

**EiE
News****November 2014**

Engineering is Elementary News - November 2014

EiE is the winner of the ISDDE Prize for 2014! This international award recognizes excellence in curriculum design. Also in this issue: new video resources for teachers, new and noteworthy books, and a district that's using EiE to help build a "STEAM Mindset." We hope you'll share YOUR stories. — EiE News

EiE Wins International Curriculum Prize

The International Society for Design and Development in Education has awarded the **2014 ISDDE Prize** to the team that developed the EiE curriculum.

EiE director Christine Cunningham accepted the prize, which recognizes excellence in curriculum design, on Oct. 2 at the 2014 ISDDE **conference** in Cambridge, England.

"EiE has moved the field of educational design forward by providing proof of concept that even young children in ordinary classrooms can learn to love engineering," says Elizabeth Stage, an ISDDE fellow and director of the **Lawrence Hall of Science** at the University of California, Berkeley.



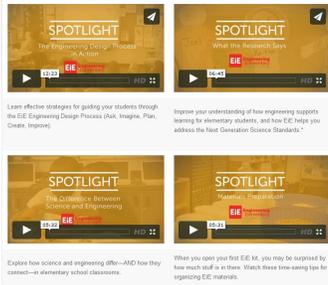
Christine Cunningham accepts the ISDDE Prize from Christian Shunn and Malcolm Swan.

"The whole EiE team is deeply honoured to receive this recognition," says Cunningham. "One key aim of EiE is to promote educational equity, so it's particularly gratifying to see new research from other institutions provide evidence for that result." The prize includes a \$10,000 award that EiE will use to support educators with professional development.

New Videos Put the Spotlight on Effective Teaching Practices

EiE Spotlight Videos

EiE's Spotlight Videos put the spotlight on effective classroom practices for teachers



EiE Spotlight Videos feature candid scenes from real classrooms.

Our extensive [online library](#) of short videos for educators just got bigger and better with the addition of “[Spotlight Videos](#).” The six documentary-style videos explain and demonstrate effective classroom practices.

“Many elementary teachers feel uncomfortable teaching science and engineering,” says Martha Davis, EiE’s videography project manager. “We’ve designed Spotlight Videos to showcase best-practice teaching strategies teachers can use to address the challenges that may come up during engineering activities.”

The new “Spotlights” join our existing library of “[How-To Videos](#),” which offer tips for lesson prep, and “[Classroom Videos](#),” which show real teachers, in real classrooms, doing EiE activities. EiE’s video initiative is supported by a grant from [Cognizant](#) that aims to support teachers as they implement the EiE curriculum.

Learn more about Spotlight Videos on the [EiE Blog](#).



Learn to guide students in active learning



and use effective questioning strategies.

Oracle Brings Engineering Activities to Silicon Valley Afterschools



Afterschool educators at the Oracle workshop engineer model houses to resist an earthquake.

A grant from **Oracle** is bringing EiE's **Engineering Adventures (EA)** curriculum to afterschool programs in Silicon Valley. A total of 28 afterschool educators received scholarships that included a professional development (PD) workshop and curriculum materials.

EiE staff facilitated two PD **workshops** for the educators last month: one at **The Tech Museum of Innovation** in San Jose, the other at the **Gilroy Unified School District**.

"We'll use EA in our Young Engineers program," says Rosemary Baez, executive director of the **Third Street Community Center** in San Jose, which serves mostly minority and low-income students. "Most of these kids never get science till middle school. So we're committed to getting them excited about STEM."

The Oracle grant also supported 40 Silicon Valley elementary teachers with scholarships to attend EiE PD workshops at The Tech this past August, and provides EiE and EA curricular materials to educator lending libraries at the Santa Clara Office of Education and the California Afterschool Resource Center.

Texas District Builds "STEAM Mindset" with Raytheon - EiE Scholarship

The **Garland Independent School District** in Texas is implementing EiE this year thanks to a **Raytheon** District Scholarship. And after attending an EiE **Teacher Educator Institute** this summer, Garland educators hit the ground running.



"We came back and trained every teacher at **Northlake Elementary**," says Tina Garrett, Garland's elementary science coordinator. "We also turned two classrooms into dedicated EiE labs!"

A **2011 analysis** from Georgetown University projects that Texas needs to fill 700,000+ STEM jobs by 2018; the district wants students to be prepared—and excited—about these opportunities. "We're trying to build a STEAM mindset of problem solving and critical thinking in the district," says Garrett. "EiE is definitely part of that mindset—it completely aligns with our strategic plan to build skills our students need for the future."

The district scholarships are part of a larger initiative: a **\$2 million award** from Raytheon to the Museum of Science, Boston to jumpstart use of EiE nationwide. Other 2014 - 15 district scholarship recipients are Athens City Schools (AL), Lawrence Public Schools (MA), Houston County Schools (GA), Harford County Public Schools, MD, and Orange County Public Schools (FL).

