**Year: 9 to 10**
**Level – Mainstream**
**EAL – Stage S3, S4**

## Unit name:
Volcanoes and a volcanic eruption

## Time allocation
6 to 10 hours of class time

## Topic focus/content learning objectives
The unit is intended to relate to objectives in stage AusVELS 9 and 10 Geography 'develop knowledge about the operation of one of the major natural systems that are part of the biosphere and atmosphere'. In particular the unit aims to assist students in understanding the nature of volcanoes, and the impact of volcanoes on human activity.

## Main text focus

| Text-type and mode | Listened to | Spoken | Read – online or printed texts | Written | Viewed | Produced |
|---|---|---|---|---|---|---|
| Literature texts | | | | | | |
| Recount | | | | | | |
| Procedure | | | ✓ | | | |
| Report | | ✓ | | ✓ | | |
| Explanation | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Discussion | | | | | | |
| Argument/ exposition | | | | | | |

## Topic specific vocabulary
Volcanoes, shield volcanoes, composite volcanoes, magma, lava, pyroclastic flow, eruption, tectonic plates, etc.
Names of specific volcanoes e.g. Vesuvius, Mount St Helens etc

## Linguistic structure focus
- Diagram labelling
- Verbal explanations of volcanic processes based on diagrams
- Verbal presentation of making a model
- Article writing based on research into a significant volcanic eruption and its impact on people

## EAL focus
Use of visual and audio-visual resources to ensure understanding of content and subject terminology, and as a basis of students explaining and reporting on these phenomena.

## Assessment types used
- Observation ✔
- Inquiry: Questioning/discussion ✔
- Peer and self reflection ✔
- Analysis of student work ✔
- Test: quizzes, student self developed tests

## Resources
National geographic Volcanoes 101 video(3:08mins)
http://video.nationalgeographic.com/video/101-videos/volcanoes-101?source=relatedvideo
3D Geography website – Volcanoes
http://www.3dgeography.co.uk/#!what-is-a-volcano/cy89
Volcano models
http://www.3dgeography.co.uk/#!make-volcano-model/c1zi1
Information about the earth's crust and plate tectonics; BBC
http://www.bbc.co.uk/schools/gcsebitesize/geography/natural_hazards/tectonic_plates_rev1.shtml

## Linguistic features focus
The use of the present tense in explanations of processes
The use of active and passive voices in explanations of processes
The use of past tense in recounting volcanic events.
The use of imperatives instructions in the collaborative construction of a model

## Functions – language needed for:

**Classroom learning**
- arguing
- classifying
- establishing limits
- evaluating
- hypothesising
- identifying
- judging
- offering
- persuading
- planning
- predicting
- requesting
- sequencing
- describing cause and effect

**Getting things done**
- comparing
- clarifying
- describing
- explaining
- instructing
- inquiring
- justifying
- questioning
- reporting
- suggesting
- warning

**Maintaining communication**
Expressing:
- apology
- appreciation
- approval
- certainty
- concern
- frustration
- indifference
- intention
- needs/wants
- preferences
- probability
- regret

