

BRADBURY



**SCIENCE**  
museum



# 2008-2009 SCHOOL PROGRAMS

*All education programs are aligned with State of New Mexico science standards. Please see our website for the standards associated with each program.*



LALP-08-050  
August 2008

• **Los Alamos**  
NATIONAL LABORATORY  
— ESTABLISHED 1943 —

COMMUNITY PROGRAMS OFFICE



Bring your class to us!

# museum explorations

## Museum Exploration Programs

Programs are available Monday—Friday during regular Museum hours.

Contact us by phone or email to arrange for a customized visit to the Museum for your group based on one of the programs listed on this page. A typical visit is two hours.



## The Manhattan Project

Students experience the urgency and issues faced by Los Alamos scientists in their race to build the first atomic weapons.



## Atoms and Elements

Students are introduced to chemistry through the periodic table, and may even meet Dr. Mendeleev.



## Nano World

Students discover the strange behavior of matter at the scale of atoms and the meaning of the number one billionth.



## Cryogenics

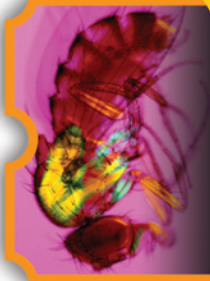
This is a demonstration using liquid nitrogen to explore the science of extreme cold.



## Quarantine!

Students learn what germs are and how we protect ourselves from them through biology and behavior.

*Note: No real pathogens are used in this program.*



## Incredible Insects

Students have an adventure in entomology exploring the characteristics and behavior of these amazing creatures.



## Radiation

Demonstrations and activities introduce students to radiation concepts, how we protect ourselves, and uses of nuclear energy.



## It's Not Magic—It's SCIENCE!

Students explore science concepts as they observe and attempt to explain baffling phenomena in an entertaining approach.



## Volts and Jolts

Charge up your students with hands-on static electricity activities using simple materials.



# science on wheels

*We'll come to your school!*

## Science on Wheels Programs

Programs are available Monday, Tuesday, and Thursday, mid-September through April, excluding holidays.


The same program is provided to a minimum of 4 and maximum of 6 classes at your school in one day. Each class is 50 minutes long with a 10-minute break between classes to reset the equipment.



### Galaxy to Go


If you have the room, we will bring space. Students will enjoy a night sky program in our new portable planetarium.

*Special requirements: We will need a room with electricity that is 25 ft by 25 ft and AT LEAST 14-ft high with no hanging light fixtures, etc., below 14 ft.*




### BONES!

Students examine and compare the structures and functions of (replica) skulls, bones and skeletons of humans and other animals. (There are some real bones in the collection.)



### Get Energized!

In this program we convert potential energy to kinetic energy and back in many different ways.




### Chem Lab

Students experiment with a polymer they make in the class and then examine what happens when they change a variable.



### Let's Rock

Earth science comes alive with activities and rock stories. Our rock collection contains interesting rocks from around New Mexico and some other very unusual locations.



### Circuit Connection


Students learn about electrical currents, insulators, and conductors, and they build circuits to perform various tasks.



### Micro World


Using a variety of magnifying equipment, students will explore the microscopic world using manmade and natural objects.

*Special requirements: We will need tables and electricity.*



### Forensics

Students learn about the science that is behind solving crimes and get to experiment with some of the same techniques that real criminologists use.



### Ready, Set, GO!

Students investigate Newton's laws of motion: inertia, force and mass, reaction, and gravity.

## REGISTRATION INFORMATION

### museum explorations

#### REGISTER BY PHONE OR EMAIL:

Please note that museum programs are available Monday, 1–5 PM, and Tuesday–Friday, 10 AM–5 PM. Whether or not you want a program for your group, you **MUST** contact us in advance to register for a time and date. Please give at least two possible dates and times for your visit.

**1. Decide which Exploration topic you want.** (Teachers may register for unlimited visits to the Museum. However, only **ONE** topic is available per visit.)

- Atoms and Elements
- Cryogenics
- Incredible Insects
- It's not Magic—It's SCIENCE!
- The Manhattan Project
- Nano World
- Quarantine!
- Radiation
- Volts and Jolts

**2. To arrange your visit,** contact one of the science educators by phone or email at 505-606-1492 or [edu-bsm@lanl.gov](mailto:edu-bsm@lanl.gov) (Monday–Friday, 7:30 AM–5 PM).

*Please be prepared to give the following information:*

- Name and phone number of contact teacher
- Name and address of your school
- Number of students
- Grade level of students
- Number of chaperones (at least 1 per 6 students)
- Dates and times requested (suggest at least two)
- Exploration topic requested

If you leave us a phone message, please leave your name, the best phone number to reach you, and the best time to reach you.

After you register, you will receive a written confirmation packet by mail or email, including maps, directions, and Museum policies.

### science on wheels

#### REGISTER BY MAIL OR ONLINE:

*Please carefully read the Science on Wheels registration information on the enclosed application form.*

■ Fill out the enclosed application form (red) and agreement form and mail them back to the Museum. Or fill out the PDF forms on our registration page at [www.lanl.gov/museum/programs/science\\_on\\_wheels/](http://www.lanl.gov/museum/programs/science_on_wheels/). All applications **MUST BE RECEIVED** by **SEPTEMBER 5**.

■ In the event that we receive more applications than we have available dates, applications will be drawn randomly to select the school groups that will receive a Science on Wheels visit.

■ The **MORE FLEXIBLE** you can be about the dates you request, the more likely you are to receive a Science on Wheels visit. However, be aware of any school holidays, testing periods, etc., since rescheduling is difficult.

■ Reservation letters telling you which date and program you are scheduled for will be mailed the week of September 8. Once you have received your reservation letter, **YOU MUST CALL OR EMAIL US** no later than **SEPTEMBER 19** to confirm your reservation (505-606-1492 or [edu-bsm@lanl.gov](mailto:edu-bsm@lanl.gov)). Failure to confirm the visit may result in a cancellation.

■ With your reservation letter you will receive a schedule for you to fill out about the day of the visit. Please return the schedule for the Science on Wheels visit as soon as possible by mail, email, or fax (505-665-6932). We **MUST** have the schedule before our visit.

■ If your application is not drawn, you will be contacted to let you know you are on our waiting list. As cancellations occur, we will substitute applications from the waiting list and will inform you.

While you're planning a visit to Los Alamos, call ahead to schedule other activities in the area.

- Learn more about Los Alamos history.....Los Alamos Historical Museum, 505-662-6272
- Swim in an Olympic-sized pool.....Larry Walkup Aquatic Center, 505-662-8170
- Visit ancient cliff dwellings.....Bandelier National Monument, 505-672-3861, ext. 534
- Ice skate in the canyon.....Los Alamos Ice Rink (Nov. to Mar.), 505-662-4500
- See local art exhibits.....Art Center at Fuller Lodge, 505-662-9331

### Ask a Scientist!

Got a science question? Email us!

[www.lanl.gov/museum](http://www.lanl.gov/museum)

[edu-bsm@lanl.gov](mailto:edu-bsm@lanl.gov)

505-606-1492