

STEM camp[®] 2021 Activity Guide

Welcome



Welcome back to in-person STEM Camp! We are so excited to welcome campers back to STEM Camp this coming summer and we will be adding our virtual program option for you as well that was so popular last summer.

This summer, camps will look a bit different than they have in the past, with COVID-19 protocols and physical distancing in place. The new STEM Camp program involves both computer-based and hands-on activities for even more STEM fun for campers to enjoy.

Themes for this summer feature some fan favorites: Superheroes, Star Wars, Harry Potter, and Minecraft. Each of these fun themes feature a mix of immersive hands-on activities and computer-based programming and coding activities for a super STEM experience.

What is STEM?

STEM is based on 4 areas: Science, Technology, Engineering & Math

STEM is a way to inspire and encourage critical thinking skills

STEM is the process of figuring out solutions to problems

STEM can be a simple (or complex) paper plane

STEM is an opportunity to make new discoveries

What is Not STEM?

STEM is not simply technology such as computers or robotics

STEM is not only for boys

STEM is not step-by-step instructions on how to complete a task

STEM is not just for kids who excel in math or science

STEM is not just an acronym

Questions?

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Computer-Based Activities

This summer, campers will be asked to bring their laptops or tablets with them to camp. Each of the four themes will feature computer-based activities similar to the online programming campers loved in our virtual 2020 summer camps. Campers will be engaged in computer-based activities at the same time, in the same place, providing an opportunity for campers to be more actively and directly engaged with their peers.

These computer-based activities will provide another avenue for children to explore their sense of wonder, build on their problem-solving skills, and continue to be amazed by the physical and virtual world of STEM.



Hands-On Activities



Superheroes

Superhero themed weeks include hands-on engineering design challenges like Elastigirl's catapult, science experiments like Hulk Out, coding activities like Code a Plan of Action!

Activities: Build Iron Man's Robot; Code a Plan of Action; Elastigirl's Catapult; Fast Flash Reflexes; Hulk Out; Kryptonite Crystals; Solar Powered Intergalactic Hereos; Super Signals; The Magic of Superpowers; and more...!

Minecraft

With hands-on Minecraft themed activities, campers will have the opportunity to use science, technology, engineering, and math to build and survive as they do in the game! Campers will harness solar power to create Solar Stills, explore the engineering design process to build Toppling Towers, and complete coding challenges to Move Minecarts.

Activities: Battle Mobs; Bubbling Lava Buckets; Can You Move Your Minecart?; Cross the Minecraft Ravine; Follow the Programmer, IF-THEN Coding Ozobots: Survival Mode; Solar Stills; Survival Science; Sundials: Survival Science; Toppling Towers, and more...!



Hands-On Activities

Star Wars

Campers will become aerospace engineers to build and test their own spacecrafts in a Spacecraft Showdown, create their own coded messages with Morse Code Messaging, and use chemistry to Separate Colours with the Force.

Activities: Anakin Skywalker's Mechano-Arm; Code an Ozobot to Become a Droid; Create a Galaxy Far, Far Away for Edison; Jabba the Hutt Slime, Morse Code Messaging; Pod Racing; Separate Colours with the Force; Spacecraft Showdown; Starpilot Parachute Rescue; Jedi Knight Training, and more...!

Harry Potter

Campers will be transported to Hogwarts with this year's magical activities! Learn to read and write secret wizard codes in an Arithmancy Class, explore how to create muggle magic in a Walk-Through Walls challenge, and engineer your own elaborate creations by Building Aragog's Web.

Activities: Alarte Ascendare; Arithmancy Class; Bird Bones; Build Aragog's Web; Code a Marauder Map; Defense Against the Dark Arts with Edison; Horcrux Hunt; Magical Movement; Triwizard Tournament; Blind Coding; Walking Through Walls, and more...!



