By the end of this unit children will know...

- Use maps, atlases, globes and digital/computer mapping to locate volcanoes and fault lines and identify countries that are most severely affected by earthquakes and other natural disasters.

- Use their understanding of the structure of the earth and the movement of tectonic plates to describe and understand how a volcano is formed and why it erupts.

- Describe and understand the processes that cause a volcanic eruption, an earthquake and other natural disasters.

- Describe and understand the impact of volcanic eruptions and other natural disasters on human settlements.

**Launch**

- **Visits and experiences:**
  - Natural History Museum London
  - [www.sciencediscoverydome.co.uk](http://www.sciencediscoverydome.co.uk) (Mobile planetarium show 'Down to Earth' based on Volcanoes)
  - Link with a local secondary school's science department for some explosive science linked to the idea of pressure and volcanoes

**Explore**

Children to research and watch news clips of natural disasters occurring in recent times - Japan Earthquake, Super Storm Sandy, Hurricane Katrina, Typhoon Haiyan - how can we measure the impact of these natural disasters?

**Energise**

Keep an eye on the news - react to current events. Create a 'Newsroom' covering the story of a breaking event as it happens - write news reels, create movies, write blogs etc. Contact aid agencies to find out how they respond so quickly to natural disasters.

**Celebrate**

Invite parents and carers into school for a celebration event. Use air-drying clay to create 'Pompeii Figures', Demonstrate the volcano models, show video clips of 'news reports'.

Possible School Performances/Assemblies


[http://www.songsforteaching.com/badwolfpress/geologyrocksmusicalplay.htm](http://www.songsforteaching.com/badwolfpress/geologyrocksmusicalplay.htm)
**Core Subjects:**

**Personal Development**

- **Spiritual**
  - What is 'blind faith'?  
  - Discuss the concept of 'Charity' as an important factor in many religions.  
  - What relief charities have religious/spiritual links? What are the pros/cons of this?

- **Moral**
  - Why do terrible natural disasters happen to good people?  
  - How does this make us feel?  
  - How do we express these emotions?

- **Social**
  - Children will work collaboratively.  
  - They will learn to think and empathise with others when thinking about the impact of natural disasters on communities.

- **Cultural**
  - How do we adapt to change in our lives - reflect on experiences of victims of natural disasters.  
  - What lessons or strategies can we learn from this to support us in changes within our lives? - link to transition.

**Foundation Subjects**

**History, Geography and Citizenship**

- **History:**
  - Placing significant volcanic eruptions and earthquakes on a timeline.  
  - Looking at factual evidence of a past society - Pompeii devastated by the eruption of Vesuvius in 79AD.  
  - Looking at archaeologists and how they discover lost cities and how tourists visit to find out more.

- **Geography:**
  - Map Skills - Locating Volcanoes around the earth and naming the countries and continents where they can be found.  
  - Looking at the physical features of the Earth: Tectonic Plates geographical patterns etc.  
  - Study of people and place - why do people live near volcanoes and earthquakes.  
  - Focussed study of 2011 Earthquake in Japan. Effects of Volcanoes and Earthquakes on settlements.

**Art and Design and Design Technology**

- **Art:** 'Take One Picture' Photos of people fixed by ash - Modroc models of bodies in poses of everyday life.
- **Design Technology:** 'Moldable Materials' - design and make a volcano.

**Music, Languages and Physical Education**

- **Music:** Creating own volcano music.

**Computing**

- Using Spreadsheets to organise and present data.
- Converting information.

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**English**

- Journalistic Writing - Children will write newspaper reports about volcanic eruptions and earthquakes as though they are happening.
- Eye-witness accounts.

**Mathematics**

- **Measures**
  - Compare temperatures inside and outside of a volcano.
- **Data Handling**
  - Use data about earthquakes and volcanic eruptions to draw graphs and tables.
  - Analyse data from statistics.
- **Calculating**
  - Using all four operations to calculate price margins/sale prices of their Pompeii souvenirs.

