

Two-Day Train-the-Trainer Institute

NEXT GENERATION SCIENCE STANDARDS Training Your Grades 6-12 Science Teachers to Effectively Incorporate **NGSS** into Their Science Instruction



Presented by **ELIZABETH MIRRA**
Presidential-Award-Winning Science Teacher, Science Coach
and National Science Teacher Trainer

Specifically Designed for Educators Serving Grades 6-12: Science Department Heads, Team Leaders, Science Coaches, Science Coordinators, Science Teachers, Professional Development Trainers, and Administrators

- ▶ **Train your science teachers to make the NGSS** a more integral part of their instruction in grades 6-12
- ▶ **Discover the overlap between science and engineering** and how to help science teachers seamlessly integrate the two into science instruction
- ▶ **Receive ready-to-use tools, templates, activities, an extensive NGSS resource handbook**, and a PowerPoint slide presentation adaptable for immediate use to train teachers to better understand the shifts required to incorporate the NGSS into their instruction
- ▶ Time-efficient ways to develop your own instructional resources and units **aligned with the NGSS**

2018 SCHEDULE

Michigan

Lansing – November 19-20

MI SCECH Available (5 Hours Per Day)

“*Liz is very well educated on NGSS and all of the ideas had examples, so it's easy to implement. I feel confident to teach the rest of my department.*”

– MELISSA JENSEN, HIGH SCHOOL TEACHER

Practical Ideas and Strategies

Develop your knowledge, skills and confidence to lead your school or district toward successful implementation of the *Next Generation Science Standards*. Over the course of two days, you will learn how to help science teachers develop instruction that is dynamic, student-centered, exemplifies three-dimensional learning, and integrates science and engineering. In this unique opportunity, you'll gain valuable, research-based best practices for boosting student achievement in science. You'll leave with resources to help science teachers better understand how to make the vision of the *NGSS* a reality in their classrooms and to better understand what the new standards require students to know and be able to do. You'll learn how to develop classroom assessments and scoring guides that align with the *NGSS*. Whether you are new to the *NGSS* or an experienced specialist, you will find numerous ideas, strategies, techniques, and activities that you can use immediately to increase the engagement, motivation and success of your students in science.

To help you train your teachers, Presidential Awardee for Excellence in Science, science coach, *NGSS* expert and popular presenter **Liz Mirra** has developed this practical train-the-trainer opportunity you won't want to miss.

All participants will leave with an *NGSS* PowerPoint presentation and an extensive *NGSS* resource handbook with practical strategies, proven resources and helpful instructional planning guides that you can immediately put to use to train, motivate, inspire, and support your science teachers.

A Practical, Two-Day Institute Focused on Supporting Science Teachers in Implementing the *NGSS*



Plan to attend as a school or district team, a representative team member, or district team leader and bring back the knowledge and skills to improve science instruction and student achievement. You will learn how to build on the strengths of your current science program, identify the instructional shifts that will have the greatest

impact on student science achievement in your school or district, and develop a plan for implementation and improvement. Return to your school with professional development strategies and resources to support and train your teachers to better incorporate the *NGSS* into their instruction.

Structure Science Instruction for the Greatest Results—Boost Teacher Expertise AND Student Achievement

Discover the attributes of highly effective science instruction and learn how to inspire teachers to make the vision of the *NGSS* a reality in their classrooms. Gain valuable ideas for conducting motivating and engaging professional development while deepening your own understanding of the *NGSS*. During the two days, you will learn how to help science teachers make better sense of the new standards, incorporate them into their instruction and create engaging and motivating learning opportunities that improve student mastery.



