

#### **Professional Learning Resource for Informal/PK-8 Educators in Understanding and Facilitating Development of Engineering Practices** (Resource Exchange)

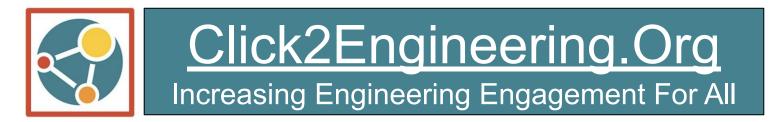
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Rebecca D. Swanson is an Extension Assistant Professor of STEM Engagement and STEM Specialist at University of Nebraska - Lincoln. She received her Ph.D. in Curriculum & Instruction in Science Education from University of Colorado, Boulder, and did her postdoctoral work at the Center for Engineering Education and Outreach at Tufts University. Her research and program work centers around professional learning opportunities for informal and elementary educators in science and engineering, particularly in online/virtual contexts.

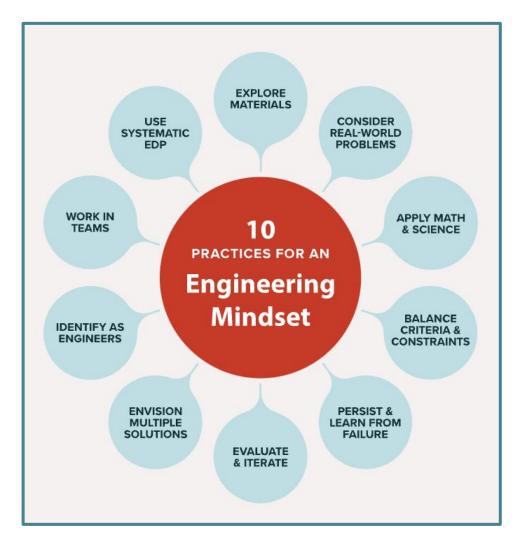
#### Dr. Merredith D. Portsmore, Tufts University

Dr. Merredith Portsmore is the Director for Tufts Center for Engineering Education and Outreach (www.ceeo.tufts.edu) and a research associate professor.

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Click2Engineering.org is a free website offering professional development resources and opportunities to support out-of-school time K-8 STEM educators in developing their own understanding of engineering practices and an engineering mindset - in order to engage youth learners more authentically in engineering activities. Launched in April 2022.



The website is organized around the *10 Practices for an Engineering Mindset,* representing ways that engineers engage in their work to solve problems [1].

PCEE Division - ASEE 2023 Contact: Dr. Rebecca D. Swanson (rebecca.swanson@unl.edu) Project Team: Dr. Saundra Frerichs, Ann O'Connor, Dr. Merredith Portsmore This work is supported by STEM Next Opportunity Fund

# <u>Click2Engineering.Org</u> Resources and Learning Opportunities





Learning Blast: Balance Criteria and Constraints

## Learning Blasts and Video-Learning Modules

Learning Blasts are asynchronous guides that introduce each engineering practice and lead educators through a brief (<30 min) series of questions and reflections on the individual practices. Learning Blasts and Video-Learning Modules both include videos of youth engaging in engineering, as tools for educator reflection.

## **Learning Activities**

In this section of the website, users will find vetted, high-quality, engaging, and authentic engineering activities for youth. These activities are selected to support youth engagement in engineering practices and can be readily adapted to different age groups (K-8). This collection is updated regularly.



Make Your Own Water Filter Practice using the engineering design process to design, build and test a water filter.

Get Activity

### **Training Staff and Other Resources**

- Community of Practice Four-session series of synchronous, online, highly interactive sessions organized around individual engineering practices, offered approximately quarterly throughout the year.
- Webinars Monthly synchronous presentations on a variety of topics relevant to engineering with young children. Webinars are recorded and available for viewing anytime on the website.
- Blogs Articles about new resources and current topics, written by both the project team and guest authors.

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