Bureau of Education & Research

Live Online Seminar or Recorded Version

Improve Student Learning in CHEMISTRY
(Grades 6-12)

A Unique One-Day Live Online Seminar Presented by

Elizabeth Mirra

Outstanding Science Educator and National Presenter

Specifically Designed for Educators Who Teach Chemistry in Grades 6-12

Practical, evidence-based strategies for successfully increasing student learning of chemistry topics

Classroom-tested, research-based instructional strategies that maintain rigor and work in diverse, inclusive chemistry classrooms

Highly effective ways to more deeply **incorporate the *Next Generation Science Standards (NGSS)* in your chemistry instruction** and improve student achievement

Receive an extensive digital resource handbook filled with dozens of teaching tips, instructional strategies, and educational resources for enhancing learning of chemistry topics

LIVE ONLINE SEMINARS

March 26

9 AM Eastern, 8 AM Central, 7 AM Mountain, 6 AM Pacific

March 30

9 AM Central, 8 AM Mountain, 7 AM Pacific, 10 AM Eastern

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)

"This was one of the best seminars I have ever attended in my 30 years of teaching!"

– LOREN MANN, CHEMISTRY TEACHER

Ten Key Benefits of Attending

"This seminar gave me new resources and broke down NGSS Standards into something easier to understand. It also gave me some tangible ways to implement it in my classroom that I can start next week!"

– TREVOR NORTH, CHEMISTRY TEACHER

1. **Strengthen Student Learning**
   Leave with dozens of ways to enhance your existing chemistry curriculum … Access an abundance of materials, lessons, programs, and activities that embrace best practices in chemistry instruction
2. **Help Your Struggling Students**
   Discover proven strategies to help struggling students be more successful in learning chemistry topics
3. **More Effectively Incorporate the *Next Generation Science Standards* Into Your Chemistry 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. **Strengthen Inquiry Learning**
   Familiarize yourself with research-based methods for enhancing existing lessons and activities through encouraging students to be active and innovative participants in inquiry-based classroom learning … Strengthen collaboration and improve outcomes
5. **Engage Students Through Powerful Anchoring Phenomena**
   Learn how to choose the best phenomena that will engage your students – even reluctant learners
6. **Timesaving Monitoring Techniques**
   Being able to monitor student understanding is essential to ensuring all students achieve in chemistry … 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 your daily science lesson plans is the key to meeting students' diverse needs and enabling their success in chemistry
8. **Create a Rigorous, Student-Centered Science Classroom**
   Acquire strategies that encourage students to take greater ownership of challenging concepts
9. **Help Students Engage With 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 and increasing learning … Here's how
10. **Receive an Extensive Chemistry Digital Resource Handbook**
    Each participant will receive an extensive chemistry digital resource handbook filled with practical strategies, lessons, resources, and much more to improve chemistry learning outcomes

Who Should Attend

Educators Who Teach Chemistry in Grades 6-12

Outstanding Strategies You Can Use Immediately

What You Will Learn ...

- **Proven methods for developing learner-centered activities** that will motivate students to investigate chemistry topics
- A multitude of useful and valuable **classroom-ready ideas to encourage science inquiry** through challenging, chemistry-focused learning experiences
- Useful resources that will **motivate and inspire your students**
- Unique ideas for embracing the practices of science to **hone your students' questioning, modeling, and collaboration skills**
- Methods for incorporating **highly effective, authentic, real-world problem-solving challenges** into your existing chemistry program
- Proven strategies for helping students **master rigorous chemistry topics**
- **How to choose phenomena** that will work best for the students in your classroom
- **What three-dimensional learning driven by a phenomenon can look like** in chemistry classrooms
- Highly effective ways to use the **science and engineering practices to maximize students' learning**
- **Practical ways to differentiate instruction** so that struggling students are supported and excelling students are challenged
- **Where to find three-dimensional assessments** that align with chemistry standards
- **How to effectively integrate the science and engineering practices, crosscutting concepts and disciplinary core** ideas into your daily lesson plans in order to meet students' needs and enable their success in chemistry

"This was a great explanation of how to use NGSS in the classroom. Gave basic break down of NGSS as well as more advanced uses and how to create a 3-Dimensional Classroom."

– REBECCA MCKEE, TEACHER

Practical Ideas and Strategies

Chemistry is often called the "central science" for good reason. Developing a deep understanding of the basic principles of chemistry is an essential prerequisite to learning not only more advanced chemistry topics but also ideas found in the biological sciences, earth and space sciences or physics realms. Yet, learning the ideas of chemistry is not straightforward. Chemistry ideas are abstract and happen on scales that are often too small or too large to easily comprehend. Students often do not understand, only partially understand, or indeed misunderstand many of the key concepts of chemistry. So how do we create instructional opportunities that minimize this confusion and maximize student outcomes? In this seminar specifically designed for Grades 6-12 chemistry classroom teachers, outstanding chemistry teacher, **LIZ MIRRA,** shares the best, research-based classroom-proven strategies that have a positive impact on increasing student engagement and improving student outcomes in our increasingly diverse and inclusive chemistry classrooms. **Join Liz for a fast-paced, engaging day and leave with dozens of tools and resources that you can take back and put to use immediately in your chemistry classroom.**

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 *Improve Student Learning in CHEMISTRY (Grades 6-12),* the extensive digital resource handbook each participant will receive at the seminar.

Dear Colleague:

Helping students to understand the complex concepts of chemistry is not easy. Many of the ideas are abstract and require an understanding of very large or very small scales that are not easily quantified. On top of that, each year our chemistry classrooms are becoming more diverse and including students with a variety of backgrounds, learning differences, and prior experiences learning chemistry. I know in my chemistry classroom, it's not uncommon to have a high performing student sitting next to a student that is a nonreader. Most educators find it challenging to meet the needs of these very different students while maintaining a rigorous chemistry curriculum.

