

School of Rock for Teachers: Exploring Ocean Sediments

The Consortium for Ocean Leadership offers School of Rock, a program where teachers and educators from around the world participate in ocean science and learn how to share this experience with their students. Aboard the *JOIDES Resolution* (Joint Oceanographic Institutions for Deep Earth Sampling), scientific ocean research vessel, teachers immerse themselves in exploring deep sea sediments alongside experts. I spent 2 weeks aboard the *JOIDES Resolution* in September 2010 with 16 other educators. We were joined by two scientists, inputting an ACORK (Advanced Circulation Obviation Retrofit Kit) into the sea floor to monitor sub-sea floor pressure and temperature changes over the next 12 years! Earl Davis was studying the seismic activity in the region, while Mike Riedel was studying gas



Setting up sediment cores
Photo by Kimberly Novak

hydrate formation. We participated in observing the experiments, lectures and workshops provided by these scientists and School of Rock staff, and hands-on activities to better understand the technologies being used and how to break the science down for students of all ages to comprehend. Not only did we experience learning science in real time, but we participated in activities divulging past expeditions' analyses. We got our hands dirty studying drilled-out, cylindrical samples of the ocean floor sediments called cores. We observed and practiced how cores were drilled, how the samples were analyzed, and even created smear slides of sediments, displaying microfossils, volcanic ash, and



Preparing the ACORK
Photo by Martin Heeseman

turbidites to take back to our schools/ organizations. It hit me that I was actually seeing and participating in the science that leads us to understanding climate, environmental, and Earth changes over time. Studying these layers upon layers of sediment allowed me to glimpse into the past. It really is the best means to mentally travel through time. The entire experience was amazing; the people either doing science or supporting it as a team effort, the culture of ship life, the science, the selected group of educators, the School of Rock staff, the food! Being on board was a lesson and reminder of how science takes determination, time, tons of teamwork, and patience with every little find and answer being an exciting new discovery along the way.

By Sabreena Kasbati
Discovery Museum Volunteer

Time to Walk 'N Rock

You won't want to miss KISS, the headlining act for the Walk 'N Rock for Kids concert.

May 29, 2011 is the 3rd annual Walk 'N Rock for Kids 5k walk and concert event. The Discovery Museum & Powerhouse Science Center have been selected as a non-profit affiliate and we need your help! If you are up for a great 5k walk starting at Raley Field and circling the capital, then join one of our many walk teams! We have 11 different teams so far, and you can always create your own walk team to support the Museum. The walk starts at 8am and ends with a rock 'n roll music

festival. Cosmos, our spokes-robot, also has a team! To join the Cosmos Walk 'N Rock team visit www.walknrock.org/teamcosmos. If you would like to join a different Discovery Museum/Powerhouse team, go to www.walknrock.org and click on the Discovery Museum-Powerhouse Science Center link near the bottom of the page. This will take you to our team hub, where you can sign up for any of our teams or donate to them. Even if walking is not your thing, consider supporting the museum by donating to one of our walking teams. While on the team hub site, you will

see a list of our growing teams. From there you click on a team of your choice and donate to either a specific person or that team. Additional ways to show your support include purchasing a Walk 'N Rock for Kids dot for a \$1 or more donation to post inside the museum or buying a KISS silicon bracelet available in the museum gift shop for a \$5 donation. Every dollar is going to current museum programming like our exhibits, outreach and summer camps. We hope you will walk, rock and roll with us this May!



Powerhouse Science Center Receives \$7 Million Grant... (Continued from Pg 1)

Congresswoman Matsui has been a constant champion for STEM education in Sacramento and our nation's capitol. The Congresswoman advocated for the Powerhouse Science Center to the State of California for this grant. "We feel extremely honored to be chosen for the Nature Education Facilities grant. This is a giant step forward to help fund the Center," said Michele Wong, Interim Executive Director for the Powerhouse Science Center. "I want to personally thank all the people who helped make this possible. Support letters came from our state and local civic leaders, business owners, museum partners, parents, teachers, museum members and patrons, and even children. This was a real collaborative effort by many people." Features inside the Earth & Space Sciences Center include a 150-seat full-dome Planetarium Theater that will

take visitors beyond astronomy to study nature education, and an expanded Challenger Learning Center providing simulated NASA space missions. Exterior experiences will include water conservation, green energy, and stewardship of resources and sensitivity to their impacts. In addition to the Earth & Space Sciences Center, the Powerhouse campus will also include innovative, hands-on exhibit halls, science laboratories and classrooms; Robotics programs; an artificial wetlands; outdoor stage and screen; restaurant with riverfront views; and more. The facility will serve as a public forum, showcasing the latest scientific discoveries in a venue that is accessible to the entire family. The Center will highlight the scientific achievements of the Sacramento region, the latest developments in medical science and technology, and the fundamentals of re-

source conservation. It will also be utilized as a field trip destination for pre-kindergarten to 12th grade students from throughout the region. For more information on the Powerhouse Science Center, including how to become a Founding Partner, visit www.powerhousesciencecenter.org, or send an email to info@PowerhouseScienceCenter.org, or call (916) 853-0343. Visit the Center on Twitter, Facebook and Flickr.