Support and Train Your Teachers to Incorporate the NGSS, Including:

- **Practical strategies** for supporting science teachers whether they are just beginning to work with the NGSS or are more experienced
- **Professional development activities** aimed at helping teachers more deeply understand the instructional implications of the NGSS
- **How to “unpack” a Next Generation Science Standard** to better understand what students need to know and be able to do ... How to use this process in training other science educators
- **How to design science lessons and units** that incorporate the science and engineering practices, crosscutting concepts and disciplinary core ideas found in the NGSS
- **Where to find the most useful resources** that are aligned to the NGSS
- **Available tools to help teachers evaluate** how well instructional and curricular materials align with the NGSS
- **How to modify existing curricular materials** to align with the *Next Generation Science Standards*
- **What three-dimensional learning is** and how to help teachers make it a reality in their classrooms
- **How to help teachers develop classroom assessments and scoring guides** that assess three-dimensional learning
- **Strategies for helping teachers design science instruction** that allows ALL students to be successful
- **How to use anchoring phenomena, driving questions and a coherent storyline** to engage and motivate students
- **Research-based best practices** for boosting student achievement in science
- **Where to find the best resources** to help teachers understand the how to make the vision of the NGSS a reality in their classrooms
- **How to help teachers use a “cascade of practices”** to design instruction that provides opportunities for students to use evidence to support modeling and explanations of their thinking
- **How to more effectively incorporate engineering design** into science instruction



“*Liz made the NGSS understandable and entertaining! New activities encouraged collaboration and interaction – all as we learned and experienced the ropes of NGSS! Well done!*”

– MARIA GONZALEZ, SCIENCE TEACHER



**To Register,
Call Toll-Free**

1-800-735-3503

A Message From Your Institute Leader, Elizabeth Mirra



Bureau of Education & Research

915 118th Avenue SE • PO Box 96068 • Bellevue, WA 98009-9668
Phone (800) 735-3503 • Fax (425) 453-1134 • www.ber.org

Dear Colleague:

The *Next Generation Science Standards* represent the most current research on science and science learning. These new standards require us to make shifts in our instructional practices that can be a significant departure from the ways we have approached science instruction in the past. While it is an exciting time to be a science educator, I know many educators are overwhelmed by the new standards and unsure where to start when moving toward the *NGSS*.

In this practical, two-day train-the-trainer institute, I will share specific strategies, tools and resources that you can begin to use immediately to help you and your teaching colleagues incorporate the *Next Generation Science Standards* into your science instruction. My goal is that you will walk away with highly effective practices that you can confidently implement in your classroom and easily replicate to inspire teachers in your school or district.

I will share highly effective ways to seamlessly integrate the science and engineering practices, crosscutting concepts and disciplinary core ideas into effective and engaging instructional sequences. Learn innovative techniques for creating a dynamic, student-centered classroom where students collaborate to make sense of real-world scientific phenomena and solve engineering problems. You will leave knowing how to better transform science classrooms into efficient and effective learning environments where critical thinking, hands-on science and project-based learning lead to increased student mastery of the new standards.

I invite you to join me for this valuable experience that will inspire and motivate you to return to your school better prepared to help science teachers immediately implement the resources and cutting-edge instructional techniques that support the *NGSS*. To help support this experience, you will be provided with an extensive *NGSS* resource handbook that has all the resources shared during the institute. I will respect your time by only sharing the best resources and strategies to help your students master the new standards. I look forward to meeting you at the institute!

Sincerely,

Liz Mirra

P.S. I'll be sharing with you only **the most practical and effective strategies** from my own experiences teaching and coaching in science classrooms – these ideas really work!

“*I will share highly effective ways to seamlessly integrate the science and engineering practices, crosscutting concepts and disciplinary core ideas into effective and engaging instructional sequences.*”

What Your Colleagues Say About Liz Mirra

*"Liz's presentation is **the first I have attended that finally pulled the NGSS together, making them realistic and feasible to implement in the classroom.**"*

– Judy Crull, Science Teacher

*"Great! **I now have a better idea of NGSS.**"*

– Margaret Warrem, High School Science Teacher

*"Liz is **fantastic and incredibly engaging.**"* – Tamara Barfield, Science Teacher

*"We were not just given concepts, **we were given the strategies how to implement these concepts.** Because of my better understanding of modeling and crosscutting concepts I will now be implementing these in my future science lessons."*

– Patricia Ramsawak, High School Science Teacher

*"Liz presents **good, practical content on the NGSS.** Nice shift from current way of teaching – kids will love it."*

– Amandeep Singh, Science Teacher

*"Liz is very knowledgeable and took time to answer all questions. **She really changed the way I think about science education. I'm so excited to get back into my classroom!**"*

– Emily Sandy, High School Biology Teacher

*"Liz is **professional, polished and approachable.**"*

– Diane Guida, High School Science Teacher

"I'm excited to implement NGSS. I feel I now have the tools to make this possible!"

