

Regents School of Austin Department of Mathematics
Departmental Philosophy

Mission Statement (WHY?):

The study of mathematics at Regents School of Austin is a Christ-centered discipleship process in which we cultivate the affections of students to pursue that which is True, Good, and Beautiful in the science and art of quantitative and critical reasoning.

Portrait of a Graduate (Students, WHAT?):

We are educating problem-solvers to become winsome servant-leaders who value active engagement in meaningful struggle as the means of growth academically, personally, relationally, and spiritually.

Mathematical Practices at Regents (Characteristics of professional excellence, HOW?):

Sense-making: Meaning. Before a problem can be solved it must be understood within the context of prior knowledge. Critical thinking is by definition the critique of ideas. Critique requires a prior standard against which new knowledge can be measured. All problems must be gauged through a Christian lens that sees God as the foundation of truth, beauty, and goodness.

Perseverance: Confidence paired with humility. Grit. There is no opting out. Engaging in the process of working towards a solution is more formative than achieving the solution itself. Perseverance is forged through shepherded periods of struggle.

Collaboration: Teamwork. Math is not meant to be done in isolation and neither the teacher nor the textbook is the ultimate authority. Students should be able engage well with their classmates, learning to both listen and lead.

Communication: Students are expected to communicate reasoning in verbal, visual, and written form to both classmates as well as their teacher. Communication necessarily happens in community, with a diversity of thoughts and abilities. To communicate well is to be prepared to engage the thoughts of others and to be willing to have one's own thoughts refined in return.

Grace: Mistakes will be made. They must be made in order to learn. Students must feel free to make conjectures, ask questions, make mistakes, and express ideas and opinions without fear of criticism. Students are expected to *show* grace to both their classmates and their teacher. And students can expect to *receive* grace from both their classmates and their teacher.

Service: A real problem is never truly solved without some sacrifice made on the part of the problem-solver (a giving of talent, time, or treasure). A true problem-solver operates in a constant mindset of serving others. Math education is not ultimately about self-promotion, rather it is about equipping students to love and serve others well.

Affection: An innate wonderment at the realities of mathematics, the applications of mathematics, and the connection between them. Embracing the imbued curiosity of humanness and exploring imaginative, creative, beautiful, and powerful notions introduced through the study of mathematics.