| Teaching and learning activities | Language focus – Additional EAL focus | Assessment ideas |
|---|---|---|
| **1. Introductory Activities**<br>**Discuss the unit learning intentions.**<br>The aim of this stage of the unit is to assist students in:<br>• understanding the nature of volcanoes and different types of volcanoes, and the nature of volcanic eruptions<br>• being able to understand descriptions of volcanoes and produce simple spoken and written descriptions of volcanoes, and the basic processes involved in a volcanic eruption.<br>Depending on prior learning experiences, EAL students benefit from explicit discussion about what it means to manage, monitor and reflect on one's own learning, rather than leaving that all to the teacher. Discuss why this is important in the Australian educational context, and point out ways in which students can work at this in the unit.<br><br>**1.1 Pose the following questions:**<br>○ What is a volcano?<br>○ What is an active volcano?<br>○ What is a dormant volcano?<br>○ What is an extinct volcano?<br>• Allow students time to think individually then ask them to turn to their partners and share, discuss and extend each other's ideas<br>• Show the information on page 1 of the following website which provides answers to the above questions: http://www.3dgeography.co.uk/#!what-is-a-volcano/cy89<br><br>• Via **class fronted questioning** elicit, discuss and extend students' ideas<br><br>**1.2 KWL Chart:**<br>• Through questioning, find out what students already know and what they want to know about volcanoes. The teacher will need a large chart to elicit and write up what students know, what they want to know and eventually what they have learned about volcanoes. If possible keep the charts on display in the classroom.<br>SO:<br>• Ask students to think of and note down at least three things they already know about volcanoes<br>• Give students time to think and make brief notes<br>• Ask students to get into pairs or small groups to share and add to their ideas<br>• Ask groups to present their ideas making sure that groups don't report back ideas that have been mentioned | **Question formation**<br>**Question patterns:**<br>**Why do volcanoes erupt?**<br>**How often do volcanoes erupt?**<br><br>**Do volcanoes erupt often?**<br><br>**What is a dormant volcano?**<br>**What is the biggest volcano?**<br>**Where is the biggest volcano?**<br>**How hot is a volcano inside?**<br><br>**What was the most dangerous eruption?**<br>**When was the most dangerous eruption?**<br><br>**Can we predict volcanic eruptions?**<br>**Can we climb into a volcano?**<br><br>**Simple present to talk about universal truths and things that are currently true**<br>• **Active volcanoes erupt**<br>• **Mount Etna is an active volcano**<br>• **Mount Kenya is an extinct volcano**<br><br>**Simple past to talk about events that happened and finished at a particular or understood time in the past**<br><br>• **Eyjafjallajokull erupted in 2010**<br>• **It sent up lots of ash.**<br>• **It stopped planes.**<br>• **Vesuvius erupted in 79 Ad**<br>• **It killed 11,000 people in the city of Pompeii** | **Unit learning intentions**<br>List and discuss the learning intentions of the unit with the students to ensure they know what they are aiming to achieve throughout the unit:<br>By the end of this unit you will be able to:<br>• describe different types of volcanoes,<br>• explain how volcanoes work,<br>• explain what happens when a volcano erupts,<br>• explain why volcanoes erupt,<br>• talk and write about a famous volcanic eruption and how it affected the people living around the volcano<br>Also discuss how students can manage, monitor and reflect on their own learning at different points in the unit.<br>**Questioning**<br>The **KWL Chart** is designed to **engage students in their learning**. The **'Knowledge'** section helps students to activate their schema on the topic and via teacher questioning and brainstorming, they are encouraged to make explicit what they already know about it so that they can then use what they already know about volcanoes to try to make sense of the new ideas they learn throughout the unit. The **'What I want to know'** section helps students to be motivated about their learning as they progress through the unit, to see if they can answer the questions they set at the beginning. Students can develop more questions to answer as they progress through the unit. They can complete the **'What I have learned'** section as they complete 'blocks' of the unit. This helps students to reflect on their learning, to articulate their learning and in so doing both make sense of and consolidate their learning. Thus engaging student throughout the learning process. **(**The 'What I have learned' section can be completed at later points in the unit)<br><br>**Observation, questioning and feedback**<br><br>**Content**<br>Observe students as they work together in their groups, **questioning** and providing immediate, on the spot verbal **feedback** as necessary to groups and individuals, noting the level of students awareness of and understandings about volcanoes to determine how much scaffolding students will need.<br><br>***Provide delayed feedback to the whole class as necessary***<br><br>**Language**<br>As students present their group ideas and suggest questions for the KWL, make a note of any common linguistic problems with tense, question formation etc<br><br>***Provide delayed feedback and additional language focused activities as necessary*** |

