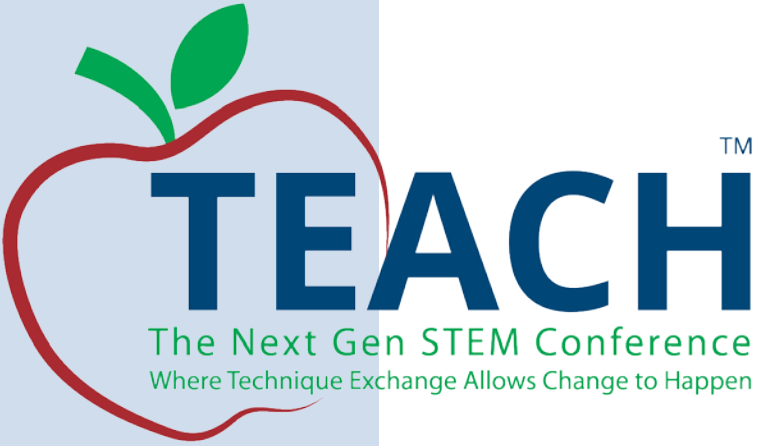

TM
TEACH
The Next Gen STEM Conference
Where Technique Exchange Allows Change to Happen

Special Thanks To:

PRESENTERS

Cynthia Bennett

Amy Bryson

Marianne Dunne

Jodie George

Vera Gor

Brandi Hardcastle

Eva Kender

Amy McGrath

Scott Morrison

Patricia Powers

Kristen Robinson

Johanna Rodriguez

Madison Rosa

Mary Toomey

Debbie Vogt

Tania Waller

Martha Wilson

GUEST INNOVATOR

Tim Saeger

HOST

Reading Memorial High School

SPONSOR

KnowAtom

Reading Public Schools

Conference Schedule

MORNING

7:30 – 8:20 Check-In and Continental Breakfast [*Lobby*]

8:20 – 8:30 Opening Remarks [*Auditorium*]

8:30 – 9:00 DESE Presentation [*Auditorium*]

9:15 – 10:05 Workshop A

10:15 – 11:05 Workshop B

LUNCH

11:05 – 12:15 [Cafeteria]

AFTERNOON

12:30 – 1:30 Guest Innovator Talk [*Auditorium*]

