



The goal of a mathematics program at a globally focused school is to develop an individual's capacity to understand the role of mathematics in the world; to study issues, situations or events of global significance that call for a mathematical approach or solution; and to use mathematics to support conclusions, arguments, decisions that lead them to act as reflective, constructive and concerned citizens of the world.

This leads a teacher of mathematics to ask the questions: What is the mathematics that students need to attain this goal? For example:

- What is the mathematics our students need to better understand the world?
- What is the mathematics that students need to know in order to solve complex problems in a complex world?
- How do we organize the mathematics content in a globally focused school to support the goals and outcomes for a graduate of a globally focused school?

To be able to describe the mathematics that we need to study, it is important that we understand that the world consists of situations, events, and phenomena:

- that can be represented, described, or quantified, entailing a solid understanding of algebra and the mathematics of generalization;
- that involve relationships among quantities, necessitating an understanding of functions and analysis;
- that are often physical, spatial and have measurable attributes, requiring a background in geometry and geometric measurement; and
- that are often inherently variable and uncertain, requiring an understanding of probability and statistics.

These domains of study constitute the basis of the mathematics program in a globally focused school. However, the right content is not enough; one must ensure that students have access to the appropriate experiences that will guide them in their use of the mathematics to better study and contribute to the world. To aid in this challenge, the GPS performance outcomes and rubric can serve as a focal point for organizing instructional experiences. The performance outcomes and rubric were developed to address the four expectations for any globally competent individual: that they can investigate the world, recognize perspectives, communicate ideas and take action. Within each of these expectations are specific skills, knowledge, and dispositions that will guide teachers in their decision-making for what should be taught and how it could be taught in a mathematics classroom focused on a global environment.