

San Joaquin County Office of Education

STEM CAMPS

2021 Summer Programs for Students at the SJCOE

ENGINEERING AND ROBOTICS

Elementary Engineering with Lego WeDo | Grades 3-5 | June 1-3, 1-4PM or July 27-29, 9AM-12PM | \$90

Students at this workshop will have fun learning to build and program LEGO WeDo robotic devices, exploring engineering concepts and creating the code to have them perform desired behaviors.

Robotics Inventions with Lego Mindstorms | Grades 6-8 | July 12-16, 9AM-12PM | \$150

This is a fun, introductory class using the powerful Mindstorms Lego EV3 Robotics system. Students will explore electrical and engineering concepts, build various robots with different sensors, and use the computer to program their robots to respond to sensor and perform desired tasks.

Game Engineering with Nintendo Switch and Sphero | Grades 4-7 | July 19-23, 9AM-12PM | \$150

The Nintendo Switch and Sphero are electronic devices, that can be programmed. With Nintendo Labo, some coding, and a giant makerspace, kids can engineer fun inventions using these powerful toys.

Engineering in a Virtual World with Minecraft Education | Grades 5-7 | June 28 - July 2, 9AM-12PM | \$150

Minecraft Education is a giant game world in which students can invent, experiment, and collaborate. We'll learn coding in blocks and python as we use Minecraft as a platform to engineer solutions to problems in our real world.

High Tech Incubator | Grades 6-8 | June 7-11, 1-4PM | \$150

Do you ever sketch out an idea for a useful fashion or a handy gadget? Do you dream of prototyping your idea and pitching it to others? This hands on "maker" class will expose students in grades 6-8 to the basic computer programming/coding skills. They will also have the opportunity to work with state of the art 3D printing and laser cutting equipment in the SJCOE FabLab.

CODING

Coding Fun | Grades 3-5 | June 1-3, 9AM-12PM or July 27-29, 1-4 PM | \$90

Kids can start programming in elementary school! Scratch, an object-oriented programming language is capable of doing all sorts of computer tasks, even designing or modifying classic video games!

Arcade Creations | Grades 9-12 | June 28 - July 2, 1-4 PM | \$200

An afternoon at the arcade is magical. These high tech machines transport you to magical places and help you accomplish monumental feats. In reality, they are computers engineered and programmed to interact with users. Learn engineering and computer science using circuitry, 3D printers, laser cutters and more as you engineer a small system that plays a video game you wrote to take home at the end of the camp.

Artificially Intelligent Inventions | Grades 9-12 | July 12 - 16, 1-4 PM | \$150

Artificial has moved from being a futuristic idea to a part of our everyday lives. Your smart watch listens for your requests, algorithms sort your email, and your programs can translate your meeting as quickly as you speak. Your students can investigate how AI works and design solutions to problems using coding and artificial intelligence.

Computer Graphics and Augmented Reality | Grades 7-12 | July 19-23, 9AM-12PM | \$160

So much of what we see everyday was designed on a computer (including this). The images on our screens from movies to facebook posts work based on computer graphics. Your student can learn to use block based code and the swift programming language to create exciting images in this high tech course.



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DURHAM FERRY OUTDOOR EDUCATION CENTER

Let's Play Outside I | Grades 3-5 | June 7 - 8 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will explore the riverbanks of the San Joaquin river, learn about native animals and plants, build confidence, and craft.

Let's Play Outside I | Grades 5-8 | June 9 - 10 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will fish, practice archery, hike and craft.

Let's Play Outside II | Grades 3-5 | June 14 - 15 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will explore the riverbanks of the San Joaquin River, learn about native animals and plants, build confidence, and craft.

Let's Play Outside II | Grades 5-8 | June 16 - 17 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will fish, practice archery, hike and craft.

Let's Play Outside III | Grades 3-5 | July 12 - 13 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will explore the riverbanks of the San Joaquin River, learn about native animals and plants, build confidence, and craft.

Let's Play Outside III | Grades 5-8 | July 14 - 15 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will fish, practice archery, hike and craft.

Let's Play Outside IV | Grades 3-5 | July 19 - 20 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will explore the riverbanks of the San Joaquin River, learn about native animals and plants, build confidence, and craft.

Let's Play Outside IV | Grades 5-8 | July 21 - 22 | \$125 *(includes lunch)*

Do you love the outdoors? Join our Let's Play Outside day camp at Durham Ferry Outdoor Education Center in Manteca. We will fish, practice archery, hike and craft.

