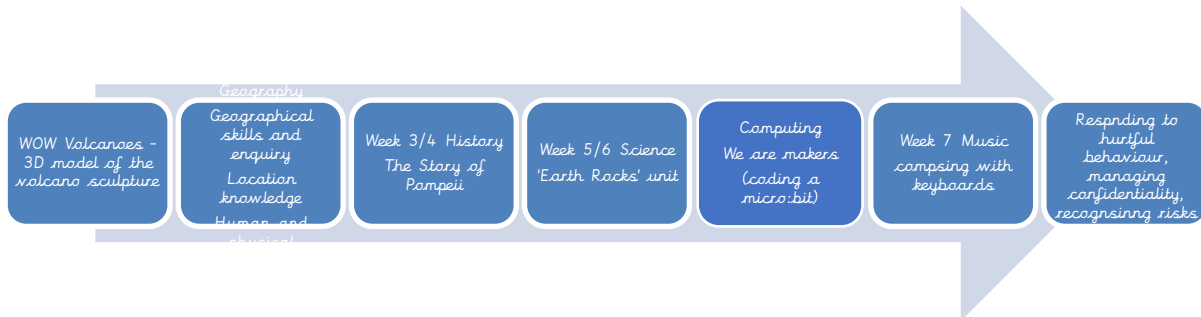


## Year 4 Science based unit Volcanoes (8 weeks)

Topic overview – Children develop their map and atlas work by locating areas in the world where volcanoes are found. They focus on settlements; why people choose to live in certain places with a particular focus on areas near volcanoes, particularly Italy. In history they learn about Pompeii and the effect volcanoes can have on settlements. They then look at various types of rocks and how they are formed in science. After they will compose a piece of music convey the mood of a volcanic eruption, to be played on the keyboard.



### Geography skills for this unit

#### Geographical skills and enquiry

Ask and respond to questions and offer their own ideas.

- Use non-fiction books, stories, atlases, pictures/photos, satellite images & aerial photographs and the internet as sources of information.
- Investigate places and themes at more than one scale. Collect and record evidence with some support. Analyse evidence and draw conclusions e.g. make comparisons between locations using pictures, photos & maps
- World maps, atlases, globes and digital/computer mapping. Ordnance survey maps.

#### Locational knowledge

- Locate places on a large scale map. On a world map, locate areas of similar environmental regions, either desert, rainforest or temperate regions.

#### Human and physical geography

- Describe and understand key aspects of: \*Physical geography including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes & earthquakes.

#### Fieldwork

Photography

Video/audio recording

#### Mapping skills - representation

- Know why a key is needed. Begin to recognise symbols on an OS map.

### Map knowledge

Begin to identify significant places and environments stated within KS2 N.C. (see [www.nc.uk.net//nc/contents/geog.htm](http://www.nc.uk.net//nc/contents/geog.htm) for maps)

Locate the world's countries, using maps to focus on Europe (including the location of Russia), concentrating on their environmental regions, key physical and human characteristics, countries and major cities.

### Style of map

- Use large and medium scale OS maps. Use junior atlases. Use map sites on internet.
- Identify features on aerial/oblique photographs..

### Knowledge for this unit

Volcanoes are formed by magma erupting through the Earth's crust due to pressure building up beneath.

Name examples of human and physical features which can be found on maps (e.g. lakes, rivers, mountains, volcanoes, cities, roads and airports..)

### Previous Knowledge

Begin to ask/ initiate more in depth geographical questions.

Use non-fiction books, stories, atlases, pictures/photos and the internet as sources of information.

Use maps, atlases, globes and digital/computer mapping (Google Earth) to locate countries and describe features studied to build their knowledge of the United Kingdom and places they know the wider world.

Locate the main countries of Europe inc Russia Identify some key capital cities of Europe.

Describe and understand key aspects of:  
\*Physical geography including rivers and the water cycle, excluding transpiration, brief introduction to volcanoes and earthquakes linking to Science e.g. rock types.

### Key vocabulary

- Earthquake
- Volcano
- Settlement
- Eruption

### Art skills for this unit

Creating a 3D Volcano sculpture.

#### Art - Sculpture Skills

- Create 3D work using recycled, natural and manmade objects around us to form sculptures - successfully joining
- Model over an armature (frame)
- Demonstrate awareness in environmental sculpture.

### Knowledge for this unit

- The parts of a volcano.
- The process of a volcano.

### Previous Knowledge

#### Designing - Y3

Generate their own design criteria collaboratively and through discussion, focusing on the needs of the user and the purpose of the product.

- Develop realistic and appropriate ideas through the analysis of existing products using annotated sketches and prototypes to model and communicate ideas.

