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/whyk12engr.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.