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| before<br>• As groups present their ideas, the teacher writes them up in the 'Knowledge' column of the KWL Chart<br>• Ask students to think about and write down things they want to find out about volcanoes<br>• Ask students to get into pairs or small groups to share their ideas.<br>• Via **class fronted questioning** elicit and write up what the students want to know about volcanoes in the 'What I want to know' middle column of the KWL Chart | | |
| **1.3 National Geographic video 'Volcanoes 101' (see resources in overview p. 1)**<br>• Show the video AFTER students participate in the following 'pre-viewing activities':<br>***Pre-viewing 1***<br>• Distribute a work sheet with the technical vocabulary, that will appear in the video, listed with matching simple definitions or pictures (in jumbled order).E.G: 'The ring of fire', tectonic plates, volcanoes, magma, lava, pyroclastic flow etc<br>• Encourage students to look at the technical vocabulary and see if they can explain any in their own words and then to make guesses about which definitions or pictures match the technical vocabulary<br>• Via class fronted questioning elicit some ideas<br>• Pose a question to help students focus on the content of the video:<br>○ Make a note of two things you learn about volcanoes from this video that you didn't know before<br>***While viewing* 1**<br>• Students watch the **National Geographic video 'Volcanoes 101' (see resources in overview p. 1)**<br>• As students view the video, pause to encourage them to further deduce the meanings of unfamiliar terminology from the context of the video.<br>***Post viewing 1***<br>• Allow students time to individually write up notes and match words with definitions<br>• Ask students to compare their answers in pairs or small groups and to justify their answers if they are different from those of their partner/s<br>• Via **rich class fronted questioning elicit**, write | Pre teach some of the more technical language using visuals then use the video to pause and reinforce students' understanding and pronunciation of technical vocabulary: Word and phrase stress are highlighted in red and underlined<br>• A volcano<br>• An active volcano<br>• To erupt<br>• A hot spot<br>• The ring of fire<br>• The earth's crust,<br>• A tectonic plate<br>• Some magma<br>• Some molten rock<br>• Some lava<br>• A shield volcano<br>• A composite volcano<br>• The city of Pompeii<br>• Mt. Vesuvius<br>• A pyroclastic flow<br>**Present tense**<br>• Help students to notice the way the present tense is used when referring to phenomena that are always true eg 'Fast flowing lava moves quickly',<br>**Past tense**<br>• and when the past tense is used for specific events in the past eg<br>'The eruption of Mount Vesuvius destroyed Pompeii in 79AD'.<br>**Collaborative language**<br>Help EAL student to collaborate in English by providing collaborative dialogues such as: | **Observation, questioning and feedback**<br>**Content**<br>Observe students as they match words with definitions to assess their understanding and use of the technical vocabulary, **questioning** and providing immediate, on the spot verbal **feedback** as necessary to groups and individuals<br>***Provide delayed feedback to the whole class as necessary***<br>**Language**<br>Observe how well they use English to collaborate with each other to check work done<br>Observe how well students can apply and pronounce the new vocabulary<br>***Provide delayed feedback and additional language focused activities as necessary*** |

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| up and consolidate vocabulary and new learning about volcanoes, discussing and extending issues that arise<br><br>***Pre viewing 2***<br>• Distribute a worksheet with questions designed to help students to notice and articulate the key information based on the content of the video E.G: How are volcanoes related to tectonic plates? What are the differences between shield and composite volcanoes? What happened at Pompeii in AD 79?)<br>• Read through the worksheet and check again students understanding of the technical vocabulary<br>• Ask students if they can already answer any of the answers to the questions and to share their ideas with their partners.<br>• Via class fronted questioning elicit and discuss some ideas<br><br>***While viewing* 2**<br>• Students watch the **National Geographic video** '**Volcanoes 101' (see resources in overview p. 1)** and briefly note down some ideas<br><br>***Post viewing 2***<br>• Allow students time to write up some notes<br>• Ask students to get into pairs or small groups to discuss and share their answers to the questions on the worksheets<br>• Ask groups to present their answers to the questions and extend their ideas through further class fronted questioning, discussion and brainstorming. | A. What have you got for 'an active volcano'<br>B. I've got . 'A volcano that erupts often'<br>A. Great. Me too OR<br>Oh I haven't. I've got…..<br>OR<br>A. What have you got for question 1?<br>B. I've got….<br>A. Awesome me too OR<br>Oh I haven't I've got…. | **Observation, questioning and feedback**<br>**Content**<br>Observe students as they complete the worksheet and share their ideas to assess their understanding of the topic and use of the technical vocabulary, questioning and providing immediate, on the spot verbal feedback as necessary to groups and individuals<br><br>***Provide delayed feedback to the whole class as necessary***<br><br>**Language**<br>As students report back their answers and questions observe how appropriately they use the technical vocabulary both in terms of meaning and pronunciation. Provide feedback on meaning and pronunciation as necessary<br><br>Observe if students are able to use present tense as they express ideas about what volcanoes are, different types of volcanoes and volcanic processes. Are they able to use the past tense to refer to a specific past volcanic eruption? Ask students to make statements about volcanoes and help restructure some of their language as their ideas are written up and highlight some of the patterns.<br><br>Observe how fluently they can use collaborative language to share, compare and improve work done<br><br>***Provide delayed feedback and additional language focused activities as necessary*** |
| **2. The workings of a volcano and different types of volcano**<br>**2.1 The workings of a volcano**<br>• Show students the diagram entitled 'Inside a Volcano' – taken from **3D Geography Volcanoes page (diagram and pictures, labelling tasks)** http://www.3dgeography.co.uk/#!what-is-a-volcano/cy89<br>• Ask students in pairs or small groups to try to explain the diagram to each other<br>• Via **rich class fronted questioning** elicit and confirm or extend their ideas using the diagram to | **Explaining a diagram**<br>**Using the present tense to explain the parts of a diagram and processes shown in the diagram**<br><br>This red area (pointing) shows the magma reservoir under the volcano.<br><br>The lines on the cross section of the cone, show how the composite volcano has built up through different eruptions | **Observation, questioning and feedback**<br>**Content**<br>• **Observe** how successful students are at making an initial attempt to explain the diagram showing the inside of a volcano by themselves to assess their ability to think independently and use diagramatic information to make sense of the world<br>• **Question** students in relation to the diagram to build up an understanding of what the diagram represents<br>• **Observe** students as they label diagrams to extend their knowledge of the topic – the workings of a volcano and the differences between cone (composite) vs shield volcanoes to assess their understanding of |

