

Patterson Elementary STEAM Academy Day
(Science, Technology, Engineering, Art and Math)

Thursday, April 27th, 2017

The Patterson PTA is pleased to offer an 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 April 6, 2017 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 learning opportunity for our students!

STEAM Academy Day Registration Form

Fourth/Fifth Grade

Doctor for a Day - Put on scrubs and become a doctor for the day! This course will give students the opportunity to play a game with orthopedic implants and plastic bones, and participate in an experiment that shows how cavities break down teeth. Lots to see, do and learn in this course as students will become excited about the medical world and learn its' importance. *(Instructors: Gina Jacobsen, Liz Shewman)*

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. *(Instructors: Patrick Jaromin, Steve Kamer)*

Fun Forms of Art - Do you love art and want to learn more? Join us for some flavorful fun as we explore the art of Wayne Thiebaud! He is best known for his colorful paintings of commonplace objects, such as pies, cakes, hot dogs, ice cream cones and paint cans. This class will focus on recognizing forms and shapes in everyday objects as we create "sweet" paintings inspired by artist Wayne Thiebaud. Please bring an art smock, paint friendly clothing and a creative mind! *(Instructors: Sarah McGinnis, Carmen Juckett)*

Just Do It— Have you ever wondered who came up with the phrase “Just do it” for Nike, or why your favorite cereal is found on the top shelf at the store? Students will learn about data collection and how it is used in marketing strategy. Students will take a short survey and use the results to make a decision. *(Instructor: Ryan Kocher)*

The Future of Food – Tower Power - Come learn about a “space age garden” just like the ones at Walt Disney World. Tower Garden is a not like a regular garden. It grows in a tower, can grow indoors with lights and uses no soil. No dirt, no weeding... just water and liquid food. How cool is that? This “soil-less wonder” provides a simpler, cleaner way to garden we will explore how it is much better for the environment, and allows families that don't have a lot of space or time, to grow healthy, organic food, steps from your kitchen. *(Instructor: Julie Zinkus)*

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: Studio Nafisa)*

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Lego Engineering – This workshop provides students the opportunity to build motorized models using Lego bricks, gears and motors while making fun connections to STEM concepts in the real world around them. Students will delve into the world of Physics and explore The Laws of Motion as they build a motorized model of a carousel swing and spin art machine. *(Instructor: Bricks4Kidz- Bricks4kidz.com)*

SCARCE (Recycling/Paper making/Pollution Prevention) – Learn about what items can and can't be recycled, the fun ways people have turned their "trash into treasure," and what happens to our water quality when various types of pollution end up in our lakes and streams! Be prepared to actively participate in hands-on activities, including the application of contaminants to a community watershed model, creating a rainstorm, and the actual making of recycled paper. The importance of conserving our resources and protecting our environment with some simple, yet effective solutions will be positively and enthusiastically presented. Get ready to be inspired! *(Instructor: SCARCE – www.scarce.org)*

Forensic Science – Have you ever wondered about the types of tests that scientists in crime laboratories perform to help solve crimes? In this course, we will be conducting various tests, utilizing microscopes, and learning about other tools that Forensic Scientists use every day. With your newly-obtained skills, you will be asked to consult in a robbery case to help piece together the crime. *(Instructor: Pamela Mikulcik)*

3D Printing – The 3D Printing lesson will interactively allow students to learn what a 3D Printer is, how it works, how to use one, and why they are used. Students will have opportunities to challenge their creative minds and apply STEM principles that have been taught in the classroom. A live 3D Printing demo will be given. *(Instructor: Todd Kuebelbeck)*

Fun with Math (Yes, it is possible!) – This is an unstructured workshop where students can choose between different math problems involving geometry, algebra, algorithms, and logic. Come and see how math can be applied in fun hands-on games, brain teasers and real world problems. Try your skills at a Tower of Hanoi and the Rubik's Cube. Different difficulty levels will be provided. *(Instructor: Davi Correia)*

STEAM Academy Day Registration Details

- Online registration for STEAM Academy Day courses will open on Thursday, April 6 at 7:00 p.m. and close on Tuesday, April 11 at 7:00 p.m.
- Any student not signed up for a class by registration closing will be randomly assigned to a STEAM Academy Day course.
- You may only sign up for one course per student.
- If you have multiple students in one grade, please contact Carrie at carrie.giacobbe@gmail.com.
- 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 Weekly Announcements email and the Patterson Elementary PTA Facebook page.

Fourth Grade Registration Link:

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

Fifth Grade Registration Link:

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

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