Day One

Keynote • 8:30 – 9:05 am

STEM! #whyiteach – Jeff Stenroos
Join outstanding and inspirational speaker, teacher and STEM leader, Jeff Stenroos, for an exciting keynote to kick off this STEM Conference for grades K-6! As a teacher, you are a leader. You impact the lives of more people than you might realize. What makes you special? Teachers have a passion and a calling to the profession. You have the spark that brings life to learning for students. Discover how STEM can bring new life to teaching for you and new life to learning for your students! Join Jeff in celebrating the reasons we are teachers and how we positively impact the lives of our students in our classrooms and beyond!

MORNING SESSIONS • 9:15 – 11:50 am

Choose ONE Full Morning Session OR TWO 70-Minute Sessions
One mid-morning break

Full Morning Session • 9:15 – 11:50 am

A-1: WOW Factor! Low- to No-Cost STEM Demonstrations for Grades K-6 – Jeff Stenroos
Captivating, low- to no-cost demonstrations, lessons and projects that will get you and your students excited about STEM! Hooks that will engage your students and enhance STEM skills of observation and questioning. This will be an interactive, hands-on session providing you with ready-to-use ideas to enhance or develop your own STEM instruction.

70–Minute Sessions • 9:15 – 10:25 am

CHOOSE ONE: A-2 or A-3

A-2: Practical Strategies to Incorporate Project Based Learning in Your STEM Instruction – Jaime Bailey
STEM instruction fits perfectly with Project Based Learning! Discover real-world problems rich with STEM content that provide opportunities for trial and error problem solving. Put STEM and PBL strategies into a meaningful context that incorporates more content without adding hours of extra planning time.

A-3: Easy and Fun STEM Challenges to Develop Teamwork and Collaboration Skills – Brad Fulton
Collaboration is a key skill for successful STEM work. Discover high-interest and engaging activities that teach math and science skills while helping students learn to work together in more productive ways. Ideas you can easily implement immediately!

70–Minute Sessions • 10:40 – 11:50 am

CHOOSE ONE: A-4 or A-5

A-4: Practical Strategies for Building Content Knowledge to Strengthen Your STEM Lessons – Jaime Bailey
Explore numerous free resources to use with your students to broaden and deepen the knowledge needed to understand STEM concepts and skills. Learn how to balance your hands-on STEM labs with content that engages students in critical thinking. Resources, ideas and much more to bring critical thinking to the front of your STEM classroom!

A-5: Incorporating the Principles of Sound into STEM: Sounds Like Fun! – Brad Fulton
Easy and fun ways to teach the science of sound while applying engineering skills to create different models – a harmonica, oboe, bagpipe, and telephone. Taking it a step further, learn how to help students extend their learning and conquer new challenges to test their engineering and creativity.

Lunch break on your own • 11:50 am – 1:05 pm (A great time to network with colleagues!)

Team Discount
ONE DAY
One Person: $269
BOTH DAYS
One person: $449
Team of 3+: $429 per person when enrolled at the same time
Can’t Attend? Another Professional Development Option:

A related On Demand Video-Based Online Learning course, Practical Strategies for Using Project-Based Learning to Enhance Your STEM Instruction, for Grades K-8, is available for immediate registration.

To enroll, visit www.ber.org/onlinelearning
Day Two

MORNING SESSIONS • 8:30 – 11:15 am

Choose ONE Full Morning Session OR TWO 75-Minute Sessions
One mid-morning break

Full Morning Session • 8:30 – 11:15 am

C-1: Strategies to Integrate Critical Reading and Writing Skills into STEM Instruction – Jaime Bailey

Significantly strengthen your STEM instruction by integrating reading and writing opportunities. Help your students become better readers, listeners and critical users of informational text and video as they apply it to their STEM work. Access and customize free resources using Symbaloo to help differentiate content for K-6 students. Your students will start thinking more carefully and deeply about STEM topics through planned reading and writing activities.

First 75–Minute Morning Sessions
8:30 – 9:45 am

CHOOSE ONE: C-2 or C-3

C-2: Perfect STEM Lessons for Grades K-2! – Jeff Stenroos

Getting our youngest students engaged in STEM is the key to developing lifelong interests in STEM. Tap into the natural curiosity of K-2 students with a variety of ready-to-use activities and projects that are easy to get started and touch all the elements of quality STEM instruction.

C-3: Engaging Electricity Explorations for STEM Classrooms – Brad Fulton

Students love learning about electricity! In this interactive session, you will explore how to help your students learn about circuits, resistance, polarity, and more. Perfect for all K-6 classrooms, these labs use simple, safe and inexpensive materials to understand the principles of electricity – all through active involvement!

Second 75–Minute Morning Sessions
10:00 – 11:15 am

CHOOSE ONE: C-4 or C-5

C-4: Using Inquiry-Based Learning to Activate and Accelerate Student Achievement in STEM – Jeff Stenroos

Discover how to shift your current lessons to take students from direct science instruction to student-directed learning. Help your students develop their own ideas and guide them to meaningful problem-solving projects. Practical strategies that really work!

