

Royal Society Summer Science Exhibition 4th-10th July 2016 - Explosive Earth: Earthquakes and Eruptions in Iceland

The Cambridge Volcano Seismology group will be showcasing their latest work on the Bárðarbunga-Holuhraun dyke intrusion and fissure eruption at the Royal Society Summer Science Exhibition 4th-10th July 2016.

Video - <https://youtu.be/BL5U28Icl2k>

The Cambridge Volcano Seismology

(<http://www.esc.cam.ac.uk/research/research-groups/cambridge-volcano-seismology>) group will be showcasing their latest work on the Bárðarbunga-Holuhraun dyke intrusion and fissure eruption at the Royal Society Summer Science Exhibition (<https://royalsociety.org/events/summer-science-exhibition/exhibits/explosive-earth/>) 4th-10th July 2016.

Tiny earthquakes are often detected under volcanoes prior to eruption, caused by the movement of molten rock beneath the surface. By studying these seismic events, we hope to be able to predict volcanic activity better in the future. Our exhibit showcases current research in the explosive field of volcano seismology, investigating the 30,000 earthquakes that led up to a spectacular six-month eruption in Iceland.

Monitoring volcanic regions in Iceland is important because eruptions are frequent and can cause rapid flooding or lava flows in habited areas, and release harmful gases and ash that pollute the land and cause widespread air traffic disruption. Studying earthquakes helps in understanding the physical processes that occur in volcanic systems, such as molten rock intruding through the Earth's crust or collapse of the centre of a volcano. The more we understand about the behaviour of volcanic systems the better we can forecast eruptions. Our findings may also highlight the potential seismic side effects of geological engineering, such as fracking.

Hands-on at the exhibit:

- Simulate a volcanic eruption with an interactive model, and discover the hazards that accompany it
- 'Make a Shake' yourself and compare its magnitude to both volcanic earthquakes and those recorded by other visitors

- Play our earthquake wave arrival reaction time game to try and accurately locate an earthquake
- Take a look at some rocks that are much younger than you!
Featuring lava from the 2014 Bárðarbunga eruption and volcanic ash from the 2010 Eyjafjallajökull eruption