

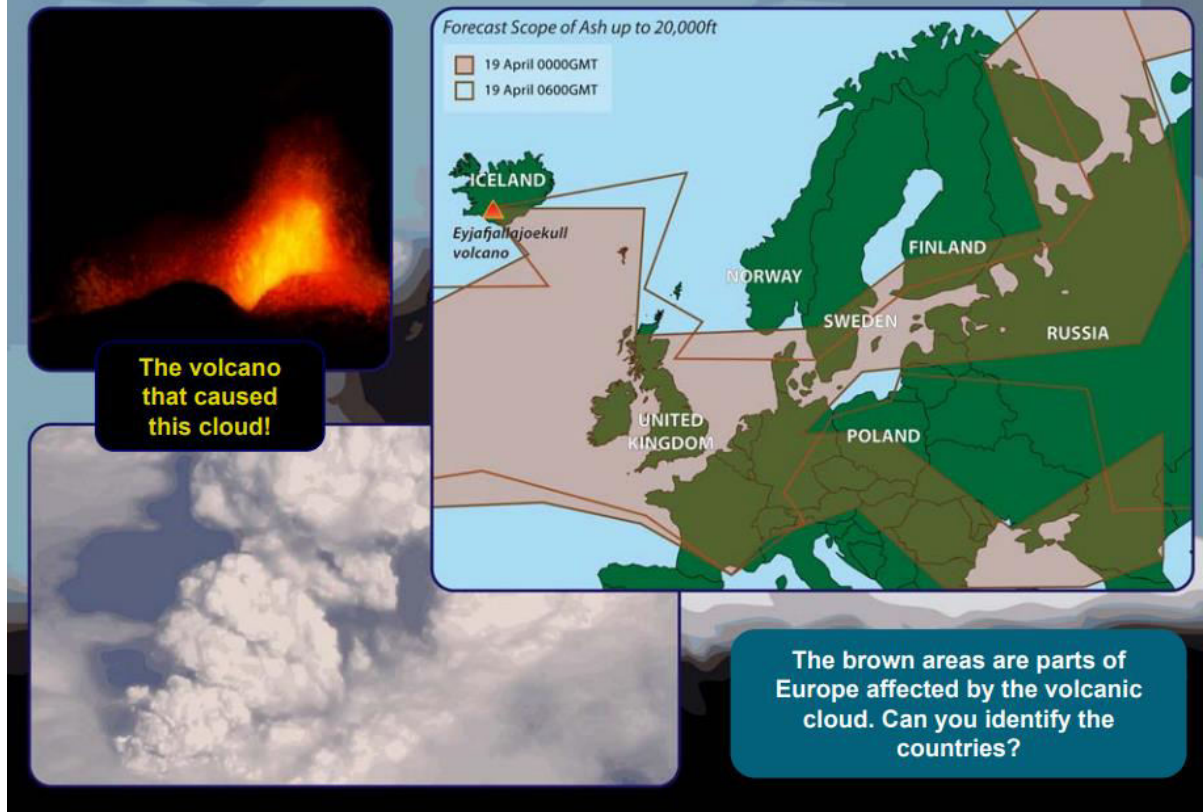
Year 6 – Volcanoes Maths Challenge!

In 2010, chaos ensued in our skies as airlines were forced to cancel flights, leaving thousands of people stranded on holiday or in business destinations around the world. It took days and even weeks for many of them to get back home, having to take extra time away from work. Many other problems arose, not least those relating to transport of fresh produce and pharmaceuticals from other countries to ours.

For some background information about volcanoes visit these sites:

- [Enchanted Learning](#)
- [Wikipedia](#)
- [Woodlands Junior School](#)

Empty skies – not a plane in sight, just birds!