**Science**

- **Science:**
  - Study of forces inside a volcano and plate tectonics.  
  - Changing State: Solids, liquids and gases all within a volcano.
# DISASTER! Year 6 Spring Term: Links to National Curriculum Framework

## Core Subjects:

### English
- **Reading**: Read aloud and understand the meaning of new words they meet. E.g. converge, tectonic plates.
- **Reading**: Explain and discuss their understanding of what they have read through debate.
- **Writing**: Identify the audience for and purpose of the writing.

### Mathematics
- **Number**: Solve number and practical problems involving ordering numbers and the addition of data.
- **Geometry**: Describe positions on the full co-ordinates grid.
- **Statistics**: Calculate and interpret the mean as an average.

### Science
- **Working Scientifically**: Create simple models to describe scientific ideas.
- **Physics**: Concepts of pressure and up thrust with regards to a volcanic eruption.
- **Physics**: Understand observed waves and waves on water as undulations which travel through water with transverse motion when focusing on Tsunamis.

## Foundation Subjects

### History, Geography and Citizenship
- **Citizenship**: Use financial skills to allow them to manage their money on a daily basis.
- **Geography**: Identify latitude, longitude, hemispheres and the world’s countries being able to identify the key aspects of each countries physicality including volcanoes and earthquakes.
- **History**: Explore different disasters throughout a long period of time: continuity and change, causes and consequences; similarities and differences to make connections and analyse trends.
- **History**: Use historical enquiry skills when looking at disasters from the past and look at contrasting views with different types of evidence.

### Art and Design and Design Technology
- **Art**: Develop their mastery of art and design techniques including drawing, painting and sculpture with a range of materials: pencil, charcoal, paint and clay.
- **DT**: Generate and discuss their ideas on how to design their model of a volcano. Select a wide range of tools and equipment to perform practical tasks e.g. shaping and joining to create a volcano. Evaluate their ideas for their design.

### Music, Languages and Physical Education
- **Music**: Improvise and compose music for a range of purposes using the interrelated dimensions of music. Listen with attention to detail and recall sounds with increasing aural memory when exploring a volcano exploding.
- **P.E.**: Develop their strength, flexibility, strength and balance through dance. Create patterns and movement to represent a volcano.

### Computing
- Use search technologies effectively, appreciate how results are selected and ranked in order to chose appropriate pieces of information to develop their understanding of the topic.
### Core Subjects:

#### English
- Journalistic writing: Assessment of Big Write focusing on the correct application of features.
- Explanation of a volcanic eruption: Assessment of Big Write focusing on the correct application of features.
- Debate on positive/negative effects of an eruption: Speaking and Listening assessment.

#### Mathematics
- Compare data from different Volcanic eruptions: Data Handling Assessment.
- Enterprise Skills (profit margin and scaling costs): Number Assessment.
- Which countries have been most affected by Earthquakes?: Data Handling Assessment looking at how children gather, present and interpret information.

#### Science
- Using moldable materials to create a model volcano which explodes: Chemical reactions children will need to plan and carry out experiments, developing hypothesis, fair tests and evaluating accordingly.

### Foundation Subjects

#### History, Geography and Citizenship

##### History:
- Organise significant events into chronological order.
- On going: Select appropriate primary/secondary sources to develop understanding, support arguments and present findings.

##### Geography:
- Understanding of how the physical features affect the human activity within a location.

#### Art and Design and Design Technology

##### Art:
Select the correct material and then use a variety of techniques to create the desired effects e.g. use of charcoal to create texture, shading and use of shadow in the Pompeii figures.

##### DT:
Assess suitability of material chosen for their model of a volcano and their ability to evaluate their final pieces.

#### Music, Languages and Physical Education

##### Drama:
Express through on-going drama activities their thoughts, feelings and emotions about the consequences of natural disasters.

##### Music:
Composition of pieces of children’s interpretations of a volcanic eruption.

#### Computing

##### Morpho
Consider their audience when designing their project.

##### E book
Selecting most suitable form of communication. Is it of a high standard and quality?

##### Spreadsheet
Construct and manipulate data, presenting it in a professional manner.

##### On-going
Select appropriate and reliable information to assist their task and support their argument.