# The National Academies of SCIENCES • ENGINEERING • MEDICINE

Board on Science Education Division of Behavioral and Social Sciences and Education

#### Agenda Taking Stock of Science Standards Implementation: A Summit All Times are ET

#### Goals

The Board on Science Education (BOSE) of the National Academies of Sciences, Engineering, and Medicine (NASEM) will host a public summit to take stock of the implementation of state science standards and determine the next steps for continuing or reinvigorating implementation efforts. The summit will serve as a setting to consider implementation across all states and territories, identify success and challenges, and identify areas where additional resources or work is needed.

At the end of the summit, attendees will...

- 1. Understand the current state of science standards implementation.
- 2. Identify what needs to happen in the next phase of implementation.
- 3. Identify the tools, resources, and capital needed to advance a more just, equitable, and inclusive learning experience for our youth, teachers, and communities.

### DAY 1: Thursday, October 14<sup>th</sup>

#### 11:00 am ET Welcome and Summit Overview

Heidi Schweingruber, Director, Board on Science Education, National Academies of Sciences, Engineering, and Medicine Taunya Nesin, Bill & Melinda Gates Foundation Maya Garcia (Chair), Colorado Department of Education

11:30 am Plenary Session: From Vision to Reality Moderator: Heidi Schweingruber, BOSE, NASEM Virtual Moderator: Sam Shaw, EdReports.org

#### Panelists:

- Philip Bell, University of Washington
- Elizabeth A. (Betsy) Davis, University of Michigan
- Michael Lach, Assistant Superintendent of Curriculum, Instruction, and Assessment at Township High School District 113
- Tiffany Neill, Oklahoma State Department of Education
- Stephen Pruitt, Southern Regional Education Board

12:10 pm Discussion/Q&A with panelists

12:40 pm	Break
1:15 pm	Panel: The Landscape of Implementation Moderator: Maya Garcia, Colorado Department of Education Virtual Moderator: Jessica Henderson Rockette, Instruction Partners
	<ul> <li>Panelists:</li> <li>Stefanie Marshall, University of Minnesota</li> <li>Bill Penuel, University of Colorado Boulder</li> <li>Jenny Sarna, NextGenScience WestEd</li> <li>Jim Spillane, Northwestern University</li> </ul>
1:55 pm	Discussion/Q&A with panelists
2:15 pm	Break
3:00 pm	Panel: The Role(s) of Leadership Moderators: James Blake, Lincoln Public Schools Virtual Moderator: Aneesha Badrinarayan, Learning Policy Institute
	<ul> <li>Panelists:</li> <li>Gudiel Crosthwaite, Superintendent, Lynwood Unified School District</li> <li>Zoe Evans, Principal, Bowdon High School</li> <li>Mike Heinz, Science Coordinator, New Jersey Department of Education, President of Council of State Science Supervisors</li> <li>Elizabeth Mulkerrin, Omaha Zoo and Aquarium, NSTA President Elect</li> <li>Takako Olson, Director of Curriculum, Lincoln Public Schools</li> </ul>
3:40 pm	Discussion/Q&A with panelists
4:00 pm	<b>Open Discussion:</b> <i>Reflections on the day.</i> <b>Facilitator:</b> Maya Garcia, <i>Colorado Department of Education</i>
4:30pm	<b>Wrap up and Adjourn</b> Maya Garcia (Chair), <i>Colorado Department of Education</i>

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## DAY 2: Friday, October 15<sup>th</sup>

11:00 am ET	Welcome, Day 1 Overview, and Preview of Day 2
	Heidi Schweingruber, Director, Board on Science Education, National Academies of Sciences, Engineering, and Medicine
	Maya Garcia (Chair), Colorado Department of Education
11:15 am	Panel: Centering Student Experience in Science
	<b>Moderator:</b> Ravit Duncan, <i>Rutgers University</i> <b>Virtual Moderator:</b> Jessica Henderson Rockette, <i>Instruction Partners</i>
	Panelists:
	<ul> <li>Rabiah Harris, 8th Grade Science Teacher, Ida B. Wells Middle School</li> <li>Lauren Kaupp, State of Hawaii Department of Education</li> <li>Maria Olivares, Boston University</li> </ul>
	• Enrique Suarez, University of Massachusetts, Amherst
	Edna Tan, University of North Carolina at Greensboro
12:00 pm	Discussion/Q&A with panelists
12:20 pm	Break
1:00 pm	Presentation and Panel Discussion: Teacher Professional Learning
-	<b>Moderators:</b> Victor Sampson, <i>University of Texas at Austin</i> and Tricia Shelton, <i>National Science Teaching Association (NSTA)</i>
	Virtual Moderators: Ravit Duncan, <i>Rutgers University</i> and James Blake, <i>Lincoln Public Schools</i>
	1:00 NSTA Survey: Setting the Stage
	Overview presented by Tricia Shelton, NSTA
	1:15 Panel: Teacher Educator Preparation
	Moderator: Victor Sampson, University of Texas at Austin
	<ul> <li>Panelists:</li> <li>Melissa Braaten, University of Colorado Boulder</li> </ul>
	• Lizette Burks, University of Houston-Downtown

