

The NSTA Learning Center

E-Learning and the NSTA Learning Center

The NSTA Learning Center (NSTA LC), accessible at <http://learningcenter.nsta.org>, serves as a key online destination for science educators to identify, obtain, and document professional learning experiences using quality NSTA e-learning resources. The NSTA LC offers live learning opportunities tied to a rich professional learning community for collaborative discussions on practice, and a micro-credentialing system. A suite of personal tools may be configured for various methods of deployment. Individuals use the NSTA LC for *just-in-time, just-enough, just-for-me* personalized learning. Cohorts of teachers use the NSTA LC as a collaborative learning platform, integrating their onsite professional learning experiences with the online opportunities and digital resources available.

The NSTA LC comprises more than 200,000 teachers spending many hours online completing web modules, taking formal online courses with our partners, participating in web seminars and virtual conferences, and sharing online digital resource collections through moderated discussion forums. The NSTA LC currently has more than 87,000 personally uploaded resources, nearly 23,000 teacher-generated public collections, and more than 88,000 user-generated posts on 10,000 topics across 14 forums.

More Than 12,000 Digital Resources and Opportunities for Members and Nonmembers

SciPacks and Science Objects: Interactive content and pedagogical modules with simulations, e-mail mentors, and embedded assessments with certificates that help educators better understand the content they teach and how to teach it.

The screenshot shows the NSTA Learning Center website. At the top, there is a navigation bar with the NSTA logo, "National Science Teachers Association", and "Learning Center". It includes a search bar and user options like "Welcome, Ed! | Call | My Profile | Logout | Help | Admin". Below the navigation bar, a main banner features the text: "Join more than 209,250 science teaching professionals. Learn today, your way." This is followed by a list of benefits: "Update your profile and introduce yourself to the community", "Gauge your knowledge in 25 content areas", "Explore thousands of resources: lesson plans, articles, book chapters, and more", "Attend events, online and in-person", "Track your professional learning goals and activities", "Connect with others through 14 topical forums or via private messaging", and "Check the National Leader Boards recognizing top colleagues' online activity". Below this, there are two user role buttons: "ADMINISTRATORS" and "COLLEGE & UNIVERSITY PROFESSORS". The "Upcoming Events" section lists four events: "Web Seminar | Shell Science Lab Regional Challenge", "Virtual Conference | Teaching Controversial Topics in Science", "National Conference | Science on My Mind", and "Book Study | Shifting to the NGSS: Professional Book Study". The "Now in the Learning Center" section highlights a "Featured" book "Eureka! Grade 3-5 Science Activities and Stories (e-book)", a "Journal Article" "Travelling With Science", and a "User Review" for "Kinetic Models".

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

www.nsta.org

NSTA National Science Teachers Association

Live Web Seminars and Archives: Ninety-minute professional learning experiences that use online learning tools to interact with leading scientists and education specialists.

NSTA e-Books and Journal Articles: NSTA Press publications include more than 325 e-books and 7,600 articles from NSTA's four journals.

Virtual Conferences and Online Courses: Virtual conferences provide targeted strategies to help teachers develop their understanding of the *Next Generation Science Standards* and STEM instruction.

Blended Learning

Strengthening teachers' science content knowledge and teaching abilities has been a national priority for decades. Many researchers agree that teachers' effectiveness in the classroom is linked significantly to their knowledge of subject matter and pedagogical content knowledge. For the 2 million science teachers in the U.S., it is challenging to increase teacher subject-matter knowledge and pedagogical knowledge at a sustainable scale. Research tells us that educators need at least 50–80 hours of professional learning experiences over the course of the year to make any substantive changes in their teaching practice. One axiomatic way to address this challenge is by using online systems to extend and enhance face-to-face professional learning within a school district or a university science course. Research also demonstrates that multi-dimensional learning experiences delivered in an integrated fashion improve teacher engagement and learning and show stronger learning outcomes than face-to-face alone. Professional learning is most powerful when it is embedded and sustained through the work of communities of practice. Teacher participation in online communities of practice can foster communication, collaboration, and support among teachers and reduce feelings of disconnectedness or isolation.

NSTA LC Impact

The primary goal of the NSTA LC is to enhance the personal learning for teachers by providing a suite of tools, resources and opportunities to support their individual long-term professional growth based on their unique learning needs and preferences, within a collaborative learning environment. This is facilitated in

Jan McLaughlin, Former New Hampshire State Department of Education Science Supervisor

"The NSTA Learning Center takes teacher professional learning to a new level. Science content learning is delivered through a web-based solution...with what teachers need when they need it."

Michael Odell, Professor, The University of Texas at Tyler

"The Learning Center is much more comprehensive than a methods text. It allows me to develop a library of resources that I can share with my students. It allows the students to build upon the library by adding their own resources. The access to the journals provides a great resource for lesson study. Online access also supports students during field placements."

Kevin Podeweltz, Fourth Grade Teacher, Wisconsin

"I feel like I haven't stopped using the NSTA LC for months. I attended a web seminar and I add resources to the library almost every week. Today I've been working on a SciPack. I have started many collections for each topic I teach. The NSTA LC is such a great resource."

For a complete list of testimonials, visit:
<http://learningcenter.nsta.org/impact>

conjunction with a moderated professional learning community and an innovative micro-credentialing system to recognize teachers' contributions. The NSTA LC is helping tens of thousands of educators improve their confidence and competence in the science subjects they are charged to teach. Online advisors provide support assisting educators with their resource requests and pedagogical needs via the community forums. The NSTA LC has 50,000 unique users each month adding more than two million resources to their personal libraries.

District administrators and professors use the NSTA LC as their professional learning platform and online textbook to enhance the content and pedagogical knowledge of the educators they serve.

NSTA LC District Collaborators

- State of Hawaii Department of Education, HI
- Los Angeles Unified School District, CA
- New York City Department of Education, NY

NSTA LC University Collaborators

- University of Houston, TX
- University of Nevada, Reno, NV
- University of North Georgia, GA