



It's time for another exciting season of Niles Township High School District 219

SIZZLING SUMMER STEM

For Grades K - 9

June 9-13, June 16-20 and June 23-27

1:00 - 2:25 p.m. and 2:30 - 4:00 p.m.

Niles West High School

Sign up for our summer STEM enrichment classes, popular summer courses offered by Niles Township High School District 219. Children can explore their favorite science and engineering topics and develop a unique connection to District 219 High Schools. Choose from a variety of thrilling hands-on classes taught by District 219 teachers. The cost is only \$49 for each class! Cost includes T-shirt, and lab supplies. Register online at www.skokieparks.org. Topics included in prior seasons:

Junior Builders

Calling all builders! Come explore Lego kits and erector sets. Also, compete in Lego free build competitions.

Age: 5-6

232835-01	M-F	6/9-6/13	1-4P	\$98
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Bubbleology

Explore the magical world of bubbles. Create ginormous size bubbles, see who can create the longest lasting bubble, experiment with carbon dioxide filled bubbles, and learn the science of these fascinating wonders.

Age: 5-7

232833-06	M-F	6/23-6/27	2:30-4P	\$49
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Animal Behavior and Adaptations

Do animals talk? What does the fox say? Why is that animal that color? Have you ever watched an animal and wondered "why does it do that? Animals display a wide range of behaviors, habits and adaptations. We will have a week of discovery and exploration into the world of animals.

Age: 6-7

232837-01	M-F	6/9-6/13	1-2:25P	\$49
232837-03	M-F	6/16-6/20	1-2:25P	\$49
232837-05	M-F	6/23-6/27	1-2:25P	\$49

Builders of Tomorrow

Love to build? This class is for you! Come work on Lego sets and erector kits. Also, participate in Lego free build competitions.

Age: 7-8

232838-03	M-F	6/16-6/20	1-4P	\$98
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Science & Art

Art and Science have more in common than you might think! In this course, we will make art projects such as pressed plants, snow globes and tie-dyed shirts and learn the science behind them.

Age: 6-8

232834-01	M-F	6/9-6/13	1-2:25P	\$49
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Age: 8-9

232834-02	M-F	6/9-6/13	2:30-4P	\$49
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Geology Rocks

Geology Rocks! Come have fun digging into rocks, minerals and fossils. Earthquakes and volcanoes will also be investigated.

Age: 8-9

232839-05	M-F	6/23-6/27	1-2:25P	\$49
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Soaring the Friendly Skies

Future pilots will learn about the basics of flight as they build paper airplanes, wooden gliders, rubberband-powered airplanes, and experiment with flying disks. Students will be provided with all the materials and kits and will take home all of their flying creations. Get ready for takeoff!

Age: 8-10

232836-01	M-F	6/9-6/13	1-2:25P	\$49
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Age: 11-12

232836-02	M-F	6/9-6/13	2:30-4P	\$49
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Building Bottle Rockets

Students will build a bottle rocket powered by water. They will learn about how changes to mass and changes to exterior design will allow for the rocket to travel to different heights. Students will be competing to see who has the longest time traveling bottle rocket. Students may bring an extra bottle on last day to extend rocket body.

Age: 8-13

232841-02	M-F	6/9-6/13	2:30-4P	\$49
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232841-04	M-F	6/16-6/20	2:30-4P	\$49
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Spaghetti Tower Building

Students will design a spaghetti tower that can withstand a certain amount of force and pressure. We will be talking about pressure points and basic interior structure of buildings. The students will ultimately be competing to see who can build the strongest tower.

Age: 8-13

232842-01	M-F	6/9-6/13	1-2:25P	\$49
232842-03	M-F	6/16-6/20	1-2:25P	\$49

3D Design (Autodesk Inventor)

Participants will use three-dimensional CAD software to create innovative designs. This includes brainstorming an item, drawing it in Inventor, and printing the item with a 3-D printer.

Age: 9-13

232859-01	M-F	6/9-6/13	1-2:25P	\$49
232859-02	M-F	6/9-6/13	2:30-4P	\$49
232859-03	M-F	6/16-6/20	1-2:25P	\$49
232859-04	M-F	6/16-6/20	2:30-4P	\$49

Rapid Prototyping & CNC

Students will be exposed to creating a part virtually and having that part created physically on our prototyping machine, CNC Router, or CNC mill and CNC Lathe.

Age: 9-13

232867-01	M-F	6/9-6/13	1-2:25P	\$49
232867-02	M-F	6/9-6/13	2:30-4P	\$49
232867-03	M-F	6/16-6/20	1-2:25P	\$49
232867-04	M-F	6/16-6/20	2:30-4P	\$49

Electronics

Participants will learn about the theory and practice of electronics. This will include designing and building circuits, while learning about power supplies, voltage, current, and resistance, all while working in a hands-on environment.

Age: 9-13

232861-01	M-F	6/9-6/13	1-2:25P	\$49
232861-04	M-F	6/16-6/20	2:30-4P	\$49
232861-05	M-F	6/23-6/27	1-2:25P	\$49

Introduction to Computer Science

Children will get their first experience and have fun learning some of the basic fundamentals of Computer Science. We use easy to navigate, drag-and-drop environments like MIT's Scratch Programming and Code.org's tutorials, to develop simple programs and games.

Age: 9-13

232843-01	M-F	6/9-6/13	1-2:25P	\$49
232843-03	M-F	6/16-6/20	1-2:25P	\$49
232843-05	M-F	6/23-6/27	1-2:25P	\$49

Robotics Programming (Vex)

Participants will learn how to properly program a robot to perform a specific task. This includes turning on lights, running motors, following a line, picking up an object and much more.

