



September 2009

### What's In This Issue?

#### Activity of the Month

Sugar Cube Weathering

#### Upcoming Workshops

- Field Trip Into Space
- The "E" in STEM Education
- Introduction to Internet Resource Materials
- Family Math or Science Night
- Science Take-Home Bags
- Kid-Friendly Report Design & Science Journals
- Project Learning Tree
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- Fundamentals of Inquiry

#### What's In Stock?

Free classroom materials for your classroom—New goodies from Sea World have arrived!

#### Things To Know About

- Did You Know Video
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- Visual Arts Contest

#### Spider's Prey

Web Sites of the Month:

- [www.mathtreasure.com](http://www.mathtreasure.com)

Great Information Jewels You Don't Want To Miss!

## Treasures for Teachers TREASURE CHEST NEWSLETTER

Please **RECYCLE** this newsletter by passing it on to a friend.

### Activity of the Month



#### Sugar Cube Weathering

Rocks are very hard and mountains are very big. But the forces of wind and water can wear them away. This inquiry activity models how rocks can wear away.

See the last page of this NEWSLETTER for attached activity.

*Start This School Year Right!*  
*Plan to teach Higher Order Thinking Skills by including more Science and Engineering*

We can help by providing FREE, Interactive, Hands-On, Collaborative, Science Workshops! We are HAPPY to come to your location to provide your faculty with any of our in-services.



The Science & Technology Teacher Resource Center offers **FREE** science workshops to teachers! Join us for a few hours and add some new ideas to your science toolbox. All workshops are offered at The Science & Technology Teacher Resource Center in Point Loma or **they may be scheduled at a time or place more convenient to you.**

Call 619-847-5518



Come and see our extensive collection of science and technology curriculum that you can download for FREE!

**Don't Miss**

**Big things are happening in Space**  
Are you including them in your teaching??  
**MESSENGER** Spacecraft flies by Mercury on  
**September 29, 2009**

Join this exciting workshop to find ways to create this historical event into **A FIELD TRIP INTO SPACE** for your classroom.

Learn how to incorporate NASA's MESSENGER program materials into your classroom's study of the Solar System during this hands-on, collaborative, interactive presentation. Learn the latest information about the flyby. Make a scale model of the Solar System. Make a model showing how craters are made. This **2 hour** workshop will be presented on **September 10, 2009** at the Resource Center. Right before the next flyby!!! Or schedule it at your convenience for your location.

## Do you teach the "E" in STEM Education?

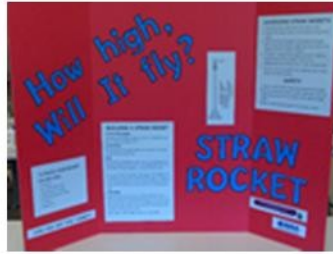


Discover how to teach higher order thinking skills in an exciting, meaningful way by incorporating Engineering into your curriculum. Learn how easy it is to create design challenges that engage your students and require only simple materials. This **3 hour** workshop is available at the Resource Center from 5:30-8:30 pm on **October 29, 2009**.



### Introduction to Internet Resource Materials

The internet is loaded with FREE supplementary science materials. Find out where they are located and how they will help you meet the California Science Standards in this hands-on workshop. This **3 hour** workshop will be held at the Resource Center from 5:30-8:30 pm on **November 5, 2009**.



### Family Math or Science Night

Create excitement and get parents involved with your school. Attend this workshop to find out HOW to organize this event at your school. We will discuss WHAT to include and WHERE to get ideas to make the event a success. This **2 hour** workshop will be held at the Resource Center from 5:30-7:30 pm on **October 8, 2009**.



### Science Take-Home Bags

How can a convention bag help you teach science? Attend this workshop and find out!! We will provide the bags and ideas. You will provide some imagination!! This **2 hour** workshop will be held at the Resource Center from 5:30-7:30 pm on **October 19, 2009** or schedule it for your location.



### Kid-Friendly Report Design & Science Journals

Looking for a more interesting way for your students to present science reports? Have you been wondering how to implement science journals into your curriculum? This workshop will introduce you to a fun, kid-friendly report design. This **3 hour** workshop will be held at the Resource Center from 5:30-8:30 pm on **September 24, 2009** or schedule it for your location.

## Science & Technology Teacher Resource Center

Located at NTC Promenade (former Naval Training Center) in Point Loma, just off Rosecrans Street  
**2825 Dewey Road # 205**  
**San Diego, California 92106**



**CALL 619-847-5518**  
for an appointment  
to view the Center.

We can be reached at:  
[sfreeburn@sgeei.org](mailto:sfreeburn@sgeei.org)

Questions, comments, or to add or remove yourself from the mailing list email us at [sfreeburn@sgeei.org](mailto:sfreeburn@sgeei.org) or call **619-847-5518**



### What's In Stock?

**Sea World** has delivered some wonderful **posters and books!!** Hurry to pick some up while they remain on our shelves! We have **tote bags** from conventions that were held in San Diego. Tote bags are a wonderful way to store science units. Drop by and pick some up to help organize your science materials.

