

**EDC**

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Center

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# PREPARING K-5 STUDENTS FOR A STEM FUTURE

EDC ELEMENTARY SCIENCE SUMMIT 2018

November 30, 2018  
Waltham, Mass.



# Keynote Speakers and Panelists



**Dr. Heidi Schweingruber**  
Director  
Board on Science Education  
National Research Council



**Val Zanchuk**  
President/Owner  
Graphicast



**Dr. Erin Hashimoto-Martell**  
Director of STEM, Massachusetts  
Department of Elementary and  
Secondary Education (DESE)



**Scott Sedberry**  
Strategic Alliance Director  
Texas Instruments



**Abigail Jurist Levy**  
Leader, Coalition for  
Elementary Science  
Education at EDC



**David Offensend**  
President, EDC



**Rachael Manzer**  
STEAM Coach  
Winchester Public Schools



**Patreka Wood-Blain**  
Assistant Principal  
Umana Academy



**Rebecca Katsh-Singer**  
Pre-K–6 Science  
Curriculum Coordinator  
Westborough Public  
Schools



**Nathan Saddler**  
Assistant Principal  
Adeline C. Marston  
Elementary School



**JoAnn Harvey**  
K–4 STEM Coach  
Georgia Elementary and  
Middle School



**Elizabeth Dowst**  
Grade 5 Teacher  
Adeline C. Marston  
Elementary School

# Thank You to Our Summit Partners



# Deep Appreciation to the Summit's Science Advisors

## **Margaret Carrera-Bly**

Science Specialist  
Vermont Agency of  
Education

## **Patricia Fitzsimmons**

Assistant Director  
Standards and Assessment  
Vermont Agency of  
Education

## **Barbara Hopkins**

Science and Leadership  
Consultant  
New England

## **Tom Keller, EdD**

Science Education and  
Systems Specialist  
United State

## **Peter McLaren**

Executive Director  
Next Gen Education  
Rhode Island

## **Ron Michaels**

K-12 Science Consultant  
Connecticut Dept of  
Education

## **Nicole Scola**

Science Specialist  
Massachusetts Dept  
of Elementary and  
Secondary Education

## **Shari Templeton**

Science & Technology  
Specialist  
Maine Dept of  
Education

# An Invitation

Dear Colleague,

I invite you to explore this recap of **EDC's November 2018 Elementary Science Summit**. At the Summit, we launched the **Coalition for Elementary Science at EDC** to improve science education for all K–5 students in New England.

Our work is vital. Far too many of our students leave high school with very poor science literacy and skills. At the Summit, over 100 business leaders, educators, parents, policymakers, researchers, and journalists came together to chart a course to high-quality elementary science for all. Together, we can make a difference for our students.

Please reach out to me to learn more ([elemscience@edc.org](mailto:elemscience@edc.org)), and I hope you will join us at our **2020 Summit!**

Sincerely,  
Abigail Jurist Levy





# Meeting Objectives



## Understand the Challenge

Participants shared research and experience on the state of K–5 science in New England.

Key points:

- Most students get little time for science.
- Many teachers are not prepared to teach science.
- Many schools lack necessary resources.



## Explore Science Learning

What does high-quality science teaching and learning look like?

Participants heard from experts and then became learners. They dove into science explorations that gave them new insights into high-quality science teaching.



## What Works? What's Next?

Participants heard from principals who are making great strides in science education and whose students are thriving.

Then, participants created action plans to ensure all K–5 students have an outstanding science education.

# Who Attended



**14**  
Speakers



**100**  
Attendees



**4**  
Sponsors



**6**  
States



# Opportunities and Challenges

**“The Coalition for Elementary Science must continue to bring key stakeholders together to discuss innovative ways to provide opportunities where science is taught with fidelity in elementary schools across the region.”**

—Wardell Powell, PhD  
Assistant Professor of Education  
Framingham State University, Mass.

**“If we lock some kids out early from STEM career paths, and don’t allow them to see themselves in science and engineering, we’re really doing them a disservice.”**

—Heidi Schweingruber  
Director, Board on Science Education  
National Research Council

**“Many elementary teachers do not consider science as part of the regular core curriculum.”**

—Erin Hashimoto-Martell  
Director of STEM  
Mass. DESE

# Opportunities and Challenges

Research shows that K–3 students spend, at best, an estimated one to three hours per week studying science.

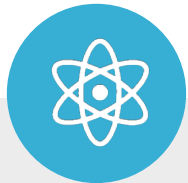
“The only way to enable tomorrow’s STEM workforce is by coming together today, industry and education, to promote the importance of STEM learning in all grades.”

