

Iowa's new science standards

The New Iowa Science Standards – Kick-Off!

Tuesday October 20, 2015

Sheraton Hotel

**Hosted by the University of Iowa College of Education,
the Jacobson Institute at Grand View University, and the Iowa Department of Education**

Overview & Goals: The adoption of the new Science Standards in Iowa provides a great opportunity to focus efforts in our state on improving science education for all students. The intent of this conference is to bring together school/district administrators, curriculum directors, Area Education Agency (AEA) personnel, teacher leaders, and higher education faculty to discuss the challenges and opportunities associated with the adoption of the new Iowa Science Standards. National leaders in the development and implementation of the NGSS will join state stakeholders to discuss efforts to implement NGSS across the nation as well as the plans for implementation of the new science standards in Iowa. Participants will be encouraged to engage in conversation intent on helping frame the process for implementation in Iowa.

Outline of Event:

8:45 am – 9:00 am Networking

9:00 am – 9:15 am Welcome

Nick Colangelo, University of Iowa
Mark McDermott, University of Iowa
Kris Kilibarda, Grand View University

9:15 am – 10:00 am NGSS – A Historical and National Perspective
Teresa Eliopoulos, Achieve, Inc.

The Next Generation Science Standards (NGSS) have the potential to effect all students across the country. Currently, within the 15 adopting states alone the NGSS is impacting almost 33% of the public school population, but the reach is beyond just these states for districts, schools, and teachers in all states are using the NGSS to improve instruction nationwide. With this many students at stake it is essential that states and districts work to implement the NGSS with fidelity so that students can best reap the benefits of the standards. A major driving force in assisting states with high quality implementation is the NGSS Network, the group of states that have adopted the Performance Expectations. The Network provides a venue for states to share resources, challenges, and collaborate around NGSS implementation issues such as the transition and development of instructional materials and professional development. As the manager of this Network, Teresa will discuss the early lessons learned around NGSS implementation and discuss the landscape for NGSS moving forward.



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10:00 am – 10:45 am NGSS – Issues in Equity

Okhee Lee, NYU

The Next Generation Science Standards: All Standards, All Students

The Next Generation Science Standards (NGSS) offer a vision of academic rigor by blending scientific and engineering practices, disciplinary core ideas, and crosscutting concepts to enable K-12 students in making sense of phenomena or designing solutions to problems. As these standards are cognitively demanding, teachers must make instructional shifts to enable all students to be college and career ready. This presentation will highlight what teachers can do to ensure that the NGSS are accessible to all students. First, it will start with a brief description of changing demographics among K-12 students. Second, it will highlight both learning opportunities and demands that the NGSS offer for the student groups that have traditionally been underserved in science education. Third, it will describe the scope of work by the NGSS Diversity and Equity Team as an integral part of the NGSS. Finally, it will make connections of the NGSS to the Common Core State Standards for English language arts/literacy and mathematics for all students with a focus on English language learners

10:45 am – 11:00 am Break

11:00 am – 11:45 am NGSS – Lessons from California

Christopher Harris, SRI, Inc.

The Next Generation Science Standards present an unprecedented opportunity to transform science education by emphasizing that all students, from the earliest grades upward, should actively use and apply knowledge in the context of disciplinary practices. This new vision of science proficiency represents a different way of thinking about science learning in that disciplinary core ideas, science and engineering practices, and crosscutting concepts work together to enable students to make sense of phenomena or design solutions to problems. Consequently, each of the NGSS performance expectations – that is, the actual standards statements of student learning outcomes – integrates these three dimensions together. There is energy and excitement behind the NGSS in the science education community. Yet, implementing the new Iowa science standards will not be easy. In this presentation, Christopher Harris will explore the issues of implementation and consider how education leaders can support teaching and learning of the ambitious new standards. Lessons learned from early and ongoing implementation efforts will be shared and progress being made to incorporate the vision of NGSS into instruction and assessment highlighted.

11:45 am – 12:00 pm Pick Up Lunch

12:00 pm – 12:45 pm Implementation in Iowa and Overview of Iowa Roll-Out

Erika Cook Iowa Dept. of Education

Erika Cook Ph.D., Bureau Chief of Standards and Curriculum at the Iowa Department of Education, will explain future opportunities and expectations as Iowa embarks on the implementation process of the new Iowa science standards. Professional development and the timeline will be highlighted.



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12:45 pm – 1:00 pm Transition to Break-Out Groups

1:00 pm – 2: 00 pm Secondary Education Group

Facilitator: Mark McDermott

Discussant: Ted Neal, the University of Iowa

Discussion of issues of implementation specific to secondary levels including the middle school arrangement, inclusion of Earth & Space science, and development of practices

Elementary Education Group

Facilitator: Kris Kilibarda

Discussant: Brian Hand, the University of Iowa

Discussion of issues of implementation specific to elementary level including conceptual levels, inclusion of engineering, and kit alignment

2:00 pm-2:10 pm Transition to Second Break-Out Group

2:10 pm – 3:10 pm Repeat Elementary and Secondary Session

3:10 pm – 3:15 pm Transition to Wrap-up Session

3:15 pm – 3:45 pm Wrap-up Session

Reflections:

Teresa Eliopoulos

Okhee Lee

Christopher Harris

