

# TERC at NSELA and NSTA

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TERC staff are traveling to Chicago for presentations at NSELA and NSTA. Please stop by the TERC booth #890 in the NSTA exhibit hall.

## National Science Education Leadership Association

### 2015 Professional Development Institute

#### LEADING FOR EQUITY Implementing the Vision of the NGSS

**Sally Crissman, Sara Lacy, Irene Lo, Andrea Graf, and Elizabeth Skydell.**

Wednesday, March 11, 2015

Hyatt Regency McCormick Place Hotel – Chicago

The *Framework for K-12 Science Education* (NRC, 2011) and the *Next Generation Science Standards* (NGSS) (Achieve, 2013) present an exciting vision of science education. Enacting the vision will require a large shift in existing curricula and science pedagogy. Professional development (PD) providers are urgently seeking resources to help implement the vision. TERC in collaboration with teachers from a district north of Chicago will present a PD approach that draws on an existing PD system (Talk Science) and curriculum exemplar (Inquiry Project) that will enable teachers to begin implementing the NGSS vision in their classrooms. To bring the language of the NGSS to life, participants are immersed in an existing curriculum that exemplifies the three-stranded nature of the new vision and meets an NGSS Grade 5 standard. They will be provided with tools that highlight the framework of the curriculum and architecture of lessons where students use science practices to understand core ideas. This system relies on Professional Learning Communities to support teachers as they implement the vision. A group of teachers who have experienced this PD system will chronicle their experience and reflect on high points and challenges.

## NSTA 2015 Chicago National Conference

### On the EdGE of Science and Play

**Erin Bardar, Barbara MacEachern, George Papayannis, Jodi Asbell-Clarke, Teon Edwards, James Larsen**

Saturday, March 14, 2015, 9:30 AM - 10:30 AM, Hyatt Regency McCormick Place, Grant Park B

Bring a laptop, smartphone, or tablet and join us for gameplay and discussion of how games can support your STEM teaching. As a planet, we spend 3 billion hours a week playing online games. Teens, in particular, are key players in the gaming industry, with 97% of youth ages 12-17 (boys and girls) reporting that they play games. The Educational Gaming Environments group (EdGE) at TERC is a research design and development team that is working to leverage teens' passion for games by investigating the possibilities—and challenging the assumptions—of game-based learning environments. We design (free!) compelling game experiences that gamers like to play and that have game mechanics embedded in fundamental science education concepts. We've created a variety of games ranging from Flash-based online games to augmented reality games that blend digital and real-world environments. We also work closely with teachers and students to research if and how our games are meeting the needs of educators and teens.

In this hands-on workshop, participants will play EdGE-developed games; learn about an online collaborative community and free, online resources for teachers interested in using games for science education; hear from teachers who have already used EdGE games in their classrooms; and engage in discussion about how games can support and measure science learning.

## STEMLandia: A STEM-infused Geocaching Adventure

**James Larsen, Barbara Fortier, Erin Bardar, Barbara MacEachern, Teon Edwards, Daphne Minner**  
Saturday, March 14, 3:30 PM - 4:30 PM, McCormick Place, S504a

Open the door and use geocaching to connect STEM learning with location-based adventures. Find out how to navigate your own adventures in STEMLandia.

## Come Be a Paleoclimatologist and Discover the Relationship Between Climate and the Biosphere

Dawn Chegwiddden, Lewisville High School, Lewisville, TX (For TERC EarthLabs project)

Friday March 13; 3:30 PM –4:30 PM, McCormick Place, S404a;

Investigate how present and past can help us explain climate and weather. Use data and hands-on activities to demonstrate NGSS crosscutting concepts.