

NSTA Conferences on Science Education

NSTA conferences are considered the premier event for science educators to experience the widest variety of professional development opportunities and network with fellow professionals in the science education community. NSTA holds four conferences a year in various locations across the country. The national conference takes place in the spring, and the three area conferences are in the fall. National conferences draw between 10,000 and 15,000 attendees and may feature as many as 1,500 sessions and 1,100 exhibits. Area conferences draw 2,000 to 4,000 attendees and may have as many as 300 sessions and 200 exhibits.

Conference presentations actively engage participants in hands-on activities and give teachers the opportunity to use a variety of instructional materials in a laboratory-like setting. Conference attendees can hear thought-provoking presentations from world-renowned scientists and educators and take advantage of short courses and educational field trips to visit local research facilities or to explore natural attractions in the area.

Attendees can also participate in research dissemination conferences (RDCs). Held during NSTA national conferences, these one-day, single-topic events cover critical science education topics in depth and promote research-based strategies and documented approaches to improving science education.

While at NSTA national conferences, attendees can also participate in professional development institutes (PDIs). PDIs are focused, content-based programs that explore key topics in significant depth. Each institute begins with a full-day preconference session, followed by two days of pathway sessions that offer further exploration of the topics covered. PDIs are presented by experts in science education, professional development, and materials development.

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2012

"... to promote excellence and innovation in science teaching and learning for all."

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NSTA National
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Association

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Other popular attractions at NSTA conferences include the Exhibition of Science Teaching Materials and the NSTA Science Bookstore. Hundreds of companies and organizations from across the country come to display the latest state-of-the-art science education materials, tools, products, and services available. In follow-up surveys, more than 94% of conference attendees reported that the exhibits were an important part of their conference experience, and more than 56% of respondents reported viewing exhibits was a primary reason for attending the conference.

NSTA Research Dissemination Conferences

The synergistic relationship between research and practice includes teachers and researchers communicating goals, activities, and findings with the greater science education community in ways that make research accessible, understandable, meaningful, and relevant to teachers, administrators, and policy makers. Through the bridging of research and practice, NSTA can promote science literacy for students in the 21st century as envisioned by *A Framework for K–12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* (NAS, 2011)

In response to the need for knowledge of effective science education strategies, the National Science Teachers Association developed Research Dissemination Conferences (RDCs) to highlight research topics and NSTA's expanding commitment to bring specific, meaningful, and practical professional development to science educators. The original planning for Research Dissemination Conferences was partially supported by grants from the National Science Foundation in order to disseminate findings from current NSF-funded research projects to practitioners. By disseminating best practice and current research, RDCs have provided and supported high-quality professional development opportunities for educators since 2005. The goals of RDCs are to share tools and resources that support high-quality and effective science teaching; implement strategies to connect science educators with the broader science community; and promote the use of education research to inform policy and practice.

NSTA Professional Development Institutes

Teaching science as envisioned by *A Framework for K–12 Science Education: Practices, Crosscutting Concepts, and Core Ideas* requires that teachers have a strong understanding of the scientific

ideas and practices they are expected to teach, including specific pedagogical content knowledge, how scientists collaborate, as well as an understanding of the knowledge students bring to school and how they may best develop an understanding of science and engineering practices, crosscutting concepts, and core ideas across grades. NSTA is committed to providing cutting-edge professional development opportunities for educators in support of this vision.



In 2004, the National Science Teachers Association began the development of Professional Development Institutes (PDIs) based on the key principles of effective professional development, synthesized by the National Institute for Science Education. These include reflecting the research on effective classroom learning and teaching, building content and pedagogical content knowledge and skills, and examining practice. PDIs are interactive opportunities offered at national conferences for educators to learn from prominent experts. Educators participate in an in-depth three-day learning experience, beginning with a one-day preconference ticketed workshop, followed by two days of individual sessions recommended by the PDI providers. Educators who enroll in the PDIs and attend all recommended sessions will have participated in more than 18 hours of focused professional development at the National Conference.

More than 10,000 educators will be on hand for NSTA's 60th National Conference on Science Education, taking place in Indianapolis, March 29–April 1, 2012. Conference strands at the 2012 national conference include:

- Mapping Our Way to Success Through the New Core Standards
- Pathways to a Sustainable Planet
- Merging Inquiry, Creativity, and Innovation Through STEM
- Traveling New Instructional Roads Through Technology

The 2012 area conferences will be held in the following locations:

Louisville, KY: October 18–20

Atlanta, GA: November 1–3

Las Vegas, NV: December 6–8

NSTA will also host the STEM Forum & Expo in Atlantic City, May 17–19, 2012.