

Sandia National Laboratories

2013 Dream Catcher Science Program



The Dream Catcher Science Program takes the mystery out of science to encourage our children to get involved in engineering and science. The program's purpose is to provide fun and exciting hands-on activities that bridge the traditional classroom theories with learning.

The program is free to all eligible students in grades 6 through 12. All materials are provided.



Highland High School: Figge Hall

4700 Coal Ave SE
Albuquerque, NM 87108
Saturday June 15th and June 22nd 2013
Drop off between 8:45am and 9:00am
Pick-up between 2:30pm and 2:45pm

New Mexico Museum of Natural History and Science: Titanic

1801 Mountain Road
Albuquerque, NM 87104
Saturday June 29th 2013
Drop off between 9:45am and 10:00am
Pick-up at Noon



*Exceptional
service
in the
national
interest*

Program Coordinator

Aaron Niese

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2013 Dream Catcher Science Program

Curriculum Options

❖ **Beneath the surface – Mammalian Biology and Adaptation**

Are you interested in how the body works? Want to know how mammals differ? This class will cover the basic anatomy of mammals including the musculoskeletal system, cardiovascular system, digestive system, and nervous system. We will study the interesting variations of each of these systems based on diet (carnivore or herbivore) and the environment in which they live.

❖ **Civil Engineering**

Is that bridge safe to drive on? Will this dam hold? Will that building sway in the wind? Will the storm flood the levees? How does that tower even stand up? Come learn how Civil Engineers answer these questions by considering the properties of structures and materials. We will learn about forces, build bridges, consider the environment, and more as we investigate this oldest form of engineering.

❖ **Programming from Scratch – Introduction to the cool side of computers**

How would you like to make your own cartoon? How about your own video game? Design the next battleship or cool smartphone app? Come learn to “scratch” and watch your designs come alive. Learn to build your own cities and protect your citizens from alien invasion. Navigate through a maze to find the prize. Have other ideas—that’s great!! You can design them during this course as well. If you are scratching your head, then this is the course for you!

❖ **Lego Robotics**

Ever wonder what it takes to make a robot move on its own? In this class, you will explore how to command a robot after building it with LEGOs. This class will let you use your creativity, logic, and problem solving skills while learning computer science, engineering, and math concepts.

Museum Tour

❖ **Titanic Exhibit at the NM Museum of Natural History and Science**

On April 15, 1912, the world’s largest ship sank 963 miles from New York City after colliding with an iceberg. The DCSP will tour the “Titanic: The Artifact Exhibition”. Admission to this exhibit and general museum admission is included. The DCSP portion of this tour only includes the Titanic exhibit. If parents wish to spend more time after DCSP ends in the museum with their kids, then that is welcome but not associated with DCSP.

<http://nmnaturalhistory.org/titanic>

2013 Dream Catcher Science Program

Information

The 2013 program is offering four science and engineering classes. To be eligible, students must be enrolled in grades 6 through 12 for the 2013-14 academic year. Each student may enroll in **one** of the four classes.

Classes begin at 9:00am and parents may start drop off at 8:45am. Classes end at 2:30pm and parents must pickup by 2:45pm. Parents are welcome to attend or volunteer along with their student(s). Lunch will be provided to students for the two classroom days but not on the third museum day morning. Water and snacks provided each day. Please notify the program coordinator prior to June 1st of any student food allergies.

No student costs are associated with this program. Each student is asked to commit to attending the full 3 day program. If a student is unable to attend any session, please notify the program coordinator as soon as possible. All vacancies will be filled immediately. Any supplies provided to the students on the first day are required to be brought back by the student for the 2nd class session.

Registration Instructions

Registration can be done online or by returning the attached application forms by mail, fax, or email to the program coordinator by May 31st 2013.

Registration Deadline: **Friday May 31st, 2013**

Online: <https://share.sandia.gov/stem/dreamcatchers/>

By Fax: 505-284-0965, Attention: Aaron Niese

By Mail: Aaron Niese, DCSP Program Coordinator
Sandia National Laboratories
PO BOX 8500, MS 0661
Albuquerque, NM 87185-0661

By Email: adniese@sandia.gov

For further information please visit the Dream Catcher Science Program website at:

<https://share.sandia.gov/stem/dreamcatchers/>



Sandia
National
Laboratories



U.S. DEPARTMENT OF
ENERGY



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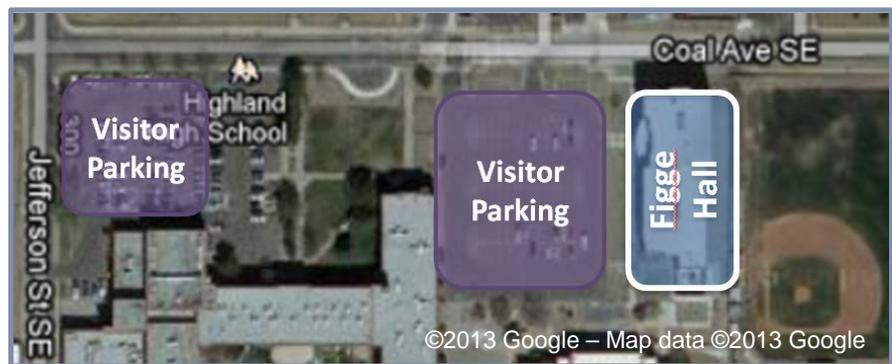
Location Details

❖ Albuquerque Public School (APS) Highland High School

Address: 4700 Coal Ave SE
Albuquerque, NM 87108

When: Saturday June 15th and June 22nd 2013
Drop off between 8:45am and 9:00am
Pick-up between 2:30pm and 2:45pm

Where: Please park in either visitor parking lot (see map below)
DCSP check-in located inside main entrance of **Figge Hall**
(a 3-story classroom building East of parking lots)



❖ New Mexico Museum of Natural History and Science

Address: 1801 Mountain Road
Albuquerque, NM

When: Saturday June 29th 2013
Approximately 10am to Noon.
Details to be released during the DCSP program.

Where: Look for DCSP signage at main museum lobby for check-in