

Broadening access to earth science information for education in the UK

The presentation describes strategies for enhancing earth science teaching through inspiring role-play and long-term experiments. Over the past decade there has been a growing concern that earth sciences are often poorly served in UK schools. In parallel with this there has been a general decline in the number of students choosing science. The government's response has been a number of initiatives designed to stimulate interest in scientific careers and enhance the learning experience. Over the same period, UK and European government alongside popular campaigns have encouraged the release of national datasets for educational purposes. The British Geological Survey (BGS) has an international reputation in the delivery of data for professional geologists and is now building a portfolio of projects based on free, convenient access to digital data alongside face-to-face contact with inspirational role models with the aim of introducing exciting, relevant science to schools. The UK-wide School Seismology Project provides a specially designed instrument records earthquakes from anywhere on the globe and the data may be shared through a web portal. Schools receive training, sponsorship and practical support. Students benefit from the experience of collecting unique data and opportunities to report their findings via local press and TV. Sister projects are running in Ireland and Africa. STEM Ambassadors provide a wide range of in-school support, from simple experiments to careers advice and mentoring. Our most requested activities include 'Seconds from Catastrophe?' and 'Quarry or Not?'. In these, students take on the roles of scientists, government officials and residents and vigorously debate, respectively, the issues involved in planning an emergency response to a volcanic eruption and the environmental impacts of the extractive industry. Real data are analysed and an important feature is that the facilitators have genuine experience of the scenarios.