

# Help Your Students Master the ***NEXT GENERATION SCIENCE STANDARDS:*** Practical Strategies and the Best, New Tools (Grades 6-12)



A Unique One-Day Seminar Presented by

**Elizabeth Mirra**

Outstanding Science Educator and National Presenter

Specifically Designed for Educators Who Teach Science in  
Grades 6-12: Classroom Teachers, Department Heads, Science Specialists,  
and Administrators

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**Highly engaging techniques and tools** to more effectively incorporate the  
*Next Generation Science Standards (NGSS)* into your science instruction

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**Powerful strategies** to increase student engagement and learning of the  
NGSS core ideas

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**Gain proven, effective tips and tools** that will challenge your students  
with problem solving and inquiry-based learning

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Receive an **extensive science resource handbook** filled with dozens of valuable  
strategies and tips to help your students master the NGSS

## **Illinois**

**Champaign – October 31**

**Chicago North – October 29**  
(Elk Grove Village)

**Chicago South – November 1**  
(Alsip)

**Moline – October 30**

## **Michigan**

**Detroit – October 28**  
(Romulus)

## **New York**

**Albany – December 5**  
(Schenectady)

**Buffalo – December 2**  
(Amherst)

**Rochester – December 3**

**Syracuse – December 4**

## **Vermont**

**Burlington – December 6**

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CEUs and Graduate Credits Available  
See page 6 for details

# Ten Key Benefits of Attending

'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, TEACHER



## Who Should Attend

Educators who teach science in Grades 6-12:  
Classroom Teachers,  
Department Heads,  
Science Specialists,  
and Administrators

- 1. More Effectively Implement the *Next Generation Science Standards* in Your Science Classroom**  
Learn from an enthusiastic secondary science educator and national presenter about the essential steps to integrate the new standards' rigorous three dimensions into your current curriculum and instruction
- 2. Make Your Science Classroom More Student Centered**  
Learn a variety of outstanding techniques to fully focus your students on learning the key concepts and skills of the *Next Generation Science Standards* and how to provide multiple opportunities for students to practice and master these skills
- 3. Increase Student Motivation in Learning the *Next Generation Science Standards***  
Discover proven ways to actively engage students in dozens of highly motivating activities designed to engage all types of learners
- 4. Discover the REAL Meaning of Modeling in the *Next Generation Science Standards***  
Explore modeling as a powerful tool for unlocking student thinking and monitoring conceptual change
- 5. Engage Your Students in Activities that Support Collaboration and Argumentation**  
Learn to enhance student achievement through proven strategies that promote sense-making, collaboration and argumentation
- 6. Boost Student Inquiry and Research Skills**  
Discover ways to foster inquiry-based learning to make science come alive ... Help students develop the critical thinking and problem-solving skills emphasized in the NGSS
- 7. Significantly Improve Student Learning and Retention of Challenging Science Concepts**  
Unlock the power of the science and engineering practices and crosscutting concepts to enable your students to succeed with consistently impressive results
- 8. Utilize Innovative Methods to Seamlessly Integrate Science and Engineering**  
Use proven techniques for incorporating engineering into your science instruction and improve student engagement and achievement
- 9. Expand and Energize Your Methods to Incorporate Reading, Writing and Math into Your Science Classrooms**  
Learn how to use reading, writing and math to enhance student understanding of scientific phenomena and address your state standards
- 10. Receive an Extensive Science Resource Handbook Focused on Learning the *Next Generation Science Standards***  
Each participant will receive an extensive resource handbook filled with practical ideas, tips and tools for helping your grades 6-12 science students master the NGSS skills and concepts

# Outstanding Strategies You Can Use Immediately

## What You Will Learn ...

- **A clear understanding of what is encompassed** in the *Next Generation Science Standards*
- **Practical techniques** to more effectively incorporate the *NGSS* into your own secondary science classroom
- **Powerful strategies** to focus student learning on the core skills and concepts of the *NGSS*
- **Proven ways to significantly increase student motivation** in learning science
- **Innovative ways to ensure that students consistently retain and build** on the core ideas of the new standards
- **Practical examples** of how to develop instructional strategies that help students develop the critical thinking and problem-solving skills necessary for engineering
- **Strengthen student understanding** of complex science phenomena using the crosscutting concepts
- **Proven methods** to immerse students in real-world science scenarios to increase motivation and learning and incorporate the science and engineering practices
- **How to provide multiple opportunities** for your students to practice and master the *NGSS* skills and concepts
- **Practical ways to strengthen your science instruction** using the science and engineering practice of modeling
- **Specific methods** to capture and retain students' focus on learning science in ways that significantly boost achievement



*"Liz made the New Generation Science Standards understandable and entertaining: the new activities encouraged collaboration and interaction, all as we learned and experienced the ropes of NGSS. Well done!"*

– MARIA GONZALEZ, SCIENCE TEACHER

## Practical Ideas and Strategies

In this highly engaging, interactive seminar, you will learn a wealth of effective ways to help your students master the rigorous science and engineering practices, disciplinary core ideas and crosscutting concepts incorporated in the *Next Generation Science Standards*. Beginning with developing a deeper understanding of the ambitious vision of the new standards, you will discover clear pathways for blending the *NGSS* into your current science instruction.

