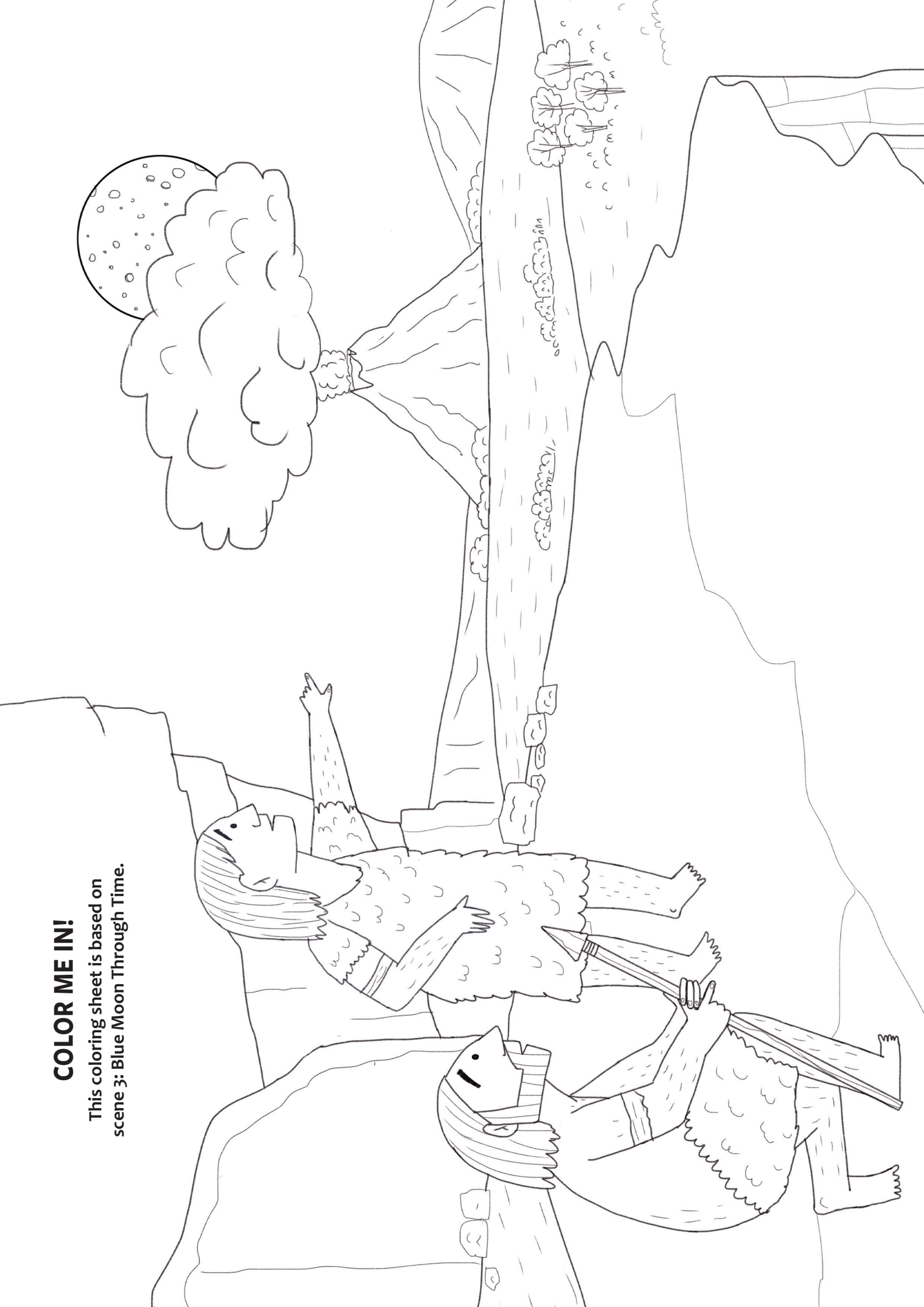
COLOR ME IN!

