

# Next Generation Science Standards and STEM Workshops Presented by the SRI&ETTC Fall 2017



## SCIENCE AND ENGINEERING: PERFECT TOGETHER

**November 16, 2017 – 9 a.m. to 3 p.m.**

Engineering – the E in STEM should have a prominent place in the science classroom. Educators attending this workshop will realize what engineering should look and sound like in their classroom. Engineering as a discipline in which science and math concepts are applied, rather than engineering as just “building stuff” will be a focus.

Educators attending this interactive and engaging workshop will:

- engage in several engineering challenges
- understand the iterative nature of the engineering design process
- identify online grade-level and curricula appropriate engineering challenges
- plan for the successful implementation of engineering challenges

**Audience:** K-8 Science Teachers, STEM Teachers

**Cost:** \$178 or 7 ETTC Hours

## IMPLEMENTING NGSS SCIENCE & ENGINEERING PRACTICES

**December 6, 2017 – 9 a.m. to 3 p.m.**

Students **asking questions** that drive learning, **constructing scientific explanations** to promote understanding and **developing and using models** to represent their ideas are three explicit and essential *Science and Engineering Practices*.

Educators attending this interactive and engaging workshop will:

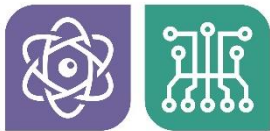
- actualize a strategy (the CER Framework) by which their students will effectively construct explanations and engage in argumentation
- recognize how and why students must develop, evaluate, and revise their own models to facilitate learning in science and engineering
- facilitate an approach (the Question Formulation Technique) to deliberately teach students the skill of asking questions
- explore online resources that provide lessons/activities to promote these practices.

**Audience:** K-8 Science Teachers, STEM Teachers

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**\*See Additional NGSS & STEM Workshops on the other side...**

**For more information or to register for these workshops please visit [www.etc.net](http://www.etc.net).  
If you need additional information regarding this workshop please call 609-626-3850.**



## Two NGSS/STEM TOPICS IN ONE DAY! January 18, 2018



### Integrating ELA in Your Science Lessons and Going to the Web to Take Your NGSS Implementation to a Higher Level

#### **Morning Session: *Integrating ELA in Your Science Lessons***

Integrating science/engineering content and ELA literacy capacities (reading, writing, speaking, listening and language) will support and enhance teaching and learning in your elementary or science classroom. During the morning session of this interactive and engaging workshop, educators will:

- acquire a repertoire of literacy-based activities such as: Word Splashes, Sort Cards, Relay Summaries, Paired Verbal Fluency, meta-cognitive conversation/writing, and news/article critiques
- identify ways to implement and modify the activities for diverse learners

**Audience:** Science Educators

#### **Afternoon Session: *Going to the Web to Take Your NGSS Implementation to a Higher Level***

Time is a precious commodity for educators. Little time exists during the busy school day or at home to spend hours online searching for teaching and learning resources. This workshop provides that time! During the afternoon session of this interactive and engaging workshop, educators will:

- explore the best web sites for STEM lesson plans, activities, projects and videos
- select resources that are grade-level and student population appropriate
- share ideas for planning, integrating and implementing

**Audience:** K-8 Science Teachers, STEM Teachers

**Participants can register for the Morning or Afternoon Session or join us for the full day!**

**Half Day Session cost:** \$106 or 4 ETTC Hours

**Full Day Session cost:** \$178 or 7 ETTC Hours

**All workshops will be presented by Barbara Mammen.**

Ms. Mammen is an Educational Consultant, and former science teacher, district Supervisor of Science and Technology, and STEM Project Manager at Stevens Institute of Technology and Rider University.

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