

Fieldwork in the School of Geography, Earth and Environmental Sciences

Staff and students from the School of Geography, Earth and Environmental Sciences at the University of Birmingham talk about the benefits of fieldwork in Earth Sciences and Geography degree courses.

Title: [Fieldwork in the School of Geography, Earth and Environmental Sciences \(/schools/gees/courses/undergraduate/fieldwork.aspx\)](/schools/gees/courses/undergraduate/fieldwork.aspx)

Duration: 4.42 mins

Speaker Names (if given):

- **S1** Dr James Bendle, Reader in Organic Geochemistry
- **S2** Dr Andy Chambers, Senior Lecturer
- **S3** Daniel, BSc Geology student
- **S4** Alexia, BSc Geology student

S1 Fieldwork is a crucial element to any earth science or geography degree. Obviously it's important academically because the students learn in lectures and in lab work and we can bring samples to them, rock samples, but the best way of getting it into a broader context is to come and learn in the field.

S2 Work as hard as you can on these rocks and get some good descriptions out. OK? This is a vein that's opened up and these are secondary minerals occurring in the vein. But this is a very massive rock. This is a primary feature. What about if this is the magma and the bubbles are still flowing, slowly?

We'll we can teach them a certain amount in the laboratory; we can teach them when they look at rocks, when they look at thin sections of rocks, when they look at maps. We can teach them in lectures about the processes and materials but they really need to see these elements in place in the field.

It's about a two mile walk around the headland to the beach, and I'll go in the minibus.

And here they can look at the relationships between units, they can look at the structures within units and we try and teach them a lot of basic skills as well. This is a first year field trip so many of these students have never studied geology before and this is new to them. So we have to teach them how to observe, how to record those observations and how to interpret those recordings as well. As we go south-east broadly speaking we go from older rocks to younger rocks. We'll also teach them some basic skills such as, how to produce a geological map on a one to ten thousand scale; how to log a sedimentary section to get more detail out of the sedimentary rocks and how they formed and this will gradually build. And it will lead into later field trips when they'll go to Spain, to south-west England to other locations and they'll learn geology at a more sophisticated level.

S1 So it's important academically but also what's really nice is that it gives the students a great bonding experience. On a day like today it's beautiful weather but it's not always like this, sometimes there's inclement weather conditions and that really helps the students. They get through that together and they have a real sense of being part of a team.

S3 There's a wide range of geology in Wales and we're getting to see two hundred million years of rocks, of time period represented in Wales here and we're getting to see it all so there's a large amount of stuff we're seeing and it's helping with everyone's understanding of the subject.

S1 Another nice thing about fieldwork is that we, as members of academic staff, get to know the students. And it's nice that we do this big field trip in the first year because it's much easier - I personally enjoy teaching in groups or even in large lectures and knowing that I know the students and some of the personalities out there it's much easier to teach people once you know them. I think being in the field makes you see what you actually learn in books.

S4 You get to be in the surroundings of all the geology you've been learning and see exactly what the teacher's been telling you. It's also good to bond with your classmates; they might even be my colleagues in the future, so it's great.

S2 All the rocks you see today are Ordovician in age.

It'll culminate in their field mapping project for single honours and a similar project for joint honours students. This will be six weeks, six weeks in the field, it's time they usually enjoy and the product is usually a very high quality. It's where they prove that they are competent, professional geologists at the end of the day.

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