Discover all of the wonderful **FREE** treasures available to take back to your classroom!

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## Things To Know About!

### Science programs you don't want to miss.

Visit this site for a quick up date on why it is so important to be teaching math and science.

<http://nortellearnit.org/LearnIT/videoembeds/didyouknow/>

This website offers free learning curriculum, educator-created and classroom tested technology tutorials for teachers and students. These short videos (about 4 minutes each) offer a quick way to successfully get up to speed in specific technology concepts. The videos:

- provide the basic "getting started" steps
- include concrete examples
- work for individual learning or in a classroom setting
- are always available to return to for review

This series of technology topics can be incorporated into all curricula and offer alternative methods of teaching and learning!

Do you have a lesson to teach? If so, the Power Point video series will show you how to create professional presentations to better engage your students and convey your lessons. First timers and experienced users will all benefit from this series.

<http://nortellearnit.org/technology/>



### Earth Science Week 2009 Visual Arts Contest -- Open to Students in Grades K-5

The American Geological Society is sponsoring a visual arts contest to celebrate Earth Science Week 2009. Artwork should focus on the topic "The Climate Where I Live." The contest is open to students in grades K-5 who are residents of the United States. Participants should submit an original two-dimensional visual arts project that best represents the climate in their area. Entries must be submitted by mail. The deadline for submitting entries is **Oct. 16, 2009**.

<http://www.earthsciweek.org/contests/visualarts/index.html>



### Spider's Prey

Web Sites of the Month — [www.mathtreasure.com](http://www.mathtreasure.com)

Here is a compilation of Math Games and Math Activities. Play games such as Sudoku, Towers of Hanoi, Mind-reader, Concentration-memory game, Tic-tac-toe, Jigsaw Puzzle and other math activities. New games are uploaded regularly.

These award winning programs provide more than just an introduction to environmental ed. They are balanced programs that **teach how to think, not what to think**. Each program is aligned to the California Science Standards and teaches science concepts and skills in fun, collaborative ways. **Attendees to each workshop will be provided a FREE 450+ page Environmental Education Guide of games & activities to enhance your teaching of water, wildlife, or the environment.**

## Environmental Education Workshops



### What do you do with a Tree Cookie?

Discover activities to increase your students' awareness and knowledge of the environment, as well as their place within it. Project Learning Tree is a **6 hour** workshop that will be held at the Resource Center from 9am—3pm on **October 3, 2009**



### WET stands for Water Education for Teachers.

Join us for an introduction to how water impacts our lives. Learn how to teach water related concepts through hands on games and activities. This **6 hour** Project WET workshop will be held at the Resource Center from 9am—3pm on **August 15** or **October 17, 2009**.



### How much wildlife is in your school yard?

This **6 hour** Project WILD Workshop provides you with games and activities to use with your students that introduce them to how animal life fits into the environment. This workshop will be held at the Resource Center from 9am—3pm on **November 14, 2009**.

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Call **619-847-5518** to schedule a time or to sign up for a **FREE** workshop.

# Sugar Cube Weathering Activity



Rocks are very hard and mountains are very big.  
But the forces of wind and water can wear them away.  
This activity models how rocks can wear away.

Collect the following items and place them on a paper plate for each group:

- 3 different grades of sand paper - cut to fit inside the film canisters
- 3 film canisters
- 3 sugar cubes
- Hand lenses
- Small paper plate to hold everything

The directions for this activity are given orally.

Have the children examine the sand paper with the hand lenses.

- What is the same?
- What is different?

In this model the sugar cube will be a rock and the sand paper will be the forces of erosion - wind and water.

- What do you think will happen to a rock exposed to wind and water?
- What do you think will happen to the sugar cube exposed to erosions force?
- Do you think the kind of sandpaper (erosional force) will make a difference?

Have the children slip the pieces of sandpaper into the film canisters with the rough side to the middle.

Have them place one sugar cube into each canister, place the lid on it, and have the children shake the canisters for 1 minute.

Have them take the lid off of the canister and carefully take the sugar cubes out.

- What do you observe?
- Which sugar cube eroded the most?
- Why?

The forces of erosion work to wear down mountains. Rocks, much like the sugar cubes, are worn down. The same forces that cause weathering also are used to carry away the broken bits. The wind blows them away. The water transports them to a new place. Fast moving rivers have the energy to move larger pieces. The rocks are banged and broken as they bump into each other.



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