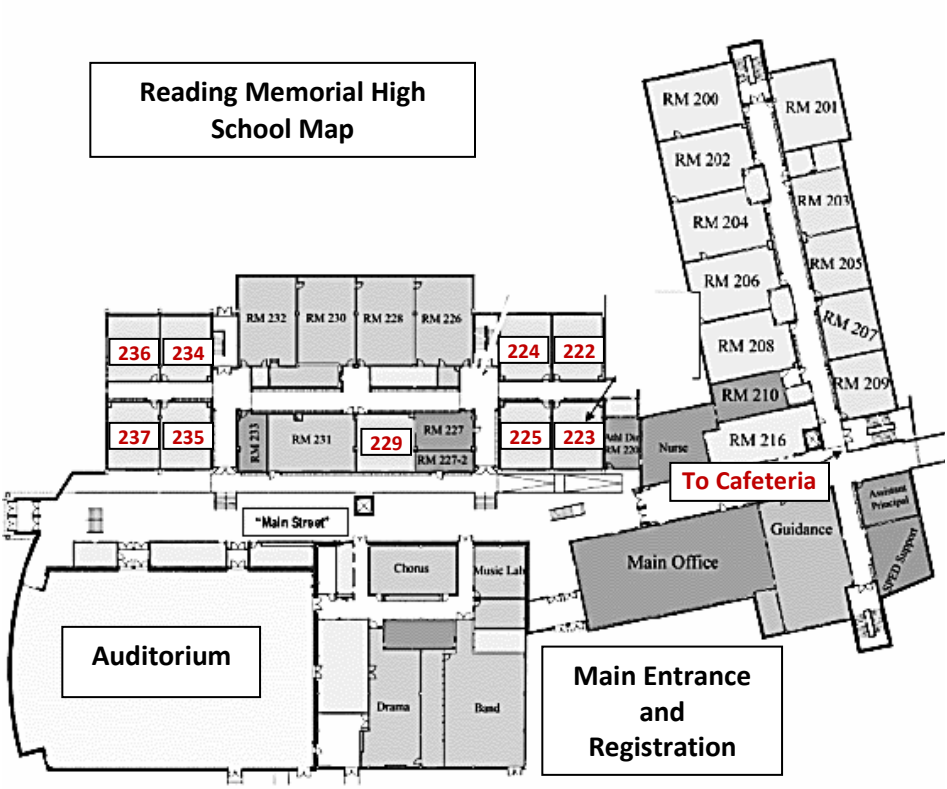
1:45 – 2:35 Workshop C

2:45 – 3:45 Idea Exchange (plus gourmet cupcakes and coffee!) [*Cafeteria*]

When available, a copy of the workshop presentations and any supporting materials can be found at www.teach2017.wikispaces.com.

Map of the Conference Rooms

Please be advised that video and audio recording is taking place throughout this event.



WORKSHOP A – 9:15–10:05

Accountable Talk and The Socratic Seminar — ROOM 223

Jodie George – Grade 5 Teacher at Emily G. Wetherbee School, MA

Are you looking for ways to allow your students to take the lead while conversing in class? Socratic Seminar might be the answer. Students use accountable talk to make their thinking clear to you and their peers. Students learn to use textual evidence to support their thought process, listen with a purpose and respond appropriately to their classmates. Watch your students become leaders while conversing in the classroom!

TARGET AUDIENCE: GRADES 3-5 EDUCATORS

This presentation will also occur during the Workshop C timeslot in Room 237.

Deep Dive into Science Lab Planning and Technology Integration — ROOM 225

Amy McGrath, Grade 6 Science Teacher, & Martha Wilson, Grade 5 Science Teacher, at Bayside Middle School, WI

Students at different steps of the scientific process all at the same time? Trying hard to maximize class time? This workshop will present easy to use strategies for addressing student needs during labs. Get ideas for preparing wisely, assisting lab groups efficiently, and teaching students to help themselves. Technology tips that you can use during labs, transitions, or those times when you just have a few extra minutes to fill will also be highlighted.

TARGET AUDIENCE: GRADES 3-8 EDUCATORS

This presentation will also occur during the Workshop B timeslot in Room 225 and Workshop C in Room 224.

WORKSHOP A – 9:15–10:05

ELL Strategies for Grades K-2

ROOM 237

Amy Bryson – Grade 2 Teacher at G.A. Guilmette Elementary School, MA

Are you looking for a few new ELL strategies to use with your KnowAtom curriculum? During this workshop we will view a power point of strategies that can be used with KnowAtom. We will watch videos of teachers performing these strategies. Participants will leave with an exit card identifying two or three strategies that they can easily apply to their science lessons.

TARGET AUDIENCE: GRADES K-2 EDUCATORS

Recorded session

How to Coach a Lab Environment: Rolling with the Variables

ROOM 235

Madison Rosa – Grade 5 Teacher at South Lawrence East Elementary School, MA

In this workshop, participants will analyze and reflect on the best strategies to help students plan out their labs. We will practice these strategies hands on in hopes that you will leave with a few new tricks to help your students get from point A to B with a coaching that empowers student learning.

TARGET AUDIENCE: GRADES K-8 EDUCATORS

Recorded session

This presentation will also occur during the Workshop B timeslot in Room 229.

WORKSHOP A – 9:15–10:05

Increase Understanding of the Vision and Integration of Science and Engineering Practices for the 2016 Middle School STE Standards

ROOM 234

Marianne Dunne – Science Education Specialist at the Center for Instructional Support, MA Department of Elementary & Secondary Education

In this session, we will: examine the progression of learning with the science and engineering practices, disciplinary core ideas, engage in interactive learning experiences and consider the implications for curriculum and instruction with the 2016 STE Standards.

TARGET AUDIENCE: GRADES 4-8 EDUCATORS

Recorded session

Lid-Busting Leadership

ROOM 236

Scott Morrison – Ed.D, Superintendent of Tri-Town School Union, MA

Leadership is dynamic and complex and is too often bound by existing conditions. In order to lead beyond the limits, classroom, school, and district leaders must elevate their leadership skills by using research to inform practice. Join this session to learn strategies on how to strengthen your team through a distributed leadership model.

