WHY DO I teach? Because I love learning—especially about how the Earth works and how life fits into this complex system. When you love something so much, it’s natural to want to let the world know what makes it so compelling and really worth knowing. More than merely a source of mineral and fuel resources, or a hapless victim of environmental neglect, our home planet is all at once fragile, beautiful, powerful, violent, frightening and freakin’ awesome.

For me, teaching is also a transformative experience. I am by nature a classic introvert—soft-spoken, often painfully shy, and freaked out by crowds. And yet, once I’m in class and “in the zone,” nothing else matters but to convince my students that whatever it is I’m teaching is the most wonderful thing in the world, even if it means getting on all fours and acting like a dinosaur just to make a point. To this end, I think honesty and genuine enthusiasm are paramount to being the most effective teacher. When a teacher’s heart and soul are not invested in teaching, students can see right through that.

One part of my personality that creeps into everything I do is the need to be creative. In cooking (another of my favourite pastimes), I love the challenge of finding whatever ingredients are in the house to create (hopefully) a delicious and comforting meal for my family. In the same way, I’ll be in the middle of a lecture, spy some random object in the classroom—a blackboard eraser, a glove that someone left behind, or a bottle in a recycling bin—and think, “Hey, that’s exactly what I need to demonstrate this concept.” Former students have said these spontaneous teaching moments have been most effective in helping them remember difficult concepts. Luckily for me, the Earth sciences department has always tolerated (and even encouraged) my sometimes unconventional ways. They have always believed in me. They always come to bat for me at contract renewal time, year after year. My gratitude for that steadfast support from my colleagues makes me want to be the best teacher I can be—for them and for our students.

Why do I think teaching is important? On the surface are the tangible and practical benefits. As a geologist, I encourage students to consider a field of applied science that can lead to a fruitful and potentially very lucrative career. In this respect, I can serve as a mentor, helping them gain essential skills they will need as practising scientists. But at a deeper level, for all students I teach, Earth sciences majors or not, what I aim to instill is the confidence to be curious. Yes, it’s great to be able to give lectures on what we know, or think we know, about our world, but I find it even more exciting to say to students, “We don’t completely understand why this happens, but you might figure it out.” It is no secret that the greatest innovators in science and society tend to be those who question the traditional and conventional. I hope to encourage those future game-changing members of society to keep asking questions.

The very best part of teaching is that it is necessarily a dynamic relationship between students and teacher (and my wonderful teaching assistants, too). Yes, a good teacher always tries to effectively convey useful information. But teaching also provides me with a good excuse to indulge in my love of learning. My favourite moments are when a student asks a question and I have to respond, “I don’t know; I’ll have to look into that.” The student gets an answer, but I get something, too—another bit of information that I’m excited to share with students. The student wins, I win, and future students win—it’s a win-win-win situation.