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| help build up an understanding of how a volcano works and the meaning and pronunciation of technical vocabulary.<br>• Distribute the blank diagram entitled 'Inside a Volcano' to pairs or small groups<br>• In pairs or small groups they complete the blank labels on the diagram<br>• The teacher monitors and gives feedback as the diagrams are completed<br>• Via **class fronted questioning** elicit and consolidate the labelling of the diagram by showing the original diagram 'Inside a Volcano'<br>• In pairs students discuss and then write definitions for each technical term under their diagram<br>• The teacher monitors students as they work and gives feedback as the diagrams are completed<br>• Via **rich class fronted questioning** elicit and consolidate their ideas showing the answers on a ppt<br>• Distribute a clean copy of the diagram for students to complete<br>• Divide the students into 'As' and 'Bs'. 'As' explain the diagram to 'Bs'. 'Bs' stand up and go to a different partner 'A'. 'Bs' explain the diagram to their new 'A 'partners. 'As' stand up and move to a different 'B' partner. 'As' explain the diagram again to their new 'B' partner etc. The idea here is to repeat the process three or four times with different partners. By verbalising the diagram students are encouraged to organise their own thoughts on the workings of a volcano and make their learning explicit. With each repetition their explanations become more fluent and authoritative<br><br>**2.2 Different types of volcano (Shield and Cone)**<br><br>• Distribute or show the diagram on the difference between a shield and a cone volcano taken from **3D Geography Volcanoes page (diagram and pictures, labelling tasks)** http://www.3dgeography.co.uk/#!what-is-a-volcano/cy89<br>• Explain that Mt Rainier is a volcano in Washington USA and Mauna Roa is a volcano in Hawaii, USA. Show their respective locations on a map.<br>• Ask students to study the diagram to see if they can understand and explain the difference between shield and cone volcanoes | This is the vent<br>This is where the magma goes up to the top of the volcano<br>Discuss the most logical way to structure their explanation: Start at the bottom of the diagram and go up the diagram<br><br>**Explaining a diagram**<br>**Using the present tense to explain the parts of a diagram and processes shown in the diagram**<br>• Mauna Loa is a shield volcano<br>• Mt. Rainier is a cone volcano<br>• Mauna Loa is not very steep<br>• Mt. Rainier has steep sides<br>• The lava from Mauna Loa is runny and so travels further. This means that…/ so…<br>• The lava from Mt. Rainier is thick and hard. This means that / so …<br><br>**Expressing logical connections using the present tense and connecters such as ' this means that' / 'so', 'therefore'** | the topic, **questioning** and providing on the spot **feedback** as necessary to groups and individuals<br>• **Observe** students as they explain their labelled diagrams to each other in their groups to assess their understanding and ability to explain the content of the topic so far using the technical vocabulary, **questioning** and providing **feedback** to individuals as groups as necessary<br>• **Observe** gains in confidence as they repeat their explanations<br><br>***Provide delayed feedback to the whole class as necessary***<br><br>**Language**<br>• **Observe** how well students are able to use present tense as they explain the diagram of the inside of a volcano.<br>• **Observe** how logically students stage their explanations<br>• **Observe** whether their use of and pronunciation of technical vocabulary becomes more fluent with each repetition<br><br>***Provide delayed feedback and additional language focused activities as necessary***<br><br>**Observation, questioning and feedback**<br>**Content**<br>• **Observe** how successful students are at making an initial attempt to explain the diagram showing the differences between shield and cone volcanoes by themselves to assess their ability to think independently and use diagramatic information to make sense of the world<br>• **Observe** students as they explain the differences between shield and cone volcanoes, **questioning** and providing on the spot **feedback** as necessary to groups and individuals<br>• **Use questioning strategies** in relation to the diagram to elicit students own understandings and to build up and extend their understandings of what the diagram represents<br><br>**Provide delayed feedback to the whole class as necessary**<br><br>**Language**<br>• **Observe** how well students are able to use present tense and logical connectors as they explain the diagram showing the difference between shield and cone volcanoes.<br>• **Observe** how logically students stage their explanations<br><br>***Provide delayed feedback and additional language focused activities as necessary***<br><br>**Questioning** |

