




SPARK STEM - MATH 600: Integrating STEM through Scientific and Mathematical Modeling

ANNOUNCING PROFESSIONAL DEVELOPMENT PROGRAM THROUGH
GEORGE MASON UNIVERSITY

Sponsored by SCHEV



Grant funded
graduate course
in STEM

Teachers will participate in

- Seminar/Design institute focused on STEM PBL Design (3 graduate credits)
- Follow-up School-based Lesson Study
- Priority 4th grade teachers, STEM/Math coaches

Meeting Dates: July 31- Aug 4 8:30-2:30pm

Thursday 5:30-8:00 pm 9/14; 9/28; 10/12; 10/26; 11/2 Symposium

Meeting Location: Centreville Elementary School, Centreville VA & George Mason University

Click here to submit your interest <https://www.surveymonkey.com/r/H5D7Y8T>



Scientific and mathematical modeling

Problem-based Learning

Access through Equitable Teaching Practices

Rigorous Content Knowledge

Knowledge and Confidence as STEM learner/leader

Program Contacts

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Sparking a Sense of Wonder in Mathematics and Science

SPARK STEM is a George Mason University professional development program funded by the State Council of Higher Education in Virginia (SCHEV). This project is led by Dr. Jennifer Suh, Dr. Andrew Gilbert and Dr. Padhu Seshaiyer. During the 2017-2018 project years, Fairfax County and Loudoun County Public Schools have partnered with George Mason University's STEM team!

The project goals for **SPARK STEM** is to develop and deliver an integrated STEM PBL Professional development for upper elementary/middle grades(4-6). "Ambitious teaching" which describes "teaching that aims to teach all kinds of students to not only know academic subjects, but also to be able to use what they know in working on authentic problems in academic domains" (Lampert, Boerst, Graziani 2011, p. 1) Yet, this type of teaching is quite challenging because it is not the norm in our schools and requires extensive integrative STEM knowledge for teaching. Similarly, learning to teach math and science has additional demands due to the conceptual and procedural difficulties that math and science presents. By designing a summer institute that has a SPARK STEM lab, teachers will be able to have some "pictures of practice" of what we mean by ambitious teaching in STEM. In addition, the SPARK STEM summer labs with elementary students will be video taped to serve as exemplars of ambitious teaching using STEM PBL.

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