TARGET AUDIENCE: ADMINISTRATORS, TEACHER LEADERS

Recorded session

WORKSHOP A – 9:15-10:05

Socratic Seminar Deep Dive: A Window Into Student Minds

ROOM 224

Eva Kender and Tania Waller- Grades 7 and 8 Science Teachers at Bayside Middle School, WI

Ever wonder what your students are thinking? Wish you could uncover student misconceptions? Learn how to use Socratic Seminars to create a classroom culture that facilitates open dialogue and discourages the "wallflower phenomenon" in your discussions. Discover how Socratic Seminars can help your students take charge of their own learning. You will leave with strategies that will allow you to structure a successful student-led discussion when you head back to your classroom.

TARGET AUDIENCE: GRADES 3-8 EDUCATORS

Recorded session

This presentation will also occur during the Workshop C timeslot in Room 225.

Student Discussion Matters: Empowering Students to Use Their Voice in Meaningful Content Discussion

ROOM 222

Brandi Hardcastle – Grade 2 Teacher at White County Central Judsonia, AR

Tired of creating and presenting meaningful and engaging lessons only to have them fall flat? Are your students struggling to engage in meaningful conversation about nonfiction content with you and their peers? In this workshop, participants will learn about nonfiction reading and discussion in the early elementary classroom. Different strategies will be discussed to help students dig deeper into understanding their content. Specific classroom examples will provide participants with ideas on facilitating deep, student led conversations that will expand learning and foster independent exploration outside the classroom setting.

TARGET AUDIENCE: GRADES K-2 EDUCATORS

This presentation will also occur during the Workshop C timeslot in Room 234.

WORKSHOP B – 10:15–11:05

Deep Dive into Science Lab Planning and Technology Integration

ROOM 225

Amy McGrath, Grade 6 Science Teacher, & Martha Wilson, Grade 5 Science Teacher, at Bayside Middle School, WI

Students at different steps of the scientific process all at the same time? Trying hard to maximize class time? This workshop will present easy-to-use strategies for addressing student needs during labs. Get ideas for preparing wisely, assisting lab groups efficiently, and teaching students to help themselves. Technology tips that you can use during labs, transitions, or those times when you just have a few extra minutes to fill will also be highlighted.

TARGET AUDIENCE: GRADES 3-8 EDUCATORS

This presentation will also occur during the Workshop A in Room 225 and the Workshop C timeslot in Room 224.

How to Coach a Lab Environment: Rolling with the Variables

ROOM 229

Madison Rosa – Grade 5 Teacher at South Lawrence East Elementary School, MA

In this workshop, participants will analyze and reflect on the best strategies to help students plan out their labs. We will practice these strategies hands on in hopes that you will leave with a few new tricks to help your students get from point A to B with a coaching that empowers student learning.

TARGET AUDIENCE: GRADES K-8 EDUCATORS

This presentation will also occur during the Workshop A timeslot in Room 235.

WORKSHOP B – 10:15–11:05

Incorporating Disciplinary Literacy Tools in Your Next Generation Science Classroom

ROOM 224

Eva Kender and Tania Waller – Grades 7 and 8 Science Teachers at Bayside Middle School, WI

Are you looking for ways to engage your students in making meaningful connections with their science text? Today's learners need a well-balanced approach to literacy. Explore your role as a science teacher in helping your students enhance their literacy toolbox. Walk away with several ready-to-teach strategies that will encourage your students to think more critically about what they are reading.

TARGET AUDIENCE: GRADES 3-8 EDUCATORS

Recorded session

Increase Understanding of the Vision and Integration of Science and Engineering Practices for the 2016 Elementary STE Standards

ROOM 234

Marianne Dunne – Science Education Specialist at the Center for Instructional Support Department of Elementary & Secondary Education

In this session, we will: examine the progression of learning with the science and engineering practices, disciplinary core ideas, engage in interactive learning experiences and consider the implications for curriculum and instruction with the 2016 STE Standards.