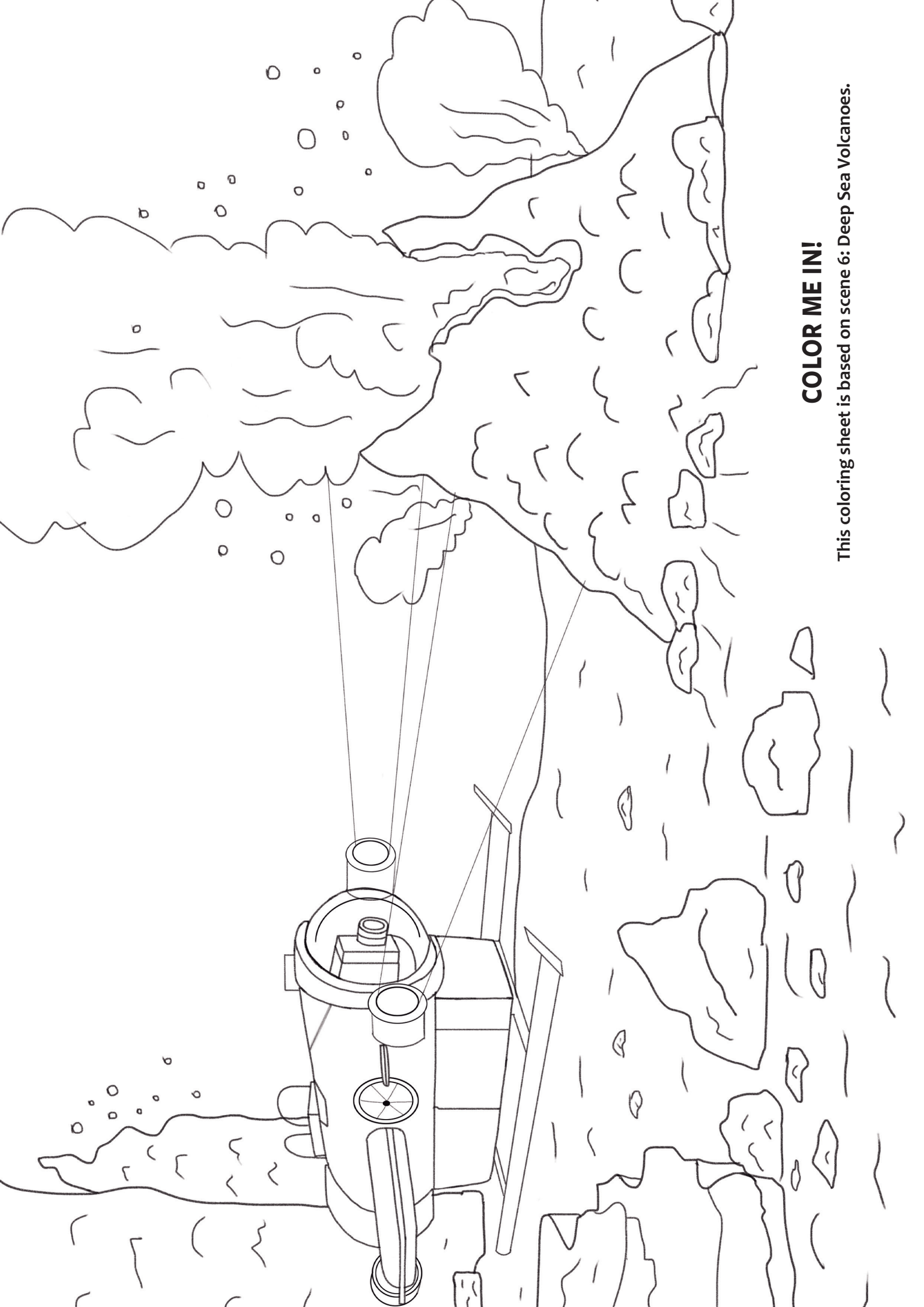
This coloring sheet is based on scene 1: The Moon is Turning Blue?



COLOR ME IN!

This coloring sheet is based on scene 3: Blue Moon Through Time.