C-5: Mixing Math, Physics and More in an Engaging STEM Project – Brad Fulton

Join Brad in this exciting lab that will get students engaged in math and physics! Learn how to help students design parachutes and modify their models to maximize effectiveness. Measurement of time, area and weight can be integrated with design and graphing in this fun engineering task that will have your most reluctant learners eagerly participating!

11:15 am – 12:30 pm • Lunch Break (on your own)

Comprehensive Resource Handbook

You will receive an extensive STEM resource handbook, specifically designed for this conference. Included in the handbook are resource materials for ALL conference sessions, even those you don’t attend. These materials include:

• Ready-to-use STEM project ideas
• Rich sources of ideas to develop STEM projects of your own
• Detailed instructions, activity masters, materials lists, web resources, and research tips
• Examples of assessments and projects that incorporate a variety of content areas
• Ideas to spark inquiry and collaboration using STEM activities
• A wealth of websites, apps and technology resources to discover STEM activities and projects for your own K-6 classroom

“I am so excited to read more in the handbook we received – so many great resources, websites and hands-on experiments!”

– Stefanie Glad, Technology & STEAM Teacher

On-Site Training

Conferences like this one along with many other topics can be brought to your school or district. Please view all of our On-Site PD options at www.ber.org/onsite or call 877-857-8964 to speak with an On-Site Training PD Consultant.

… “Insightful” “Motivating” “Interactive” “Creative” …
Conference Locations & Hotel Accommodations

**BOSTON** offers world-famous Museum of Fine Arts, the Isabella Stewart Museum, the Freedom Trail through Boston’s historic sites, or a boat cruise on the Charles River.

**Conference location and overnight accommodations:**
Four Points by Sheraton – Wakefield
(781) 245-9300

Mention you are attending this BER conference prior to February 10, 2019 to receive the special rate of $109 (Single-Quad), rates subject to availability.

**COLUMBUS** offers a great variety of area attractions, including the Columbus Zoo and Aquarium, Franklin Park Conservatory, COSI Museum, and Ohio Stadium.

**Conference location and overnight accommodations:**
Crowne Plaza – Dublin
(614) 764-2200

Mention you are attending this BER conference and reference group code BOE prior to February 20, 2019 to receive the special rate of $85 (Single/Double), rates subject to availability.

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Day Two

**AFTERNOON SESSIONS • 12:30 - 3:10 pm**

Choose **TWO** 75-Minute Afternoon Sessions

*One mid-afternoon break*

**First 75–Minute Afternoon Sessions**
12:30 – 1:45 pm

**CHOOSE ONE: D‑1, D‑2 or D‑3**

**D‑1: Designing Catapults: 3-2-1 Launch!**
– Brad Fulton

In this fun and captivating engineering challenge, learn how to teach your students to design their own catapult to launch an object as far as possible. Teamwork, engineering, design, testing, and evaluation will all be addressed in this creative approach to a popular STEM activity.

**D‑2: Simple STEM Projects You Can Do Now – At Any Level**
– Jeff Stenroos

Discover projects that use easy-to-find, low- to no-cost items to create STEM projects for your classroom. These simple projects can help kickstart your STEM learning environment and allow you to develop your STEM classroom. Learn guided lessons that bring out the budding engineers and their problem-solving strategies.

**D‑3: Structuring Student Collaboration for STEM Success!**
– Jaime Bailey

A STEM classroom means students are doing the talking and the working! As teachers, we need to step out of the way and let students solve their problems together. Learn how to scaffold learners to work together to find answers, solve problems and access materials. We can teach students to support each other as they keep their project moving. This session will focus on choreographing your classroom to help students work more successfully as teams.

**Second 75–Minute Afternoon Sessions**
1:55 – 3:10 pm

**CHOOSE ONE: D‑4, D‑5 or D‑6**

**D‑4: Practical Strategies to Get Your K-6 Students and Staff Excited About the Science Fair!**
– Jeff Stenroos

Having trouble getting students and teachers excited about the next science fair? Join Jeff and learn effective ways to help students conceptualize projects from simple investigations to more in-depth, ongoing projects that fit perfectly with STEM.

**D‑5: Getting Students Past the Fear of Failure: Strategies to Develop Grit and Perseverance (Grades 3-6)**
– Brad Fulton

Do your students suffer from Fear of Failure-itis? Are they plagued by Risk Aversion Syndrome? Are they victims of Frustration Paralysis? Help is on the way! Learn how to turn failure around from a negative to a positive in this intriguing engineering challenge that will teach your students to persevere when the going gets tough!

**D‑6: Practical Strategies to Strengthen the ‘E’ in Your STEM Projects**
– Jaime Bailey

Engineering can be the most engaging part of the STEM process – but how do we help students go through the creative design process to strengthen their engineering skills? Learn the steps including material testing and rapid idea generation to get your students thinking like engineers!