

CASE STUDY

STEM AMBASSADOR

Name: David Bailey

Job title: Head of Outreach

David works for the British Geological Survey, where he has held several roles over the years. He is currently responsible for the BGS's education and outreach programme, where his responsibilities include creating popular web content and liaising with educational organisations across the UK to promote earth sciences.

STEM (Science, Technology, Engineering and Maths) Ambassadors are key to delivering the BGS's outreach programme and David has been an Ambassador since 2004. The BGS office in Keyworth has about 50 active STEM Ambassadors involved in over 100 events with schools and colleges during a typical year. Audiences range from early years through to higher education, and activities include helping schools set up instruments to detect and measure earthquakes, planning an emergency evacuation during a volcanic eruption, providing careers advice, and supporting CREST and engineering projects.

"I sometimes hear teachers describe geology as boring", says David, "but when I was growing up, I was hooked by plate tectonics, probably because it was a relatively new theory — science so novel that our teachers had only just learned it themselves, which was really exciting. When you add in volcanoes, earthquakes, dinosaurs, precious gems — I'm not sure how you make it boring!"

“We all depend on the Earth, for essentials like air, water, fuel and shelter, and also for more exotic elements used in consumer electronics and other modern luxuries. It is essential that young people understand our planet. They face the challenge of ensuring a secure and sustainable supply of resources and addressing problems such as global climate change, ocean acidification, and what we do with our waste.”

David’s Ph.D. fieldwork was based in south-west Norway. After university, he worked briefly at the Natural History Museum in London where a highlight of his duties was auditing the gem collection. His work at BGS has included monitoring groundwater in an abandoned uranium mine in Spain, surveying a fog-bound Lake District quarry in a race against a robot, analysing South American gold, and braving Jeremy Paxman in the first series of ‘University Challenge — The Professionals’. He has taught A-level, undergraduate and adult education courses and is Secretary of the Earth Science Teachers’ Association, a founder member of the Earth Science Education Forum for England and Wales, a trustee of a Foundation School in Leicestershire and a Geography Ambassador for the Royal Society of Geography.

David’s role as a STEM Ambassador to be an aspiring role model for young people, to help them to see STEM subjects and careers with a fresh perspective and engage their interest and imagination.