- In pairs students explain the differences to each other
- Via **rich class fronted questioning**, elicit, consolidate and expand their ideas

- Ask students to look again at the questions they posed in the **KWL Chart** to see if any of their questions have been answered already and to add more questions to the 'What I want to know' middle column.

**Reflection**

- Students reflect on their learning so far.
- Brainstorm and elicit ideas about what they have learned so far and add this to the final column of the KWL and write up more questions in the middle column of the KWL

**3. Making a model/visual of a volcano, and explaining it**:

**3.1 Teacher presentation of teacher made model**

- Explain to the students that they are going to make models of volcanoes and they will need to explain their volcano and how they made it to their classmates in the same way the teacher is about to present his/her model to them.
- Show students a teacher made model of a volcano and explain the kind of volcano it represents and the workings of the volcano as well as the steps taken to make the model with the help of the model itself AND PPt slides. ***(If possible video your presentation for later use in the next stage of the unit).***
- Tell students that they will be assessed on how well they work with each other to follow written instructions, to construct the model and on how well constructed and realistic their volcano model looks.
- **Show students the assessment criteria (see right hand column and ensure they understand the criteria).**

**3.2 Making the model**

- Divide students into small groups and allow them to choose one from a limited number of models in the 3D Geography website (click the 'Volcano models' tab at the bottom of the page): http://www.3dgeography.co.uk/#!make-volcano-model/c1zi1
- They can download the chosen templates OR the teacher can have certain templates ready for students to select. Make sure that there is sufficient selotape, glue etc available in the classroom for students to construct the models.
- The teacher monitors and gives feedback as the

Help students to notice:

**Imperatives in written instructions:**

- Download the template
- Cut around the dotted lines
- Glue the edges together

**Talking about the model volcano**

The use of present tense to explain the model (See above for talking about diagrams)

**The use of sequencers and past tense in explaining the steps for making the model**

- First I / we downloaded the template
- Then I / we cut out the shapes
- After that I / we glued the parts together
- Next I / we made a base

The use of collaborative language to state tasks, request help, explain processes:

- OK I'll do ... and you do ….
- I'll get the…
- Could you get the…?
  cut here?
  hold that down?

