Summer 2012

spark

Welcome Summer!

It's one of our favorite times of the year. This summer, we're challenging you to make your summer even more memorable by making it a "Summer of Science." Read on to find out more!

Summer of Science 2012

THE CHALLENGE? FILL YOUR SUMMER WITH SCIENCE!

Summer is a time of fun. There's plenty of time for playing in the park, exploring the outdoors, learning new things at camp, and spending time with friends. It's one of our favorite times of year, of course!

This summer, we're challenging you to make your family's summer the best one yet – by making it a Summer of Science.

To help you make it a science-filled summer, ***we'll post a new science activity on our blog weekly, from June 11 to August 6.***

Give each activity we post a try and take a photo of what you create - or whatever you discover in the process. It's all about your child's scientific journey along the way.

Post the photo on your Flickr account to share your discovery and what you made together. **Each person who posts a photo will be entered into a drawing for a set of CuriOdyssey passes.** The more you post, the more times you will be entered!

What do I do?

1. Visit our blog each week for a new science activity at: http://www.curiodyssey.org/connect/blog.

2. Try out the science activity with your child – experiment and have fun. No discovery is too small, so give it a try!

3. Post it to your personal Flickr account and tag it **#CuriOdysseySummerSci.** Then see what others have discovered!

How can I help my family make this summer a "Summer of Science"?

Make scientific exploration a spontaneous experience. Be on the lookout for moments of discovery in everyday life. Sometimes things that we may see as mundane - our reflection in a puddle, a bee collecting pollen from a flower, a small vortex in your bathroom sink - can provide a moment of scientific discovery for you and your child.

Start a summer science group. Round up a few kids in your neighborhood for summer science activities. But don't just stop at what we post online – give some others a try, too! There are great science activities you can find in the "Resources" section of our website. Check them out at http://www.curiodyssey.org/resources.

Feeling extra inspired? Start your own blog about your Summer of Science. Document your experiments and post photos galore. We'd love to see what you and your child discover.

Have a happy Summer of Science!
We can't wait to see what you discover.

SUMMER TRAVEL PLANS? USE YOUR MEMBERSHIP FOR DISCOUNTS

One of the things we like most about summer is the opportunity to travel and see new sights!

Are you planning to take a trip to other science centers, zoos, or aquariums this summer? If so, your CuriOdyssey membership could be your best friend.

Take advantage of more than 400 reciprocal agreements we have with like institutions to get a discount on your admission. You can find a list of all Association of Science-Technology Centers and Association of Zoos and Aquariums reciprocal institutions on our website at http://www.curiodyssey.org/support-us/become-a-member/reciprocal-program.

Please be sure to contact the institution ahead of time to confirm their current discount, as institutions' policies are subject to change. Remember to bring your photo ID when you visit.

FIND US ON FACEBOOK & TWITTER

This summer, get a behind-the-scenes look at animals, programs, and more!

Facebook: www.facebook.com/CuriOdyssey

Twitter: @CuriOdyssey1

CuriOdyssey is Mobile!

What's purple and white, has four wheels, and is filled with a rocket launcher, gusty gadgets, and loads of hands-on science activities? The CuriOdyssey Mobile Museum!

This spring, the CuriOdyssey Mobile Museum rolled into local libraries, bookstores, candy shops, and community festivals to bring hands-on science activities and exhibit prototypes to families in San Mateo County. Our new initiative has one simple goal: to bring hands-on science directly to the community. Find out about where we'll be heading next by following us on Twitter, Facebook, or checking our website for upcoming dates.

We'll be taking a brief hiatus from our frequent stops to take time for Camp CuriOdyssey this summer, but catch us at the San Mateo County Fair, June 13-16. We'll resume a more regular schedule in the Fall. Stay tuned!

Facebook: www.facebook.com/CuriOdyssey
Twitter: @CuriOdyssey1

Welcome New Animals

We're glad to announce that CuriOdyssey is now home to some new feathered friends. Come meet them soon!

Eurasian Collared Doves

"Rain" and "Cloud" were captive-born at the Jacksonville Zoo in 2005 and were transferred to CuriOdyssey earlier this year. The pair will be used in education programs, and animal keepers are currently training them to become Animal Ambassadors. Keep your eyes open for them in future programs.

Magpie

"Sassafras," a female magpie, was found in Davis, California, with a fractured right elbow. She was taken to a rehabilitation center before being donated to the Sacramento Zoo. Earlier this year she was donated to CuriOdyssey and now lives in the walk-through aviary.

LOVE YOUR COUNTY PARK?

Do you love picnicking, playgrounds, hiking and all of the other things you can do in the county parks? Then consider a San Mateo County Park pass. It's the best way to show your support and love of everything that the County parks offer. The pass is good for 12 months and waives the vehicle entry fee at all San Mateo County Parks– so you can bring a carful of your friends and family!

We can't imagine a world without our county parks. Support them today!

For more information, visit www.co.sanmateo.ca.us /portal/site/parks/ or call (650)363-4020.

