

# 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 215,000 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 97,000 personally uploaded resources, nearly 26,000 user-generated public collections, and more than 96,000 user-generated posts on 12,000 topics across 15 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 links for "Login / Create a Free Account", "Help", and "Logout". Below the navigation bar, there are several menu items: "Learning Center Home", "Explore All Resources", "Events & Opportunities", "Professional Learning Tools", "Forums & User Community", "My Library", and "Cohort Hub". A main banner features the text "Join more than 217,329 science teaching professionals. Learn today, your way." and a list of benefits: "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 15 topical forums or via private messaging", "Check the National Leader Boards recognizing top colleagues' online activity", and "Research-based and Proven: See our Impact (awards, testimonials, research)". Below the banner, there are sections for "Administrators" and "College & University Professors". The "Upcoming Events" section lists four events: "Professional Learning | NDEI #Science60 What's Your Why?" (Nov - Dec 21, 2018), "Web Seminar | Upcoming Shell Science Lab Regional Challenge" (Jan 23, 2019), "Web Seminar | Upcoming How to STEM Up Your Classroom" (Jan 24, 2019), and "Web Seminar | Recent Recent Web Seminar Archives" (FREE). The "Now in the Learning Center" section features an "e-book" titled "Assessment Path of the Future, Grade 6: STEM Road Map for Middle School (e-book)", a "Journal Article" titled "Focus on Physics: Electric Power in a Parallel Circuit With an Automobile Battery" by Paul G. Hewitt, and a "User Review" for "Science Safety" by Christina Toranzo. The "New Forum Posts" section shows a post titled "Field Trips | Posted in Elementary Science" and another titled "Hi Anna - The February issue of NSTA's Science Scope has the theme of project-based learning. Although this is a middle school journal, I suspect that the activities could be adapted on a bit for high school. There are good articles on co-designing projects...".

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

[www.nsta.org](http://www.nsta.org)

**NSTA** National Science Teachers Association

**Live Web Seminars and Archives:** Professional learning experiences that use online learning tools to interact with leading scientists, engineers, 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, Online Courses, and Professional Book Studies:** These online programs 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

**Marguerite A. Sognier, Ph.D., Director, Educational Outreach, Texas Regional Collaborative, Galveston**

*"The NSTA Learning Center is an outstanding resource that has proven to be invaluable to our teachers! We have utilized this resource for both beginning and experienced teachers. All of our teachers have found this to be a convenient way to enhance their science content knowledge, a useful tool for sharing resources with colleagues, and a central location for compiling their lesson plans, examples of student work, and annual progress."*

**Susan M. Blunck, Ph.D., Associate Clinical Professor Science Education, Director UMBC Center for Excellence in STEM Education**

*"At the University of Maryland, Baltimore County we are using the NSTA Learning Center in our elementary methods courses to boost the students' understanding of content and help them gain insights into high quality professional learning. The professional learning resources on the NSTA Learning Center are a perfect fit for helping us reach this goal."*

**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 40,000 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.

## District Collaborators Include

- State of Hawaii Department of Education, HI
- Los Angeles Unified School District, CA
- Cypress-Fairbanks Independent School District, TX

## University Collaborators Include

- University of Houston, TX
- Tennessee Technological University, TN
- University of North Georgia, GA