

Patterson Elementary STEAM Academy Day



Science, Technology, Engineering, Art and Math

Friday, March 9th, 2018

The Patterson PTA is pleased to offer the opportunity again for the students of Patterson to participate in a hands-on STEAM class of their choice. These classes will be taught by Patterson parents and local professionals with extensive industry/field knowledge. Courses will take place **during school hours** and all students will be participating. No advance preparation is required of the students. Please take a look at the course descriptions listed below and discuss them with your child. Registration this year will take place online starting on **February 20, 2018 at 7:00 p.m.** A detailed description of registration procedures can be found at the end of this form. We want to thank all the volunteers leading these classes and are looking forward to an exciting and unique STEAM-focused learning opportunity for our students!

We will again be looking for several parent volunteers for the day of the event to assist the various instructors. If you are interested in helping this year, please contact Leslie at ruffing08@gmail.com or Carrie at carrie.giacobbe@gmail.com.

STEAM Academy Day Registration Form

FOURTH GRADE / FIFTH GRADE (10:45 am – 12:00 pm)

Dentist for a Day – Put on scrubs and become a dentist for the day! This course will give students the opportunity to participate in experiments that show how cavities break down teeth. They will learn how acids and bases affect tooth enamel and how the pH of acids can lead to the breakdown of enamel and cavities. They will practice placing “fillings” in teeth with real composite resin materials used in the office and take impressions on dental models. Lots to see, do and learn in this course as students will become excited about the dental world and learn its importance to a healthy mouth and body. *(Instructor: Gina Jacobsen, DDS)*

Making Our Own Art Materials – Store bought art materials are awesome! They're quick and easy to use. But did you know that there's a TON of science involved in making these materials? We will make supplies and then use them in fun and creative ways. Join us as we add art and turn “STEM” into “STEAM”!!! *(Instructor: Sarah McGinnis, Carmen Juckett)*

Celebrate Pi Day – Come celebrate the annual math holiday of Pi Day (March 14th), which celebrates pi and everything circular! Learn about the mathematical symbol of pi, how pi is used in mathematics, and finally make your own “pie” to take home to your family. While real pie will not be served, students who attend this class may come home hungry! *(Instructor: Ellen Creaves)*

Home Design Studio – Learn how to design and draw your own dream home! This workshop will give you a brief description of home design styles and famous architects. Then, let's roll up our sleeves and hit the drafting table! Students will be instructed on how to “engineer” scaled floor plans of anything from your own home, bedroom, tree house, game room or whatever fabulous design you can imagine. There will be an interior studio as well, where you can select colors, furniture, pictures and other inspirational ideas to “decorate” your space. All your ideas will be arranged in a presentation board to bring home to present to your parents! *(Instructor: Dawn Dalson)*

Build Your Own Computer Game from Scratch – Think building computer games is hard? It isn't! This course will teach you how Scratch, a computer language designed especially for kids, can be used to create your own computer game in just one day! You will learn what computer programming is and why it is so important in the world today. Ask your parents to create a login at <http://scratch.mit.edu> and bring the username/password with you so you can take your game home with you. You'll also go home with the info needed to keep building games on your home computer.

(Instructor: Patrick Jaromin)

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How the Internet Works – What happens when you type in a web page? How does all of that information get to your computer? Learn all of this, and also watch a demo on how to make your own web pages at home!

(Instructor: Mike Smith)

Buildings and Structures – How do Architects and Engineers make the buildings stay up? Why don't they fall over? How do they get them so high and make it that shape? In this class, find the answers to these questions by thinking like an Architect and an Engineer. As an Architect use your creativity to design a building. As an Engineer come up with solutions to any problems while constructing the building. Using marshmallows and toothpicks, build an Eiffel tower, Dome or your designed Structure. *(Instructor: Nafisa Husain, Studio Nafisa)*

Unmanned Aerial Vehicles (UAVs) and Their Applications – Do you want to learn about Unmanned Aerial Vehicles (drones) and how they apply to society today? Students will learn how UAVs work, what it takes to become a licensed UAV pilot and what UAVs can do for industries such as construction, land surveying, real estate, and many others! *(Instructor: Taylor Fauley, President, Diamond Head Productions)*

Astronomy – Are you fascinated by the stars? In this class, students will first learn how to use a large telescope, which will be assembled and demonstrated in the classroom. Secondly, the students will learn about the constellations we can see in the springtime evening, including which constellations are up in the sky on the evening of the presentation, and some of the remarkable objects contained in these constellations. *(Instructor: Jim Hopkins, President, Naperville Astronomical Association)*

Maglev Trains and Public Transportation – Are you interested in public train transportation and how it can help the environment? In this class, students will learn about the ways people are moved around in the city of Chicago by way of the "L" train. Then they will learn how engineers around the world are working to reimagine trains to use less energy and be more green via maglev (magnetically levitated) trains. Students will work in groups to design their own magnetic levitation trains! *(Instructor: Carrie Wagener, Chicago Transit Authority)*

STEAM ACADEMY DAY REGISTRATION DETAILS

- Online registration for STEAM Academy Day courses will open on **February 20, 2018 at 7:00 p.m.** and close on February 24, 2018 at 12:00 p.m.
- Any student not signed up for a class by registration closing will be randomly assigned to a STEAM Academy Day course. Every course is sure to be educational and fun!
- You may only sign up for one course per student.
- If you have multiple students in one grade, you must use a different email address to register each student. Please contact Carrie at carrie.giacobbe@gmail.com if you have registration trouble or questions.
- Follow the link below to the Sign-Up Genius page for your student's grade only, choose an available course, and include required information: Student Name, Grade/Teacher, Email (parent/guardian).
- Please understand that some courses may fill more quickly than others, we recommend having a few back-up choices ready.
- Electronic registration links will also be posted in the Patterson S'more Weekly Announcements email, the Patterson Elementary PTA Facebook page, and the Patterson School website at <http://patterson.ipisd.org> under the PTA, STEAM/Science Fair tabs.

Fourth Grade Registration Link:

www.SignUpGenius.com/go/4090D4DA5AB2AA1F85-fourth1

Fifth Grade Registration Link:

www.SignUpGenius.com/go/4090D4DA5AB2AA1F85-fifth1

Should you have any questions regarding STEAM Academy Day registration, please contact Carrie Giacobbe at carrie.giacobbe@gmail.com or Leslie Ruffing at ruffing08@gmail.com.

Thank you to all our presenters and volunteers!