

# The Volcano Learning Group

Over a period of time, several children began to show an interests in volcanoes through free play, reading and talking.

The group were then given the opportunity explore a selection of books with different subject matter and through a process of elimination other subject matters were discarded and the group focused on books about volcanoes.

The group then agreed that they would like to form and be part of the 'Volcano' learning group. The children 'signed up' to the group and set the rules.



## Our rules

- We will take turns talking
- Listen to each other
- Share good ideas
- Find out about volcanoes

2.2.17

# Our initial thoughts & ideas

- Zachary - lava sometimes comes down off the mountain onto the ground
- Emmett - something with a big hole in the middle
- Jacob - volcanoes burst out lava with a switch
- Brodie - volcanoes just waits and it shoots out lava very quietly
- Jude - it squirts out volcanoes
- Summer - it's to look at
- Gabriella - it shoots lava
- Ava - it's got a hole in the volcano
- Blair - it has a big hole, it erupts
- Ruby G - mountains

What  
is a  
volcano?

How is a volcano made?

Ava - lava rocks

Brodie - it's flat rock and it falls onto a Tyrannodacty

Zachary - the mountain is made of lots of rock

Summer - rock & ice

Ruby G - rock

Jacob - lava trails, hot

Blair - rock & ice and lava inside

rock and wood

Jude - rocks

Gabriella & Emmett don't offer an answer, they have listened to the question and say they don't know **HOW** a volcano is made

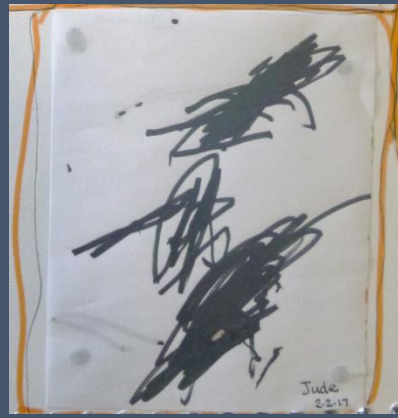
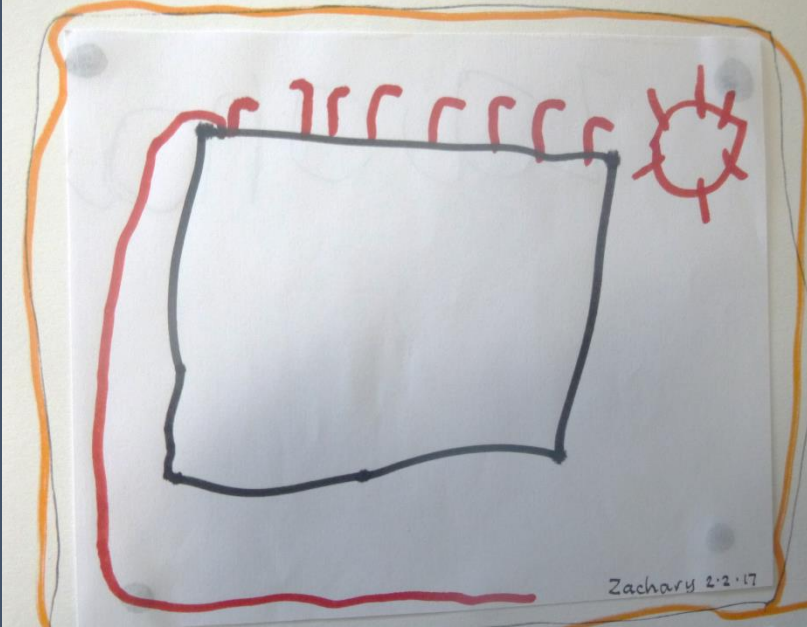
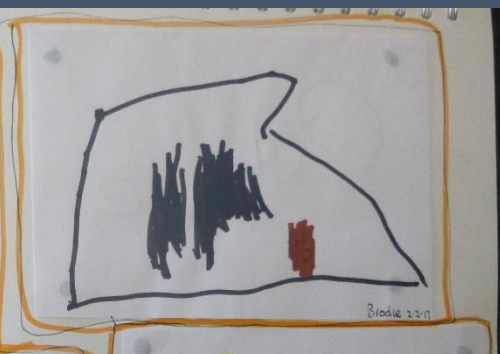
How can we find out?

