STEM in the Archdiocese of Baltimore

January, 2011

Goals of the Program

Provide effective instruction that results in increased student achievement and growth

Inspire interest in STEM careers

Instill a love of learning

Teach 21st century skills through the integration and utilization of technology as a teaching and learning tool

Develop Professional Learning Community – "A group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth promoting way; operating as a collective enterprise" (Stoll et al 2006)

Achieve school improvement and growth

Requirements / Criteria

Professional Development

Professional Development for all faculty – ongoing and continual

Development of both school-wide and individual PD Plans

Curriculum

All students K- 8 are engaged in STEM projects and activities

Effective Algebra I instruction that results in students matriculating to Algebra II in High School

Foreign language program preferably in Grades K-8

A wide variety of experiences in science, technology, engineering and math

Continued emphasis on strong reading and writing skill development

Instruction

Interdisciplinary and integrated instruction

Differentiated instruction

Performance based and Project based instruction and assessment in core curriculum

5E planning, teaching and assessing model for STEM courses (engage, explore, explain, elaborate, and evaluate)

School-wide focus to use interactive technology tools to support instruction

Data driven decision making

Regularly scheduled joint planning time for grade levels and content areas

Partnerships

Partnerships with business and higher education institutions

Leadership

Stem Leadership Team formed within the school (3-5 members) that meets regularly

Tools

Science Lab

Investment in appropriate technology and learning tools