

or Recorded Version

# Improving Learning Outcomes for All Students in Your SCIENCE Classroom

(Grades 6-12)





A Unique One-Day In-Person 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

**Practical strategies** for designing science instruction to help ALL students achieve in science

**Classroom-tested, research-based instructional strategies** that work in diverse, inclusive science classrooms

**Highly effective ways to more deeply incorporate the** *Next Generation Science* **Standards** in your science instruction to improve student achievement

**Proven techniques** for selecting the right phenomena to engage even the most reluctant learners in science

#### California

**Anaheim – February 16** (Garden Grove)

**Ontario - February 15** 

#### Hawaii

Honolulu - February 17

#### Oregon

Portland - February 14

CEUs and Graduate Credit Available See page 6 for details

#### **CAN'T ATTEND?**

Order the recorded version and take the seminar online at your convenience (see page 6)

"Liz presents good, practical content."

AMANDEEP SINGH, SCIENCE TEACHER

# **Ten Key Benefits of Attending**

"Liz is fantastic and incredibly engaging."



#### Who Should Attend

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

- 1. Dramatically Improve Science Learning Outcomes for ALL Students Discover proven strategies to help diverse students master the NGSS standards whether instruction is online or in-person
- 2. Utilize Timesaving Techniques for Differentiating Science Instruction Discover time-efficient ways to differentiate science instruction to better meet diverse student needs ... Learn proven ways to provide enrichment and remediation in your science instruction in-class and online
- 3. More Effectively Incorporate the Next Generation Science Standards in Your Science Instruction

Learn from an enthusiastic secondary science teacher and national presenter practical ways to more effectively align your science instruction with the NGSS and improve the learning outcomes for all of your students

- 4. Engage Students Through Powerful Anchoring Phenomena Learn how to choose the best phenomena that will engage your students – even reluctant learners
- 5. Receive Take-Home Strategies for Scaffolding Scientific Writing Learn ready-to-use ways to scaffold scientific writing for English Language Learners and students with writing disabilities
- 6. Incorporate Formative Assessments into Your Classroom Instruction Being able to monitor student understanding is essential to ensuring all students achieve the standards ... Uncover practical ways to streamline this process
- 7. Make Your Science Classroom More Three-Dimensional to Increase **Student Success**

Learn how integrating science and engineering practices, crosscutting concepts and disciplinary core ideas into our daily science lesson plans is the key to meeting students' diverse needs and enabling their success in science

- 8. Create a Rigorous, Student-Centered Science Classroom Acquire strategies that encourage students to take greater ownership of challenging concepts
- 9. Help Students Make Greater Sense of Phenomena Through the Science and **Engineering Practices**

The science and engineering practices are a game changer – they put students in positions of being knowers, doers and makers and are a critical component to promoting student equity ... Here's how

10. Receive an Extensive Science Resource Handbook

Each participant will receive an extensive resource handbook filled with practical strategies, lessons, tips, and much more to improve science learning outcomes whether you're teaching in-person or online

# **Outstanding Strategies You Can Use Immediately**

#### What You Will Learn ...

- Proven strategies for helping diverse students in inclusive classrooms master the science standards
- Where to find engaging anchoring phenomena to drive instruction in your virtual or traditional classroom
- How to choose the phenomena that will work best for the students in your classroom
- What three-dimensional learning driven by a phenomenon can look like in diverse, inclusive classrooms
- **Highly effective ways** to use the science and engineering practices to maximize students learning
- Ways to make student thinking visible and formatively assess students with limited English proficiency or writing disabilities
- **Practical ways** to differentiate instruction so that struggling students are supported and excelling students are challenged
- **Powerful techniques** for teaching students to engage in focused, productive science discourse
- Proven strategies for structuring and facilitating science talk and argumentation
- Classroom-tested supports and scaffolds to help English language learners and students with learning disabilities succeed with scientific writing
- Where to find the best free paper-and-pencil and online assessments that align with the NGSS
- How to make assessments accessible and equitable for all learners
- Proven methods to significantly increase student motivation in learning science
- **Practical ways** to use the science and engineering practices to strengthen your instruction and meet student learning needs





"Liz is professional, polished and approachable."

