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Planning a disaster

The International Primary Curriculum is a wonderful way to study volcanoes and earthquakes. Carol Hodge reveals how she used the unit



At Abel Smith Primary School we use the International Primary Curriculum (IPC) to teach in a cross-curricular, thematic and internationally-minded way. Last term we worked on the IPC's Earthquakes and Volcanoes unit. Here are some examples of the learning that went on.

Entry point: disaster day
To launch the Earthquakes and Volcanoes unit we turned the school into a disaster centre. We taped up the windows with masking tape to make sure there would be no flying glass and discussed what we would need to do to turn the school into a safe zone. In groups, the children planned who would need help and how they could help them. They agreed that there may be people with injuries and so part of the school would have to become a hospital area. The children also came up with the idea of runners for communicating messages, and identified special jobs for each one of them.

This is an entry point activity designed to set the scene and provide a shared learning experience for all the children. I was amazed at how practical their ideas were, and as the activity progressed you could see their planning skills, empathy and deep thinking developing. It was a really effective way of preparing all of the children for the idea of coping with any disaster.



Holiday rock: one child brought in volcanic rock from Mount Vesuvius to share with the class

Knowledge harvest
After our disaster day we did a 'knowledge harvest' (see below) to investigate what we already knew about earthquakes and volcanoes. There was a little bit of knowledge throughout the class, but very little deeper understanding. I encouraged the children to bring in books, objects and stories from home, which they could share with the rest of the class. The things that came in were amazing. Someone brought in a piece of volcanic rock from Mount Vesuvius; someone else brought in a video from their holiday in Iceland flying in a helicopter over an active volcano. It gave us a wealth of resource material to directly support our learning.



Chocolate fridge cake
We made a chocolate fridge cake (below), adding cherries, marshmallows, broken biscuits and raisins in layers. The finished cake looked smooth on the top, but when we cut down into it you could see all the layers. Then by covering those layers with melted chocolate we could see how, in the same way, lava flows from the crater and when it cools it solidifies to form a new layer of rock. It was a great activity for helping the children to understand the formation of a volcanic mountain and the science of melting and solidifying. We used our maths for weighing out the ingredients and literacy to write out our recipe and our method. And the children thought the whole thing was fun and exciting.



Building our volcano
We built a volcano out of papier mâché, using a small plastic bottle for the main vent and forming ridges and troughs in the papier mâché to create valleys and gullies in the mountain. The children used tissue paper and paint to create the landscape. We half filled the plastic bottle with a mixture of flour and sodium bicarbonate, and to that we added vinegar and red food colouring (see pages 20–21). Then we stood back and watched the volcano erupt! The children learned about the eruption and saw how lava will flow and settle into the valleys to form the new shape of the mountain. They were also able to imagine what it must be like for people who live around the mountainside.



Grabbing an opportunity
Just one week after our knowledge harvest, the earthquake in England happened! It was such a perfect opportunity that we grabbed this real-life experience and turned it into a significant part of our learning. We interviewed the children and the staff to find out who had felt the earthquake and what their experiences were. We then turned that into a report for the Abel Smith school newspaper. We investigated where the epicentre of the earthquake was and included details about this, as well as information on how different areas of the country dealt with the experience. We watched the *Newsround* investigations, and the children watched TV news reports at home. The language that they were hearing on these reports linked directly to what they were learning in the classroom. This opportunity was totally unanticipated but we just had to go for it because the learning experience it provided was phenomenal.

Looking internationally
We used our own experiences of the earthquake to help us understand the disaster drills that children in San Francisco have to do to prepare them for much bigger quakes. We practised the earthquake drill just like the children in San Francisco. It was very easy from here to engage the children in discussion about why people live in earthquake zones. We used the internet to research the architecture of the buildings in San Francisco and talked about why the buildings are different from ours in the UK; what they're made of and how they're made, and what happens to these buildings when there is an earthquake. ➤

- Internet links**
- The BBC *Newsround* website was useful for live and old reports: <http://news.bbc.co.uk/cbbcnews>
 - The Woodlands Junior School site was great for interactive games and lots of easy-to-read information about volcanoes and earthquakes: <http://woodlands-junior.kent.sch.uk/Homework/mountains/volcanoes.htm>
 - The BBC Science Clips site had lots of good examples, pictures and explanations: www.bbc.co.uk/schools/scienceclips
 - Another great website telling you everything you ever wanted to know about volcanoes is Volcano World: <http://volcano.und.nodak.edu>

Volcanoes and art

We created a series of pictures for our wall called 'The Story of a Volcano'. We focused on colours and textures that suggest hot and cold, to emphasise the different stages of the volcano. We also made our own mini books called 'When the Volcano Erupted', to tell the story in words and pictures of how an erupting volcano impacts on all living things around it.

