What defines a STEM School?

Development of the Framework

The S3 Categories and Roadmap are based on four years of research with over 25 inclusive STEM high schools across the nation. We took a “ground-up” approach to understanding STEM schools: instead of beginning with a definition of what we think a STEM school should be, we asked the STEM schools to tell us what they are.

We asked school leaders and key stakeholders in each of the participating STEM schools to identify and describe the most important components, or building blocks, of their school models. These are the concrete ways that STEM schools work to realize their educational goals. They identified 80 essential components, which through synthesis and review we have organized into the eight categories seen here.

The STEM School Roadmap (in the bottom right corner) provides a visual representation of how these pieces work together towards student success. More information about the Categories, Roadmap, and the study as a whole can be found at www.outlier.uchicago.edu/S3.

The S3 Categories and Roadmap are based on four years of research with over 25 inclusive STEM high schools across the United States, measures the factors that affect their implementation, and examines the relationships between model components and a range of student outcomes. The study contributes to the field and the growing attention to STEM schools by a) describing the elements of inclusive STEM high school models and the ways those elements are operationalized individually and in combination with others; and b) identifying and describing elements of the schools that appear to be related to desired student outcomes. In addition to study findings, this project will develop a clear framework for describing STEM school models and instruments for measuring enactment of those models, identify the factors that affect implementation, and create rich descriptions of STEM school practices. This work is supported by the National Science Foundation (Award #1238552).