

2018-19 Winter Professional Development

Open to All Teachers
Public & Private

MathScience Innovation Center

6 Degrees of Connection: Understanding the Interconnectedness of Earth Systems

December 15, 2018; 8:30 a.m.—2:00 p.m.

(This workshop is conducted in cooperation with Nurture Nature Center, Easton, PA and Maryland Science Center, Baltimore, MD, and made possible through a grant from NASA.)

Explore the interrelated systems that drive events on planet Earth and learn innovative new ways to connect your students to science. Using the latest NASA data and imagery, we will explore the topic with a newly-developed program on Science On a Sphere (SOS) and involve teachers in a creative arts-based communication workshop based on the SOS program.

Participants will hear from experts in Earth Science fields, providing content knowledge on the topic, and will take part in activities suitable for easy, replicable classroom use. The project will provide each teacher with lunch, a \$125 stipend and take-away materials provided by NASA.



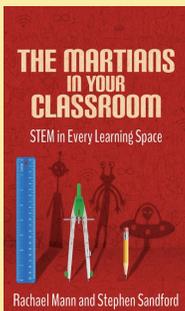
- Lunch
- \$125 Stipend
- Take-Away Materials

Martians in the Classroom Online Book Study

January 21—March 1, 2019; Meet online via Google Classroom

The Martians in Your Classroom reveals the urgent need for science, technology, engineering and math (STEM) and career and technical education (CTE) in every learning space.

Join us for lively online discussions as we delve deeper into ways you can prepare your students for the future. Interact with educators from around the state as you discuss how to stimulate young people through the study of space science. The authors will join the online conversation and share about the important roles educators, business and political leaders play in advancing STEM in schools.



- Book and Lesson Ideas
- Relicensure Points
- Meet the Authors

Origami Innovations: More Than Just Paper Folding

January 25, 2019; 1:00 p.m.—3:30 p.m.

- Educational Resources
- Take-Away Materials

Innovations in origami surged in the 20th century and continue today. New developments in paper folding and materials science stand at the intersection of art, science and engineering. Join us for an engaging

afternoon of learning as David Joo, a paper science and nanoscience researcher, shares new origami art and technology and his work with embedding nanoparticles into paper. He will also provide ways to use origami techniques in an interdisciplinary classroom.



Winter 2019 AP Statistics Conference: An Insider's Guide to Scoring the AP Statistics Exam

January 31, 2019; 8:30 a.m.—2:30 p.m.

Experienced AP Statistics Readers Barbara Filler and Mary Simons will share insights and best practices related to teaching Statistics to high school students. They will share how to best prepare students for the exam using the free response questions from the 2018 AP Statistics Exam and allow you to work through a mock training of how to score each question.

In the afternoon, you will enjoy hands-on activities to introduce, reinforce and review concepts important to the teaching of any Statistics class. Facilitators will also discuss how to develop rich mathematical tasks (histograms, distribution curves and other statistical concepts) without sacrificing content.



- 6 Relicensure Points
- Take-Away Materials
- Networking with Statistics Teachers

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Learn Computational Thinking and Coding in a STEAM Design Challenge

February 9, 2019; 8:30 a.m.—2:30 p.m.

Learn to apply both computational thinking and foundational coding skills to game-based coding using littleBits™! In this workshop, educators will learn to apply the computational thinking elements, participate in a STEAM design challenge and build a game that is manipulated by code using Google Blockly Based coding blocks.

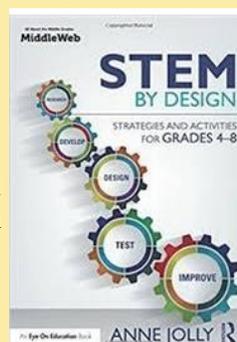
- 6 Relicensure Points
- Free Curriculum
- Teacher groups of 3 will be eligible for a littleBits Code Kit.

Educational coach and littleBits Lead Educator Jorge Valenzuela will share FREE curriculum (both plugged and unplugged), as well as best practices and facilitation tips useful to mastering computational thinking and game-based coding in your classroom.

STEM by Design Online Book Study

February 11 — March 22, 2019; Meet online via Google Classroom

Interested in enhancing your knowledge of STEM education and how to implement strategies in your classroom, school or division? *STEM by Design* will introduce you to best practices when creating and adapting learning strategies and activities for the STEM classroom. Through our reading and online collaboration and exploration, you will discover the power of STEM to deepen student engagement and understanding of core concepts.



- Book and Lesson Ideas
- Relicensure Points

Let's Put the E in STEM and STEAM

February 13, 2019; 8:30 a.m.—3:00 p.m.

- Educational Resources
- 6 Relicensure Points
- Instructional Materials

Engineering design is at the heart of teaching a STEM/STEAM based curriculum. To get a better understanding of how to implement engineering practices into scientific and mathematics based standards, join Master Teachers Jorge Valenzuela and Rachel Martin as they share authentic examples, best practices and inquiry-based lessons. Through creative collaboration and exploration, educators will learn to use the Engineering Design Process to create and adapt learning activities for the STEM and STEAM classroom.

FREE TO TEACHERS IN THESE MEMBER DIVISIONS:

- CHESTERFIELD COUNTY PUBLIC SCHOOLS*
- COLONIAL HEIGHTS PUBLIC SCHOOLS
- HANOVER COUNTY PUBLIC SCHOOLS
- HENRICO COUNTY PUBLIC SCHOOLS
- KING WILLIAM COUNTY PUBLIC SCHOOLS
- PETERSBURG PUBLIC SCHOOLS
- RICHMOND CITY PUBLIC SCHOOLS

* SPACE IS LIMITED

REDUCED RATES FOR THESE MEMBER DIVISIONS:

- DINWIDDIE COUNTY PUBLIC SCHOOLS
- GOOCHLAND COUNTY PUBLIC SCHOOLS
- HOPEWELL PUBLIC SCHOOLS
- PRINCE GEORGE COUNTY PUBLIC SCHOOLS

AND

- PRIVATE SCHOOLS
- COMMUNITY MEMBERS
- BUSINESS LEADERS



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www.myMSiC.org