- Look at books
- Look on the computer
- Just ask someone

7.2.17

# Creating our initial drawings





**2.2.17**

## What have we been learning?

- Volcanoes are mountains
- Mountains are made from rock
- That lava comes out of the volcano

21.2.17

**We know  
volcanoes are  
made from rocks  
- where do rocks  
come from?**

**Summer -**  
shells and  
rocks are in  
the sea, in the  
soft sand

You get  
rocks from  
shops

**Emmett**  
- in caves

**Blair -**  
In rock pools and  
mountains

**Blair -** It's like a  
fossil: a fossil is  
something that  
came from  
dinosaurs a long  
long time ago, a  
fossil is their bones

**Jacob -**  
rocks come  
from the  
roughest sea

**Jude -**  
A cave

**Zachary**  
rocks are in  
part of caves,  
in the back  
part

**Brodie -**  
they go out  
the beach and  
then back to  
the beach

**Ruby G -**  
It's a café shop  
and you can take  
the rocks home for  
your garden

**Ava -**  
they  
come  
from the  
sand

Exploring the rocks & beginning to use books for research

Ava - I can see the lines in the rock

Zachary - Look this rocks got holes



Blair - lava is the same colour as fire

Actually explode means erupting and erupting is when the lava comes out

Summer - This rock is like a stone, it's smooth and shiny

Jacob -inside the volcano it 'rupts'. Magma is the type of rock lava is meant to be

28.2.17

We revisit our previous learning, understanding volcanoes are mountains and mountains are made from rock. We explore books and other rocks.



Emmett - It looks like an asteroid, that's a big rock from space

Blair - It's like a space rock ..... A meteor!

## What have we been learning?

- You can get different types of rocks
- The 'crust' is the top layer of the earth
- Magma is the name of lava before a volcano erupts





A black and white photograph of a group of children and an adult sitting around a table. They are looking at a book together. The scene is brightly lit, possibly from a window in the background. The children are of various ages, and the adult is leaning over the table, pointing at the book. The overall atmosphere is one of collaborative learning.

28.2.17

We find out more about rocks and what the earth is made from.

We look again at our volcano books and see how the earth is made from 3 different levels:  
the core, the mantle and the crust.

We find out that magma is the name of lava before it erupts.

28.2.17

## We create mountains using containers and mod roc



Other members of the group join us and comment on how the mod roc changes from soft to hard.

It is explained to the children that when the mountains have set (become hard) we will join them together to make a 'mountain range'.

6.3.17

We revisit our previous learning and remember the new words we have been learning:  
**crust - magma & erupt.**



We then examine the 'volcanoes' we had made the previous week and decide if we want to paint them OR make more, larger volcanoes. Some of our friends, not in the 'Volcano group', joined us to find out what we have been learning.

**Jacob** - It's steaming because it's about to be real

**Zachary** - It's not erupted for 100 years

**Blair** - It's quite crusty



**Gabriella -**  
paint it black

**Ava -** It's got  
water



**Summer -** The lava  
is going to be out of  
there



**Gabriella -**  
Volcanoes lived a  
long long time  
away



14.3.17

## What will we do next?

Revisiting our initial thoughts & ideas on how we can find out more about volcanoes, we look at two short video clips, on the smart board, explaining and showing us why & how volcanoes erupt.



**Jacob** - They erupt and spread about

**Zachary** - My Granny saw volcanic sand and it was black, she's got a photo of it.

**Gabriella** - volcanoes are a long long way from houses, so they don't burn houses

**Gabriella** - one day that will ( the magma chamber) just get so hot and explode up, it's like fireworks

**Blair** - lava is exploding out

**Zachary** - extinct means dead

**Ruby G** - lava is inside the earth, it shoots out.

**We are beginning to understand that there are a lot of volcanoes in the world, that some volcanoes have not erupted for a long time and some volcanoes are now extinct, and will not erupt again.**

14th - 21st March 2017

Over the week the children from the group and their peers revisit their learning in free play, exploring their ideas and new knowledge. They are beginning to feel confident and secure in investigating the materials we have used to build our mountains and are adding to them to create volcanoes. They are confident in exploring the reference books and talking about the pictures. Some of the children are taking their learning home and sharing their ideas, thoughts & knowledge with their parents & Grandparents.