**Observation, questioning and feedback**

- **Observe** students as they individually complete the worksheet and then discuss and improve their work with a partner to assess how well they have noticed and can articulate the framework and the content of the presentation as well as use the technical vocabulary
- **Use questioning strategies** to extend and consolidate students' understanding of the framework

**Observation, questioning and feedback**

**Content**

- **Observe** how the students follow the written instructions and collaborate together to assess how well they follow written instructions and communicate with each other to make the model, **questioning** and giving on the spot **feedback** to individuals or groups as necessary

***Provide delayed feedback to the whole class as necessary***

**Language**

- **Observe** how well students are able to use collaborative language to work together to construct the model

***Provide delayed feedback and additional language focused activities as necessary***

**Inquiry – The model volcano**

**Self and Peer feedback for model and model making**

| **The model** | | | |
|---|---|---|---|
| I/You followed written instructions well | | | |
| I/You worked cooperatively with your group members | | | |
| The model is well constructed | | | |
| The model looks realistic | | | |
| Two things I liked about my / your model | | | |
| One thing you could do to improve your model | | | |

diagrams are completed

***(See self and peer assessment strategies in right hand column)***

**3.3 Focus on the structure of the presentation of the model**

- **Play back the video of the teacher presentation taken earlier**
- Prior to asking student to watch the play back of the teacher's presentation, distribute a worksheet with the headings of the main ideas to be presented in jumbled order and a list of technical vocabulary (not all of which will be used in the presentation). Students listen and watch the teacher presentation and put the headings in the correct order and circle the technical vocabulary they hear.
- Give students time to individually complete the worksheet
- In pairs students share, compare discuss and improve work done
- Through **class fronted questions**, elicit and consolidate the framework for the presentation and the technical vocabulary used.

**3.5 Success Criteria for the presentation**

- At this point give out the **success criteria** for the presentation (See right hand column).
- Ask students to assess the teacher's presentation based on the success criteria.
- Pairs or small groups share and improve their feedback
- Elicit and discuss their ideas reinforcing the framework for the presentation they noted in the previous stage of the unit and discussing improvement steps for the teacher.

**3.6 Preparing their presentation**

- Ask students to prepare a short (3 to 5 minute), spoken presentation, with a ppt to the class, to explain their model and the volcano it depicts
- You have to cut along the….

**Discussing their models in relation to the success criteria:**

- I think I / you have followed…… worked …… quite / very / extremely well because……
- *I think the model is Quite / very / extremely well constructed because……*
- I liked……
- One thing I / you can do to improve my / your model is……..

Help students to notice:

**The structure of the presentation of the model volcano:**

- Introduction: Name and type of volcano
- Explanation of the workings of this type of volcano
- Explanation of the steps for making the volcano

**Discussing the teacher's presentation (and later to self and peer assess) in relation to the success criteria. Note use of past tense verbs to discuss the finished presentation:**

- I think my / your eye contact was….. Quite / very / extremely good
- I / you spoke quite / very / extremely loudly and clearly
- I / You used body language quite / very / extremely well because .... Your ideas were quite / very / extremely well organised because…..
- I / you described the volcano, it's type and

**Reflecting on the Process of Model making Self and peer assessment**

- When the students have made their group models ask each group to reflect on and discuss
  - their model and
  - the collaborative model making process
- Ask students to **self assess** using the success criteria in the right hand column.
- Elect buddy groups to **peer assess** models using the success criteria and to return written feedback to the original model makers.

**Inquiry: The presentation of the model volcano**

**Self and Peer feedback for presentation**

| **Communication** | | | |
|---|---|---|---|
| I/You had good eye contact | | | |
| I/You spoke clearly and loudly | | | |
| I/You used body language and gestures well to communicate with the audience | | | |
| **Content** | | | |
| My/Your ideas were well organised and logical | | | |
| I/You described the volcano, its type and it's internal workings clearly | | | |
| I/You used the technical vocabulary accurately in terms of meaning and pronunciation | | | |
| You explained how you made the model clearly | | | |
| Your PPt was clear, attractive and helpful for the audience | | | |
| **Two things I liked about my/your presentation** | | | |
| **One thing you could do to improve your presentation** | | | |

**Self and peer reflection and feedback**

- Ensure student fully understand the criteria above
- Once a group has done their presentation, give that group a few minutes to **reflect on their own presentation** using the criteria in the right hand column and encourage them to explain what they learned from doing the presentation
- Give the buddy group time to write up their **feedback using the success criteria** and then ask them to give the **written feedback** to the presentation group.
- The teacher may wish to make audio recordings of students'

using the framework noted above.

