



### How Much Plastic Slips Through?

*Marine debris often starts as litter that makes its way through local storm drains*

Researchers are discovering that much of the litter in the oceans is very small. While some ocean trash comes from boats, other debris starts its trip to the ocean on ordinary streets like your own. In the [Do Your Storm Drains Keep the Ocean Trash Free?](#) project, students will document local stormwater drainage systems, make models of storm drains they find, and test those models to see how effective they are in filtering out plastic trash. (Difficulty: 6)



### Be a Part of the Solution!

Students can help troubleshoot the problem of marine debris--and put their engineering skills to the test--by participating in [The 2011 Tech Challenge](#), "Trash Island: The Great Pacific Gyre." Teams of students in grades 5-12 will develop devices that can remove plastic from a test rig created to simulate the Pacific Gyre. For more information, visit: <http://techchallenge.thetech.org/>.

*(This work was sponsored, in part, by a grant from The Motorola Foundation.)*

### Hot New Project Ideas!

#### Tracking Migratory Flight

*Students can analyze migration patterns and conservation issues using data from [Movebank.org](#)*



Twice a year, many species of birds migrate hundreds, or even thousands, of miles between breeding and wintering grounds. *How* migratory species find their way, *where* they go, *when* they leave, and *why* they choose specific locations are all questions for scientists. Using data from Movebank, an archive of animal movement data, students, too, can investigate these questions in two new Science Buddies Project Ideas:

- [Do Migratory Birds Like It Hot?](#): Using **spatio-temporal** data, students will investigate *why* and *when* birds migrate and what temperature may have to do with migration routes and destinations. *Do birds simply go someplace warmer to winter?* (Zoology; Difficulty: 5-7)

### Science Careers in Demand

Careers in the **health sciences** are continuing to grow in demand, as are careers in **new and emerging fields**. These three "in demand" career profiles have just been added to our [science careers page](#):

- [Cytogenetic Technologist](#)
- [Optometrist](#)
- [Nanosystems Engineer](#)

### Webinar Now Online!



A video of our Teacher Development Webinar is now available online. This [virtual tour of the Science Buddies website](#) will help introduce you to our resources and highlight ways in which Science Buddies can be a part of your classroom and home science experience.

- [Here Today, Gone Tomorrow: Saving Migratory Animals](#): To predict what kinds of environmental and/or urban change might threaten the survival of species that live in an area for *part* of each year, conservationists must analyze wintering and breeding habitats, as well as stopover locations, for migratory species. Students will use Movebank data to study the migration of the Swainson's Hawk, Turkey Vulture, Osprey, or Golden Eagle. *Does replacing that park with an apartment building matter?* (Environmental Science; Difficulty: 6-8)

## Independent Research

Students interested in movement and migration studies can use Movebank data to create their own projects. Our [help guide](#) can get students started using Movebank and offers ideas for the types of questions they might try to answer.

*(This work was funded, in part, by the National Science Foundation's MIGRATE RCN. Science Buddies' [zoology](#) Project Ideas are sponsored by The Abbott Fund.)*

## Project Idea Highlights

### Centripetal Spin

*What goes around comes around*



Toys that spin are hot items these days. Through various kinds of "**spin battles**," students are (knowingly or not) exploring angles, trajectories, force, and laws of motion. The [Centripetal Force](#) project is a great way for younger students and families to begin talking about the **science behind**

**"spin."** With ordinary paper cups, marbles, and colored gelatin, everyone can "see" the spin in action. (Difficulty: 2)



### Seeing Sedimentation

*Make your own sedimentary rock*



Simulating sedimentation with sand, rock, dirt, and other particles lets students see first-hand the way materials sink and disperse into "layers" during the process. In [Sorting out Sedimentation](#), a recycled water bottle, initial shaking, and then evaporation of water over a period of days puts the process of sedimentation in motion--and yields visible and measurable results. (Difficulty: 4)

## Try My Science Buddies!

**We've upgraded our website to make Science Buddies even easier to use**

### My Science Buddies

Last month we added the "My Science Buddies" tab to the Science Buddies website. Registered users can now log in and access their favorites, view the results of the recommendation wizard, and manage their preferences and account details. These changes will improve the Science Buddies experience, especially for classes sharing computers and for students accessing information at school and again at home!

## Celebrate Your Science Success!

We are always excited to hear about student and classroom successes using Science Buddies Project Ideas and resources.



- *Did your students use Science Buddies Project Ideas for classroom or science fair projects?*
- *Did your class use the Topic Selection Wizard?*
- *Did you use our Teacher Resources to organize and run your school's fair?*
- *Do you have students who are moving on to advanced competition?*
- *Did you do a Science Buddies project at home as a family activity?*

We are looking for stories to feature on our website. If you have a story to share, please email us at

[SciBuddy@sciencebuddies.org](mailto:SciBuddy@sciencebuddies.org).

## NSTA in March

**Meet with Science Buddies at the National Science Teachers Association Conference**

**March 10-13, San Francisco, CA**



Science Buddies will be hosting a small reception on Friday evening at PG&E Pacific Energy Center (across the

(Science Buddies' [geology](#) Project Ideas are sponsored by Chevron.)

street from the convention center). Please email [SciBuddy@sciencebuddies.org](mailto:SciBuddy@sciencebuddies.org) if you would like an invitation. We hope to see you there!

## Blogged: Accidental Bio-Discovery

A **lunch special** on the menu in restaurants in Vietnam turned out to be an **undocumented species of lizard**. Scientists arrived just a bit too late--*all samples had been cooked!* In [Desks Piled High, and Lizards for Lunch](#), get an overview of biodiversity issues and check out suggested Project Ideas for students.



## Quick Links

- [Science Project Directory](#)
- [Topic Selection Wizard](#)
- [Project Guide](#)
- [Scientific Method](#)
- [Ask an Expert Forums](#)

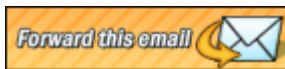


## Help Students find the Perfect Project for *Them*



Our [Topic Selection Wizard](#) can help guide students to science projects that fit their areas of interest *and* meet science fair requirements. Encourage your students to give it a try today!

## Tell Others About Science Buddies



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>.)*