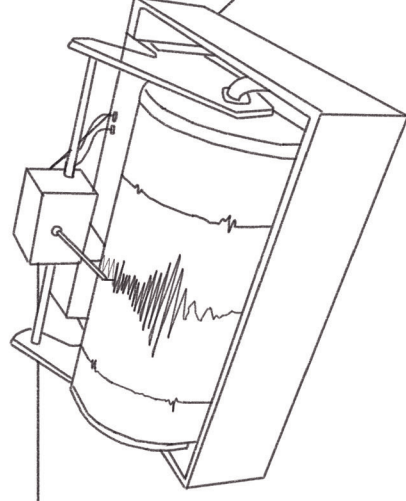
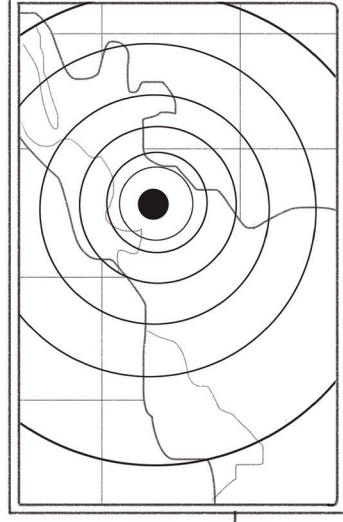
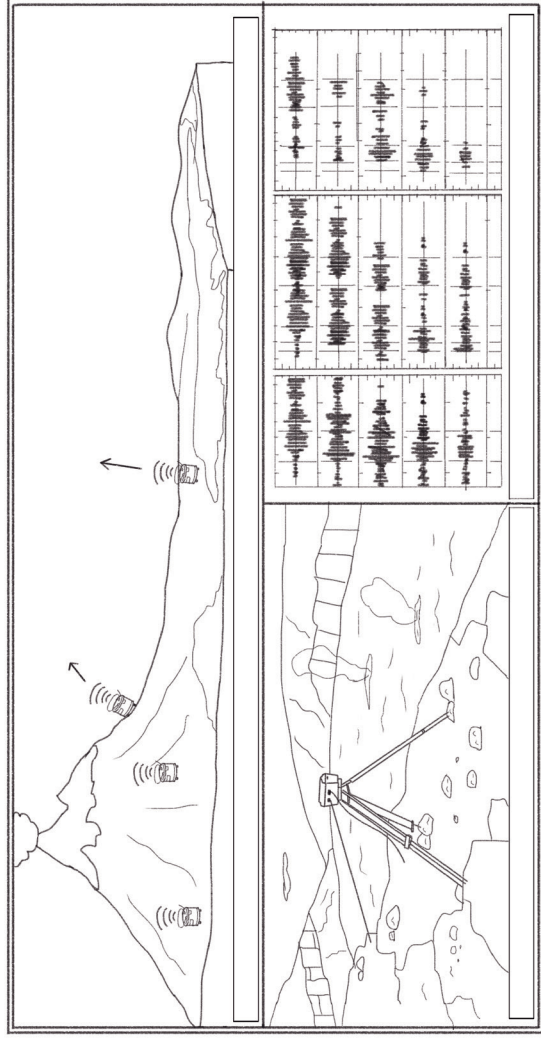


COLOR ME IN!

This coloring sheet is based on scene 6: Deep Sea Volcanoes.