- Distribute a clean version of the **success criteria** for the presentation for self and peer assessment (See right hand column).
- Ensure that students are familiar with the **success criteria** prior to planning and implementing their presentation.
- In their groups students plan and **practice** their presentations
- Students or the teacher nominates buddy groups to **peer assess the presentation**

**3.7 The Presentation**

- Groups present their volcanoes to the class

***(See self and peer assessment strategies in right hand column)***

how it works

quite / very / extremely well because…

- I / you used the technical vocabulary quite / very / extremely accurately and you pronounced the words well
- I / you explained how you made the volcano quite / very / extremely clearly because…..

presentations as a basis for providing feedback, with the permission of students. This can be used for the student to listen for aspects of their spoken English.

**4. Researching and reporting a significant or well-known volcanic event and its impact**

- Explain to the students that they are going to research a significant or well known volcanic event and its impact on people and then share this information, which will be a combination of writing, photographs and diagrams in a formal online article about famous volcanic events to be read by people who are interested in volcanic eruptions.

**4.1 Teacher gives his / her own article to the students to read**

- The teacher will share his/her own article on a chosen volcanic eruption (perhaps Pompeii)
- Prior to asking students to read the article, the teacher distributes a worksheet with the headings of the main ideas in the teacher's article in jumbled order
- Students read the teacher's article and put the headings in the correct order.
- Give students time to individually complete the worksheet
- In pairs students share, compare discuss and improve work done
- Through **class fronted questions**, elicit and consolidate the framework for the article: Introduction (A general statement about what the article is about written in a way which will capture the reader's interest and attention) Body 1, 2, 3 to describe events and the impact on people, Concluding statements. Ensure students understand that they must include the following:
  - The name, type, location of the volcano
  - The date of the eruption
  - Significant events
  - The impact on people around the volcano

Help students to notice:

**The structure of the teacher's written article**

- Introduction: A general statement about what the article is about written in a way which will capture the reader's interest and attention
- Body 1, 2, 3 to describe events and the impact on people
- Concluding statements.

**Discussing the teacher's and their peers articles in relation to the success criteria:**

- I think s/he has included ……
  described……
  presented……
  used……
  …

  quite / very / extremely well because……

*(providing evidence from the teacher's text)*

- His/her introduction is……

**Inquiry**

**Self and Peer feedback for written article**

| **Content** | | | |
|---|---|---|---|
| I/You included information about the name, type, location of the volcano and date of the eruption | | | |
| I/You described the significant events clearly and in an interesting way | | | |
| I/You described the impact of the volcanic eruption on people | | | |
| I /You included a map, diagrams, pictures or photos to illustrate key information in the report | | | |
| **Organisation** | | | |
| My/Your ideas were presented in a well organised, logical sequence making good use of the article framework | | | |
| My/Your introduction to the article was interesting and captured the attention of the reader | | | |
| **Form** | | | |
| You used technical vocabulary accurately | | | |
| Spelling was generally accurate | | | |
| Your grammar was generally accurate | | | |
| Your punctuation was generally accurate. | | | |
| **Editing process** | | | |

- Maps, diagrams pictures or photographs

### 4.2 Success criteria for the written article

- Negotiate or provide students with **success criteria** (see right hand column) and ask them to assess the teacher's article and what they liked about it as well as how it might be improved

### 4.3 Researching and writing their article

- Ask students in pairs to research and write up an article on a significant volcanic eruption, and its impact on people. The 3D Geography 'Volcanoes' pages provide a number of possible events such as Mt Vesuvius, Mt Pinatubo, Krakatoa, and more recently Eyjafjallajokull. Many other resources can be found on the internet.

### 4.4 Worksheets to go with the article

- Students design a worksheet to go with their article to help their peers read their article and notice the key information
- Students select and read at least two articles, completing the worksheets
- In groups of 4 they tell each other what they have learned from reading their selected articles using their worksheet notes to help them

***(See self and peer assessment strategies in right hand column)***

- I liked…..
- One thing s/he can do to improve the article is……..

