



SCIENCE • TECHNOLOGY • ENGINEERING + ARTS • MATHEMATICS

Welcome back (or welcome!), PCY Parents!

As you may know, PCY's STEAM Program aims to highlight the practical, tangible side of science. Science doesn't just exist in a textbook – there are real life applications to what they learn in school. Students learn best – and their curiosity is piqued – when they see science in action. This flyer details this year's offerings. The events are either uniquely tailored for our group (i.e. not available to the general public) or offered to us at a discounted rate. You are encouraged to participate in as many as your schedule will allow. Siblings are always welcome regardless of whether they attend PCY. Be sure to read your Cougar Tracks emails and check the PCY PTA website for additional information, including event announcements, registration / RSVP details, and more. And if you're on Facebook, join our [PCY STEAM Facebook](#) page for announcements, reminders, and science-related news and information.

Science Night Out: Through our Science Night Out series, we host speakers from our community to present on the role science plays in their professional lives. Previous speakers have included a CSI, firefighters, an orthopedic surgeon, and professionals in the 3D printing and augmented reality spaces. Science Night Out begins at 5:30pm in front of the MPR with pizza and a mini engineering challenge to warm those sharp little brains up. At 6pm, we move to the MPR for a speaker (40-45 minutes, including Q&A), and we often end with a hands-on experience. It's dinner and a show – and it's educational. All programs are *free*, and no RSVP is necessary. Mark your calendars now for:

- **Thursday, September 21, 2017: *The Future is Bright: Harnessing the Sun's Energy***, featuring [Joe Cannon](#). As solar panels become less expensive and capable of generating more power, solar energy is becoming a more commercially viable alternative source of electricity. During this talk, you will learn more about the solar energy, how we capture sunlight and convert it into electricity, and what the future of solar power may hold.
- **Wednesday, November 15, 2017: *Disaster Master! How Technology is Used in Disaster Relief***, featuring Rashmi Menon and Kristin Blomstrom from [Parsons](#) in Pasadena. Natural disasters sometimes happen. Science and technology have been driving forces in disaster relief efforts – come learn how STEM can help save lives, homes, and communities, and gain valuable insights for your own disaster preparedness plan!
- **Thursday, February 22, 2018: *All the Good Chemistry Stories Argon: Science in Mystery Writing***, featuring a brilliant panel of mystery writers: [Anne Louise Bannon](#), [Paula Bernstein](#), and [Sheila Lowe](#). Mystery writers want to be scientifically and medically accurate even in their fictional works. Sometimes this means drawing upon their background as doctors, scientists, or forensic handwriting experts – and this sometimes requires them to do some research. Join us to learn how writers use science in their fictional works!
- **Wednesday, April 25, 2018: *Sleep with the (Zebra) Fishes***, featuring Caltech professor [David Prober](#), The Godfather of Sleep Research, on what we know about the body's mysterious need for – and inability to avoid – sleep. Dr. Prober will discuss how we know when fish are sleeping (they can't close their eyes!), his lab's discoveries, using the zebrafish as a model, and the implications of those discoveries in humans.

STEAM Activity Nights: Because kids learn by doing, our STEAM Activity Nights offer meaningful opportunities for students to get hands-on science. Past themes have included the science of sound, experimenting with physics by building roller coasters, and a sampling of engineering disciplines. We are thrilled that PCY alumna and current LCHS student Caroline Higa will return to PCY on **Thursday, January 18, 2018** with a new set of experiments and STEM stations to captivate all of our young engineers. And, for our STEAM Activity Night on **Thursday, March 15, 2018**, PCY parent Martha Kirouac has put together a series of stations that is almost as brilliant as she is. (Almost.) Join us for pizza at 5:30pm and STEAM Activity Nights from 6-7pm in the MPR. All programs are *free*, and no RSVP is necessary.