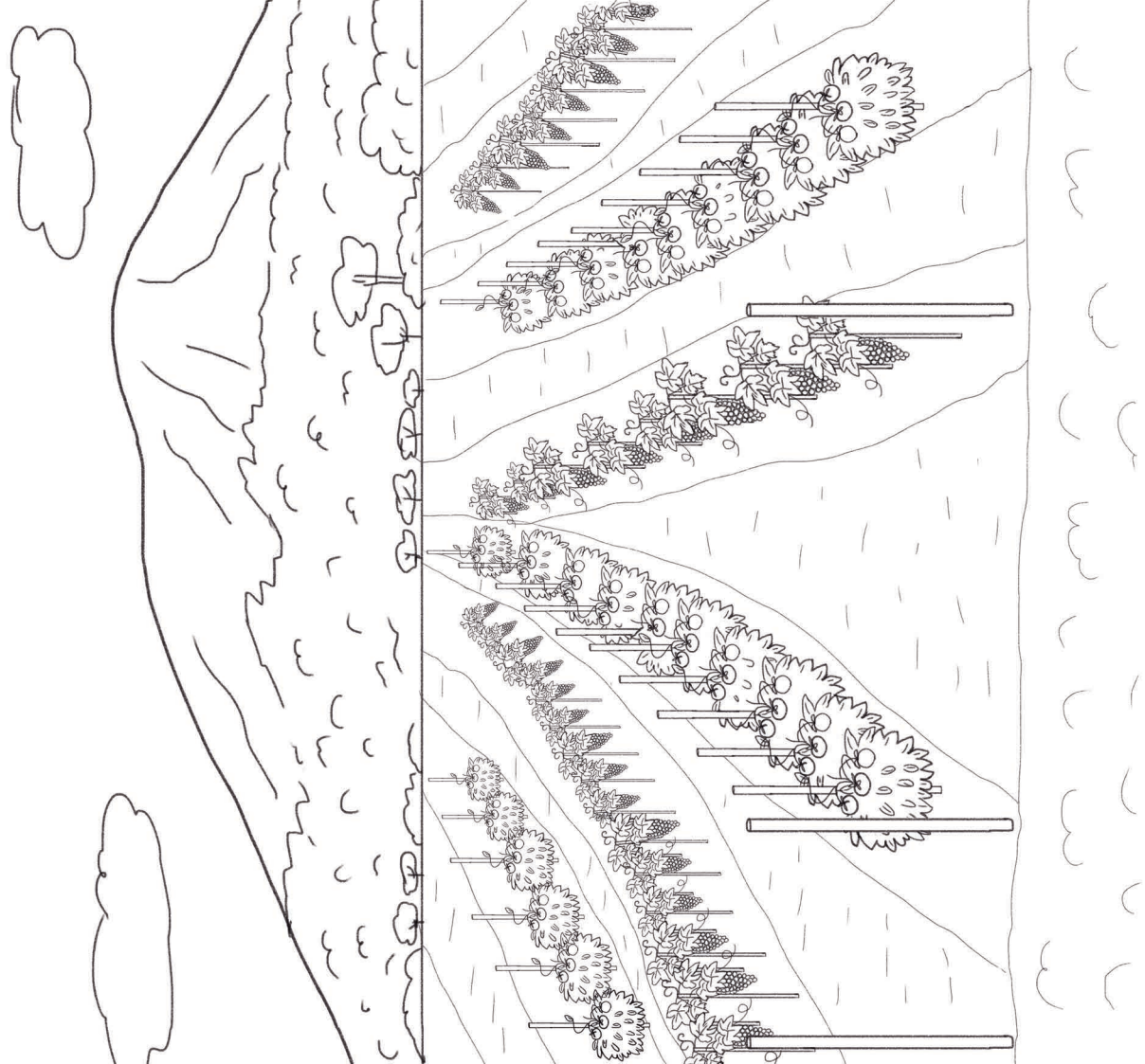
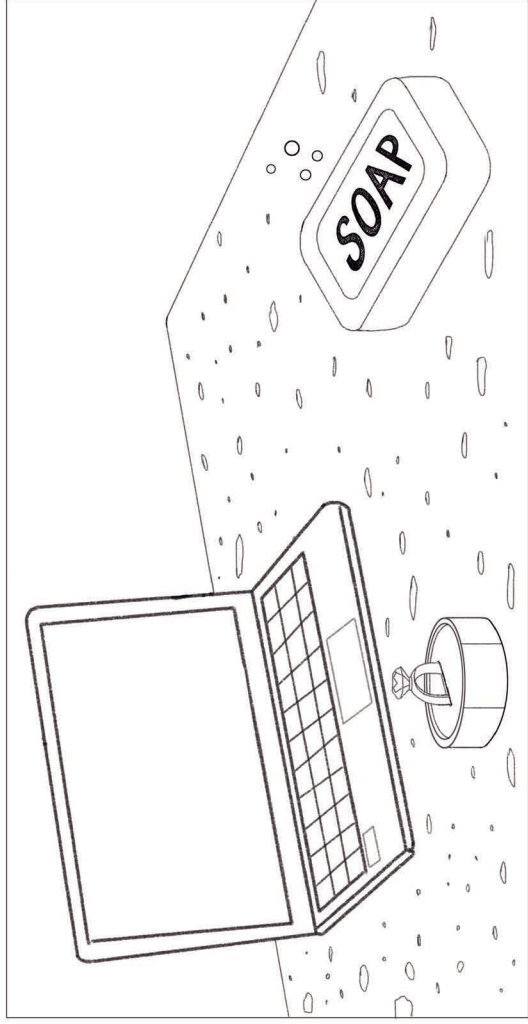
COLOR ME IN!

