Rebecca Jamieson, Geologist

The coolest part about my job is I get to look through rocks.

Geology is the study of the earth, inside and out. Most geological work starts with a question; we're trying to solve some kind of a geological problem.

This is our lab, right here. We're doing field work and that really attracts a lot of students. The other thing is that, of course, we have to go to the rocks, they don't come to us; and so we get to travel. If you have a question that needs to be answered by looking at the Himalayas, well, you've got to go to the Himalayas, there's just no two ways about it.

When we do the field work we would take samples from representative locations around, for example, here in the park and take them back to the lab. We have thin sections made, and thin sections are slices of rock that have been glued onto glass slides and ground down to 30 microns thick so we can see through them. But then we put them under the microscope and the crystals in the rock cause polarization of the light—the same way your sunglasses might—and we can use that to identify the minerals and then we can measure their chemical compositions. We put all that together we can work out how hot the rocks have been; how deeply they've been buried. For example, right here, these rocks were probably at about 550 degrees Celsius and maybe eight kilometers below the earth's surface when they formed.

One of the projects I've been working on is a study of the rocks right here in Point Pleasant Park. There were features in the rocks that shouldn't be here if they were part of the same package of rocks that extends all the way through Halifax. So, based on that I concluded it was a different formation of rocks and with some colleagues we began to work out the story of these rocks.

One of the exciting things is that moment of discovery—I call it the 'bingo' moment—where something clicks. And it could be the answer to a question you've had going around in the back of your mind for quite a while or it could be the realization that there is a question that needs to be asked.

Some of the questions that geologists are involved in answering have to do with things that really affect people's everyday lives; for example, earthquakes or volcanoes, natural hazards of various kinds. Another big area is environmental geoscience; for example, finding water resources.

Probably most of our students are employed in either the mineral or petroleum exploration industries.

My advice to you is to follow your passion and don't be afraid to try something because it might seem difficult or maybe it doesn't look cool. Just give it a try; you'll surprise yourselves and you'll come away with a real sense of accomplishment.

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