Throughout the day, **Elizabeth Mirra**, an experienced, award-winning secondary science teacher, will show you how to integrate the three dimensions of the *NGSS* into engaging instructional sequences that will motivate students and maximize their learning of the new standards. You will receive a wealth of innovative ideas for including engineering, reading, writing, and math in your science instruction that will enhance your students' ability to master the essential skills and concepts included in the *NGSS*.



# A Message From Your Seminar Leader, Elizabeth Mirra



## Uniquely Qualified Instructor

**ELIZABETH MIRRA** is a math and science instructional coach and a middle and high school science educator with more than 17 years of experience. As a science teacher, she had 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 *Help Your Students Master the NEXT GENERATION SCIENCE STANDARDS: Practical Strategies and the Best, New Tools (Grades 6-12)*, the extensive resource handbook each participant will receive at the seminar. Spending the day with Elizabeth is a rich opportunity filled with practical, creative strategies perfect for helping your students master the *Next Generation Science Standards*.

Dear Colleague:

I look forward to welcoming you for a day that will be filled with a wealth of outstanding, practical take-right-back-to-your-classroom strategies you can use to significantly increase student motivation and achievement in your science classes. Specifically designed for science educators in grades 6-12, our day will focus on highly effective tools and techniques to successfully master the *Next Generation Science Standards*.

Starting with the vision of the new standards, 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. I will share innovative techniques for creating a dynamic, student-centered classroom where students collaborate to make sense of real-world scientific phenomena. Your classroom will become a more efficient and effective learning environment where critical thinking, hands-on science and project-based learning lead to increased student mastery of the *NGSS*.

I invite you to join me for this valuable experience that will inspire and motivate you to return to your classroom and immediately implement the resources and cutting-edge instructional techniques I will share at this seminar. To help support this experience, you will be provided with an extensive resource handbook that includes the resources shared during the seminar. 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 seminar!

Sincerely,

Elizabeth Mirra

P.S. As an experienced secondary teacher, I understand the extra effort it takes to be out of the classroom. I promise you that our day together will be worth your time and that you will leave with dozens of **ready-to-use, practical ideas and strategies you can implement immediately in your science classrooms.**

*"Specifically designed for science educators in grades 6-12, our day will focus on highly effective tools and techniques to successfully master the Next Generation Science Standards."*

# What Your Colleagues Say About Elizabeth Mirra

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*"This is **the first seminar I have attended that finally pulled the NGSS together, making them realistic and feasible to implement in the classroom.**"* Judy Crull, Science Teacher

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

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*"We were not just given concepts, **we were given the strategies on how to implement many of these concepts.**"* Patricia Ramsawak, Earth Science High School Teacher

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*"Liz presents **good, practical content on the NGSS.**"* Amandeep Singh, Science Teacher

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*"I enjoyed the day. Liz is engaging and I'm leaving with **practical, easy-to-implement tools for my classroom.**"* Dawn Giovanetto, High School Science Teacher

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*"I appreciate the practical applications of the information. **I have new ideas for my lesson tomorrow!**"* Kathy Hafner, High School Biology Teacher



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*"Great! **I now have a better understanding of the Next Generation Science Standards.**"* Margaret Warrem, High School Science Teacher

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*"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

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*"Liz is **professional, polished and approachable.**"* Diane Guida, High School Science Teacher

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*"Liz gave **a lot of great, useful information** to begin to implement right away."* Jackie McLain, Middle School Teacher

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*"**I'm excited to implement NGSS. I feel I now have the tools to make this possible!**"* Jaymie Mikeworth, Science Teacher/Dept. Head

# Special Benefits of Attending



## Online Learning

BER offers educators a wide range of online courses that are affordable, fun, fast, and convenient. BER is now offering On Demand Video-Based courses. You may earn optional graduate-level credits for most courses. See the catalog of available courses at [www.ber.org/online](http://www.ber.org/online)

*"I left with resources and ideas that I will absolutely use in my classroom."*

— CANDACE BARICH, SCIENCE TEACHER.

## On-Site Training

Most BER seminars can be brought to your school or district. See the options at [www.ber.org/onsite](http://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:

#### Related Online Course

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/online](http://www.ber.org/online)



## You'll Receive an Extensive NGSS Resource Handbook

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

- 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
- Creative ways to integrate reading, writing and math into your science instruction

## Meet and Share with Other Science Educators

This seminar provides a wonderful opportunity for educators to meet and share ideas with other secondary science educators interested in helping students master the NGSS.