This coloring sheet is based on scene 8: Tracking Earthquakes.



COLOR ME IN!

This coloring sheet is based on scene 10: Positive Volcano Abilities.



DOT-TO-DOT

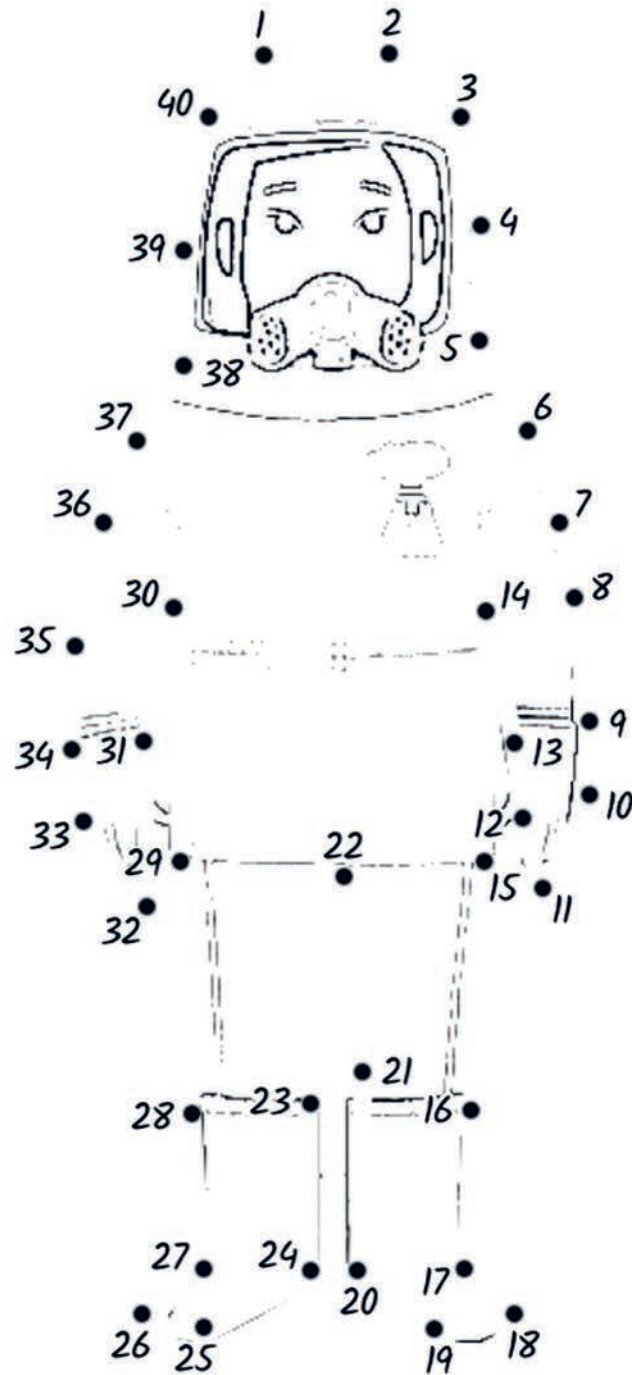
Starting from 1, draw a line connecting the numbers to create a picture.