– Jaymie Mikeworth, High School Science Teacher



Uniquely Qualified Instructor

ELIZABETH MIRRA is a science instructional coach and a middle and high school science educator with more than 17 years of experience. As a science teacher, she has remarkable success boosting students' motivation and achievement in her science classes. She was involved in reviewing and providing feedback on the *Next Generation Science Standards* throughout their development and has worked with numerous school districts providing professional development on best science practices and assistance with aligning curriculum to the new standards. Elizabeth is the recipient of the prestigious President's Award for Excellence in Science Teaching and is the author of *NEXT GENERATION SCIENCE STANDARDS: Training Your Grades 6-12 Science Teachers: How to Effectively Incorporate NGSS into Their Science Instruction*, the extensive resource handbook each participant will receive at the institute.

Liz's presentations are known for being filled with practical, engaging strategies and useful insights that will be helpful for you in your efforts to train and support other science teachers in better aligning their instruction to the *Next Generation Science Standards.*

Special Benefits of Attending



Who Should Attend

Educators Serving Grades 6-12: Science Department Heads, Team Leaders, Science Coaches, Science Coordinators, Science Teachers, Professional Development Trainers, and Administrators.

On-Site Training

Most BER institutes and seminars can be brought to your school or district. See the options at www.ber.org/onsite or call 877-857-8964 to speak to one of our On-Site Training Consultants.

Can't Attend?

Other Professional Development Options:

Convenient Online Courses

A related On Demand Video-Based Online Learning course, *Help Your Students Master the Next Generation Science Standards: Practical Strategies and the Best, New Tools*, for Grades 6-12, is available for immediate registration.

To enroll, visit www.ber.org/onlinelearning

You'll Receive an Extensive NGSS Resource Handbook:

Each institute participant will receive an extensive NGSS resource handbook that is specifically designed for this institute. Included in the handbook are:

- Practical ideas for helping your students meet rigorous science content and practice standards, including those aligned with the *Next Generation Science Standards*
- Powerful strategies to increase student engagement and retention of core ideas from the new standards
- Innovative ideas for integrating the science and engineering practices and crosscutting concepts into your science instruction
- Proven step-by-step techniques for planning engaging instructional sequences aligned to the NGSS
- Outstanding ideas for incorporating engineering into your science instruction

Meet and Share with Other Science Educators

This institute provides a wonderful opportunity for participants to meet, share ideas and network with other secondary science educators who are helping to train and support science teachers in incorporating the NGSS.

Consultation Available

Elizabeth Mirra will be available at the institute for consultation regarding your questions and the unique needs of your own science program.

Earn One to Four Graduate Semester Credits



Up to four graduate level professional development credits are available with an additional fee and completion of follow-up practicum activities. Details for direct enrollment with Brandman University, part of the Chapman University system, will be available at this program.

Meet Inservice Requirements

At the end of the program, each attendee will receive a certificate of participation that may be used to verify hours of participation in meeting continuing education requirements.