TARGET AUDIENCE: GRADES K-3 EDUCATORS

Recorded session

WORKSHOP B – 10:15–11:05

Moving Beyond Annual Growth: How We Move All Students to Mastery — ROOM 236

Mary A. Toomey – Ed.D., Deputy Assistant Superintendent, Lawrence Public Schools, MA

This session will focus on understanding the difference between annual growth and catch-up growth. It will also include a review of 2016-17 data from several schools using NWEA Measures of Academic Progress in Science to accelerate growth and deliver MCAS results. Participants will share their own efforts to leverage assessments that demonstrate the power of an intentional focus in Science.

TARGET AUDIENCE: ADMINISTRATORS, TEACHER LEADERS

Recorded session

Tips for Teaching ESL Students Science in Your Classroom — ROOM 237

LIVE SESSION CANCELED; PRESENTATION ON WIKIPAGE

Patricia Powers & Kristen Robinson – Kindergarten teachers at James I. Lawlor School, MA

The main goal of this presentation is to provide classroom teachers an opportunity to look at strategies used in classrooms with a mixed population which includes non-English speaking students. We will view the latest theories on teaching ELL students; recognize practices that have an impact on second language learners and how to put these practices to work in the classroom. We will discuss background knowledge, manipulatives, visual aids and the use of multimodalities in presenting KnowAtom science lessons to the whole class. Also in our discussion we will show the benefit of 'student talk,' a view subscribed to by Vygotsky and his theory Zone of Proximal Development. Included in the presentation will be hands on activities for the participants along with a Powerpoint presentation and collegial discussion.

TARGET AUDIENCE: GRADES K-2 EDUCATORS

Recorded session

This presentation will also occur during the Workshop C timeslot in Room 222.

WORKSHOP B – 10:15–11:05

Using KnowAtom to Reinforce, Extend, and Enrich Middle School Students' Reading, Writing and Thinking Skills

ROOM 235

Debbie Vogt – Grade 6-8 Science Teacher and Grade 7 ELA Teacher at Belt Public Schools, MT

Participants will explore how the KnowAtom curriculum works in conjunction with Common Core Reading Standards for Informational Text, Common Core Writing Standards, and Common Core Math Standards, providing students with opportunities to apply their learning to real world situations, thus lending relevance to what they are learning, and increasing their engagement and enthusiasm for learning. Time-saving techniques and routines including simple tech integrations for ELA will be incorporated.

TARGET AUDIENCE: GRADES 4-8 EDUCATORS

Recorded session

This presentation will also occur during the Workshop C timeslot in Room 223.

LUNCH: 11:05 – 12:15

Gourmet Taco Bar Lunch Menu

- Choose What's Inside: Braised Pork, Roasted Chicken, Seasonal Vegetables
- Tortillas: Warm Corn, Warm Flour, Crispy Corn
- Toppings: Pico de Gallo, Black Bean Salsa, Radicchio Slaw, Pickled Red Onion
- Sauces: Sriracha Crema, Goat Cheese Crema, Tomato Remoulade
- Cheeses: Cheddar, Muenster

Lunch will take place in the cafeteria on the lower level.

GUEST INNOVATOR
12:30 – 1:30

Our Guest Innovator is Tim Saeger, executive vice president of engineering for iRobot. Mr. Saeger previously served as senior vice president of engineering from August 2015 until March 2017. Prior to iRobot, Mr. Saeger served in multiple roles at Bose Corporation, including Vice President of Home Entertainment and Vice President of Product Development.

Earlier in his career, Mr. Saeger also served at Thomson, Inc., and General Dynamics, in a variety of engineering and engineering management positions. He holds a BS in Electrical Engineering from Auburn University, and an MS in Electrical Engineering from the University of Texas at Arlington. Mr. Saeger also has been awarded 24 U.S. patents.

Mr. Saeger will describe what sparked his interest in engineering and how the new standards are necessary for innovation.

Mr. Saeger will present in the auditorium.

WORKSHOP C – 1:45–2:35

Accountable Talk and The Socratic Seminar — ROOM 237

Jodie George – Grade 5 Teacher at Emily G. Wetherbee School, MA

Are you looking for ways to allow your students to take the lead while conversing in class? Socratic Seminar might be the answer. Students use accountable talk to make their thinking clear to you and their peers. Students learn to use textual evidence to support their thought process, listen with a purpose and respond appropriately to their classmates. Watch your students become leaders while conversing in the classroom!