Using movement and coordination

In PE we used our knowledge of volcanoes erupting and flowing to express the stages of eruption through movement and coordination. Working alone and in pairs, the children developed movements to show molten lava flowing, poisonous gas rolling down the valley, and an explosion with rocks flying out of the top of a volcano. We then built on these movements to develop a routine that told the story of an erupting volcano.

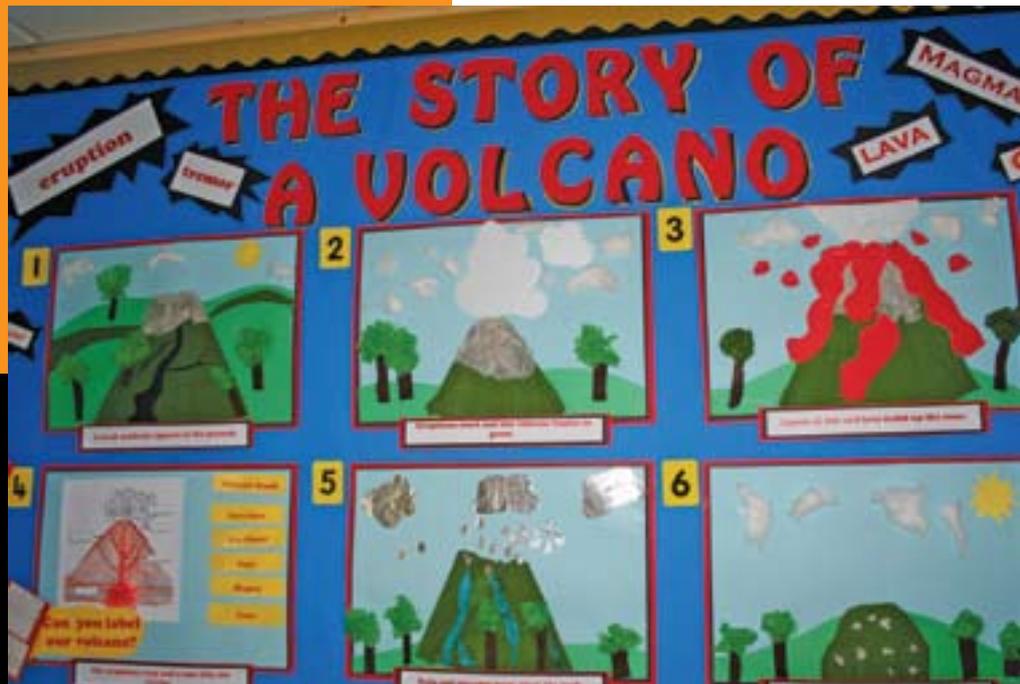
Making music

There are lots of ways that you can express the different stages of a volcano through music and sound. We listened to a variety of musical sounds: from the peace and quiet of a dormant volcano, to music that suggested light puffs of smoke and steam, to the loud crashing music of an eruption. We enjoyed identifying different instruments used to communicate these different stages. In groups the children then used percussion instruments to represent the sounds of the volcano. Once this was developed, the rest of the class had to guess what stage of the volcano the group was trying to represent.

Summing up

We spent six weeks working on Volcanoes and Earthquakes. This was a really great unit for involving and engaging everyone. There was a lot of very relevant science work, lots of opportunity for creative work, and it was easy to link to all my National Curriculum requirements. It was a lovely theme for helping my children with learning difficulties, too. I have some readers who can't access the books the majority of our children can read, but they actually wanted to read about volcanoes and earthquakes because it meant something to them.

It's really good fun facilitating the learning that is unlocked in a theme such as this one. I'm very aware that I'm creating learning experiences that the children will remember when they're older. That's a really powerful thing for the learner, and for the teacher. ■



Children created volcano artwork using different colours and textures to emphasise hot and cold



The International Primary Curriculum

To date, 280 primary schools throughout England and Wales have incorporated the IPC at a cost of around £10,000. (English schools can use their e-credits to contribute to the cost.) The price includes over 80 different thematic units of work (each spanning about four to six weeks of teaching), which have been cross-referenced to meet National Curriculum guidelines. For more information visit www.internationalprimarycurriculum.com or call the IPC on 020 7531 9696.