Train-The-Trainer Institute

**NEXT GENERATION
SCIENCE STANDARDS**
Training Your Grades 6-12
Science Teachers to
Effectively Incorporate
NGSS into Their
Science Instruction

RESOURCE HANDBOOK

by Elizabeth Mirra



Bureau of Education & Research



Two-Day Train-The-Trainer Institute

NEXT GENERATION SCIENCE STANDARDS: Training Your Grades 6-12 Science Teachers to Effectively Incorporate *NGSS* into Their Science Instruction

Registration (VCM9F1)

Lansing, MI – November 19-20, 2018

FIRST NAME	M.I.	LAST NAME

POSITION, SUBJECT TAUGHT	GRADE LEVEL	

List additional registrants on a copy of this form

SCHOOL NAME	

SCHOOL MAILING ADDRESS	

CITY & STATE	ZIP CODE
_____	_____
SCHOOL PHONE NUMBER	HOME PHONE NUMBER
()	()

Registration confirmations are sent via e-mail.
If you would like a confirmation, please provide your e-mail address.

E-MAIL ADDRESS	

HOME MAILING ADDRESS	

CITY & STATE	ZIP CODE
_____	_____

IMPORTANT: PRIORITY ID CODE EVCM9F1

METHOD OF PAYMENT – Group Discount Available

The registration fee is \$645 per person, for groups of three or more registering at the same time, the fee is \$595 per person. **Payment is due prior to the program.** No cash please.

A check (payable to **Bureau of Education & Research**) is attached

A purchase order is attached, P.O. # _____
(Be sure to include priority ID code on the P.O.)

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Account # _____ Exp. Date: _____
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Please print name as it appears on card Signature (required for credit card purchases)

FOUR EASY WAYS TO REGISTER:

 REGISTER ONLINE at: www.ber.org

 FAX this form to: **1-425-453-1134**

 PHONE toll-free: **1-800-735-3503** (Weekdays 6 am - 6 pm Pacific Time)

 MAIL this form to: **Bureau of Education & Research**
915 118th Avenue SE • PO Box 96068
Bellevue, WA 98009-9668

PRE-REGISTRATION REQUIRED DUE TO LIMITED ENROLLMENT

Program Hours

All institutes are scheduled 8:30 a.m. - 3:15 p.m. daily.
Check-in 8:00 a.m. - 8:30 a.m.

Fee

The registration fee is \$645 per person, \$595 per person for groups of three or more registering at the same time. Call us at 1-800-735-3503 for groups of ten or more. **Payment is due prior to the program.** No cash please. Fee includes institute registration, morning coffee and tea, a personalized certificate of participation, and an extensive resource handbook.

Cancellations/Substitutions

100% of your paid registration fee will be refunded if you can't attend and notify us at least 10 days before the institute. Late cancellations can exchange for a certificate to attend another seminar or will be refunded less a \$15 service fee. Substitutions may be made anytime without charge.

Further Questions

Call the Bureau of Education & Research (800) 735-3503 or visit us online at www.ber.org. The Bureau is North America's leading presenter of seminar training for professional educators. Programs are based on sound research, are highly practical in content and consistently receive excellent evaluations.

Program Guarantee

We stand behind the high quality of our programs by providing the following unconditional guarantee: If you are not satisfied with this program, we'll give you a 100% refund of your registration fee.

Meeting Site and Hotel Accommodations

This institute will be held at the following site:

➤ Lansing: SpringHill Suites, (517) 627-0002

If needed, please make your own hotel reservations by calling the hotel listed above.



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Research

TWO-DAY TRAIN-THE-TRAINER INSTITUTE *Next Generation Science Standards* (Grades 6-12)

- **Train Your Staff to Effectively Incorporate *NGSS* into Science Instruction**
- **A Unique One-Day Seminar**
- **Coming to a Location Near You**

VCM9F1

Two-Day Train-the-Trainer Institute

NEXT GENERATION SCIENCE STANDARDS: Training Your Grades 6-12 Science Teachers to Effectively Incorporate NGSS into Their Science Instruction



A Unique One-Day Seminar Coming to a Location Near You

Train your science teachers to make the *NGSS* a more integral part of their instruction in grades 6-12

Discover the overlap between science and engineering and how to help science teachers seamlessly integrate the two into science instruction



Receive ready-to-use tools, templates, activities, an extensive *NGSS* resource handbook, and a PowerPoint slide presentation adaptable for immediate use to train teachers to better understand the shifts required to incorporate the *NGSS* into their instruction



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