*(This language can be used by students to provide peer feedback on the drafts of their article)*

***Question formation to create worksheet based on their articles:***

- *What eruption is the article about?*
- *What kind of volcano is the article about?*
- *When did the eruption occur?*
- *What happened when the volcano erupted?*
- *What happened after the volcano erupted?*

*Questions using the passive voice – (The agent or DOER is the volcano. The writer wants to focus on the RECEIVERS of the action and what happened NOT on the DOER. SO the RECEIVERS of the action go in front position and the verb takses a passive pattern: (to be (were) + pp)*

- *How many people were killed?*
- *How many people were injured?*
- *How many people were made homeless?*

| | | | |
|---|---|---|---|
| I/You used self reflection and peer feedback to improve my/your work | | | |
| **Two things I liked about my/your article** | | | |
| **One thing you could do to improve your article** | | | |

### Self and peer reflection and feedback of article based on the success criteria

- When students have written up the **1st draft** of their article ask them to look again at their work so far and see if there are any areas they can improve in
- Organise students into their **feedback buddy groups** of 4 to swap their work and to give each other feedback on **Content** and **Organisation** based on the criteria providing information on how their peers could improve their article
- Students return **1st draft articles** and **feedback** to their peers who use the **feedback** and their reflections on their own work to write a 2nd draft including maps, diagrams, pictures or photographs
- Organise students back into their **feedback buddy groups** of 4 to swap **their 2nd draft** work to give each other feedback on issues of **Form** and how well their peers have used feedback to their 1st draft to improve their work – also commenting on **Content** and **Organisation** again if necessary based on the criteria providing information on what they liked about the article and how their peers could improve their article
- Students return **2nd draft articles** and **feedback** to their peers who use the feedback and their reflections on their own work to write a 3rd draft including maps, diagrams, pictures or photographs to submit to the teacher

### Analysis of work

- Teacher collects 3rd drafts of articles. Copies them. Marks one copy and makes feedback comments using the criteria sheet explaining what the student is doing well, needs to improve on and what steps to take in order to improve

### Self reflection

- Teacher returns UNMARKED copies to students for delayed self reflection against the criteria sheet.
- Encourage students to guess what grade they got and to explain why.
- Teacher provides students with teacher feedback based on the criteria
- Students compare their own reflection with the feedback from the teacher.

### Portfolio

- Students write up a final version of the article to be displayed online and kept in the students own learning portfolio

### Reflection on learning intentions

- Ask students to look again at the learning intentions of the unit and to

tick the learning intentions they feel they have achieved

- Pairs to discuss their learning in terms of the learning intentions
- Elicit and discuss their comments on their achievement of the learning intentions and add their learning to the final 'What I have learned' column of the **KWL Chart.**

The purpose of the 'What have I learned' section of the **KWL chart** is to encourage students to reflect on their learning, to verbalise or write it down it so that they can make sense of and consolidate their learning. At the same time it is a means for checking what students have learned or still need work on

## Questioning

Ask students to look again at the questions they posed in the **KWL Chart** to see if any more of their questions have been answered already and to add more questions to the 'What I still want to know' middle column for the students to continue to expand their knowledge about volcanoes beyond this unit of learning

**Inquiry**
**Learning Journal entry**
Ask students to complete their learning journal for the unit

| |
|---|
| What new understandings have I gained from the unit so far? (Think of at least 2 things) |
| What parts of the unit did I enjoy most and why? |
| What parts of the unit did I not enjoy and why? |
| What areas am I not sure about? |

## End of Unit

## Unit evaluation

| | |
|---|---|
| **General evaluation**<br>• Were the students interested in the topic?<br>• Did planned activities need to be modified? Why?<br>• Which teaching activities were particularly successful? | |
| **Content learning goals**<br>• Were the topic/content objectives achieved?<br>• Did the topic lead to new learning? | |
| **English language learning goals**<br>• Were general English language learning needs highlighted by the unit?<br>• What particular literacy needs were highlighted by the topic?<br>• Was there a balance between written and spoken texts? | |
| **EAL considerations**<br>• How successfully did the unit involve the EAL students?<br>• Which activities worked for them, which did not?<br>• Which English language needs were identified as a priority for future units? | |
| **Ideas for future units/activities**<br>• What language focuses need to be targeted again in future units?<br>• Which future topics would complement this unit? | |
| **Assessment strategies**<br>• Did the chosen assessment strategies ensure students achieved the unit learning goals?<br>• Did the assessment feed into planning and teaching?<br>• Were students involved in the assessment process?<br>• Were the success criteria for the focused analysis assessment tasks clear and student friendly?<br>• Were students able to use criteria to provide feedback to their peers?<br>• Were students able to use feedback from assessment to improve their learning? | |