

Engineering is Elementary

Our Mission

Engineering is Elementary supports educators and children with curricula and professional development that develop engineering literacy.

1. Why do we want to do Engineering for Children?

Introducing children to engineering in elementary school brings many benefits:

- Builds science and math skills
- Allows all students to be successful
- Hands- on
- Requires students to work in groups

2. Curriculum Design Principles

- Every unit uses a different field of engineering
- Flexible and scaffolded lessons
- Materials that are used are simple and inexpensive
- Focuses on problem solving and teamwork
- Project Based Learning

3. Engineering Design Process

- 5 step flexible process for students to work through as teams
- It is in a cycle to show that you can start at any point in the process to move back and forth between the steps

4. Integration of subject areas

- Can be applied to state standards
- Science, technology, literacy, social studies, and math are in each lesson
- Lessons are adjustable based on your groups ability level

5. EIE Kits Structure

- Many FUN options- each kit includes:
 - Four lessons per unit-
 - Preparatory Lesson about Engineering or Technology
 - One session about 20-30 minutes
 - Lesson 1- Engineering Story
 - Two to three session about 40 minutes per session
 - Lesson 2- A Broader View of an Engineering Field
 - One to two sessions about 40-60 minutes total
 - Lesson 3- How Scientific Data Informs Engineering
 - One to two sessions, about 40 minutes total
 - Lesson 4- The Engineering Design Challenge
 - One to three sessions, about 50 minutes per session

Further Information is on the EIE website:

<http://www.eie.org/eie-curriculum/eie-lesson-plan-structure>