



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

### ENGINEERING ADVENTURES

#### PROGRAM OVERVIEW

*Engineering Adventures (EA) is rigorously researched, kid-tested curriculum that is designed for out-of-school programs, especially for kids in grades 3-5. It offers real-world engineering challenges, promotes creativity and teamwork, and helps to increase kid’s STEM literacy. The EA curriculum helps kids build enthusiasm for engineering careers and understand the prevalence of engineering and technology in their everyday lives. The curriculum is flexible and can be adapted to fit local circumstances. Inquiry-based and standards-driven, EA explores real-world problems— and uses the Engineering Design Process to create solutions. EA’s goals are to make a positive impact on children’s attitudes, to help kids feel confident about their ability to engineer, and to help kids see themselves as engineers. EA builds a strong foundation of problem solving and critical thinking for even the youngest children while helping them to become lifelong STEM learners.*

#### TARGET GRADES

*Grades 3-5*

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

*EA’s 10 units present fun, engaging engineering challenges that require kids to solve hands-on engineering design challenges based on real events around the world.*

#### THE PROGRAM’S IMPACT ON STUDENTS

*EA helps all kids, 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 Journal for kids*
- *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-adventures>*

#### CONTACT INFORMATION

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