Handyman Needed

Are you a handyman looking for somewhere to exercise your talents? The Museum is now interviewing volunteer handypersons to assist us in our workshop and exhibit areas. Electrical and carpentry skills appreciated. Please call Susan at (916) 808-3942. We would love to have YOU on our team!

Challenger Learning Center 2011 Community Mission Schedule

(For ages 9 and above!)
Select Fridays 5:30pm-8:30pm
Pre-registration is required:

- \$20 for non-members
- \$15 for members

2011 Mission Dates:

- ✓ May 6th (Mars)
- ✓ June 17th (Mars)
- ✓ July 8th (Moon)



For more information, please visit www.thediscovery.org or call (916) 808-3942 to make a reservation!

For a complete listing of Participating Merchant Club business locations, please visit our website at www.TheDiscovery.org.





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A Discovery Museum Science & Space Center Newsletter

May 2011
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Discoveries

Powerhouse Science Center Receives \$7 Million Grant From Proposition 84

SACRAMENTO, CA. – The Powerhouse Science Center took a major step forward in funding with the announcement today that the project has been awarded a \$7 million grant provided by Proposition 84.

Proposition 84's Nature Education Facilities committee awarded the grant to build the Earth & Space Sciences Center, which will feature a full-dome, 150-seat planetarium, an updated Challenger Learning Center, and interactive exhibits focusing on natural sciences.

Planned as a destination for school groups, families, and tourists, the Earth & Space Sciences Center will address the goals of California's Education and the Environment Initiative to increase environmental literacy for kindergarten through 12th grade students by teaching science, history, and social science within an environmental context.

The Earth & Space Sciences Center is one of three learning centers that comprise the entire Powerhouse Science Center campus, an estimated \$50 million project that has nearly completed its pre-construction phase. The Center is scheduled to be completed in 2013.

The new facility will create more than 300 jobs and help vitalize Sacramento's riverfront area and open the space for more public usage.

Located on the scenic banks of the Sacramento River, the Powerhouse Science Center will be the premier

“As a long time supporter of an expanded Powerhouse Science Center, I am thrilled to hear we have received \$7 million in Prop 84 funds,” Sacramento Assembly member **Roger Dickinson** said. “The goal of the Powerhouse Science Center is to cultivate an interest in science and math. The new Science Center will be a destination for families from all parts of California.”

“This is exactly what we need in the City of Sacramento,” said **Angelique Ashby**, Sacramento City Council member, District 1. “The Powerhouse Science Center will bring jobs, education and a family experience for everyone who lives in or visits our region. What an amazing opportunity!”

“I am very excited that the State of California has awarded this grant to the Powerhouse Science Center and was pleased to support their efforts,” said Congresswoman **Doris Matsui**. “The Center will add to our beautiful riverfront, serve as a catalyst for redevelopment in the River District, and most importantly will give our region's children a premier state-of-the-art science center to explore.”

(Continued on pg 3)



The Earth & Space Sciences Center, seen in this rendering by the Dreyfuss & Blackford architectural firm, will be built with a \$7 million grant from the Proposition 84 Nature Education Facilities. It is slated to be one of the three buildings comprising the Powerhouse Science Center, situated in the River District off Jibboom Street in Sacramento.

Science Discovery Weekends Saturday & Sunday 12:30pm to 4pm

APRIL 30TH & MAY 1ST- SPACE DAYS

On July 21, 1969 Neil Armstrong and Buzz Aldrin landed on the moon. Celebrate this milestone with us. Kids launch bottle rockets, create their own “first step” on our simulated moon surface and learn about living in space.

MAY 7TH & 8TH- TAKE A DEEP BREATH

The Museum is celebrating the Clean Air Act established in 1970. Learn about this monumental act and the air in Sacramento. Every family constructs a take-home air particle collector that catches particulates in the air around your home. See how clean your air is! Each family may enter a raffle to win *The Next Frontier* DVD.

MAY 14TH & 15TH-

WHALE OF A WEEKEND

Kids celebrate the Marine Protection Act of 1972 by making a paper whale pillow and viewing real whale bones.

Other ocean specimens are on display for this weekend only.

MAY 21ST & 22ND-

MAY THE FORCE BE WITH YOU!

Celebrate one of the most classic science fiction movies of all time - *Star Wars!* Return to the 70's by viewing fan memorabilia. Children make a *Star Wars*-themed project while viewing the film that started the craze. This weekend only, any person wearing a *Star Wars* costume receives a \$1 off their admission.

MAY 28TH - 30TH-

ENDANGERED SPECIES WEEKEND

The Endangered Species Act of 1973 was voted by Congress to protect plants and animals from extinction. Visit the Museum to share with your kids the importance of this Act. View a variety of specimens, with a primary focus on turtles & tortoises. Kids 12 & under can make a turtle craft.

A Force in the 70's

Every weekend the Discovery Museum Science & Space Center strives to bring our members and guests a new and exciting theme to capture your attention and pique your curiosity. On May 21st & 22nd, as we celebrate science milestones of the 1970's, we are hosting a *Star Wars* weekend. *A New Hope*, the film that started the *Star Wars* saga was released in 1977 and many starry-eyed children began a life - long fascination with the endless possibilities of space. Join us on May 21st & 22nd for our salute to *Star Wars* weekend - come in costume and celebrate this milestone of the 1970's with us... and may the Force be with you!

