

Engineering Resources for Teachers

› U of M Girls Experiencing Engineering (GEE) Lesson Plans:

www.livebinders.com/play/play_or_edit?id=413629

› American Society for Engineering Education (Engineering Go For IT!):

<http://teachers.egfi-k12.org>

This website is designed for teachers who are looking to enhance both math and science performance in students. Teachers of each grade level (K-12) are given in depth lesson plans and class activities that can boost students' participation and knowledge.

› American Society of Civil Engineers:

www.asce.org/Outreach/K-12-Outreach/

This website allows teachers to download classroom lectures and activities that are based around Civil Engineering. These classroom resources provide hands-on engineering activities that are unique to each grade (K-12). Civil Engineering includes a wide range of activities that include designing bridges and roller coasters.

› American Society of Mechanical Engineers:

www.asme.org/career-education/k-12-students?cm_re=Career%20Education--Left%20Navigation--K-12%20Students

The purpose of ASME is to attract young minds to the field of Mechanical Engineering through various programs and initiatives. ASME has a teacher's workshop guide that is meant to help guide teachers into giving their students the necessary guidelines and curriculum that is needed for the field of engineering.

› Society of Women Engineers:

aspire.swe.org/index.php?option=com_content&view=article&id=54&Itemid=26

This website provides teachers with learning resources and curriculum that is necessary to educate middle and high school girls as to how exciting and fun-filled engineering can be. Special outreach programs for all grade levels are provided as resources to help girls get deeper experience and work with engineering.

› Institute of Electrical and Electronics Engineers:

www.ieee.org/education_careers/index.html

This website is an excellent resource for links to many websites that can guide teachers to integrate engineering into the curriculum. IEEE offers a wide range of lesson plans to help connect students to the world of engineering.

› Institute of Transportation Engineers:

www.ite.org/councils/education/Recruitment/default.asp

This website helps aid students and teachers in understanding the field of transportation engineering and how it can be a beneficial future career path.

› TeachEngineering.org:

www.teachengineering.org/whyk12enr.php

Teach Engineering is an excellent resource specifically designed for teachers who are trying to implement more engineering lesson plans and activities into daily classroom curriculum.

› National Academy of Engineering:

www.nae.edu/Publications/Bridge/16145.aspx

National Academy of Engineering has set up multiple projects that aim to educate students and teachers as to how engineering can be implemented for K-12.

› The Geography of Transport Systems:

people.hofstra.edu/geotrans/eng/media_slides.html

The Geography of Transport Systems is a website that provides countless PowerPoint slides that can be used to teach students about the field of transportation engineering.

› ASCEville:

www.asceville.org/

Asceville is meant to provide a fun and interactive website for students to understand and become knowledgeable about civil engineering. It offers many games that students can play and labs that teachers can use as a part of their curriculum.

› ITEEA:

www.iteea.org/EbD/ebd.htm

ITEEA is meant to provide an in depth curriculum for teachers in the math and science fields K-12. It lists all the necessary areas of math and science that teachers should focus on for engineering to be integrated into their classrooms.

› I-STEM Lesson Plans:

www.istemnetwork.org/resource/educational/lesson.cfm

The STEM (Science, Technology, Engineering, and Math) Program is key for teachers to adopt into their curriculum because it allows K-12 students to get more experience in these subjects. This website gives K-12 hands-on activities and lesson plans that teachers can apply to their current curriculums.

› STEM Collaborative:

stemcollaborative.org/additionalResources.html

This website is another excellent resource that provides STEM K-12 lesson plans and activities.

› PBS: STEM Education Resource Center:

www.pbs.org/teachers/stem/engineering/

PBS Teachers offers a number of lesson plans and challenging exercises for Grades K-12. This is an excellent website for teachers, at any grade level, to begin incorporating engineering into their classrooms.

› Engineering is Elementary:

www.eie.org/engineering-elementary/resources

Engineering is Elementary is a website that supplies ready-to use presentations that provide teachers with the means of helping students understand what engineering has to offer throughout grades K-12.

› Try Engineering:

www.tryengineering.org/

Try Engineering is a website that allows teachers to pinpoint exactly what field of engineering they want to focus on in their classrooms by providing age specific curriculum and lesson plans.