SCIENCE BUDDIES
Newsletter
STUDENT EDITION
September 2011

New Engineering Design Process Resource

How to Invent or Design…Anything!
Not all projects use the scientific method.

The scientific method is one of the most powerful techniques of the past millennium, but if you want to invent or design **a solution to a problem**, then the scientific method is most definitely the *wrong* tool for the job. Inventors, engineers, and designers instead use a complementary method, **the engineering design process.**
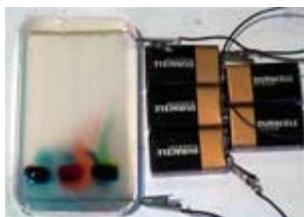
Our new Engineering Design Process Guide provides a blueprint for working on engineering projects. Instead of starting with a question, **the engineering design process begins with a human problem or need.** Then the process systematically guides you in figuring out how to create an optimum solution in the real world.

Need help determining which method is most appropriate for a project? We've got you covered with the "Comparing the Engineering Design Process and the Scientific Method" resource, a side-by-side comparison of the two methods.

3-2-1, Science 'Action'

There were **explosions**, **flames**, and even some ***rubber chicken*** fun when the Summer Science Fellows joined the ranks of YouTube science filmmakers this summer. Check out their videos to see two exciting Science Buddies Project Ideas in action!

COOL BIOTECH EQUIPMENT! [You Tube]

A BANG OUT OF BREATH SPRAY [You Tube]

New Video Gaming Resources

Video Games for Science Projects?
Absolutely! Our new video and computer game design resources can help you get started thinking about a cutting-edge video game design

No Bones Required!

Interested in old bones? *Dig in* with the "Get Some Practice at 'Fossil' Reconstruction with Owl Pellets" geology project. After some hands-on *skeletal* detective work, you can learn more about related career paths in the geoscientist profile.

(Science Buddies geology projects are sponsored by Chevron.)

Do Something New!

Looking for something fresh? The following projects were recently added to the Science Buddies library

project--and can help you convince your parents and teachers of its value.

We just released an updated set of video and computer game design resources for school science projects and exploration at home. These resources are sponsored by **AMD Changing the Game**, an initiative of the AMD Foundation, which is designed to spark student interest in science, technology, engineering and math through the creation of video games.

- Kid-Friendly Programming Languages
- Tips and Resources for Making Video and Computer Games
- Resources for STEM Education Through Video Game and Animation Creation
- Video & Computer Games Project Ideas
- AMD Changing the Game video

of Project Ideas:

- Go Fish! Creating an Ocean-Friendly Fishing Video Game
- Under Pressure: Does a Child's Blood Pressure Depend on His or Her Age?
- When Your Sniffer Snoozes, You've Got Olfactory Fatigue
- Want to Warm Up or Cool Down? Go Underground!

Making Connections

THE 'ROW TO THE POLE'

LEGO PHOTO-ENGINEERING

INSPIRED BY ARMSTRONG

PHYSICS AND ANGRY BIRDS

WINNING ASTRONOMY

EXPLORING COLOR SENSE

Students Like You!

- Lara Fulton investigated the microbes that grow on a water bottle.
- McCray McGee tested the effectiveness of fish as a fertilizer on the family farm.
- Mikaela Kay turned an interest in the floral industry into a multi-year study of floral preservatives.
- Read more Science Buddies in Action stories.
- We would love to hear about your summer science experiences and science projects!

Quick Links

- **Project Ideas**
- **Topic Selection Wizard**
- **Project Guide**
- **Scientific Method**
- **Careers in Science**
- **Ask an Expert Forums**
- **Volunteer Opportunities**
- **Donate**