

Curriculum Programs

[Engineering is Elementary Grades K-5](#)

A research-based, standards-driven, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. EiE lessons promote science, technology, engineering, and mathematics (STEM) and connect with literacy and social studies. Storybooks featuring children from a variety of cultures and backgrounds introduce students to an engineering problem. Students then solve a problem similar to that faced by the storybook character. Through a hands-on engineering design challenge, students work in teams to apply their knowledge of science and mathematics; use their inquiry and problem-solving skills; and tap their creativity as they design, create, and improve possible solutions.

[Science Companion Grades K-6](#)

Developed by Science Companion, these engineering design project modules can either be stand alone or used in conjunction with Science Companion units and curriculum from FOSS and STC: Animal Homes, Electrical Circuits, Moving Systems, Simple Machines, Human Tools and Human Systems.

[Building Math Grades 6-8](#)

This curriculum series, developed by the Museum of Science, Boston and Tufts University, consists of hands-on investigations integrated with engineering design activities. Students learn algebra by solving engineering challenges on imagined adventures to Mount Everest, the Amazon, and a deserted South Pacific island. Students collect and analyze their own data, helping them develop algebraic thinking skills and solve real problems such as designing a bridge prototype or building a shelter.

[Engineering the Future Grades 9-12](#)

A full-year course designed to introduce students to the world of technology and engineering. Students create products that solve problems involving thermal, fluid and electrical power systems; communications; manufacturing; and construction. Each challenge involves applications of science and math. The goal is to build technological literacy and critical reasoning skills and increase the pool of students interested in technical and scientific careers.

[Project Lead the Way Grades 7-12](#)

Offer an array of comprehensive, turn-key programs for middle ([Gateway to Technology](#)) and high school ([Pathway to Engineering](#) and [Biomedical Sciences](#)) students. PLTW programs are designed to appeal to all students, from those already engaged in STEM-related fields to those who find themselves uninterested in traditional science and math curricula. Students make the critical connection between STEM principles and solving the real challenges in our communities and the world. Courses are centered on activities that are hands-on and project-based.

[Stuff that Works! A Technology Curriculum for the Elementary Grades Grades K-5](#)

A curriculum series based on everyday situations, materials and artifacts, *Stuff that Works* helps teachers plan and implement activities and units organized around a single topic – how and why basic technology works. Guides include an introduction to concepts, classroom stories, resources, connections to standards and suggestions for teachers. Teachers can use a single unit or all five. The complete series includes: Mechanisms and other Systems; Packaging and other Structures; Designed Environments: Places, Practices and Plans; Signs, Symbols and Codes; and Mapping. Sample lesson plans for the curriculum series and additional STEM lessons can be accessed on the site.