

April 27, 2019

10:00 – 2:00

Wildwood U/MS

Events List

- **reDiscover Center:** (<http://rediscovercenter.org/about/>) reDiscover develops children's creativity through hands-on making with sustainable materials. Our vision is for all Angelenos to have an outlet for acquiring and donating reusable material. As reDiscover meets this need, we move closer to a community where all waste materials can be rediscovered for their educational and creative value. reDiscover is a nexus for environmental sustainability and creativity using recycled materials. We achieve our mission and vision through strategic initiatives at our center with the reuse warehouse, gallery and event space, at schools and in the community.
 - *Tool Petting Zoo* - Handle a hammer, spin a cordless drill, pop a punch, and more at this extensive display of crafting and woodworking tools used in reDiscover Center's camps, classes, and after school programs.
 - *Stomp Rockets* - Homemade launchers powered by empty two-liter soda bottles propel paper rockets as high as the sky! These rockets can be decorated to look like anything: a plane, a space shuttle, a bird, or a pig!
- **Digital Dragon:** (<https://digitaldragon.co/>)
 - *FacePong* - This is a programming-based interactive experience utilizing Processing (a java-based programming language and visual development software). Similar to the classic video game Pong, the demo will project an interactive game on the wall which utilizes computer cameras to track movement. Students will be able to test the computer's tracking as they play, as well as interact with Digital Dragon programmers as they explain the code that allows the game to work.
 - *Block Fall* - This is a programming-based interactive experience utilizing Processing (a java-based programming language and visual development software). At regular intervals, the program generates slowly falling blocks. The camera detects movement and creates "solid" objects at those instances of movement that can interact with the falling blocks--in this way, student players can push blocks to the safe zones at the side. Variables such as falling speed, block color, camera sensitivity, etc. can be easily tinkered with by Digital Dragon programmers and students.
- **Sycamore School:** (<https://www.sycamore-school.org/>) The goal of the Sycamore School is to help children develop into self-directed learners and autonomous problem solvers & to facilitate each child's quest to create meaning in a complex and evolving world. We champion innovation in education to create learning experiences that are engaging, continuous, and future focused.

- *Cardboard Arcade* – Come create games and game play using cardboard and duct tape. Great fun for all ages
- **Nonscriptum, LLC:** (<http://www.nonscriptum.com/>) Nonscriptum, LLC (www.nonscriptum.com) is a consulting and training company that teaches people how to use 3D printers and other maker technologies. The company is a partnership of Joan Horvath and Rich Cameron, who in addition to running Nonscriptum have written 8 books, including a book of 3D printed science projects, where the wing models can be found.
 - *Test out a 3D Printed Wing!* - 3D printing lets you make complicated shapes very accurately. Come and test out some 3D printed wings to see which ones will generate the most lift. You might be surprised! Various other math and science 3D printed projects will be on display to explore and think about.
- **Paleontology Club:** Participate in a paleontology game. “Winners” receive shark teeth.
- **Santa Monica Amateur Astronomy Club:** (<http://samoastronomy.org>)
 - Solar telescopes viewing solar flares and sunspots
 - Table with fun information about the night sky, including gravity waves and black holes
- **Microscopic Society of Southern California:** (<http://www.msscweb.org>)
 - Critters in the water and heritage microscopes on display
- **Design Thinking Workshop:** Craig Nakano
Design Thinking is the confidence that everyone can be part of creating a more desirable future, and a process to take action when faced with a difficult challenge. This workshop is based on the Design Thinking methodology developed at Stanford University’s d.school.
- **Magic Leap Augmented Reality:** Cliff Baldridge
Anyone interested in a demo should come to the booth right at 10 am and sign up. Only 20 people for demo. This is a prototype device, so only people without glasses or prescriptions can do the demo.
 - Free Magic Leap Augmented Reality Glasses Demonstrations 13 and up with parental supervision at the booth. He will also be showing Thomas Edison's Secret Lab there on the Laptop which is a STEM Cartoon he works on Consulting for Genius Brands, so that he can show the STEM students and faculty this learning resource.
 - Showcase of Magic Leap with Q/A on Unity and the initial process.
- **Using Complex Fourier Series to Draw with Sound:** Simon Katz
 - Using OsciStudio, Blender, C++ to write equations, and 3D models we can create digital "waveforms." These files are changed from digital to analog and analyzed using Complex Fourier Analysis to create a 3D image on the oscilloscope screen. The signal is also played through an audio speaker. The combination of an oscilloscope and a speaker allows one to experience the created file as both an auditory experience and a visual phenomenon. Come learn about audio engineering, the Nyquist Theorem, electrical engineering, Fourier Series, and how you can draw with sound and hear pictures!
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- **Juan De Anza Elementary School:** Emma Nulty
 - Lepricon Trap
- **WISRD Publications:** (<https://wisrd.org/publications>)
 - This workshop opens with a brief overview of the publications that WISRD offers, discussing the differences in writing styles, research levels, content, and overall student involvement for the popular science magazine, *The Inquirer*, and the original research journal. There will also be a short lesson on editing and designing for an article. From there, participants will break out into an activity where they will be able to recreate the publication process used with *The Inquirer*. To do so, each participant will be given a computer, which they will use to research a topic of interest and then write a short paragraph (or mini article) summarizing. Participants will then pass their article to someone else in the workshop, who will try their hand at editing it. Finally,

