CRS
COMMUNITY RESOURCES FOR SCIENCE
practical support for great science teaching

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Engineering Websites

CA Energy Commission-Energy Scientists

http://www.energyquest.ca.gov/scientists/
3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background
A gallery of pictures and biographies of energy pioneers. Parents: Visit www.EnergyQuest.ca.gov

City Technology

http://www.citytechnology.org/
K;1st;2nd;3rd;4th;5th

Website Types Student Background;Student Online Activities;Teacher Activities;Teacher Background
A collaboration of college faculty in Engineering and Education, public elementary teachers and children.

Curiosity Machine

http://www.curiositymachine.org/
K;1st;2nd;3rd;4th;5th;6th;7th;8th

Website Types Student Background;Student Online Activities;Teacher Background
Log in is required, but is free. Students can earn "badges." The Curiosity Machine hosts collection of exciting (and sometimes very challenging) experiments and projects designed for children, along with their parents, to encourage curiosity, creativity and persistence!
1. OBSERVEwatch videos of actual engineers and scientists talking to children about the inventions and projects they work on.
2. BUILDget ideas from the videos and create your very own invention.
3. SHAREshare your adventure photos and videos, sketches and thinking.

Engineer Girl

http://www.engineergirl.org
1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background;Teacher Background
The Engineer Girl website tries to bring national attention to the opportunity engineering represents to all people at any age, but particularly to women and girls. The site is conveniently organized into 4 main areas of interest: Space, Environment, Medicine, and Communications. This makes it much easier to help girls understand how they could be controlling and preventing pollution, developing new medicines, creating advanced technologies, even exploring new worlds.

Engineering Design Challenges for National Engineers Week Foundation

http://www.eweek.org/EngineersWeek/DiscoverE.aspx?ContentID=90
K;1st;2nd;3rd;4th;5th;6th;7th;8th

Website Types Teacher Activities
This website has a collection of tested and true design challenges that you can do in your classroom with your students

Engineering is Elementary

http://legacy.mos.org/eie/index.php
K;1st;2nd;3rd;4th;5th

Website Types Teacher Background

The Engineering is Elementary® (EiE) project fosters engineering and technological literacy among children. EiE has created a research-based, standards-driven, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. EiE lessons not only promote K-12 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies.

How Stuff Works

http://www.howstuffworks.com
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background;Student Online Activities;Teacher Activities;Teacher Background
A great place to learn about the way all kinds of things function in the world. Learn about everything from guitars, to cruise missiles, to engines, to weather, to the cells in your own body. For parents, see "Homestuff" for great at-home learning activities.

How to Build and Launch a Foam Rocket

http://www.jpl.nasa.gov/education/foamrocket/
3rd;4th;5th;6th;7th;8th

Website Types Teacher Activities;Teacher Background
In NASA's "Foam Rocket" activity, students build rubber-band-powered rockets and launch them at various angles to learn about rocket stability and trajectory. This lesson provides students with an excellent hands-on perspective on key mathematical concepts as well as data analysis and reasoning.

HowToSmile.org

http://howtosmile.org/
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Teacher Activities;Teacher Background;Teacher Videos
Are you looking for new ways to teach kids about math and science? Do you want activities that meet you where you live, whether your “classroom” is an active volcano, the shark tank at the local aquarium, or your own kitchen table? You’ve come to the right place. SMILE is collecting the best educational materials on the web and creating learning activities, tools, and services – all designed especially for those who teach school-aged kids in non-classroom settings. We are a group of science museums dedicated to bringing science, technology, engineering, and math (STEM) out of the academic cloister and into the wider world. Our organizations are resource hubs for educational programs that involve people of all ages and backgrounds. Together we’re gathering the best STEM education materials from the web, and encouraging educators to both use and contribute to the growing collection

i-STEM Lesson Plans

https://www.istemnetwork.org/resource/educational/lesson.cfm
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Teacher Activities;Teacher Background
This site has a lot of lesson plans on different STEM topics. You can sort by grade level, topic and more.

National Science Digital Library

http://nsdl.org/
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Online Activities;Teacher Activities;Teacher Background
This website is a huge resource for finding activity ideas, videos, photos and news about science and technology. They have a section specificially devoted to K-12 teachers.

NEES Academy for K-12 Teachers

http://nees.org/education/for-teachers/k12-teachers
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Teacher Activities;Teacher Background
The Network for Earthquake Engineering Simulation has put together a host of resource for K-12 teachers on the science behind earthquakes and how to engineer or built environment to withstand them.

Oobleck

http://www.lawrencehallofscience.org/kidsite/activities/oobleck/
K;1st;2nd;3rd;4th;5th

Website Types Student Background;Student Online Activities;Teacher Activities
Landing on a planet, taking samples, and returning to Earth is a triple challenge. What if the planet's all goopy Oobleck that acts like a solid and a liquid? Make and test goop, design a spacecraft, share your engineering online and discover how others meet the challenge.

Parachute Drop

http://www.lawrencehallofscience.org/kidsite/portfolio/parachute-drop/
K;1st;2nd;3rd;4th;5th

Website Types Student Background;Student Online Activities;Teacher Activities
Skydivers rely on parachutes to carry them safely to Earth. Test materials like wax paper, a thin plastic bag, and a coffee filter to make and drop mini-parachutes. Which material makes the slowest drop? Enter results online and find out what other experimenters discovered.

PBS Design Squad

http://pbskids.org/designsquad/
K;1st;2nd;3rd;4th;5th;6th;7th;8th

Website Types Student Background;Student Online Activities;Teacher Activities;Student Videos
This website has activities for kids to do. Design Challenges, videos and more.

TEACH Engineering

http://www.teachengineering.org/
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th;PK

Website Types Teacher Activities;Teacher Background
The TeachEngineering digital library provides teacher-tested, standards-based engineering content for K-12 teachers to use in science and math classrooms. Engineering lessons connect real-world experiences with curricular content already taught in K-12 classrooms. Mapped to educational content standards, TeachEngineering's comprehensive curricula are hands-on, inexpensive, and relevant to children's daily lives.

Try Engineering

http://tryengineering.org/teachers.php
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background;Student Online Activities;Teacher Activities;Teacher Background
TryEngineering offers teachers resources for students all about engineering. Here you'll find lesson plans for students of all ages that are aligned to standards, descriptions of degree fields, lists of national programs and student opportunities.

What's That Stuff?

http://pubs.acs.org/cen/whatstuff/stuff.html
5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background;Teacher Background
Ever wanted to know what something was made of? This site from Chemical and Engineering News gives in-depth explanations of what's in everything from kitty litter to silly putty to asphalt.

Women and Minorities in Science and Engineering

http://people.mills.edu/spertus/Gender/wom_and_min.html
K;1st;2nd;3rd;4th;5th;6th;7th;8th;9th;10th;11th;12th

Website Types Student Background;Teacher Background
A comprehensive listing of sites related to Women and Minorities in Science and Engineering. Links to sites about Latinos, African-Americans and American Indians, Gay and Lesbians and Persons with Disabilities, in science. Organizations, biographies and additional reading materials are a sampling of what you will find here.