Extracurricular Science & Arts Field Trips: Textbook and classroom learning is enhanced through outside experiences. In addition to our evening Science Night Out speaker events and hands-on STEAM Activity Nights, we have curated group events designed to bring science, technology, engineering, the arts, and math to the forefront. Join us for:

- **Sunday, August 27, 2017 @ 2pm (California Science Center):** [IMAX: The Human Body](#) and [Body Worlds Pulse Exhibit](#). Through the IMAX movie, students can witness bodily events normally hidden from our view, including the 100-mile trek of a red blood cell through our vast, tangled network of veins, arteries and capillaries. Then they will explore the Pulse exhibit that presents the body in health and distress. \$15 per person for the combination ticket (regularly \$26.20). **Email nina.ries@gmail.com for tickets by August 19.**
- **Saturday, December 2, 2017 @ 8pm (Caltech):** [The Alley Cats](#), a comical doo-wop a capella group that offers a fun musical experience (heavy on music from the 50s and 60s) for the entire family, present their holiday program, *Jingle Bell Rock*. \$37 adults, \$10 children. **Email nina.ries@gmail.com for tickets by October 1.**
- **Saturday, December 9, 2017 @ 11am (Disney Concert Hall):** The [LA Philharmonic's Symphonies for Youth](#) concerts offer the experience of the LA Phil with the fantasy of theater to introduce kids to classical music. This event features Stravinsky's breakthrough piece, [The Firebird](#). The concert is preceded by a choice of workshops. \$21 per person (regularly \$31). **Email nina.ries@gmail.com for tickets by Monday, August 21.**
- **Saturday, January 20, 2018 @ 10am (Los Angeles Police Museum):** Learn about the history of crime solving and how technology has brought changes to police work as a retired police officer leads us on a tour of the [LA Police Museum](#)! Adults and teens \$10, 0-12 free. **Email nina.ries@gmail.com for tickets by December 20.**
- **Sunday, March 11, 2018 @ 3pm (Gamble House in Pasadena):** Architecture is a perfect marriage of engineering and art. Hear more about this from our exclusive speaker, and tour the [Gamble House](#) with a knowledgeable docent. \$10 per person. **Email nina.ries@gmail.com for tickets by February 20.**
- **Friday, March 30, 2018 @ 7:30pm (USC):** The USC Thornton Symphony and USC Thornton Choral Artists join forces to perform one of the great masterworks of late Classical music, Ludwig van Beethoven's Symphony No. 9 in D minor, Op. 125, including a full chorus singing "Ode to Joy." Free. **RSVP directly using [this link](#).**
- **Saturday, May 5, 2018 @ 8pm (Caltech):** The [Capitol Steps](#) is political satire at its best! Enjoy musically-inclined staffers mocking every policy and politicians from both sides of the aisle. This event consistently sells out, so buy your tickets soon! Adults \$40, youth \$10. **Email nina.ries@gmail.com for tickets Website by October 1.**
- **Saturday, May 12, 2018 @ 10am (Pasadena Museum of History):** tour of and talk by exhibit curator about the museum's STEAM exhibit, [Dreaming the Universe](#), which explores the history of science fiction in Southern California from 1930 to 1980, and how it interacted with the advances of science, the changes in technology, and shifts in American society. \$5 per person. **Email nina.ries@gmail.com for tickets by April 12.**

Open Robotics Nights: While the PCY computer lab is overhauled, we are temporarily suspending after-school Robotics classes. But the STEAM Program won't let you go Robotics-less! So just for this year, we are offering three Open Robotics Nights on **October 12, 2017**, **December 14, 2017**, and **May 10, 2018** from 5:30-7:30pm in the MPR. Open Robotics Nights offer an opportunity for parents and students alike to build and code at their own pace according to a set of instructions or to explore their creative side and build from their imagination, all while our experienced Robotics instructors are on hand for questions and extra help. Whether your child is new to Robotics or a pro, our Open Robotics Nights will meet their level of experience. This is also a great way to test the waters to see if your child may want to enroll in our after-school Robotics classes during the 2018-2019 school year! All programs are *free*, and no RSVP is necessary.

Lego Building Club: We have found that Kinder, 1st, and 2nd graders benefit from additional practice building with instructions before they begin with our Robotics series. Our specially-designed Lego Building Club meets on the 1st and 3rd **Fridays** of the month, from 3-4pm. Parents are required to volunteer for two class sessions during the school year. Register your Kinder – 2nd grade students on the PCY PTA website.

Know of some great local STEAM programs for kids or families? Do you have any questions or concerns? Contact PCY's STEAM Chair, Nina Ries, at nina.ries@gmail.com.