

Lesson ideas for geography teachers to share: Geology rocks!

Go to

<https://www.funkidslive.com/learn/geology-rocks/#>

The Geology Society has some excellent resources for use in the geography classroom. This week we will signpost you specially to resources that underscore why geological understanding is so important in geography.

The hyperlinks below are to the *Geology Rocks!* podcast. Each are only 2 minutes long. Have a listen for key definitions and a general update.

1. Earth's history – Creation of Earth <https://podcasts.apple.com/gb/podcast/geology-rocks-earths-history-creation-of-earth/id551974504?i=1000331815488>
2. Earthquakes and volcanoes <https://podcasts.apple.com/gb/podcast/geology-rocks-earthquakes-and-volcanos/id551974504?i=1000331815475>
3. Sedimentary rock <https://podcasts.apple.com/gb/podcast/geology-rocks-sedimentary-rocks/id551974504?i=1000331815478>
4. Igneous rock <https://podcasts.apple.com/gb/podcast/geology-rocks-igneous-rocks/id551974504?i=1000331815474>
5. Metamorphic rock <https://podcasts.apple.com/gb/podcast/geology-rocks-metamorphic-rocks/id551974504?i=1000331815486>

Suggested further work

Access <https://www.geolsoc.org.uk/volcanoes> and click through to the volcano factsheets.

1. Download the Rock Cycle factsheet. How are rocks defined?
Rocks are made from a mixture of different minerals; they are solid chemical compounds that are found naturally on Earth.
2. Explain why different igneous rocks have different crystal sizes. Can you give an example of a rock that has cooled quickly?
If rocks cool quickly then crystal growth is fast and small. Obsidian cools so rapidly it has no crystals at all.
3. Download the Volcanoes factsheet (secondary). What affects a volcano's explosivity?
The amount of silica and how much gas there is in the magma both affect explosivity. Low silica content (makes runny lava) and low gas levels both reduce the explosion.
4. Explain how a volcano bulge or changes in ground level can be used to predict an eruption. Volcano bulges are a sign of an impending eruption, they are picked up by measuring ground deformation. Changes in ground level also signal an eruption, measured by GPS (Global Positioning Systems) satellite technology and tilt meters.
5. Download the Earthquakes factsheet (secondary). How many times a year are there earthquakes?
There are 500,000 earthquake shakes every year around the world.



6. Why is the continental-continental boundary of Iran more deadly than the oceanic-continental boundary that Chile lies on?
In Iran the earthquake zone is wide and far-reaching. It is much harder to predict where the next earthquake will hit. Chile on the other hand sits on a linear destructive plate boundary and future earthquake predictions are therefore more precise.

7. What is the difference between S and P waves and why is understanding the distinction useful to geographers?
S waves are called secondary waves because they are transverse and do not travel through liquids. They vibrate at right angles. P waves are primary waves, they are longitudinal and push particles forward. Understanding the difference between these two waves is important because it allows us to work out the inner structure of the Earth.

Why not download and print off the above 3 posters on the Rock Cycle, Volcanoes and Earthquakes from the Geological Society?