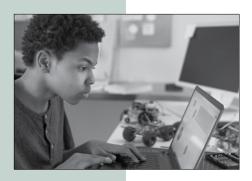
- DIANE GUIDA, HIGH SCHOOL SCIENCE TEACHER

### **Practical Ideas and Strategies**

Science has been called "the great equalizer." It helps to create a scientifically literate population, creates career-ready students, and helps attracts students to the fields of science and engineering. All students see increases in achievement when engaged in high quality science instruction and non-mainstream and less privileged populations see the greatest impacts from those learning experiences. So how do we create instructional opportunities that maximize these outcomes for all students? In this seminar specifically designed for 6-12 science classroom teachers, learn the research-based classroom-proven strategies that have a positive impact on increasing student engagement and improving student outcomes in our increasingly diverse and inclusive science classrooms. **You'll leave with tools and resources that you can take back and put to use immediately.** 



# A Message From Seminar Leader, Elizabeth Mirra



#### **Uniquely Qualified** Instructor

**ELIZABETH MIRRA** is a science instructional coach and a middle and high school science educator with more than 20 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 was the 2011 recipient of the prestigious President's Award for Excellence in Science Teaching and is the author of *Improving the Outcomes* for All Students in Your Science Classroom (Grades 6-12), the extensive resource handbook each participant will receive at the seminar.

#### Dear Colleague:

Each year our science classrooms are becoming more diverse and including students with a variety of backgrounds, learning differences, and prior knowledge of science. I know in my classroom, it's not uncommon to have a high performing student sitting next to a student that is a nonreader. There are also students with limited English proficiency, students with learning disabilities and students that have just transitioned back from an alternative placement in the same classroom. Most educators find it challenging to meet all the diverse needs of these very different students.

Fortunately, there are research-based strategies that I have personally implemented in my science classroom that have turned this seemingly impossible teaching scenario into a successful learning environment for my students. Come spend the day with me so that I can share with you how to increase your students' engagement and motivation in learning science, how to design learning opportunities that help ALL students master the science standards and how to create equitable and accessible assessments of student learning. I'll even help you navigate how to do this whether you are currently teaching in an online, hybrid, or traditional learning environment.

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 digital 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 ALL your students be successful in learning science.

I look forward to meeting you online at the seminar!

Sincerely,

Liz Mirra

As an experienced secondary educator, 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.

"I will share with you how to increase your students' engagement and motivation in learning science."

# What Your Colleagues Say About Elizabeth Mirra

"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

"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

"I appreciate the practical applications of the information. I have new ideas for my lesson tomorrow!"

Kathy Hafner, High School Biology Teacher

"Great! I now have a better understanding of the Next Generation Science Standards."

Margaret Warrem, High School 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** 

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

Jaymie Mikeworth, Science Teacher/Dept. Head







# **About BER Seminars**

#### **Outstanding Instructors**

All programs are led by outstanding, top-rated BER national trainers

#### **Extensive Resource Handbook**

You'll receive an extensive digital Resource Handbook full of practical strategies and resources. (For in-person seminars, registrants will also receive a printed copy of the resource handbook as long as their registration is received in the BER office at least 15 calendar days before the event.)

#### **Highly Interactive**

You'll be able to ask questions, consult with the instructor, and share ideas with other participants

#### **Program Guarantee**

As we have for 44 years, we guarantee the high quality of our programs. If you are not satisfied, we'll give you a 100% refund.

# **Special Benefits of Attending**



"Liz gave a lot of great, useful information to begin to implement right away."

JACKIE MCLAIN, MIDDLE SCHOOL TEACHER

#### **On-Site Training**

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

#### **Extensive Resource Handbook**

Each participant will receive an extensive digital resource handbook giving you access to countless strategies. The handbook includes:

- Step-by-step guides for implementing the strategies with your students in virtual or face-to-face learning environments
- Resources for making science learning accessible for all students in diverse, inclusive learning environments
- The best websites for finding free instructional and assessment materials that align with the NGSS
- Sample units for the content and grade level you teach that you could implement with students
- Classroom-tested templates and scaffolds for differentiating science instruction

For in-person seminars, registrants will also receive a printed copy of the resource handbook as long as their registration is received in the BER office at least 15 calendar days before the event.

