

PCY SCIENCE CLUB CATALOG for 2010-2011

To register, first contact those who are leading the section to be sure that it is what you expect. If you still wish to register, copy and print the registration form at the end of the catalogue. Return the completed form (one hard copy per section, please), along with the fee for each section you are registering for. The fees may be combined onto one check.

Make checks payable to "PCY PTA". No cash or credit cards, please.

Please send checks and registration to:

Pam Raymer-Lea, 822 Parkman Dr., La Canada, CA 91011

**Leaving your registration at the PCY office will only delay your registration.
Sections with a student limit will go in the order received.**

Each section can use one or more parent who is willing to help out. Please indicate your interest in helping on the registration form.

Please contact Pam Raymer-Lea at 818 952-5590 pamraymerlea@aol.com if you have any questions.

Life Science and Medicine - \$15

Students concentrate on selected medical topics which the students will choose. There will be presentations by physicians and other health professionals. Last year the group covered microbiology, bacteriology, DNA, radiology, the brain, radiation, world health, global warming, plastic surgery and a general health fair. There will be several tours of medical facilities at the hospital.

- 5th -6th grades, parent volunteers welcome
- Max of 15 kids.
- Meeting monthly on Mondays 4:20-5:30, tentatively.
- We will meet at the Huntington Hospital outpatient pavilion.

DR. RUTH WILLIAMSON McNULTY – DrRuthW@aol.com

Ruth is a radiation oncologist at Huntington Hospital, and medical director of both Radiation Oncology and The Breast Center there. She specializes in cancers of the breast and skin. Ruth is a graduate of USC medical school and has two kids at PCY Lisa(13), and Tommy(10).

How the Human Body Works - \$15

A basic introduction to the main systems of the human body. Bones, muscles, blood, breathing, digestion, nerves, the lymphatic system, and the brain.

- K – 3rd grades
- Max. 20 kids
- Meeting monthly on Tuesdays 3:15 – 4:15
- PCY Cafeteria or library

PAM RAYMER-LEA – pamraymerlea@aol.com

Pam is a jewelry maker, former filmmaker, and stay-at-home mom who, although not a scientist, has an intense interest in discovering the nature of the universe and how it works. She has a BFA in Studio Art, a MFA in Film Production, and an MEd in Guidance and Counseling with College Administration. She enjoys having fun and finding hands-on ways to help kids understand confusing and complex concepts. Although she has taught film production at the college level, Pam is currently an Art Docent at PCY, teaching about famous artists, their lives, and works. She is also the founder of the PCY Science Club.

"Space School Musical" and Hands on Science Activities - A Musical Play About the Solar System - \$15

Join in this new interdisciplinary project from JPL - a kit for a full-fledged **musical play for kids to put on** (fresh off its Hollywood DVD opening party), **about the solar system** .

It's aimed at grades 4-6 and also comes with learning activities about the topic being presented. In the fall, we'll start learning the science from the songs and the activities that go with them. In the winter, we'll move into production of the musical. We'll plan an event around the musical and show our science stuff through hands-on activities for the community. Every student gets a role. For science lovers, math lovers, singers, movers, shakers, and more!

We'll need parent volunteers to assist at the meetings, to help with supplies for the science activities, make costumes, and help produce the musical.

"It's the place to be - in the galaxy!"

- 4th – 6th grades (3rd grade by audition and maturity level)
- maximum of 25 kids
- Tuesdays - Fall - once a month; Winter - more often for musical and event production. Meeting after school/early evening (not the same days as “Creepy Crawlies”)
- PCY cafeteria

LESLIE LOWES - 626-791-8940 HYPERLINK "mailto:llowes@sbcglobal.net" \o "mailto:llowes@sbcglobal.net" llowes@sbcglobal.net

At JPL for almost 30 years, Leslie has worked in both science and education, and is a firm believer in the power of an engaging, emotional experience to spark kids' interest in science, technology, engineering, and math. Leslie is a member of the NASA "90-90 Club", having flown over both poles of the earth in a DC-9 while collecting data on the chemistry of the earth's ozone "holes", and she served as a ground data specialist for

several Space Shuttle flights to study the atmosphere. Her education specialty is in relationships with museums, youth groups, and after school programs, and she set up the national partnership between Girl Scouts of the USA and NASA. She sang in Pasadena Pro Musica for 8 years and plays the piano.

Creepy Crawlies - \$15

Students will have the opportunity to discover the world of bugs, reptiles, and amphibians. We will focus on a different animal each month and learn about their habitat, body parts, and their unique purpose in our world. We will learn this through books, video, interactive art projects, and bug hunts around campus and a hike at the Arroyo. Creepy Crawlies will include real life animals through watching tadpoles becoming frogs, caterpillars becoming butterflies, and larvae becoming beetles. We will also arrange for guest speakers (maybe an entomologist) to come and bring their animals to share such as snakes, lizards, frogs, etc. Two field trips will be planned to the Museum of Natural History and the Los Angeles Zoo (if the new reptile house is completed) for a weekend outing. We will complete the year with an animal presentation from “Reptacular Animals” providing us the opportunity to see “up close” snakes, tarantulas, tortoises and more (this will require a \$5 donation from each student in the group).