a third participant will provide graphic design for the article. By the end of the workshop, all participants will have experience researching, writing, editing, and designing for articles.

- **WISRD Augmented Reality:** (<https://wisrd.org/ar>)
 - Create an augmented reality using your cell phone and a downloaded app from <https://gometa.io>
- **WISRD Virtual Reality:** (<https://wisrd.org/vr>)
 - Experience virtual reality with WISRD's Vive and Oculus systems.
- **WISRD 3D Printing:** (<https://wisrd.org/enable>)
 - Use TinkerCad to create a design that you can then 3D print using WISRD 3D printers.
- **Scratch:**
 - *Beats from Scratch* - Ask not what Scratch can do for you, but what you can do with Scratch. Meet us at the intersection of music technology and computer science with this beat making workshop. Wildwood's Technology Department will lead participants in building their own digital sampling machines with Scratch programming. Build a digital machine like the legendary Akai MPC that loads, manipulates, and plays back sound recordings using your keyboard. This workshop is suitable for beginner to advanced Scratch users with plenty of room for innovation and creativity.
- **Mobile Robot:**
 - Take a stroll as a virtual entity using Wildwood's Mobile Robot.
- **Minecraft (Redstone):**
 - Using Minecraft, participants explore the power of and learn the basics of Redstone! Redstone is Minecraft's version of electricity, and works in many similar ways, allowing students to build simple machines, traps, locking systems, roller coasters, and more!
- **Music Jam:** *Music Room*
- **Improv:** *Theater*
 - Feed your imagination. Be surprised. Improvisational theatre is as old as time. It pre-dates the invention of writing, since long before we started writing scripts we were telling stories by acting them out. Improvisation, or improv, is a form of live theatre in which the plot, characters and dialogue of a game, scene or story are made up in the moment. The goal of Improv is having people work together in hopes of achieving "group mind": that near-magical state where everyone on stage syncs up. Come explore how Improv can not only be exhilaratingly fun, but how it can help you in your everyday life.
- **Poetry Slam**
- **Wildwood Math Club**
 - Complete Cal Math League problems to see how you do. Fun for the whole family
- **Soap Project:**
 - Entrepreneurial pitches by Wildwood Science Student led companies producing soap
- **Into the Wild Projects:**
 - Wildwood MS Students display independent projects
- **The Institute for Social Good and Community Leadership (SGCL):**
 - Information on current work and opportunities for partnerships and volunteers.
- **WISRD CNC (Computer Numerical Control):**
 - Carve your name in a piece of wood
- **WISRD Hydroponics Lab:**
 - See the WISRD Hydroponics Lab in action growing plants in solution without soil. Learn about research being done on threat of water salination in the Joachim Valley.