

Teaching Resources

[Advance Technological Education Television Grades 9-12](#)

This award winning free Web video series, sponsored in part by the National Science Foundation, features current information connecting high school students with high-tech education and employment opportunities. ATETV cameras take viewers inside the classroom and onto the job site to hear from high-tech workers themselves. This series debuted in 2009 and has been critically acclaimed for its efforts at showcasing real jobs in actual high-tech fields, and the educational paths to them.

[Biomimicry Grades K-12](#)

Biomimicry is the science and art of emulating nature's best biological ideas to solve human problems. Site contains lessons and other resources to promote biomimicry in your classroom.

[Children's Engineering and Design Technology Grades K-5](#)

Comprised experienced elementary teachers who believe the study and use of technology provides a creative and active way to apply state and national learning standards. Numerous resources including lesson plans, ready-to-use activities, handbooks and other resources are available.

[Design Squad Grades Grades 7-12](#)

Companion website to the PBS reality-based television show featuring teams of 15-19 year olds who are presented with raw materials and a challenge to transform them into workable solutions. Website offers downloadable resources, descriptions of the show's engineering challenges and solutions, and video clips that highlight the role of engineers in society.

[Discover Engineering Grades 7-12](#)

Site designed for middle school students however the career profiles and facts and video challenge activities could be adapted for use with high school students.

[Educator Resource Center, Lyman Library, Museum of Science, Boston Grades K-12](#)

The Educator Resource Center, located in the Lyman Library at the Museum of Science, Boston is part of the Museum's goal to improve STEM (science, technology, engineering, and mathematics) literacy in grades K - 12. Educators may schedule a time to review New England's largest collection of high quality technology and engineering curriculum materials that has been reviewed for connections to national and state standards.

[Engineering Go For It Grades K-12](#)

This site, from the American Society for Engineering Education (ASEE), contains a wealth of resources promoting and enhancing K-12 STEM and engineering education. Teachers can access lesson plans, class activities, web resources and sign up for e-newsletters. Middle and high school students will enjoy numerous aspects this site including E-tube (videos showcasing interesting and exciting things engineers do), "Engineer Your Path," and a virtual magazine featuring articles about innovative engineers.

[Engineering TV Grades 7-12](#)

A collection of 5-8 minute segments featuring cutting-edge technology in action and behind-the-scenes looks at discoveries and technologies shaping tomorrow's designs. While primarily aimed at engineers and the marketplace, teachers will find clips engaging and inspiring addition to engineering lessons.

[Lab TV Grades 7-12](#)

Lab TV is a new “channel” on the National Defense Education Program’s website that features 3-4 minute downloadable webisodes showcasing cutting-edge research happening in our nation’s defense labs. Each episode features real people sharing details of their work in the labs. Lesson plans and activities, created by teachers, scientists, and engineers that incorporate Lab TV episodes are available.

[NASA Grades K-12](#)

Lesson plans, video clips and numerous other engineering related resources available by grade span K-4, 5-8 and 9-12. A tip for navigating this site is to select the “For Educators” tab in the upper left and use the search feature in the upper right to locate materials specific to your interest and grade level.

[PBS Teachers STEM Resource Grades K-12](#)

A searchable library of digital media resources aimed at helping students understand concepts, practice new skills and engage in authentic learning experiences. This collection of science, technology, engineering and mathematics (STEM) learning through television and online content is organized by discipline and grade bands.

[Science Buddies Grades K-12](#)

In addition to their numerous resources and activities for science, Science Buddies has developed a blueprint for students working on engineering projects as well as a bank of engineering project ideas organized by categories.

[Secret Life of Scientists and Engineers Grades 4-12](#)

Get to know dozens of scientists and engineers by watching video clips profiling the person’s work and “secret” interests and talents. From PBS’s “Secret Life” Nova series.

[Teach Engineering Grades K-12](#)

A searchable library comprised of teacher-tested, standards-based engineering lessons for K-12 teachers to use in science and math classrooms. Lessons connect to real-world experiences and with curricular content already taught in K-12 classrooms.

[Teachers Domain: Engineering Grades K-12](#)

A searchable collection of short video clips, interactive websites and lesson plans for classroom K-12 classroom use.

[The Tech: Museum of Innovation Grades K-8](#)

Lesson plans, technology projects and online educational resources from The Tech Museum in San Jose, California.

[Try Engineering Grades 4-12](#)

Developed for students, teachers, counselors, and parents Try Engineering features lessons plans, contains a searchable bank of student design challenges, highlights engineering careers, and connects students with answers to their engineering questions through the “Ask an Expert” feature.

[Vocational Information Center Grades 9-12](#)

A directory of lesson plans and activities for technical education and related vocational learning including carpentry, construction, electricity, heating-ventilation-air conditioning, plumbing, masonry, painting and repair, engineering, welding and manufacturing.