

Engineering is Elementary® Unit Overviews

Unit Title	Science Topic	Engineering Field	Storybook/Setting	Grade Level
A Long Way Down: Designing Parachutes	Astronomy	Aerospace	Paulo's Parachute Mission (Brazil)	A
To Get to the Other Side: Designing Bridges	Balance & Forces	Civil	Javier Builds a Bridge (USA – Latino)	B
A Sticky Situation: Designing Walls	Earth Materials	Materials	Yi Min's Great Wall (China)	B
A Slick Solution: Cleaning an Oil Spill	Ecosystems	Environmental	Tehya's Pollution Solution (USA – Native American)	A
An Alarming Idea: Designing Alarm Circuits	Electricity	Electrical	A Reminder for Emily (Australia)	A
Now You're Cooking: Designing Solar Ovens	Energy	Green	Lerato Cooks Up a Plan (Botswana)	A
No Bones About It: Designing Knee Braces	Human Body	Biomedical	Erik's Unexpected Twist (Germany)	A
The Best of Bugs: Designing Hand Pollinators	Insects & Plants	Agricultural	Mariana Becomes a Butterfly (Dominican Republic)	B
A Stick in the Mud: Evaluating a Landscape	Landforms	Geotechnical	Suman Crosses the Karnali River (Nepal)	A
Lighten Up: Designing Lighting Systems	Light	Optical	Omar's Time to Shine (Egypt)	A
The Attraction is Obvious: Designing Maglev Systems	Magnetism	Transportation	Hikaru's Toy Troubles (Japan)	A
Just Passing Through: Designing Model Membranes	Organisms	Bioengineering	Juan Daniel's Fútbol Frog (El Salvador)	A
Thinking Inside the Box: Designing Plant Packages	Plants	Package	A Gift From Fadil (Jordan)	A
Solid as a Rock: Replicating an Artifact	Rocks	Materials	Galya and Natasha's Rocky Adventure (Russia)	A
Marvelous Machines: Making Work Easier	Simple Machines	Industrial	Aisha Makes Work Easier (USA – African American)	A
Taking the Plunge: Designing Submersibles	Sinking & Floating	Ocean	Despina Makes a Splash (Greece)	A
A Work in Process: Improving a Play Dough Process	Solids & Liquids	Chemical	Michelle's MVP Award (Canada)	B
Sounds Like Fun: Seeing Animal Sounds	Sound	Acoustical	Kwame's Sound (Ghana)	A
Water, Water Everywhere: Designing Water Filters	Water	Environmental	Saving Salila's Turtle (India)	A
Catching the Wind: Designing Windmills	Wind & Weather	Mechanical	Leif Catches the Wind (Denmark)	B

A = Advanced (grades 3–5)
B = Basic (grades 1–2)

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is Elementary®**
Developed by the Museum of Science, Boston

Engineering is Elementary (EiE)

Frequently Asked Questions

1. How do I select an EiE unit for my class?

Each EiE unit ties in with a specific elementary science topic (see the Unit Overviews on the back of this page for a complete list) and is meant to be taught either concurrently with or after students learn the appropriate science content. Each EiE Teacher Guide includes a list of the relevant science concepts for that unit, plus a list of lessons from frequently used science curricula (FOSS, Gems, STC, Insights, and Science Companion) related to each EiE lesson.

2. What's in an EiE Teacher Guide?

Each EiE unit focuses on one particular field of engineering and one science topic, and is set in one country or U.S. state. Each EiE teacher guide includes:

- A storybook that introduces basic engineering content and related science topics and highlights engineering activities that children will do in the unit. Each story focuses on a child character from a different racial or ethnic background or country and includes original illustrations.
- Lesson Plans with detailed instructions for teachers, as well as suggestions for English Language Learner students and modifications to make each lesson simpler or more advanced, depending on students' abilities.
- Student Duplication Masters that are ready to photocopy for students. Duplication Masters are often written in two levels—one for Advanced elementary students (grades 3–5) and one for Basic elementary students (grades 1–2).
- Background information and additional resources for teachers.

3. For which grade level is each Engineering is Elementary unit written?

EiE units are associated with particular science topics, not specific grade levels. However, each unit is targeted to either Advanced (grades 3-5) or Basic (grades 1-2) elementary school students, depending upon the grade level at which the science topic is most commonly taught. All EiE units also include modifications to make activities more challenging or simpler, based on the abilities of your students, along with two versions of many of the Duplication Masters (one for Advanced students and one for Basic students).

4. How long does it typically take to complete an EiE unit?

Each EiE unit typically takes 8–10 class periods (40–45 minutes each) to complete. This depends upon the ability and age of your students and how many times your students improve their designs!

5. How can I get EiE materials for my classroom?

EiE materials (Teacher Guides, storybooks, materials kits, kit refills, etc.) may be purchased either through the EiE website (www.eiestore.com) or by sending or faxing a purchase order to:

Engineering is Elementary
Museum of Science
Science Park
Boston, MA 02114
Fax: 617-589-4489

6. I have a question! Where can I get more information about EiE?

The EiE website (eie.org) contains a great deal of information about the project.