



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

### **ENGINEERING IS ELEMENTARY**

#### **PROGRAM OVERVIEW**

*Engineering is Elementary (EiE) is a rigorously researched, classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. EiE is designed to encourage all children—including those from underrepresented groups—to envision themselves as engineers. The EiE Curriculum is the nation’s leading engineering curriculum for grades 1-5. The EiE curriculum has been expressly designed to address the critical need of increasing children’s STEM literacy. Inquiry-based and standards-driven, EiE teaches engineering content and skills, links engineering to the science and mathematics students are already learning, and helps children develop positive associations with engineering and science—to see them as being integral to modern life, and also potential career paths. Besides promoting STEM literacy, EiE units also connect with literacy and social studies. EiE builds a strong foundation of problem solving and critical thinking for even the youngest students while helping them to become lifelong STEM learners.*

#### **TARGET GRADES**

*Grades 1-5*

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

*EiE’s 20 units present fun, engaging engineering challenges that require students to apply science knowledge in meaningful ways to solve real-world problems.*

#### **THE PROGRAM’S IMPACT ON STUDENTS**

*EiE helps all students, 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.*
- *Build Science and Math Skills: EiE activities are based on real-world technologies and problems, they help children see how disciplines like math and science are relevant to their lives.*

#### **RESOURCES PROVIDED TO EDUCATORS**

- *Teacher Guides: include background content, detailed lesson plans, student handouts, and material kit content lists.*
- *Online resources*
  - *Classroom and How-To videos*
  - *Extension Lessons: connecting math, ELA, fine arts and social studies*
  - *Student Assessments*
- *Professional Development workshops: 1-day, 2-day and Teacher Educator Institute (3-day) workshops*
- *Online Professional Development*

#### **WEBSITE**

*[Website: eie.org](http://eie.org)*

#### **CONTACT INFORMATION**

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