Emmett & Zachary share their ideas with Noah

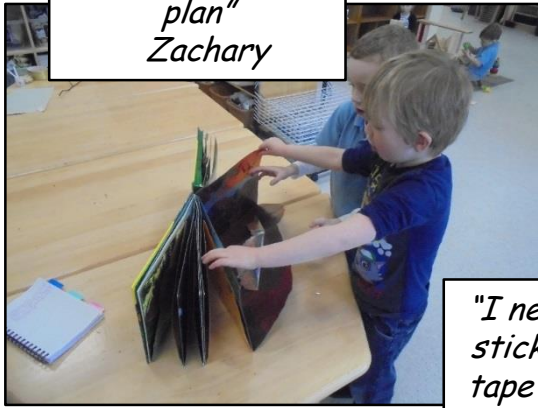


Ava explores the books in free play



14th - 21st March 2017  
Zachary & Noah create a volcano in free play

"Lets make a plan"  
Zachary



Researching

"I need glue cause I'm sticking on wee bones, tape is too big for wee things it would cover it up."  
Noah



Making a plan

"It needs a volcano because it was a long time ago when things were extinct. I'll use sticky tape cause its super sticky"  
Zachary



The plan



Creating the model



Completing the model



Sharing with the group



The model

### 21.3.17

The group once again revisit previous learning and most of them confidently remember the earth is made up of the **core, mantle & crust**, that **magma** is the name given to lava before it **erupts**. The group discuss how there are 3 types of volcano;

**active - extinct & dormant**

and they discuss what **active, extinct & dormant** may mean.

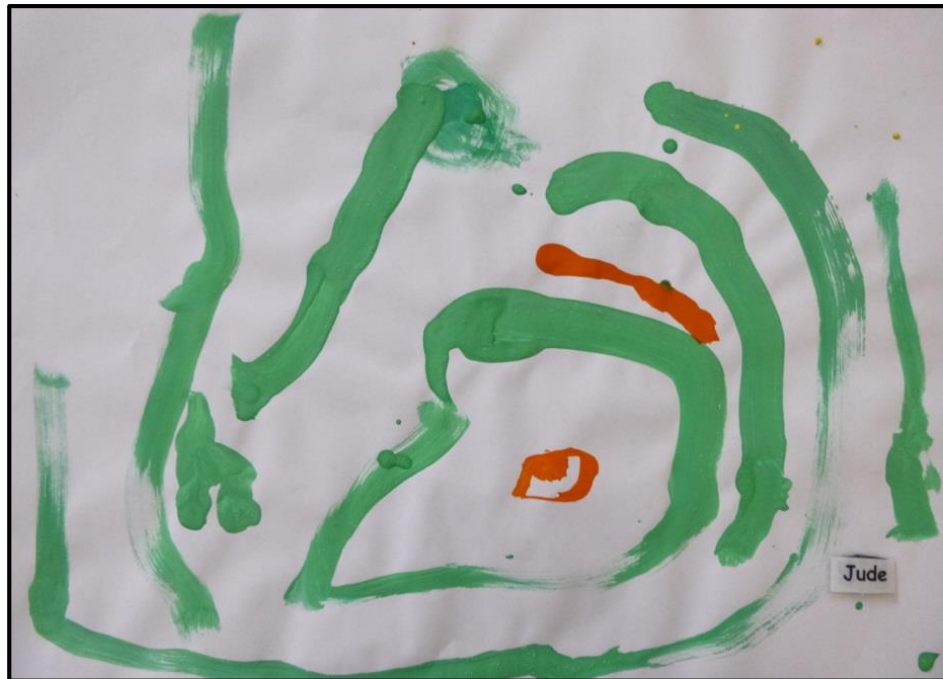
The group then use their knowledge and paint a picture of a volcano, before being given the opportunity to work together to paint a large picture of a volcano.

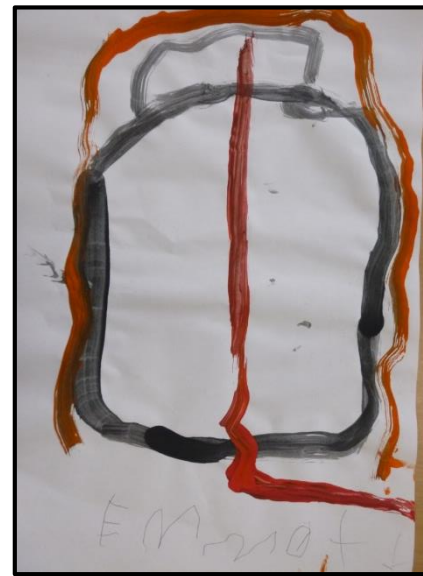




**21.3.17 Painting pictures of volcanoes**







21.3.17  
Gabriella & Ava create the  
large painting  
Acrylic on acetate



28.3.17

The group recall what they have been learning about volcanoes

Ruby G - they're made from rock

Gabriella - the thing inside is called magma

I practiced at home, I did painting at home

Zachary - I've learned how to make volcanoes, I used stuff like plaster, when we put it in water it went all smooth & soapy, then it dried hard and I painted it.