—Scott Sedberry  
Director, Business Development  
Texas Instruments

“The economic well-being of our whole region is very much dependent on the success of elementary STEM.”

—Val Zanchuk  
President/Owner  
Graphicast

# Characteristics of High-Quality Elementary Science Programs



- **Learning science** is valued by principals, teachers, and parents.
- **Science is a regular and reliable** part of *all* students' elementary school experiences.



- **Enough time** for science is included in the school's weekly schedule.
- **Core science concepts** are integrated *with* science and engineering practices in most science lessons.



- **Enough funding** and resources for science are available.
- **Assessments** emphasize core science concepts *and* the science and engineering practices.



- **Teachers** have access to high-quality instructional materials.
- **Principals** observe science lessons. Teachers have ongoing support and professional development.

# Goals and Next Steps



- **Give teachers opportunities to watch excellent science teaching in action** and to observe children and teachers engaging in science and engineering practices in meaningful ways, especially when linked to their school's curriculum.



- **Share exemplary instructional materials**, such as modules, lesson plans, and videos of lessons that model integration of concepts and practices, **and school schedules** that include enough time for science.



- **Promote collaboration with special education teachers** to reduce the number of times that children are pulled out of class during science explorations to receive remedial help.



- **Invite principals to the 2020 Elementary Science Summit** with a team of teachers from their school. Show the importance of science and engage them in finding ways to elevate science in their schools.



# Coalition Members Weigh In



“It was great to share ideas on how to make science more of a priority in our academic week. My team teacher and I have been consistently planning for 2 science blocks of 1 hour each week since the Summit.”

—**Jennifer Vesey**  
5th Grade Teacher  
Hudson Public Schools, NH



“The Coalition can do great things because of the expertise that lies at its center: EDC, state departments of education, science leadership organizations. There’s already buy-in. Now it’s about getting the work done and getting the word out.”

—**Alison Riordan**  
Science Curriculum Coordinator  
Plymouth Public Schools, Mass.



“Thanks to the Summit, I have already connected with a coach on how to get your school board on board with the teaching of STEM. I hope to follow up and present to the school board.”

—**Karen Fream**  
Portland Schools, Maine



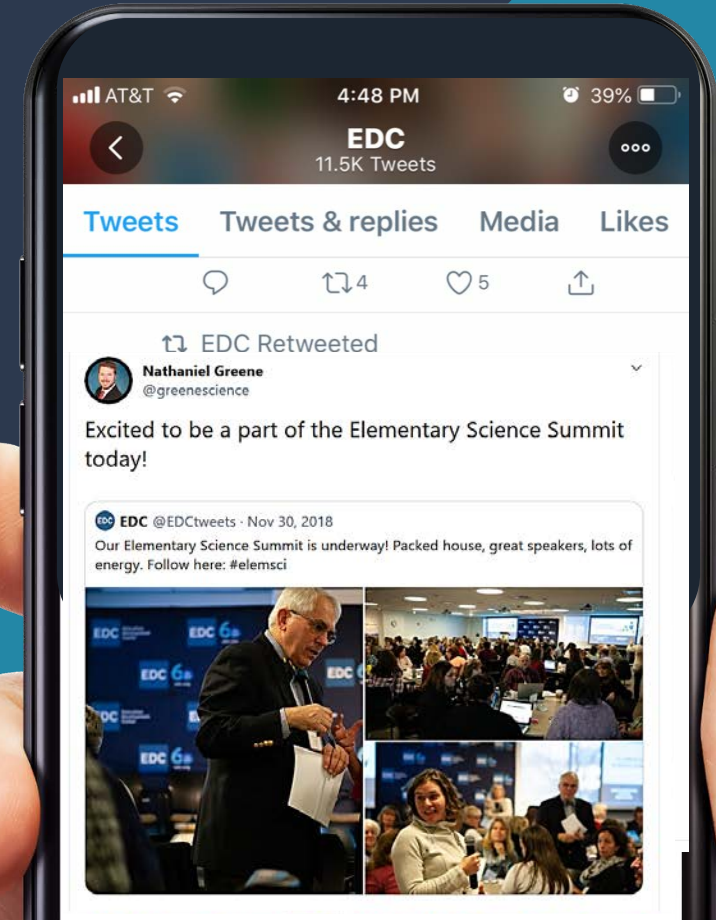
# Summit Gallery







# Social Media Glimpse



**“We have a chance right now  
to make a real difference  
because parents, teachers,  
and industry leaders all  
realize how important early  
science learning is.”**

–Dr. Abigail Jurist Levy





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# THANK YOU

**For more information, contact:**

**Abigail Jurist Levy**

Leader, Coalition for Elementary Science at EDC

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