

Philosophy of Teaching

When I think back to the teachers that made me want to become a teacher myself, they had three things in common. They asked me what I thought about the topics we studied, they encouraged me to ask questions, and they made me feel as if I could succeed in their class. As a teacher it is my goal to provide this same collaborative atmosphere for my own students. By viewing learning as an experience for everyone in the classroom, I foster collaboration amongst students and myself. This means that in my classroom students' ideas will be a driving force in what we are learning and I will act as a facilitator, helping them further their scientific knowledge.

In my classroom, students' ideas take center stage. It is important for students to know that their ideas and thoughts are valued and important when it comes to learning. Eliciting student ideas serves a second purpose though, guiding my own planning. Research has shown that students are able to retain information best if it connects to their background knowledge. This means that I must first find out what students know in order to know where to start with new material. Then as we work through a unit it is imperative that I check in with students to find out what they are thinking and how their ideas are evolving. I can use these student responses to determine any misconceptions or material that we should review.

I believe science is more than just a series of facts; it is truly a process through which questions are answered. With the scientific process, we are able to view the world around us, ask questions about why the world is the way it is, and work to find an answer to that question. To me, learning science is really about learning the scientific process. In order to teach this process, I rely on inquiry-based learning. To begin a unit, I pose a question or situation to the students. The question or situation is related to their lives or something they already know about, allowing them to feel comfortable sharing their ideas. I can then facilitate the process of answering the question or finding a solution to the situation through hands-on activities, research, and laboratories. Hands-on activities allow students to experience phenomena that they may not be able to physically see, acting as concrete examples in their minds. Through researching, students are able to support the evidence they are collecting to answer the driving question of the unit. Laboratories give students a chance to collect and analyze data and use that information to formulate answers. Students then put all of this information into a solution for the original problem or an answer to the question. Through the process I act as a guide, providing the scaffolding necessary to take their original ideas and elevate them to the formation of new knowledge.

The true foundation of my teaching is helping students to feel and be successful in my classroom. This begins with building relationships with each student and helping students build relationships with each other. These relationships help students to feel that my classroom is a safe place to share ideas, which is imperative in inquiry-based learning. Students know that when they share their ideas in my classroom they will not be judged and that their ideas will be met with the same respect as all other ideas. In order to help students feel that they will be successful, I make sure to find new ways to motivate students. I work to relate material to their lives, giving value to what we are learning. Assignments provide a scaffold to support students as they share ideas and formulate new thoughts. This scaffolding increases the expectancy students have for the assignment, that is they feel that they are able to complete the task. Not only should students feel like they will succeed, but I want them to be successful in my classroom. I work to differentiate my instruction in order to reach all learners. Students are given options for assignments so that they have the chance to show their knowledge in a way that suits their needs.

With a supportive environment, knowledge of the scientific process, and a focus on student ideas, my classroom will produce scientifically literate world citizens. My students will be able to go out into the world and solve problems in new and creative ways, using what they learned about science and the scientific process in my classroom.