**Educational Philosophy**

By learning you will teach, by teaching you will learn. – *Latin Proverb*

The stand-point I take in teaching is a simple one: If you can teach it, you learned it! This philosophy is based on the premise that knowledge is experience. Our realities’ are individualistic – they are based upon the sensory perceptions we use to discover our surroundings and how these perceptions are organized and retained in our minds. Each student in a classroom experiences a lesson in a different way and forms a different conceptualization of the material taught. The role of a teacher is not simply to teach students *about* something; rather good teachers help us learn how to *think about* something. In order for a teacher to be good at what they do, they must reflect upon the how they know the material they are teaching in order to impart it onto others. This ultimately develops a deeper understanding of the subject matter for the teacher, as well as the student – it is a reciprocal relationship. When I tell my students, “If you can teach it, you learned it!,” I will be essentially compelling them to think as good teachers think, and helping them reinforce a deeper understanding of the concepts they have learned. Students in my classroom will teach and learn from each other in group settings through the incorporation of cooperative learning strategies.

The teacher who is indeed wise does not bid you to enter the house of his wisdom but rather leads you to the threshold of your mind. – *Kahlil Gibran*

The field of science is founded upon discovery, and thus as a science teacher and a scientist it is my goal to inspire my students to inquire about why things are the way they are in our world. In other words, my aim is to help flourish the minds of our youth by teaching them how to think about the world of science in a scientific manner. To do this I need to connect the knowledge my students possess about their world with the knowledge that we work together to create during lessons. Students will be required to participate in my courses as I am a proponent of using discussion as a method to create learning. I am also an advocate of incorporating technology as a teaching aide (as it has become very prevalent in science), yet will never cease to acknowledge the importance of real-life experiences. Through discussion, the computer, and hands-on explorations students will be able to formulate their own opinions and interests about certain topics; topics that they may have never had the opportunity to think about before.

A teacher is one who makes himself progressively unnecessary. – *Thomas Carruthers*

The most rewarding aspect of teaching is that a teacher’s legacy lives on through every student they encounter. I seek to challenge my students to do their best in hopes that they will lead successful lives in the future. One of the main reasons I have been inspired to become a teacher is to help better prepare our youth to take on the challenges they will face in their post-secondary lives. This desire is based on my own experiences transitioning from high school to university. I feel that our students today need to better develop their own educational independence. My pedagogy will challenge students to think for themselves, take responsibility for their learning, and act upon their goals. I want my students to be respectful, motivated, and focused on education (much like myself), as I feel these attributes will help them achieve success in their life endeavours.

Science, in particular, is a subject that is completely tied to research, and is therefore continually advancing. I believe that our high school students are falling behind because they are not challenged to look beyond the textbook and recipe-style labs. I found that I was ahead of many of my peers when I entered university because I had the fortunate opportunity to begin reading primary source journal articles and conduct experimental research projects while in high school. Although typically associated with an undergraduate or graduate thesis, I want all of my students to be exposed to the research process before they leave my classroom. This is real-world, cutting-edge science and it is up to the students of today to fill the gaps in our knowledge and uncover the latest discoveries.