

12TH ANNUAL STEM FEST

April 27 • 9 AM-1 PM
Camp Cedar Hill, Waltham

gsema.org/stemfest



Come to a STEM takeover at Camp Cedar Hill! Explore these fun, hands-on science, technology, engineering, and math activities presented by local STEM professionals.

3d Printing in Action

D B J C S A

You may have heard of 3D printing, but what can you do with it and how do 3D printers work? Come learn how you can make almost anything with a 3D printer, and then get your own 3D-printed object!

- Formlabs

Build a Neighborhood

D B J C S A

Bring out your artistic side and collaborate with others while you design and build your dream neighborhood, town, or city. Watch the city grow and change throughout the day as more people add to your design!

- Ellenzweig

Catapults and Flowers

D B J C S A

Have you ever seen how a flower can change colors? In this experiment, you will! Girl Scouts will also participate in a demonstration of a catapult, and will take home a catapult kit to make and experiment on their own. This activity will highlight the P&G product development cycle with a display featuring women engineers who have worked on P&G products.

- P&G Gillette

Off to the Races

D B J

Put the electric field's reach to the test! Try out different materials and see how fast your magnet can race down a tube.

- MIT Plasma Science and Fusion Center

Paper Bridge

D B J C S A

Utilize your engineering and construction skills by building a bridge out of 1 sheet of paper. How many coins can your bridge hold before collapsing?

- Suffolk

Paper Rockets

D B

Be an aerospace engineer for the day! Build a paper rocket and put it to the test with multiple challenges. Will your rocket go the furthest? Will it be most accurate?

- RTX

Pixel Art

B J C S A

Have you ever wondered how images are created and displayed on a computer? Explore the world of pixel art and programming with imagiCharm and Python to create something totally unique.

- Google

Seeds!

D B J

Explore seeds under a microscope, compare shapes and sizes of familiar seeds, and learn how different seeds are dispersed. You'll even get to take home your own seed packet or seed ball to grow wildflowers this spring!

- Mass Horticultural Society

Smart Dollhouse

D B J C

Imagine a world where you could control every inch of your home with the touch of a button. Explore every possibility with our incredible "smart" dollhouse using buttons, motion sensors, and photocells.

- QSys

Space Lander

B J C

Design and build a lander that can withstand being dropped from various heights.

- Draper Laboratory

Each activity includes the Girl Scout level the activity has been designed for, but they are all open to all Girl Scouts.

D - Daisy
B - Brownie

J - Junior
C - Cadettes

S - Seniors
A - Ambassadors

Spaghetti Castle

D B J C S A

Test out your engineering and construction skills! Use your creativity and imagination to build a tall tower that holds the weight of a jumbo marshmallow using only spaghetti and tape.

- Suffolk

Super Cool Superconductors

C S A

It's not just super cool, it's super-cold! How do magnets and liquid nitrogen work together? Come investigate a super-cooled setup to learn more about superconductors and their applications for fusion energy.

- MIT Plasma Science and Fusion Center

Teach a Computer

D B J C S A

We can train a computer to recognize images, sounds, and poses in just minutes! Discover the world of machine learning and how we can teach computers to solve real world problems.

- Google

Wearable Lights

J C S A

Light up your world with wearable LED devices! Add a little shine to your day by putting lights in your hair or on your clothes, and creating your own badge or making your own flashing firetruck card.

- Society of Women Engineers

Wonderful World of Silk

D B J C S

Explore the silkworm life cycle from egg to worm to cocoon to a fuzzy moth and learn about all the ways we use silk! Visit our boiling station to see how silk fibers are extracted for textiles, and check out our screen-printing station with special color-change inks!

- Silklab