Why not color it in afterwards?



DOT-TO-DOT

Starting from 1, draw a line connecting the numbers to create a picture.
Why not color it in afterwards?



YOUNG VOLCANOLOGIST'S ACTIVITY ANSWERS

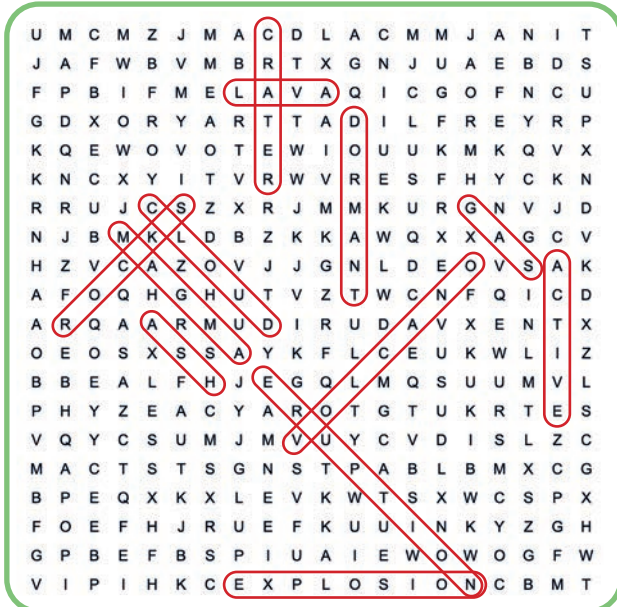
Find the answers to the activities on the following pages.

ACTIVITY ANSWERS

Check your answers against the correct answers below!

EXPLOSIVE ERUPTIONS ANSWERS

The answers below are for the “word search” activity on page 4.



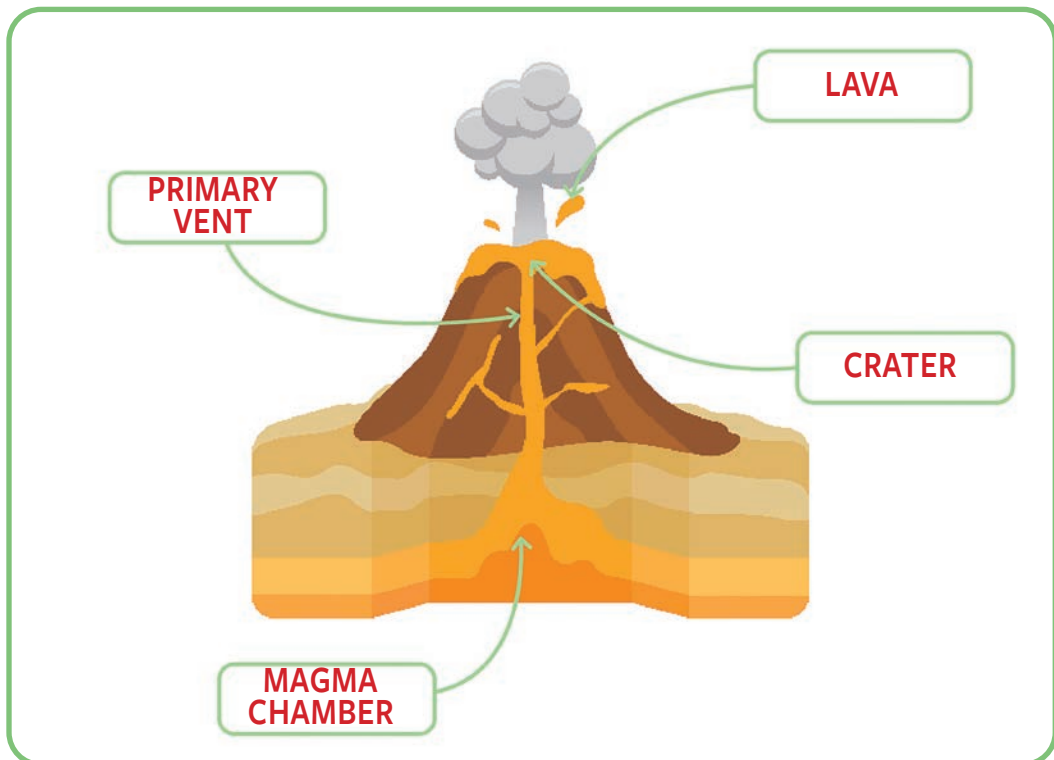
CRAFTY CAVEMEN ANSWERS

The answers below are for the “spot the difference” activity on page 5.



