



## STEMworks – STEM Advisory Council’s Approved STEM Program October 2017

### ENGINEERING EVERYWHERE

#### PROGRAM OVERVIEW

*Engineering Everywhere (EE) is a rigorously researched, youth-tested curriculum that integrates engineering and technology concepts and skills with science topics. EE is designed to empower middle school-aged youth in afterschool and camp programs tackle real-world engineering problems using the engineering design process, creativity, and collaboration. The EE curriculum has been expressly designed to address the critical need of increasing children’s STEM literacy. Inquiry-based and standards-driven, EE provides youth with personally meaningful and globally relevant engineering challenges that empower them to problem solve, think creatively, and learn from each other. EE teaches engineering content and skills while helping youth develop positive associations with engineering and science—to see them not only as integral to modern life, but also as potential career paths. EE builds a strong foundation of problem solving and critical thinking for all youth while helping them to become lifelong STEM learners.*

#### TARGET GRADES

Grades 6-8

#### A UNIQUE OR SPECIAL FOCUS OF THE PROGRAM

*EE’s 12 units present fun, engaging engineering challenges that encourage youth to share their knowledge and experiences with peers to address challenges and take ownership of engineered solutions.*

#### THE PROGRAM’S IMPACT ON STUDENTS

*EE helps all youths, but especially girls, minorities and other underrepresented groups, recognize their ability to engineer, while building enthusiasm for engineering as a career choice.*

#### SPECIFIC SKILLS STUDENTS WILL LEARN

List of Skills:

- 21<sup>st</sup>-century Skills (e.g., critical thinking, collaboration, communication, creativity, flexibility, persistence, learning from failure)
- Engineering Habits of Mind: positive strategies for problem solving that correlate with NGSS Practices but provide more support for learning engineering practices.
- Builds engineering skills and knowledge.

#### RESOURCES PROVIDED TO EDUCATORS

- Educator Guides: include background content, detailed activity plans, and material kit content lists.
- Engineering Notebook for youths
- Online resources for educators and learners including articles and videos
- Professional Development workshops: half-day and full day workshops
- Online Professional Development

#### WEBSITE

Website: <https://eie.org/engineering-everywhere>

#### CONTACT INFORMATION

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