- Todd Campbell, University of Connecticut
- Thomas Philip, University of California, Berkeley

#### 1:55 **Discussion**

#### 2:05 Stretch Break

#### 2:15 Panel: *Teacher Professional Development* Moderator: Tricia Shelton, *NSTA*

#### Panelists:

- Jody Bintz, BSCS Science Learning
- K. Renae Pullen, Caddo Parish Public Schools
- Breigh Rhodes, Louisiana Department of Education
- Stacey van der Veen, Leadership in Science, LLC.
- Julie Yu, Exploratorium

#### 2:55 Discussion

	3:05 Discussion/Q&A across Both Panels Moderator: Victor Sampson, University of Texas at Austin
3:45 pm	Break
4:00 pm	<b>Open Discussion:</b> <i>Reflections on the day.</i> <b>Facilitator:</b> Maya Garcia, <i>Colorado Department of Education</i>
4:30 pm	<b>Wrap up and Adjourn</b> Maya Garcia (Chair), <i>Colorado Department of Education</i>

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# DAY 3: Wednesday, December 8<sup>th</sup>

11:00 am ET	Welcome, Day 1 and 2 Overview and Day 3 Framing
	Maya Garcia (Chair), Colorado Department of Education
11:15 am	Panel: Curriculum and Instructional Materials Moderator: Sam Shaw, EdReports.org Virtual Moderator: Tricia Shelton, NSTA
	<ul> <li>Panelists:</li> <li>Philip Bell, University of Washington</li> <li>Cory Epler, Nebraska Department of Education</li> <li>Dora Kastel, New Visions for Public Schools</li> <li>Spencer Martin, Kansas City Public Schools</li> <li>Carol O'Donnell, Smithsonian Science Education Center</li> <li>Jamie Rumage, Oregon Department of Education</li> </ul>
12:15 pm	Discussion/Q&A with panelists
12:45 pm	Break
1:15 pm	<ul> <li>Panel: Assessment as a "Caring Practice"—Systems of Assessment Moderator: Aneesha Badrinarayan, Learning Policy Institute Virtual Moderator: Sam Shaw, EdReports.org Panelists: <ul> <li>Daniel Alcazar Roman, The Lawrence Hall of Science at the University of California Berkeley</li> <li>Alec Barron, San Diego Science Project</li> <li>Tamara "TJ" Heck, Michigan Department of Education</li> <li>Angela Landrum, Colorado Department of Education</li> <li>Jim Pellegrino, University of Illinois at Chicago</li> </ul> </li> </ul>
2:00 pm	Discussion/Q&A with panelists

2:30 pm Break

# 2:45 pm Breakout Session: *What are the Tools and Resources that are Building Capacity and Driving Coherence?*

Activity: Participants will discuss the tools and resources that are building capacity and driving coherence with regard to standards implementation. In sessions, participants will consider areas for improvement of adaptation and consider emerging and urgent needs.

- Group 1: Preschool to Elementary Transition
- Group 2: Curriculum and Instructional Materials
- Group 3: Formative Assessment
- Group 4: Instructional Practice
- 3:45 pm Break & Transition from Breakout Rooms

4:00 pm Breakout Group Report Out and Open Discussion

Each group will report out the main ideas discussed in each breakout room. **Facilitator:** Heidi Schweingruber, *Director, Board on Science Education* 

- **Preschool to Elementary Transition Reporter:** Andres Bustamante, *University of California, Irvine*
- Curriculum and Instructional Materials Reporter: Christine Cunningham, *Pennsylvania State University*
- Formative Assessment Reporter: Sara Cooper, Independent Consultant
- Instructional Practice Reporter: Kate McNeill, Boston College
- 4:45 pm **Open Discussion:** *Reflections on the day.* **Facilitator:** Maya Garcia, *Colorado Department of Education*
- 5:00 pm Wrap up and Adjourn Maya Garcia (Chair), Colorado Department of Education Heidi Schweingruber, Director, Board on Science Education