Fortunately, there are research-based strategies that I have personally implemented in my chemistry 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 chemistry, how to design learning opportunities that help ALL students master the abstract concepts of chemistry, and how to find and create three-dimensional assessments of chemistry concepts.

I invite you to join me for this valuable experience that will inspire and motivate you to return to your chemistry 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 look forward to meeting you!

Sincerely,

Liz Mirra

P.S. As an experienced chemistry 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, strategies, and resources** you can implement immediately.

"I can share with you how to increase your students' engagement and motivation in learning chemistry, how to design learning opportunities that help ALL students master the abstract concepts of chemistry, and how to find and create three-dimensional assessments of chemistry concepts."

What Your Colleagues Say About Elizabeth Mirra

*"I was given **great resources and examples** that I will be able to implement into my classroom."*

– Rebecca Anderson, Teacher

*"I love the resources provided. The examples were **extremely applicable and easily comprehended.**"*

– Carrie-Leigh Dean, Middle School Science Teacher

*"**Liz's presentation was phenomenal!** I have so many ideas that I'm hoping to introduce this year and will use other resources to form another course being offered next year."*

– Tracy Windham, UL Science Teacher

*"The information was presented in a way for educators to think about how they are providing chemistry knowledge to their students and finding a more effective way to improve the learning. Thank you, Liz, for **providing us with a wealth of information** to consider as we move forward."*

– Dana Barefoot, Chemistry Teacher



About BER Seminars

Outstanding Instructors

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

Extensive Digital Resource Handbook

You'll receive an extensive digital Resource Handbook full of practical strategies and resources.

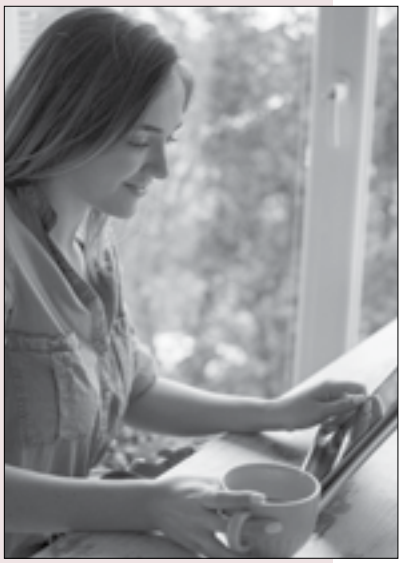
Highly Interactive

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

Program Guarantee

As we have for 48 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



"Was given a lot of information that was very useful knowledge as we move forward with NGSS standards."

– COLLEEN KOENIGSBERG, CHEMISTRY TEACHER/ DEPARTMENT CHAIR

Extensive Digital 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

Share Ideas with Other Educators

This seminar provides a wonderful opportunity for participants to share ideas with other educators interested in enhancing their chemistry program.

Consultation Available

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

Meet Inservice Requirements / Earn State CEUs

Participants of Live Online 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 Massachusetts Global

Up to four graduate-level professional development credits are available with an additional fee and completion of follow up practicum activities. Details may be found at www.ber.org/credit

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.

Can't Attend?

Other Professional Development Options:

Recorded Version of the Seminar

Order the recorded version of this seminar to take online at your convenience. You'll have 90-day access to the entire course and to the extensive digital resource handbook. To enroll, see registration form on page 7, and for optional CEUs and graduate credit, please visit www.ber.org/credit

Related On-Demand Online Courses

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

Improve Student Learning in CHEMISTRY
(Grades 6-12)

Registration (CCM6S1)

☐ **1. March 26, 2026** (Start time: 9 AM Eastern)
☐ **2. March 30, 2026** (Start time: 9 AM Central)
—or —
☐ **3. I'd like to order the recorded version of this seminar**

FIRST NAME M.I. LAST NAME

POSITION, SUBJECT TAUGHT GRADE LEVEL

SEMINAR NUMBER: _____ (Please see list above)

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 and login details are sent via e-mail

E-MAIL ADDRESS (REQUIRED FOR EACH REGISTRANT)

HOME MAILING ADDRESS

CITY & STATE ZIP CODE

IMPORTANT – PRIORITY ID CODE: ECCM6S1

METHOD OF PAYMENT – Team Discount Available

The registration fee is $295 per person;
for teams of three or more registering at the same time, the fee is $275 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

Account # _____ Exp. Date: _____ MO/YR

Billing Zip Code: _____ 3 Digit CVV Code: _____ (Found on back of card)

_____
Please print name as it appears on card

FIVE EASY WAYS TO REGISTER:

SCAN QR code or visit: **at.ber.org/regCCM**

EMAIL this form to: **register@ber.org**

PHONE toll-free: **1-800-735-3503**
(Weekdays 5:30 am - 5:00 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 **Live Online Seminars** are scheduled 9:00 AM – 3:30 PM in the time zone indicated. Check in 15 minutes prior. Registrants will be sent login information by email four days before their Live Online Seminar.

Fee

The registration fee is $295 per person; $275 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 Live Online Seminars or Recorded Seminars.

WA residents: visit www.dor.wa.gov/TaxRateLookup to find your required WA sales tax rate.

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.

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.

Further Questions

Call the Bureau of Education & Research (800) 735-3503 or visit us online at **www.ber.org**

CCM6S1

Improve Student Learning in CHEMISTRY (Grades 6-12)

An outstanding one-day Live Online Seminar

Includes an extensive digital Resource Handbook

Can't Attend Live? Order the Recorded Version to access online at your convenience

CCM6S1

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