- K – 2nd grades
- Max 20 kids (three parent volunteers needed at each meeting)
- Meeting monthly on Wednesdays 3:00 – 4:00 (not the same days as “Space School Musical”)
- PCY Cafeteria

JENNA GAUSMAN - jgausman@hr-connections.net

Jenna is a career counselor who works at Santa Monica College advising students in majors, career, and college selection. She has over 14 years experience in counseling students with science majors and scientific careers. With two boys, she has learned to love all things that crawl and slither. She is passionate about “learning” being interactive and hands-on. Her purpose is to instill a sense of curiosity and respect in the students for understanding how our “creepy crawlies” are a key part to our habitat and ecosystem.

Introduction to Amateur Radio (So you wanna be a ham?) - \$15

There’s been an earthquake! The phones don’t work, the net is down, and the power is out! It is during crises that amateur radio operators or “hams” provide their most important service, often being the only means of communication that is up and running. Amateur radio is a hobby that has been enjoyed by millions of people for well over a century, and when hams are not saving lives, or coordinating important events (like the Rose Parade), hams enjoy each other’s company on the airwaves of the world. No wires. No phone company. No internet. No fees. We will take a comprehensive look at all amateur radio has to offer. Amateurs do everything from talking across town to bouncing signals off the moon. There are amateur radio satellites, and sometimes you can even

talk directly to shuttle astronauts. There is a lot of science involved from various fields, including physics, electronics, atmospheric and astronomy.

Provided there is sufficient interest after the introductory session, Mark will train the kids to pass the written exam to obtain the Technician Class license – something they will have their whole lives. Some may remember that knowledge of Morse code was necessary – well, not any more! The FCC recently dropped that requirement for all license classes, so now there's no excuse. Come join us "on the air"!

- 3rd - 6th grades - a parent must come to the first meeting
- No maximum enrollment
- 3:00 – 4:00 Two Fridays a Month (will not conflict with "The Search for Alien Life")
- PCY Cafeteria

MARK BARTON – bartonmr@sbcglobal.net

Mark has been a ham for more years than he cares to admit. He holds an Extra Class license with call sign WA6FTU. His wife Denise got her "ticket" a few years ago and is KD6RIO. Mark enjoys a good ragchew on 80-meters in the late evening, working the skip to Europe or Antarctica on 20-meters, chasing the greyline (not a bus), or participating in a roundtable QSO on a local 2-meter repeater. Don't know what some of that means? Come to the intro session.

Flight Science (airplanes and rockets) - \$15

We'll learn about airplanes, build and launch rockets, and visit local aviation facilities. Events from last year included flying in gliders at the Mountain Valley glider facility, visiting the Chino Air Museum, hearing a presentation from the Director of Science for NASA's Ames Research facility, touring JPL and NASA's Dryden Research facility at Edwards Air Force Base, freefalling in an indoor skydiving facility, having paper airplane races, etc. For next year expect some of the same activities and some new ones!

- K - 6th grades.
- Requires parent participation (no drop offs). Siblings are welcome.
- Our section will meet mostly on weekends but will vary as events present themselves.

SUSANNA AND DOUG GRIFFITH - 818-952-1780 – susannagriffith@gmail.com

Doug majored in aerospace engineering and was a US Marine Corps SuperCobra pilot for many years. Now he practices aviation law. He has a private pilot license and flies for fun.

Explorations in Chemistry - \$15

This is a hands-on discovery program that will focus on broad chemical concepts such as atomic structure, behavior of elements, and chemical bonding. We will do experiments that will focus on the way matter and energy interact. Last year these included chemical

reactions, chromatography, plant biology, and planetary behavior among other topics. 2010-2011 will be structured similarly, depending on the interests of the participants. We will meet monthly in the PCY cafeteria. It will be open to 4-6 grades and will be limited to 8 students per adult.

- 4th - 6th grades. Interested parents are welcome to join us and will be engaged as assistants. Fourth graders will need the recommendation of their last science club leader.
- Participation will be restricted to students who demonstrate a serious interest in the activities and display appropriate behavior. If more than one warning is necessary the student will be asked to find another program since we will be working with some costly and potentially dangerous materials.
- Thursdays after school for 90 minutes – once a month except September and June. **December 3rd will take the place of Thanksgiving.**
- PCY cafeteria.

MRS. ROSE HARRIS – 818 790-8291 – rose.m.harris@att.net and
TRACY LEE - tracyjlee@hotmail.com

Mrs. Harris retired last year after 18 years as the science department lab tech at LCHS. She was a chemistry teacher at another school for a number of years and has taught GATE classes in both La Crescenta and at LCE. Mrs. Harris has a background in geology, oceanography, astronomy and biology.

TRACY LEE (HIGA) – tracyjlee@hotmail.com

Tracy's undergraduate degrees were in Chemistry and in Biological Sciences with an emphasis in Molecular Biology. Tracy enjoys Life Sciences.

The Search for Alien Life - \$15

We will define what life is, how we look for it within our own solar system and how we look for it in the universe. The difference between life and intelligent life will be discussed, along with examination of the repercussions of finding such life. DVD programs will be relied upon, along with guest speakers. There will be little or no homework.