LABEL THE VOLCANO ANSWERS

The answers below are for the “label the parts” activity on page 6.



WORD ERUPTION ANSWERS

The answers below are for the “word scramble” activity on page 7.

NOCAVOL ————— **VOLCANO**
THINGNIGL ————— **LIGHTNING**
ATRAKOAK ————— **KRAKATOA**
TANMORD ————— **DORMANT**
TMUAINON ————— **MOUNTAIN**
TRACER ————— **CRATER**
EPLONXISO ————— **EXPLOSION**

VOLCANOLOGISTS’ TOOLKIT ANSWERS

The answers below are for the “cut and stick” activity on page 9.

GAS MASK A piece of equipment that’s worn over the mouth and nose to protect the person from harmful gases.	GOGGLES Something that is worn over the eyes to protect them from dust and harmful flying objects.
HEAT SUIT Something that is worn to protect the body from extreme temperatures.	GLOVES A pair of items that are worn to protect the person’s hands.
ROD A long tool that is used to pick up really hot lava.	CAMERA Something that is used to take photos of things.
MAGNIFYING GLASS Something that is used to make things look bigger.	

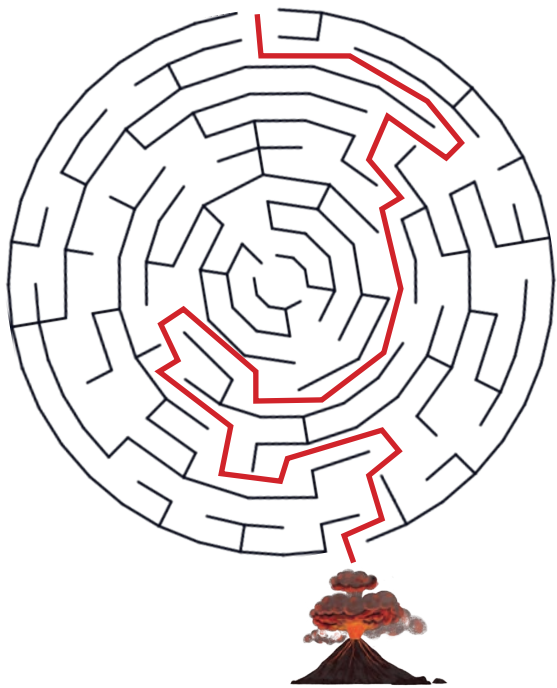
EXTREME EARTH ANSWERS

The answers below are for the “fill in the blanks” activity on page 10.

1. Earthquakes cause the Earth’s surface to **shake**. Earthquakes can be small or very strong and powerful.
2. Volcanologists worked out that small earthquake **tremors** sometimes happen before a volcanic eruption.
3. Scientists can track earthquakes by placing **sensors** around volcanoes that measure the seismic waves that earthquakes make before an eruption.
4. Understanding the link between earthquakes and volcanoes means scientists have found another way to try and **predict** eruptions.
5. Volcanic eruptions are one example of a **natural disaster** that scientists try to predict. Other examples include hurricanes and tornadoes.
6. Predicting eruptions means that scientists can inform people who live and work nearby that they need to **evacuate**. This can help keep people safe.

LOST IN THE SKY ANSWERS

The answers below are for the “maze” activity on page 11.