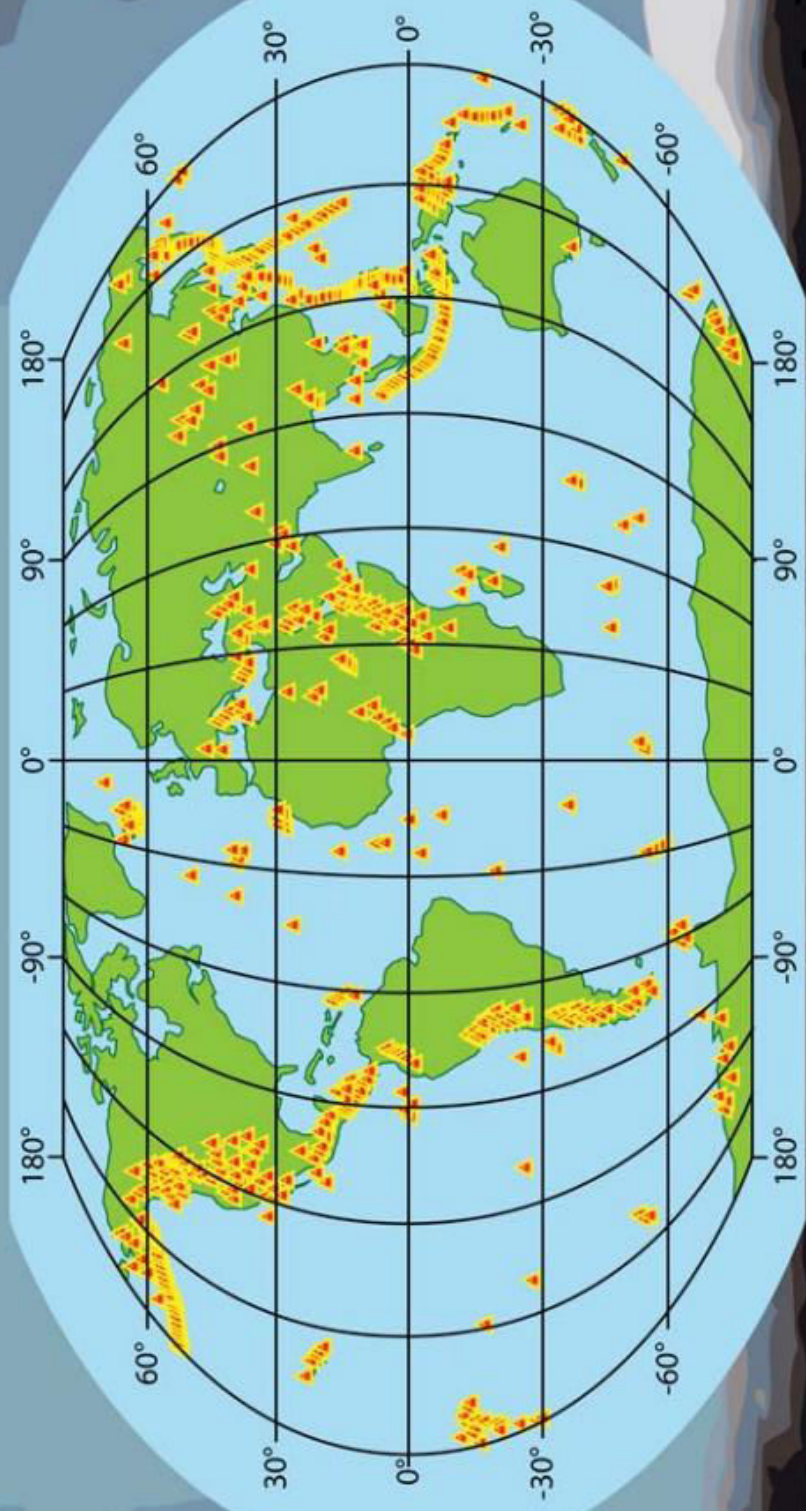
Challenge 1:

You will need access to a map of Europe. Identify the countries that were affected by the cloud of ash. Can you find the distances from the volcano to these countries, maybe their capital cities. Make a table of your results.

Which is the furthest away, how far away it is and compare with the other capital cities

- Give the approximate area of the UK as 200 000 sq km and use this to find the approximate area of volcanic dust cover.
- Make up a flight departure timetables and tell us when the planes will take off if they are a certain number of hours/days delayed

THE WORLD'S VOLCANOES



How many can you see?

Challenge 2:

Can you identify where the highest density of volcanoes can be found?

- Estimate how many there are altogether. How close was your estimate?
- Identify the oceans where some of the volcanoes can be found. Are there any surprises? Can you identify which ones are closest to the UK?
- Research Mount Etna in Italy – how high is it? How many times has it erupted? Plot the dates of the eruptions on a time line.
- [This YouTube clip](#) shows Mount Etna blowing smoke rings! What shapes does it make? Would it be possible to blow triangular or square rings?
- Pick five of the volcanoes and work out, as accurately as you can, the coordinates where they can be found.