- 3rd-6th grades, parent volunteers and participants encouraged
- Max of 40 kids.
- Meeting once a month for 2 hours at a time on Fridays, 3:15 to 5:15, tentatively. There will be no meeting in September, but will meet in October to June. (9 total meetings)
- We will meet at PCY and possibly other locations.

PAM RAYMER-LEA – pamraymerlea@aol.com

Pam is a jewelry maker, former filmmaker, and stay-at-home mom who, although not a scientist, has an intense interest in discovering the nature of the universe and how it works. She has a BFA in Studio Art, a MFA in Film Production, and an MEd in Guidance and Counseling with College Administration. She enjoys having fun and

finding hands-on ways to help kids understand confusing and complex concepts. Although she has taught film production at the college level, Pam is currently an Art Docent at PCY, teaching about famous artists, their lives, and works. She is also the founder of the PCY Science Club.

Physics Of Music - \$10

THIS COURSE MEETS A TOTAL OF THREE TIMES

We will address the following questions: What is music? What separates music from noise? What are the different classes of instruments and how do they produce their sounds? How do we tell the difference between different instruments merely by hearing them? How do we produce and understand speech? We will break sounds down to analyze their time and frequency components. We will also try to duplicate (synthesize) sounds electronically.

- grades 4th - 6th
- No maximum enrollment
- ? day at 3:30-4:30 – meeting three times throughout school year
- Meeting place subject to availability

MARK BARTON - bartonmr@sbcglobal.net

Mark is an award-winning designer of electronic musical instruments. He invented the “Syndrum”, the first commercially successful electronic drum, which can be heard on hundreds of hit records. He created the first speech synthesizer for home computers and was in the computer speech business for 15 years. Since then, Mark has designed a series of products for modular music synthesizers and won the Editor’s Choice Award from Electronic Musician Magazine for the “Zeroscillator” in 2007. He also writes and records music with his band, “Blue Shift”.

The Folklore, Myths, And History Of Science and Medicine - \$5

THIS IS A ONE-TIME ONLY EVENT, WHICH PARENTS WILL ALSO ENJOY

We will look at beliefs and practices from ancient to present times and how they relate to modern beliefs.

- 3rd - 6th grades
- unlimited # of kids
- ? day from 3:30-4:30
- TBA at PCY
- One time only –

DENISE CHANDLER - ddchandler@sbcglobal.net

Denise studied for a PhC in Folklore and Mythology at UCLA focusing on folk medicine and medical anthropology. She attended kindergarten at PCY and was excited to return to lead the biological science group for an outstanding group of K-2nd grade future

scientists in 2008-9. She currently teaches teens and adults in Los Angeles, her husband Mark Barton (see above,) and her PCY son Loren.

Copy and paste this form into a new document, fill it out, print, sign, and send.

Science Club leaders will keep your registration form with them at meetings in case of a medical emergency. For that reason, we need a separate form for each section your child will be attending. Copies are fine, as long as each has an original signature from both parents.

**PCY SCIENCE CLUB '09 – '10
New Student Registration & Emergency Form**

Student's Name _____ Grade _____
Last Name First Name

Address _____

City _____ Zip _____

Father/Guardian _____

Home Phone _____

Cell or Other Phone _____

E-Mail Address _____

Mother/Guardian _____

Home Phone _____

Cell or Other Phone _____

E-Mail Address _____

Health Insurance No ___ Yes ___

If yes, Name of Insurance Company _____

Policy Number _____

Health Problems (Please List)

Allergies No ___ Yes ___ List specific item(s) student is allergic to:

Describe allergic reaction and treatment:

Current Medication(s) No ___ Yes ___ If yes, Name of Medications(s)

Emergency Medical Authorization

In case I am/we the parents or guardians are unable to be reached during any emergency, I/we authorize a representative of the Science Club to seek emergency medical treatment for the above named student.

In the event of a disaster, if parents are not available, my child may be released to an adult familiar to him/her No ___ Yes ___

Media Permission

I/we GIVE permission for my/our student to be observed, interviewed, photographed and/or filmed when a representative of the science club is present. No ___ Yes ___

The signatures of BOTH parents are needed unless a single parent or guardian has sole legal custody.

Please Print Father/Guardian Full Name

Please print Mother/Guardian Full Name

Signature

Signature

Area of Interest Please circle one choice and return this form along with the appropriate **registration fee** (checks payable to: PCY PTA) to: Pam Raymer-Lea, 822 Parkman Dr., La Canada, CA 91011 (Leaving your registration in the PCY office will only delay your registration.)

Life Science and Medicine - \$15

How the Human Body Works - \$15

"Space School Musical" - \$15

Creepy Crawlies - \$15

Introduction to Amateur Radio - \$15

Flight Science - \$15

Explorations in Chemistry - \$15

The Search for Alien Life - \$15

Physics Of Music - \$10

The Folklore, Myths, And History Of Science - \$5

Are You Willing to Help?

No ___ Yes ___

Only My Child's Section___ Any Section That Needs Help___

Thank You!