

April 2011

### Groundbreaking Research

#### Water-Based Renewable Energy--An Alternative to Fossil Fuels?

*A catalyst-based process for splitting water, from scientists at MIT*

Solar energy may be available for immediate use, but storing the energy for use when it is dark is a challenge. In [Water to Fuel to Water: The Fuel Cycle of the Future](#), students can explore the **process of splitting water** into hydrogen and oxygen, fuels that can be used to produce clean electricity--anytime. The use of a **cobalt-based catalyst** makes the process more energy-efficient. (*Difficulty:* 7-9)



### Science Mom on Mom's Homeroom!



[Watch this Mom's Homeroom video segment](#) for great Science Mom tips on encouraging and supporting the science project process.

Science Mom's featured family-friendly project: [Give It a Lift with a Lever](#).

### Don't Miss These New Project Ideas!



#### Creepy Characters: Exploring the *Uncanny Valley* in Animation

*Is there such a thing as "too realistic"?*

The idea of the **uncanny valley** comes from **robotics**, but according to box-office sales, it may be an important factor for audiences. Students can observe audience reaction to a range of movie or TV characters in [this human behavior project](#). (*Difficulty:* 6)

#### Plug-and-Play Electronic Drums with PicoBoard

*Create a Scratch program to "play" the beats you make on a set of makeshift drums*

Hook a set of foil-covered plates (your *drums*) to a PicoBoard and the **Scratch programming environment** in the [Customize Your Own Drum Set](#) computer science project to explore **resistance-based input**. (*Difficulty:* 6)



#### Taking It Even Further! Designing and testing your own music-based game

### Explore a Future in Science and Engineering!

The following career profiles have been added to the [Careers in Science](#) pages:

- [Biomedical Engineer](#)
- [Cardiovascular Technologist or Technician](#)
- [Certified Registered Nurse Anesthetist](#)
- [Cytotechnologist](#)
- [Dental Hygienist](#)
- [Pathologist](#)
- [Physician Assistant](#)
- [Physics Teacher](#)

### Just Released!

The following Project Ideas were recently added to the Science Buddies [directory of 1000+](#)



Students interested in **video game design** and/or **computer programming** could design a novel project exploring "natural mapping" in games where users are asked to "play" an instrument to rack up on-screen points. How might you combine the following projects: [Out of Control!](#), [Want To Make a Video Game? Here's How!](#), and [Customize Your Own Drum Set!](#)? We'd love to see what you come up with!

(*Science Buddies projects in **computer science** are sponsored by Symantec Corporation. Projects in **video and computer games** are sponsored by the AMD Foundation.*)

## Science Buddies in Action!

As McCray, a 2nd grader in North Carolina, knows, science projects begin with a question: **Was Squanto right about fertilizing crops with fish?** With the help of his family and his pet pig, McCray put it to the test on the family farm. When they needed advice, [Ask an Expert](#) volunteers were on hand with grade-appropriate suggestions. It's a great [Science Buddies in Action](#) success story!



projects:

- [A Sweet Sequence: The Cacao Genome\\*](#)
- [Build a Gauss Rifle!](#)
- [Do Your Storm Drains Keep the Ocean Trash Free?](#)
- [Does Your Cell Phone Leak? Measuring Cell Phone Radiation](#)
- [HAMing It Up with the Astronauts\\*](#)
- [How Far Will It Fly? Build and Test Various Paper Planes](#)
- [Smart Medicine Cabinet: Build a Sensor That Reminds Patients When to Take Medication\\*](#)
- [Water Drops and Sparks! Experimenting with a Kelvin Electrostatic Generator](#)

## I Did This Project!

Congratulations to the students who **won an iTunes gift card for filling out an I Did This Project report last month** as part of our newsletter contest. Winning students have been notified via email. If you (or your students) have completed Science Buddies projects, please use the "**I Did This Project**" button (on the project page) and let us know how it went! *Your feedback on our projects helps the Science Buddies' community!*

### Don't Miss...

- Our "[This Day in Science History](#)" updates (and connections to project ideas) at [Facebook](#).
- [Summer Science Camp](#) resource can help you find the perfect summer program.
- Whiz Kids documentary will be [shown on PBS](#), beginning this month!



### On the Blog

- [Birds on the Move](#)
- [Programming a Logo](#)
- [DIY Musical Instruments](#)
- [A "Science Mom" Thumbs-Up Science Detectives Series](#)
- [Natalie Portman: A Winning Combination](#)
- [Sorting Things Out with Paper Chromatography](#)



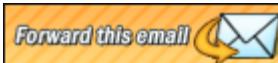
### Quick Links

- [Project Ideas](#)
- [Topic Selection Wizard](#)
- [Project Guide](#)
- [Scientific Method](#)
- [Careers in Science](#)
- [Ask an Expert Forums](#)
- [My Science Buddies](#)



## Share Science Buddies!

Is Science Buddies an important part of your science class or your family's science exploration? You can help support Science Buddies by letting your friends, family, and colleagues know about our resources. Our volunteer [Science Buddies Ambassador](#) opportunity outlines a number of easy ways you can help!



If you know a friend, colleague, or family member who you think would enjoy Science Buddies and our free newsletters, please use the "Forward this email" button to pass along a copy of this month's newsletter. (*If you received a copy of the newsletter from a friend and would like to sign up, please visit: <http://tinyurl.com/ydgjbsq>.*)

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