#### Making

	<p>Order the main stages of making.</p> <ul style="list-style-type: none"> <li>• Select from and use appropriate tools with some accuracy to cut and join materials and components.</li> <li>• Select from and use finishing techniques suitable for the product they are creating.</li> </ul> <p><b>Evaluating</b></p> <p>Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used.</p> <ul style="list-style-type: none"> <li>• Investigate and analyse books, video clips and products with pneumatic mechanisms.</li> <li>• Test and evaluate their own products against design criteria and the intended user needs and purpose as they design and make.</li> </ul> <p><b>Vocabulary</b></p> <ul style="list-style-type: none"> <li>• Materials</li> <li>• Molding</li> <li>• Armature</li> </ul>
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## History skills for this unit

### Investigate and interpret the past

- I can use evidence to build up a picture of a past event
- I can choose relevant material to present a picture of one aspect of life in time past
- I can begin to evaluate the usefulness of different sources
- I can ask a variety of how and why questions □
- I can retrieve information from secondary sources e.g. text books, internet etc

### Have an overview of world history

- I can describe the social, ethnic, cultural or religious diversity of a past society

### Understand chronology

- I can place the events from the period being studied on a time line
- I am beginning to date specific events from the period studied and use relevant terms associated with the period

### Able to communicate historically

- I can use appropriate historical vocabulary to communicate my ideas including: dates, time period, era, change, chronology
- I can recall, select and organise historical information
- I can use literacy and numeracy and ICT to a good standard in order to communicate information about the past

## Knowledge for this unit

Know that Mount Vesuvius erupted in 79AD and destroyed the Roman city of Pompeii.

### Previous Knowledge

I can describe some of the primary sources I have looked e.g. photos, artefacts, pictures, visits to museums etc

I can observe small details through handling artefacts

I can identify and give reasons for different ways in which the past is represented

	<p>I can compare different versions of past events</p> <p>I can place the period being studied on a time line</p> <p>I can use dates and words related to the period studied and the passing of time</p> <p>I can sequence several events or artefacts chronologically</p> <p>I am beginning to use appropriate historical vocabulary to communicate my ideas including: dates, time period, era, change, chronology</p> <p>I can communicate my historical knowledge through discussion, drawing, drama/role play, making models, writing, using ICT</p> <p><u>Key vocabulary</u></p> <ul style="list-style-type: none"> <li>• Volcano</li> <li>• Pompeii</li> <li>• Vesuvius</li> <li>• Time period</li> <li>• Era</li> <li>• Change</li> <li>• chronology</li> </ul>
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<p><u>Science skills for this unit</u></p>	
<ul style="list-style-type: none"> <li>• Ask relevant questions.</li> <li>• Record findings using simple scientific language, drawings, labelled diagrams</li> <li>• Report on findings from enquiries, including written explanations</li> <li>• Identify differences, similarities or changes related to simple, scientific ideas and processes.</li> <li>• Use straightforward, scientific evidence to answer questions or to support their findings.</li> </ul> <p>Science Big Questions:</p> <p>Can I use the identification key to find out the names of each rock on my collection?</p> <p>What is soil made up of? ( Identifying and classifying)</p> <p>Can I find out how fossils are formed? ( Research using secondary sources)</p>	
<p><u>Knowledge for this unit</u></p> <ul style="list-style-type: none"> <li>• Compare and group together different kinds of rocks on the basis of their appearance and simple physical</li> </ul>	<p><u>Previous Knowledge</u></p> <p>Use of everyday materials</p> <p><u>Key vocabulary</u></p> <ul style="list-style-type: none"> <li>• Igneous</li> </ul>

<p>properties</p> <ul style="list-style-type: none"> <li>• Describe in simple terms how fossils are formed when things that have lived are trapped within rock</li> <li>• Recognise that soils are made from rocks and organic matter</li> </ul>	<ul style="list-style-type: none"> <li>• Metamorphic</li> <li>• Sedimentary</li> <li>• Fossil</li> <li>• Scientifically labelled diagrams</li> <li>• Fair test</li> <li>• Comparative</li> <li>• findings</li> </ul>
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## Music skills for this unit

### Composing

Can they use notations to record and interpret sequences of notes?

- Can they use notations to record compositions in a small group or on their own?
- Can they use notation in a performance?
- Can they show how they can use dynamics to provide contrast?
  - Can they play all the notes in an octave from middle C on a keyboard and recognize them on a stave?

### Appraising

- Can they describe, compare and evaluate using musical vocabulary?
- Can they suggest improvements to their own or others' work?
- Can they choose the most appropriate tempo for a piece of music?

## Knowledge for this unit

Recall where middle C, D, E, F, G, A, B and top C are on the keyboard and on a stave

Recognise a quaver on a stave and know that it is half a beat

### Previous Knowledge

Know where middle C, D, E, F and G are on the keyboard and on a stave

Recognise a crochet, minim and semibreve on a stave and know how many beats they are - crochet - 1 beat, minim - 2 beats, semi-breve - 4 beats

### Key vocabulary

- improvise
- Major scale
- Octave
- quaver

## PSHE skills for this unit

### Safe relationships

Responding to hurtful behaviour, managing confidentiality, recognising risks online

- about the right to privacy and how to recognise when a confidence or secret should be kept (such as a nice birthday surprise everyone will find out about) or not agreed to and when to tell (e.g. if someone is being upset or hurt)\*
- how to respond to aggressive or inappropriate behaviour (including online and unwanted physical contact) - how to report concerns

Knowledge for this unit

Previous Knowledge

Personal boundaries

Safely responding to others

The impact of hurtful behaviour

Key vocabulary

Privacy

Inappropriate behaviour

confidentiality