#### **Consultation Available**

Elizabeth Mirra will be available to answer your specific questions and the unique needs of your own program.

#### **Meet Inservice Requirements / Earn State CEUs**

Participants of In-Person Seminars and those completing the Recorded Version online can receive a certificate of participation that may be used to verify five continuing education hours. For details about state CEUs available, visit www.ber.org/ceus

#### **Earn One to Four Graduate Semester Credits**



University of Global Anonprof

Up to four graduate level professional development Massachusetts credits are available with an additional fee and completion of follow up practicum activities. Details

for direct enrollment with University of Massachusetts Global, will be available at this program.

## Can't Attend? **Other Professional Development Options:**



#### Recorded Version of the Seminar

A video recorded version of this seminar will be available to take online at your convenience. You'll have access to the entire course and to the extensive digital resource handbook. Optional CEUs and graduate credit available.

To enroll, see registration form on page 7.



#### Related On-Demand 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/online

For purchases in WA State on Recorded Seminars and On-Demand courses, please add 10.1% sales tax to the total amount.

# Improving Learning Outcomes for All Students in Your SCIENCE Classroom (Grades 6-12)

Regi	stration (CO	M2W1)			
<ul> <li>□ 1. Anaheim (Garden Grove), CA – February 16, 2022</li> <li>□ 2. Honolulu, HI – February 17, 2022</li> <li>□ 3. Ontario, CA – February 15, 2022</li> <li>□ 4. Portland, OR – February 14, 2022</li> <li>— or —</li> </ul>					
□ 5. I'd like to order the recorded version of this seminar For purchases in WA State on Recorded Seminars, please add 10.1% sales tax to the total amount.					
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#### **FIVE EASY WAYS TO REGISTER:**



**REGISTER ONLINE at: www.ber.org** 



EMAIL this form to: register@ber.org



PHONE toll-free: 1-800-735-3503

(Weekdays 5:30 am - 5:30 pm Pacific Time)



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



MAIL this form to: Bureau of Education & Research

915 118th Avenue SE • PO Box 96068

Bellevue, WA 98009-9668

#### **Program Hours**

All In-Person Seminars are scheduled 8:30 a.m. - 3:15 p.m. Check-in is 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.

Fee includes seminar registration, a certificate of participation and an extensive digital resource handbook. The fee is the same for In-Person Seminars, or Recorded Seminars.

For in-person seminars, registrants will also receive a printed copy of the resource handbook as long as their registration is received in the BER office at least 15 calendar days before the event.

#### **Meeting Sites and Hotel Accommodations**

Seminars will be held at the following sites:

- Anaheim: Marriott Suites Garden Grove, (714) 750-1000
- Honolulu: DoubleTree Alana Waikiki, (808) 941-7275
- Ontario: Azure Hotel & Suites, (909) 284-8670
- Portland: Crowne Plaza Convention Center, (503) 233-2401

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 seminar. Late cancellations made prior to the event date 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. The Bureau is North America's leading presenter of PD 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.

COM2W1

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# **Improving Learning Outcomes** for All Students in Your **SCIENCE Classroom** (Grades 6-12)





Outstanding Science Educator and National Presenter

An outstanding one-day In-Person Seminar

**Includes an extensive Resource Handbook** 

Can't Attend? A Recorded Version is available to use online at your convenience

BUREAU OF EDUCATION & RESEARCH 915 118th Avenue SE PO Box 96068 Bellevue, WA 98009-9668 www.ber.org

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**Strengthen Student Learning in SCIENCE** (Grades 6-12)



**Unique One-Day In-Person Seminar** 

Version to Use at Your Convenience (Also available as a Recorded Online

Presented by

# mproving Learning Outcomes for All Students in Your SCIENCE Classroom (Grades 6-12)

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Generation Science Standards in your science instruction to improve Highly effective ways to more deeply incorporate the Next in diverse, inclusive science classrooms Classroom-tested, research-based instructional strategies that work students achieve in science Practical strategies for designing science instruction to help ALL

the most reluctant learners in science Proven techniques for selecting the right phenomena to engage even student achievement

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