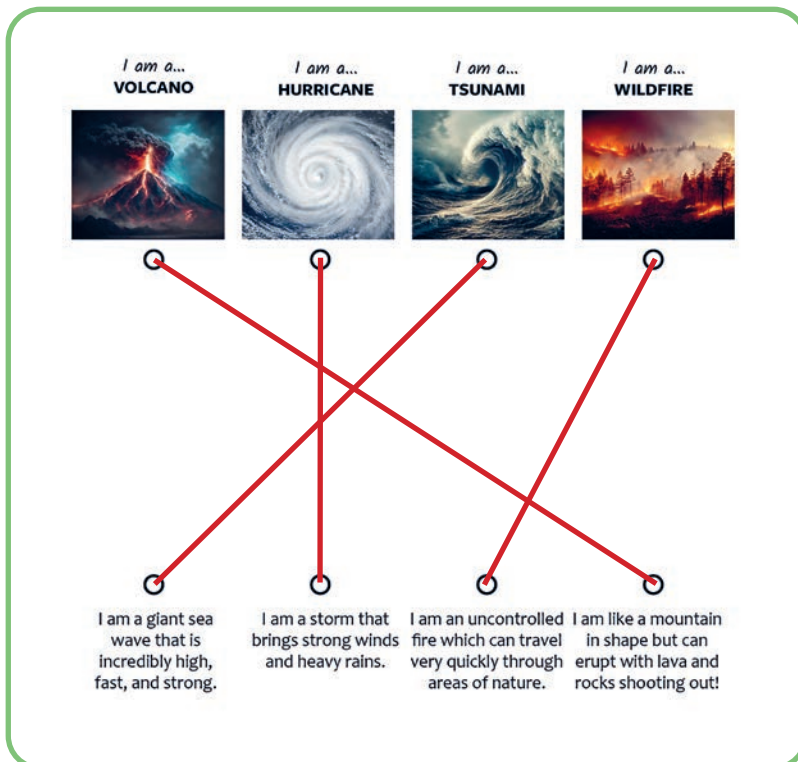
VOLCANO MYSTERIES ANSWERS

The answers below are for the “true or false?” activity on page 14.

	SENTENCE	TRUE	FALSE
1	The scientists who study volcanoes are called selenologists.		FALSE
2	The Moon has only turned blue once before.		FALSE
3	The lava that comes out of volcanoes is made of melted rock.	TRUE	
4	Volcanoes can make lightning within their ash clouds!	TRUE	
5	Volcanic eruptions can make the Moon look green.		FALSE
6	Volcanic ash can spread really far, and make the Moon look blue even far away from the volcano!	TRUE	

NATURAL DISASTER DETECTIVE ANSWERS

The answers below are for the “match up” activity on page 15.



EXTRA ACTIVITY ANSWERS

Check your answers against the correct answers below!

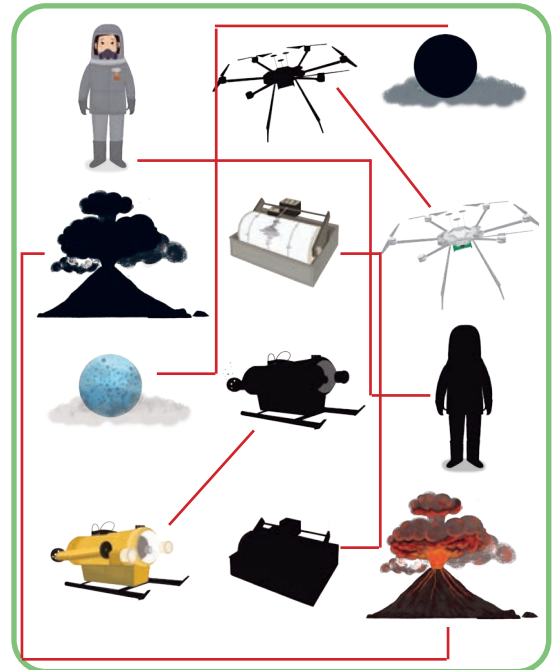
FIND THE SCIENTIST

The answers below are for the activity on page 18.



MATCH THE SHAPE

The answers below are for the activity on page 19.



SIMPLE SUMS

The answers below are for the activity on page 20.