Above: Antiguo and his most recent painting

ANIMAL ENRICHMENT: PAINTING DESERT TORTOISE

You may have heard that we have a painting ringtailed-cacomistle, raccoon, and porcupine, but did you know that our animal keepers are also teaching our desert tortoise to "paint" as part of the enrichment training he receives?

Our animal keepers are in the nascent stages of training Antiguo to "paint." Training is going well, and the animal keepers are looking forward to continuing this inspiring enrichment activity.

Read more about animal enrichment on our blog at www.curiodyssey.org/.

Behind-the-scenes glimpse...

CURIODYSSEY EXHIBIT PROTOTYPES

When new exhibits pop up – both at CuriOdyssey and in our Mobile Museum program – who's behind them? Do you ever wonder who designed and created the Wind Tubes, Stream Table, and all of your other favorite exhibits?

Eric Maschwitz, Director of Exhibits at CuriOdyssey, is the force behind the exhibits. His newest project is to create even more exhibits for our Mobile Museum program. So far, there are five exhibit prototypes in rotation. Here's a peek of three of them you'll find at our mobile programs. You'll have to come and see the others for yourself!

Slide ESPA

This is a musical instrument that you can tap, bang, and slide – all at the same time! It uses tubes at different lengths and a rubber paddle to produce a variety of tones. Our ESPA uses a slide like a trombone to change the pitch of the tones it produces.

Did you know? ESPA stands for "end struck plosive aerophone."

Rain Panel

Our rain panel employs the science of a rain stick - something that your child may have made before. It's essentially a long tube, filled with various noisemakers – like beans or tin foil – that make the tube sound like a rainstorm when tipped end over end.

Our exhibit is transparent so you can see exactly how the sound is being made. Tiny metal balls bounce and fall through panels with holes – the sound it makes is reminiscent of rain falling.

Gusty Gadgets

This exhibit prototype is comprised of a bellows and three interchangeable noise and wind makers.

The bellows contains a volume of air. When you push down on the bellows, you push the air out through the nozzle. When you release the bellows it expands back upwards drawing air in through a one-way valve. This allows you to repeatedly blow air out through the nozzle. Our bellows blows out a high volume of air at low pressure.

Experiment with Science at Home!

ACTIVITY: CRATERS

In this activity, a pan full of baking soda is dusted on top with colored powder, and projectiles are dropped into the pan to create craters.

Grade level: all grades

You'll need:

- Planetary material: baking soda (salt or granulated sugar also work)
- Surface material: colored sand
- Projectiles (you can use anything, but we've found that balls and beads work well).
- Aluminum pan

What to do:

1. Fill the aluminum pan at least 2 inches deep with baking soda.
2. Gently level the surface by shaking the pan.
3. You can choose whether to break apart any clumps. Clumps will inhibit the formation of an "ideal" crater, but they also look more planet-like than a perfectly smooth surface.
4. Coat the top with just enough colored sand to obscure the original color.
5. Drop projectiles into the baking soda and sand one at a time and observe the craters formed.
6. Periodically homogenize the material by shaking the pan and re-covering it with new colored sand.

What's happening here?

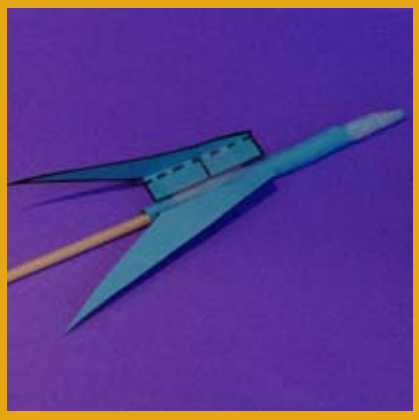
The size and velocity of a projectile will determine the size of a crater. When the projectile lands, it ejects mass from the crater, revealing the medium beneath the colored sand. Some material will be thrown out onto the color field and some surface material will be forced down into the crater, showing some of the mechanics at play when craters form. The mass of a projectile does not matter because gravity pulls all things the same way. This means that a ping pong ball and a golf ball (that are roughly the same volume), dropped from some height at the same time, will land at the same time and form identical craters. Try it!

The Earth is not covered in craters like the moon. This is because the Earth has wind and rain to weather away craters, as well as geological processes which recycle the crust over a long period of time. The moon has no wind, water, or geological activity, so craters last much longer on its surface. Earth should have more craters because it is larger than the moon, but Earth has forces which obscure and eventually eliminate craters. Impressions are so long-lasting on the moon, that footprints from all of the Apollo astronauts are still visible.

Keep in mind: while this activity is a great way to understand how craters are formed, you would never find a meteor sitting at the bottom of a crater. The meteor is either buried or destroyed on impact.

Questions to consider

1. Does the size and shape of your "meteor" affect the depth, size and shape of your crater?
2. Does the height or angle of impact effect the crater?
3. Does crater size or shape change if the planetary material is more or less dense (sugar v. baking soda)?



ACTIVITY: STRAW ROCKETS

Straw rockets are an excellent way to experiment with flight and aerodynamics. They illustrate how air pressure can provide "thrust" to propel the rocket in the air.

