I seek to help students develop an appreciation for the study of mathematics. I want my students to see that mathematics isn’t arbitrary – the results we encounter are discoverable and can make sense. I want my students to be able to: use critical thinking to gain insight into course concepts; assess the reasonableness of models and solutions; improve solution processes through reflection; effectively communicate their understanding of concepts; use collaboration to solve problems and discuss ideas.

I seek to combine high expectations and empathy. I believe in the capability of each student and recognize that regardless of the opportunities they have previously had, they can grow as mathematicians and as learners with support and encouragement. I want to help my students develop positive mathematical identities in my classes. Identifying students’ current understanding and current questions allows me to tailor instruction to help them access the ideas of the course. I work to build authentic relationships with students and develop a community of learners in the class. I see one of the roles of a teacher as creating an environment in which students feel comfortable being wrong or not knowing an answer – but also an environment that encourages productive struggle to seek answers to those questions. I try to help my students feel empowered to make progress on problems that are complex or that they have never thought about before. I strive to help students gain independence as learners.

My aspirations are to motivate students to embrace a spirit of lifelong learning, to model a love of learning in my own attitude, to encourage students to question and to seek answers, and to give students the tools to know how to proceed when they don’t know exactly what to do. I don’t need my students to love math, rather I seek to help them learn how they can use math to support doing what they love.

My decisions and actions are aimed at creating an environment in which each individual feels valued, supported, and invested in the school community. I work to enhance a feeling of belonging by fostering connections among others as well. In the classroom this manifests in ways such as providing opportunities for students to share with each other about things that they are doing or upcoming events they are excited about, along with engaging in mathematical discussions. Outside of the classroom, this involves me attending events such as sporting events, fine arts events, and special occasions. Involvement in the school community is an important aspect of how I achieve my educational goal of being a culturally responsive educator.

Turning to more classroom and pedagogy focused methods, critical self-reflection on my teaching practices and lessons helps me to clarify my goals for the lesson and for the outcomes I want to see from my students. Once I have clarified this, I am able to consider which teaching practices support those goals and outcomes as well as which get in the way of achieving them. In addition to the goals of an individual series of lessons, I also focus on wider goals and outcomes. What learning practices do I want to see in my students? What do I want my students to carry with them in future classes? What moves can I make to support this and to help them gain independence and confidence as learners? With these guiding questions, I can focus on which elements of a lesson to modify. To consider how to modify my instruction, I will frequently talk with colleagues about their practices. I will also reflect on practices that have worked particularly well for me in other lessons or courses to provide additional possibilities for modification.

Focusing on student-centered pedagogy helps me differentiate my classroom for varied levels of understanding. Incorporating group work on open-ended programs also helps meet these varied needs. Open-ended questions allow me to pose additional questions to those who finish quickly while allowing others to move at a slower pace. I can prompt students to explain their ideas to each other, helping a student clarify their ideas and allow their classmates to learn from the explanation.

I work to help my students see the logical progression from one topic to the next. I try to help them to understand why we are learning each new topic and how topics relate to one another. I show my students that there are several basic ideas and strategies that are used repeatedly throughout mathematics. This helps my students build a “big picture” understanding of the course and of mathematics, in which they can see the purpose and reasoning behind each new idea or skill we study.
To encourage my students to develop a deeper understanding of the course topics, I often ask them to write and reflect about the mathematics we do. I pose questions to my students to get them thinking and discussing new topics in the class. During class discussions, I question the students’ claims and ask them to think about why we are seeing the results we are. I incorporate discovery activities into the class to help the students to develop intuition about ideas and to see where important formulas or ideas come from. I use observations during group work to plan the full class discussion that will follow. As I move through the class, I ask questions of those that seem to be making good progress to ensure everyone in the group hears their ideas. By facilitating discussions, I hope to encourage future communication between the students.

Rather than ask my students “Do you have any questions?”, I ask “What questions do you have?”. I want my students to see that I encourage, expect, and welcome questions. I thank them for their questions and for sharing their ideas even if they are incorrect. I show my students that I value their contributions and that I’m always willing to stop to hear an idea or a question. I start each class and end both classes and emails with reminders of help options. Asking for help or admitting confusion can be daunting for students. I am proactive if I notice a student struggling in the class. I reach out privately to suggest a meeting or ask if there is any support I can give. I work to make sure that my students know I am happy to help them and that it is ok to have questions.