TARGET AUDIENCE: GRADES 3-5 EDUCATORS

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Deep Dive into Science Lab Planning and Technology Integration — ROOM 224

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TARGET AUDIENCE: GRADES 3-8 EDUCATORS

Recorded session

This presentation will also occur during the Workshops A and B timeslots in Room 225.

WORKSHOP C – 1:45–2:35

FORMative Assessment – To FORM and InFORM Instruction and Learning

ROOM 236

Cynthia Bennett – M. Ed., C.A.G.S.

What do we look for when we observe students and teachers to assure students are learning with the depth of understanding appropriate for the content and grade level? What evidence can we look for to ensure instruction is meeting the needs of learners and the rigor of the concepts? Formative assessment can encourage students to be active learners focused on their learning goals and provide ongoing information to guide intentional instructional moves. Through video clips of a variety of examples of formative assessment in classrooms we will discuss effective uses of formative assessment in elementary classrooms.

TARGET AUDIENCE: ADMINISTRATORS, TEACHER LEADERS

Recorded session

Linguistic Demands and ELL Strategies in Science

ROOM 235

Johanna Rodriguez, Grade 5 Teacher, & Vera Gor, Grades 1-2 SEI Teacher at Guilmette Middle School, MA

During this workshop, participants will learn how to apply evidence-based ELL strategies in their science classes that promote classroom interaction, increased academic language for grades 3-5 and learn how to create language goals that foster language development and encourage success. Some of the strategies include vocabulary teaching such as Closed Sort Tasks, Cognates, Key Sentence Frames, Mix and Match, Word Squares and Open Sort Tasks; reading strategies such as Anticipation Guides and Choral Reading; interactive strategies such as Four Corners and Slide and Glide. Participants will be able to view short videos illustrating the strategies in an SEI classroom using the Know Atom science curriculum. They will receive resources to help them scaffold for English language learners in science classes.

TARGET AUDIENCE: GRADES 3-8 EDUCATORS

Recorded session

WORKSHOP C – 1:45–2:35

Socratic Seminar Deep Dive: A Window Into Student Minds

ROOM 225

Eva Kender and Tania Waller– Grades 7 and 8 Science Teachers at Bayside Middle School, WI

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TARGET AUDIENCE: GRADES 3-8 EDUCATORS

This presentation will also occur during the Workshop A timeslot in Room 224.

Student Discussion Matters: Empowering Students to Use Their Voice in Meaningful Content Discussion

ROOM 234

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TARGET AUDIENCE: GRADES K-2 EDUCATORS

Recorded session

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WORKSHOP C – 1:45–2:35

Tips for Teaching ESL Students Science in Your Classroom

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Using KnowAtom to Reinforce, Extend, and Enrich Middle School Students' Reading, Writing and Thinking Skills

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TARGET AUDIENCE: GRADES 4-8 EDUCATORS

This presentation will also occur during the Workshop B timeslot in Room 235.

IDEA EXCHANGE
2:45 – 3:45

Don't miss gourmet cupcakes, coffee, and our special giveaway during the Idea Exchange!

Ideas Exchange: An opportunity to meet other educators to share strengths and weaknesses, exchange ideas, and brainstorm strategies with grade-level peers and educational leaders on topics that are important to their practice.

Ideas Exchange Format:

1. Find a table with a topic you're interested in.
2. Introduce yourself.
3. Write down on sticky note why you're interested in your table's topic.
4. As a table, appoint 1 person to collect and read aloud the sticky notes.
5. As a table, discuss the themes in what's been shared.
    - Use the following prompts to guide your discussion:
        - Where are you (or your team) making the most progress in this area?
        - What are the biggest challenges you're encountering?
        - What ideas and strategies are you working on to address this issue?
6. Don't forget to exchange contact information and keep the dialogue going throughout the year!

CONTACT

If you have any questions or would like information about upcoming events, please contact KnowAtom at: www.knowatom.com or 617-475-3475.