Grade level: Kindergarten and above

You'll need:

- Transparent tape
- Pencil
- Scissors
- Photocopied template
- Straws

What to do:

1. Using a template, cut one vertical strip (along the solid line) and one set of fins out of the template sheet. Find the template online at www.CuriOdyssy.org.com/resources.
2. Hold the strip of paper against a pencil at an angle, starting from a corner, and wrap the paper in an overlapping spiral around the pencil.
3. Use a small piece of tape to hold the wrapped paper in its coil at the base.
4. Pull the paper tube off the pencil.
5. Fold the un-taped end of the tube down and tape it shut (both ends are taped.)
6. Tape the fins from the template onto the rocket.
7. Place the rocket over the straw, point in a safe direction, and blow!

What's happening here?

These straw rockets are propelled forward by your own breath. The harder you blow, the further the rocket should go. The more force (energy) that is exerted on the rockets themselves, the more force (energy) the rocket has to use in its flight.

Innovators Circle Contributors

The Board of Trustees and staff of CuriOdyssey wish to express our sincere appreciation to the following individuals and organizations for their generous support between January 1, 2012 and March 30, 2012.

Every effort has been made to be accurate. If your name is not present or you are not recognized properly, please contact Sarah Clautero Soto, Development Manager, at 650.340.7571.

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The Applewood Fund at Community Foundation Santa Cruz County
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The Ellis Family Fund, an advised fund of Silicon Valley Community Foundation
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Marilyn Bancel joins CuriOdyssey as Director of Development

We are extremely pleased to welcome Marilyn Bancel to CuriOdyssey to direct our fundraising programs. Marilyn brings a wealth of major gift experience and comes to us from a long, successful career with The Oram Group, Inc., one of the country's oldest and most respected fundraising firms. Just prior to her consulting career, she was Associate Director then Director of Development at the Exploratorium (1981-1991), a time when our executive director, Rachel Meyer, was also there. Marilyn has also been adjunct professor at the University of San Francisco teaching capital campaigns, and her widely praised book "Preparing Your Capital Campaign" (Jossey Bass/Wiley, 2000) continues in use across the country. In 2002, she was honored as the Hank Rosso Outstanding Fundraising Executive by the Association of Fundraising Executives Golden Gate Chapter.

In answer to our question why she chose to curtail her longtime consulting practice to join us, Marilyn wrote:

"This is the moment for CuriOdyssey. This is the time for Rachel Meyer's and the board's vision for a potent children's science institution. After my years at the Exploratorium and as a student of its founder, physicist Frank Oppenheimer, I was deeply impressed by the renewed model for children's science learning that Rachel and her team have painstakingly developed over the last five years. I knew instantly how powerful it is and can yet become.

When I looked at the organization on a consulting basis, most of the elements for success were already in place: a deeply informed, clear vision; a proven, powerful model; a superb staff who truly work as a team; an Executive Director who understands both how to reach children with authentic, "sticky" learning and who understands good management; and of vital importance, an involved, contributing, deeply committed board of trustees. Missing was an experienced Director of Development. There are moments in one's life. I have always loved the plants, animals and physical phenomena of the natural world, and the joy of seeing children connect and "get it" is beyond words. Since leaving the Exploratorium, I have also had the opportunity to work on projects involving subjects ranging from children's nature deficit disorder to brain development to girls in science. There was no learning curve for CuriOdyssey's mission and vision. The opportunity to make a serious difference with CuriOdyssey's team was rare and captivating. If you are reading this, you are likely on the team, too. It's an honor to join you."

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Spark! is a publication of CuriOdyssey.
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Events *(June - August)*

ON-GOING PUBLIC *PROGRAMS*

Animals In Action
Tues-Sat, 11:00am

Otter Feeding
Tues-Sun, 12:00 noon

Bobcat Feeding
Tues-Sun, 1:00pm

Animal Connections
Wildlife Show
Sat-Sun, 1:30pm and 2:30pm

EXTRA CURIOUS ABOUT OUR ANIMALS?

On the weekends, text CURIOUS to 56512 to receive alerts about unscheduled feedings, enrichment sessions, and roving animals.

SAVE THE DATE

Zookeeper Appreciation Week
July 15 - 21, 2012
Join us to celebrate all the amazing things that our zookeepers do for our animals!

Tinkering by Twilight
CuriOdyssey's signature fundraising event
Friday, September 28, 2012
For more information or to become a sponsor, go to www.CuriOdyssey.org/TinkeringbyTwilight.

MOBILE MUSEUM

Catch the CuriOdyssey Mobile Museum at the San Mateo County Fair. Come play with mobile exhibits and hands-on science activities that focus on physics, sound, and more!

See us at the San Mateo County Fair during these time slots:
June 13 - 15, 12 - 6pm
June 16, 11 - 6pm

SCHOOL AND GROUP PROGRAMS

Begin October 2012
Registration begins in September

Looking for an exciting activity for your classroom or group? Our educational programs spark passion for science and allow children the opportunity to get up close with their natural world. Interactive exhibits, amazing live animals, and high-quality educational programs--all on a personal scale--provide children with an unforgettable experience.
For more information, visit www.CuriOdyssey.org/school-groups.

PRESCHOOL PROGRAMS

Save the date! Registration begins June 2012

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