Val's Tips for Teachers

Solar Oven "Activity Centers"

Do you teach EiE's "**Designing Solar Ovens**"? While your students are waiting to check oven temperatures, enhance learning with these cool "activity centers" developed by EiE teacher **Linda Kurtz** in Marietta Georgia.



Reach inside . . . what do you feel?

One center is a large cardboard box with a hole in the top; inside, you can put pieces of the different materials used as oven insulation. Challenge your students to put their hand inside and identify the material they select using only their sense of touch.

A second activity center is designed to enhance learning for ESL students who aren't familiar with words like "felt," "foam," or "foil." Students select a material inside an enclosed box and describe its properties to a fellow student—who has to guess what material it is based on the first student's description!

Do you have tips or tricks you'd like to share with fellow teachers? Send a note to toeie@mos.org or post them to our **Facebook** page.

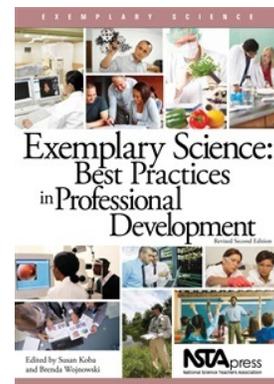
Valerie Costa is EiE office manager and our resident master of materials/lesson prep

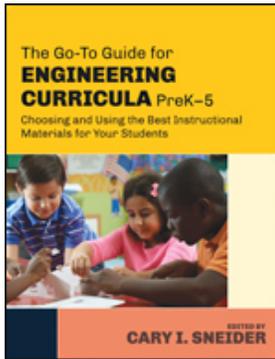
New and Noteworthy Books

Two new books for science and engineering educators include chapters about EiE.

Exemplary STEM Programs: Designs for Success, published by the National Science Teachers Association (**NSTA**), includes a chapter by Christine Cunningham and Cynthia Berger on "Integrating Science and Engineering in the Elementary Classroom."

The Go-To Guide for Engineering Curricula, PreK-5, edited by Cary Sneider and published by **Corwin Press** includes TWO EiE chapters:





- "Engineering is Elementary: Engineering for Elementary School Students (Grades 1-5)," by Christine Cunningham
- "Engineering Adventures: Engineering for out-of-school time," by Melissa Higgins and Christine Cunningham

"Editor Cary Sneider has highlighted a series of pedagogically sound and contemporary curriculum materials to serve as exemplars," says Michael Hacker, co-director of the **Center for STEM Research** in Hempstead, NY. "Teachers and curriculum decision makers would do well to review and consider adopting the materials highlighted in this book."

Headed to a Conference? Say Hello to EiE

EiE will be represented at these upcoming conferences. Look for us and say hello!

- **NSTA Area Conference**, Nov. 6 - 8, 2014, Orlando, FL. Check the [conference schedule](#) for sessions offered by EiE collaborators.
- **Arizona Science Teachers Association**, Nov. 7 - 8, 2014, Phoenix, AZ. EiE collaborator Lori Rubino-Hare will facilitate an EiE workshop Nov. 8 at 2:15 in Rm. 160.
- **Massachusetts Association of Science Teachers** Annual Conference, Nov. 13 - 14, 2014, Boxboro, MA. [Check this list of EiE workshops!](#)
- **NSTA Area Conference**, Dec. 4 - 6, 2014, Long Beach, CA. Look for EiE sessions on "Engineering Day," Fri., Dec. 5.



Professional Development Workshops Help You Teach EiE with Confidence!

Come to the Museum of Science, Boston, for our hands-on, highly engaging **EiE Professional Development Workshops**.

Can't travel to Boston? **Request an EiE facilitator** to come conduct a workshop for a group of teachers at your school or district.

Or tap into our national network! **Ask us** about PD providers serving schools in your area.



Put yourself in the picture!

Teacher Educator Institutes

Intensive three-day workshops certify EiE Professional Development educators.

- * Feb. 25 - 27, 2015
- * May 6 - 8, 2015
- * July 22 - 24, 2015
- * Oct. 21 - 23, 2015
- * Dec. 2 - 4, 2015

Everyone Engineers!

A two-day, hands-on workshop that gives you the skills to implement EiE in your classroom.

- Mar. 5 - 6, 2015
- July 9 - 10, 2015
- October 1 - 2, 2015

Linking the E & M in STEM

This two-day workshop features strategies for integrating EiE with Common Core state math standards.

- March 26 - 27, 2015
- August 6 - 7, 2015
- Request a workshop

Improving Your Practice

EiE's newest workshop is for teachers who already use the EiE curriculum and want to take their teaching to the next level.

- Request a workshop
-



Engineering is Elementary® is part of the [National Center for Technological Literacy \(NCTL\)](#) at the [Museum of Science, Boston](#).

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