Age: 9-13

232862-01	M-F	6/9-6/13	1-2:25P	\$49
232862-02	M-F	6/9-6/13	2:30-4P	\$49
232862-03	M-F	6/16-6/20	1-2:25P	\$49
232862-04	M-F	6/16-6/20	2:30-4P	\$49

Robotics Construction (Vex)

Participants will learn how to construct a functioning robot using VEX hardware. These robots can be built to do a variety of things, which include completing an obstacle course, racing other robots, transferring an object from one point to another and more.

Age: 9-13

232866-01	M-F	6/9-6/13	1-2:25P	\$49
232866-02	M-F	6/9-6/13	2:30-4P	\$49
232866-03	M-F	6/16-6/20	1-2:25P	\$49
232866-04	M-F	6/16-6/20	2:30-4P	\$49
232866-05	M-F	6/23-6/27	1-2:25P	\$49
232866-06	M-F	6/23-6/27	2:30-4P	\$49

Bridges & Structures

Participants will learn about different bridge designs while analyzing structural shapes. They will build a bridge out of balsa wood and test its strength and efficiency.

Age: 9-13

232860-02	M-F	6/9-6/13	2:30-4P	\$49
232860-03	M-F	6/16-6/20	1-2:25P	\$49
232860-6	M-F	6/23-6/27	2:30-4P	\$49

App Inventor (Design a Mobile App)

Learn how to design a simple app for a mobile device.

Age: 9-13

232844-01	M-F	6/9-6/13	1-2:25P	\$49
232844-02	M-F	6/9-6/13	2:30-4P	\$49
232844-03	M-F	6/16-6/20	1-2:25P	\$49
232844-04	M-F	6/16-6/20	2:30-4P	\$49

Culinary

Participants will learn about food science and how to make healthy snacks.

Age: 9-13

232870-01	M-F	6/9-6/13	1-2:25P	\$49
232870-02	M-F	6/9-6/13	2:30-4P	\$49
232870-03	M-F	6/16-6/20	1-2:25P	\$49
232870-04	M-F	6/16-6/20	2:30-4P	\$49

Fashion

Participants will learn how to work with re-purposed and recycled materials to create fashion designs. Projects may be selected for the SWANCC (Solid Waste Agency of Northern Cook County) Fall 2013 Trashy Fashion Show and/or the Niles Township D219 2014 Spring fashion show.

Age: 9-13

232871-01	M-F	6/9-6/13	1-4P	\$98
232871-03	M-F	6/16-6/20	1-4P	\$98

STEMapalooza

Bring your wildest imagination and get ready to discover science through hands-on experiments focused on building, experimenting and creating.

Age: 10-11

232855-01	M-F	6/9-6/13	1-2:25P	\$49
232855-02	M-F	6/9-6/13	2:30-4P	\$49

Human Body: The good, bad and ugly

You live in your human body, but what do you know about it? Why is your heart racing when you run? Why do you shiver when you are cold? How come sometimes you can't tell when you are thirsty? Find out all about our blood and guts and why your body has all of that good, bad and ugly stuff!

Age: 10-11

232854-01	M-F	6/9-6/13	1-2:25P	\$49
232854-02	M-F	6/9-6/13	2:25-4P	\$49

Flying with Bernoulli

The thrill of flight! We will make all sorts of flying paper machines from the simple Delta Flyer to the Space Shuttle. Pilots will have a chance to test their flying skills.

Age: 10-12

232846-02	M-F	6/9-6/13	2:30-4P	\$49
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Pure Speed with Rocket Cars

Nothing like sheer speed to dazzle the eyes. We will learn basic principles of propulsion and other concepts that affect motion of vehicles. We will apply these ideas to building various types of rocket cars. And we will end by testing their speed.

Age: 11-13

232847-03	M-F	6/16-6/20	1-2:25P	\$49
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Up Up and Away With Bottle Rockets

We will explore basic rocketry and learn how to apply those principles to building bottle rockets. And when done we will give them a good send off and watch them soar up-up and away!

Age: 11-13

232840-01	M-F	6/9-6/13	1-2:25P	\$49
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Intermediate Computer Science

Those who took Scratch Programming last summer or who have had some experience using Scratch will get a chance to expand their skills. This course will expand on the some of the basic concepts to build intermediate level mathematical simulations and games. All programming will be done in Scratch.

Age: 11-13

232848-02	M-F	6/9-6/13	2:30-4P	\$49
232848-04	M-F	6/16-6/20	2:30-4P	\$49
232848-06	M-F	6/23-6/27	2:30-4P	\$49

Imaging in Astronomy

Use and analyze images taken by research telescopes on the Earth and in Space and learn how to create images like those produced by the Hubble Space Telescope.

Age: 11-13

232845-03	M-F	6/16-6/20	1-2:25P	\$49
232845-04	M-F	6/16-6/20	2:30-4P	\$49

Treasure Hunt

What if you find yourself lost in the Amazon Forrest with just a simple compass and a map. How will you find your way out. You will learn how to use a compass and map to locate treasures.

Age: 12-13

232852-04	M-F	6/16-6/20	2:30-4P	\$49
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The cost is only \$49 for each class! Cost includes T-shirt, and lab supplies.

Register online at: _

www.skokieparks.org

Through their community-based partnership, the Skokie Park District and District 219 continue to offer programs such as Sizzling Summer STEM, increasing children's programming and leisure opportunities for the residents of Skokie and the areas served by District 219.

For more information, call 847-626-2079