## Meet Inservice Requirements / Earn State CEUs

Participants will receive a certificate of participation that may be used to verify continuing education hours.

### CEUs Available

#### Illinois

5 IL PD Clock Hours Available

#### Michigan

MI SCECH Available (5 Hours)

#### New York

5 NY CTLE Hours Available; PA CPE Hours Verification Available with Prior District Approval in Buffalo

#### Vermont

VT Inservice Credit Available with Prior District Approval; 5 NY CTLE Hours Available

## 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.

# Help Your Students Master the *NEXT GENERATION SCIENCE STANDARDS:* Practical Strategies and the Best, New Tools (Grades 6-12)

## Registration (CNM0F1)

- 1. **Albany** (Schenectady), **NY** – December 5, 2019
- 2. **Buffalo** (Amherst), **NY** – December 2, 2019
- 3. **Burlington, VT** – December 6, 2019
- 4. **Champaign, IL** – October 31, 2019
- 5. **Chicago North** (Elk Grove Village), **IL** – October 29, 2019
- 6. **Chicago South** (Alsip), **IL** – November 1, 2019
- 7. **Detroit** (Romulus), **MI** – October 28, 2019
- 8. **Moline, IL** – October 30, 2019
- 9. **Rochester, NY** – December 3, 2019
- 10. **Syracuse, NY** – December 4, 2019

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|--|-------------|-----------|
| FIRST NAME   | M.I.        | LAST NAME |
| <hr/>  |             |           |
| POSITION, SUBJECT TAUGHT                               | GRADE LEVEL |           |
| <hr/>  |             |           |
| SEMINAR LOCATION NUMBER: _____ (Please see list above) |             |           |

**List additional registrants on a copy of this form**

|                        |                   |
|------------------------|-------------------|
| SCHOOL NAME            |                   |
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| SCHOOL MAILING ADDRESS |                   |
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| CITY & STATE           | ZIP CODE          |
| <hr/>                  | <hr/>             |
| 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.**

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| HOME MAILING ADDRESS |          |
| <hr/>                |          |
| CITY & STATE         | ZIP CODE |
| <hr/>                | <hr/>    |

**IMPORTANT: PRIORITY ID CODE: ECNM0F1**

## METHOD OF PAYMENT – Team Discount Available

**The registration fee is \$279 per person**, for groups of three or more registering at the same time, the fee is \$259 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.)
- Charge my:     MasterCard     VISA     Discover





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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](http://www.ber.org)
-  **FAX this form to: 1-425-453-1134**
-  **PHONE toll-free: 1-800-735-3503** (Weekdays 6 am - 5 pm Pacific Time)
-  **MAIL this form to: Bureau of Education & Research**  
915 118th Avenue SE \* PO Box 96068  
Bellevue, WA 98009-9668

## Program Hours

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

## Fee

The registration fee is \$279 per person, \$259 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 seminar registration, morning coffee and tea, a personalized certificate of participation, and an extensive resource handbook.

## Meeting Sites and Hotel Accommodations

Seminars will be held at the following sites:

- Albany: DoubleTree – Schenectady, (518) 393-4141
- Buffalo: Marriott – Amherst, (716) 689-6900
- Burlington: Hilton, (802) 658-6500
- Champaign: Holiday Inn, (217) 398-3400
- Chicago North: Holiday Inn – Elk Grove Village, (847) 437-6010
- Chicago South: DoubleTree – Alsip, (708) 371-7300
- Detroit: Hilton Garden Inn – Airport, (734) 727-6000
- Moline: Stoney Creek Hotel & Conference Center, (309) 743-0101
- Rochester: Hilton Garden Inn – University & Medical Center, (585) 424-4404
- Syracuse: Sheraton, (315) 475-3000

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

## Cancellation/Substitutions:

100% of your paid registration fee will be refunded if you can't attend and notify us at least 10 days before the conference. Late cancellations will be refunded less a \$15 service fee. Substitutions may be made at any time without charge.

## Further Questions

Call the Bureau of Education & Research (800) 735-3503 or visit us online at [www.ber.org](http://www.ber.org)

## 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.

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Practical Strategies and  
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The Most Up-To-Date Approaches and Best Practices to Strengthen Your Science Instruction

A Unique One-Day Seminar

Coming to a Location Near You



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**Highly engaging techniques and tools** to more effectively incorporate the *Next Generation Science Standards* (NGSS) into your science instruction

**Powerful strategies** to increase student engagement and learning of the NGSS core ideas

**Motivating classroom-ready ideas** for seamlessly integrating the scientific and engineering practices, disciplinary core ideas and crosscutting concepts into your instruction