Emmett - they can be underwater and they're very dangerous

Jacob - I painted my volcano grey and black, it was steaming

Summer - it comes up a path and explodes out

Jude - magma comes out

Blair - volcanoes explode and if they explode they all fall down the mountains with lava erupting





**28.3.17**  
**The group revisit the reference books and look at some lava, rock crystal and ash,**

*Blair - it looks like an asteroid*

*Zachary - Tenerife has black sand , when my mummy's friend got stuck because the plane couldn't fly because of the ash*

*Gabriella - it's like dust, it's very light dusts that's grey*





28.3.17

The group then create their mountain range using their models, some stones and rocks



28.3.17

We then become scientists and see if we can make an erupting volcano.

We use; Water / vinegar / fairy liquid & food colouring then add bicarbonate of soda.



Our 1<sup>st</sup> experiment in the jar works well and the 'lava' flows over onto the table then on to the floor, however the 2<sup>nd</sup> experiment fails to come out of the top of the volcano.

*Zachary - I don't think it worked because we didn't put in the red*

*Emmett - it's because the stuff stayed inside the volcano*

We decide it didn't work so well as it would need a tighter seal / smaller container near the hole at the top.

Zachary - what will we do next in the Volcano group?

Blair - I know, lets make more volcanoes and eruptions

April / May 2017

- During free play several members of the group use the model mountain range to support role play and engage in story telling on their own or with others.
- The whole group are given the opportunity to revisit and share the first experiment through video.



## 25.4.17

### The coca cola experiment

On return from the Easter holidays the group come together for another experiment led by Mrs Stewart.



#### What are we learning?

- A new word - 'pressure'
- That a lot of pressure can cause an explosion

#### What will we do now?

The group decide that each week we could try other experiments.

23.5.17  
Revisiting the Volcano group learning

Giving the children the opportunity for consolidation and reflection we re-visit our initial question and compare our thoughts & ideas to what we know now.

What is a volcano?

Ruby G - that lava comes out of a hole into the street

Summer - lava comes out of volcanoes

Emmett - lava is a bit red and a tiny bit orange

Brodie - the magma heats up and comes up, it turns red & yellow

Zachary - they erupt - they burst open down the mountain, then after a few weeks the lava turns to rock

lava blasted out of a volcano like POP!

Gabriella - magma doesn't just be in by itself, it goes up from the bottom to the top, then spouts out, it goes into lava

Jacob - it starts to steam and the magma is boiling and crashes out the top

Jude - lava was magma that shoots out

Ava - lava comes from the volcano

Blair - volcanoes are actually far away, they erupt lava

## 23.5.17

### What have we been learning?

- How we can learn new things by working in a group
- New words and their meanings:
  - Volcano, lava, magma, erupt, explosion, crust, core, active, dormant, extinct, experiment, scientist, pressure
- Volcanoes are mountains
- Mountains are made from rock
- That lava comes out of the volcano
- You can get different types of rocks
- The 'crust' is the top layer of the earth
- Magma is the name of lava before a volcano erupts
- There are a lot of volcanoes in the world
- Some volcanoes have not erupted for a long time and some volcanoes are now extinct, and will not erupt again.
- There are 3 types of volcano; active - extinct & dormant
- When you mix different substances it can cause a change - like an explosion
- A new word - 'pressure'
- That a lot of pressure can cause an explosion

## Curriculum for Excellence Experiences & Outcomes

*I value the opportunities I am given to make friends and be part of a group in a range of situations.*

*HWB 0-14a*

*As I listen and talk in different situations, I am learning to take turns and am developing my awareness of when to talk and when to listen*

*LIT 0-02a*

*I listen or watch for interesting information and I use this to make choices or learn new things*

*LIT 0-04a*

*To help me understand stories and other texts, I ask questions and link what I am learning to what I already know*

*LIT 0-07a*

*I enjoy investigating objects and shapes and can sort, describe and be creative with them.*

*MTH 0-16a*

*Through everyday experiences and play with a variety of toys and other objects, I can recognise simple types of forces and describe their effects.*

*SCN 0-07a*

*I can talk about science stories to develop my understanding of science and the world around me.*

*SCN 0-20a*

*Inspired by a range of stimuli, I can express and communicate my ideas, thoughts and feelings through activities within art and design.*

*EXA 0-05a*