

# AN ADVENTURE IN ROBOTICS

These exciting, new S.T.E.A.M. (Science, Technology, Engineering, Art, and Mathematics) programs are being offered by expert and award-winning author and educator, Kathryn Ceceri. Kathy has presented hundreds of hands-on learning programs around the Northeast! Her articles and projects have appeared in *Make Magazine*, *Wired*, *Disney's FamilyFun*, and *About.com's Homeschooling* page. We are thrilled to have Kathy partner with us to provide these stimulating, fun, and hands-on learning opportunities!

For more information about Kathy, please visit her website at [craftsforlearning.com](http://craftsforlearning.com).

## MAKE A MOTORIZED ARTBOT

Join "low-tech robotics" expert Kathy Ceceri for a hands-on workshop and make a motorized robot to take home! Design your own ArtBot from everyday materials and learn how to make it hop, spin, or wiggle across a sheet of paper, drawing as it goes! Kathy is the author of "Robotics: Discover the Science and Technology of the Future," "Paper Inventions," and other books of hands-on science/tech/art projects for kids.

All supplies and materials included.

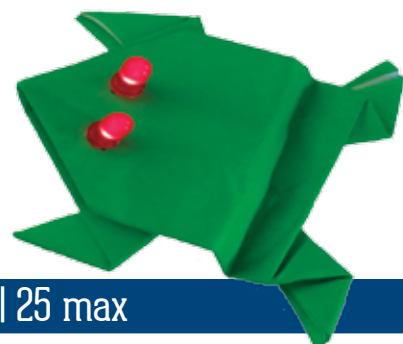
FOR | Ages 8 & Up  
WHEN | July 20 (Thursday)  
TIME | 10:00-11:30:00 am  
WHERE | Queensbury WHBI School, Room #224  
FEE | Resident \$30; Non-Resident \$40

## MAKE YOUR OWN LIGHT-UP PAPER INVENTIONS

Join "low-tech electronics" expert Kathy Ceceri for a hands-on workshop and learn how to create Paper Inventions that really light up! You will design your own electrical circuits, switches, and sensors with just metallic tape and LEDs, and use them to make light-up drawings, cards, origami, or paper models to take home. Kathy is the author of "Paper Inventions," "Robotics: Discover the Science and Technology of the Future," and other books of hands-on science/tech/art projects for kids.

All supplies and materials included.

FOR | Ages 10 & Up  
WHEN | July 21 (Friday)  
TIME | 10:00-11:30 am  
WHERE | Queensbury WHBI School, Room #224  
FEE | Resident \$30; Non-Resident \$40



Class sizes: 12 min | 25 max

## FORENSIC SCIENCE CAMP FOR YOUNG DETECTIVES – CSI IN ACTION

The Forensic Science camp will let students jump into the world of crime scene investigation. We will take on the role of the investigator when we ask, "How can we prove that someone came into a room or touched an object?" **Instructor: Thomas Jones, BA, MA, University of Illinois; JD, University of Michigan; noted author; for more information, [www.crimescenecamps.com](http://www.crimescenecamps.com).**

**Note to Parents: Please have your child bring a snack and drink each day.**

For your child's safety, please inform the Department Staff, at the time of registration, and the instructor of any known allergies that exist for your child!

FOR | Ages 6-14  
WHEN | August 14-18 (Monday-Friday)  
TIME | 9:00 am-12:00 pm  
WHERE | Queensbury WHBI School, Classroom #224  
FEE | Resident \$80; Non-Resident \$90

Designed for kids!

Class size: 14 min | 25 max

# YOUNG HACKS ACADEMY

Does your child have what it takes to lead in the 21st century? Young Hacks Academy (YHA) is a summer camp that uses technology to develop real-world leadership skills. Blending computer programming, problem-solving, and teamwork; YHA teaches kids to build cool video games about big challenges facing the world today, such as climate change, homelessness, and endangered wildlife. As serious as we are about exploring technology, YHA is also committed to having fun away from the screen, moving campers outside each day for unplugged games like treasure hunts and riddle relays. No programming experience is required. For more information, visit [younghacks.com](http://younghacks.com).

## BETA MASTERS

Imagine a small indie game studio that has 5 days to pitch, design, and build a new video game. Following a real-world production cycle, YHA Beta Masters work in teams to develop an innovative game prototype from conception to completion. Campers will use the Stencyl game engine to take their computational learning to the next level, creating original graphics and bringing them to life with Haxe coding. **The program culminates with a beta release party for friends and family on Friday, August 25 at 3:00 pm!**

FOR | Ages 12-15  
WHEN | August 21-25 (Monday-Friday)  
TIME | 9:00 am-4:00 pm  
WHERE | Queensbury WHBI School, Computer Lab #213  
FEE | Resident \$310; Non-Resident \$320

**PLEASE NOTE: Your child will need to bring his/her own computer, lunch, drinks, and snacks each day.**

Please provide your child's t-shirt size at registration.

Note to parents: For your child's safety, please inform the Department Staff, at the time of registration, and the instructor of any known allergies that exist for your child!

Please let the instructor know if there are any concerns to be aware of. Thank you!

Class size: 12 min | 20 max

## Registration Information

**Online:** [recreation.queensbury.net](http://recreation.queensbury.net)  
**In Person:** Queensbury Parks & Recreation Department  
742 Bay Road, Queensbury NY 12804  
8:00 am-4:30 pm, Monday-Friday

*The Department reserves the right to either cancel, change, or alter any program schedule based on availability of staff, facility, and/or enrollment.*



Queensbury  
PARKS & RECREATION

742 Bay Road, Queensbury NY 12804 | (518) 761-8216  
[recreation.queensbury.net](http://recreation.queensbury.net)

## Youth Science & Technology Programs

Summer 2017



Forensics · Chemistry · Engineering  
and so much more!



Queensbury  
PARKS & RECREATION

REGISTER ONLINE!  
[recreation.queensbury.net](http://recreation.queensbury.net)

# SCIENCE & TECH WORKSHOPS

In partnership with **The Children's Museum at Saratoga**, the following enrichment programs will provide a wonderful opportunity for children and nurture discovery through hands-on, inquiry-based activities. **All instructors are trained educators in S.T.E.M./S.T.E.A.M. (Science, Technology, Engineering, and Mathematics/Science, Technology, Engineering, Art, and Mathematics)**

## BUILD IT UP!

This new program explores the world of S.T.E.M. through the use of Imagination Playground and Rig-a-Ma-Jig to build, design, and test your engineering skills.

FOR | Ages 4-12

WHEN | July 19 (Wednesday)

TIME | 10:00-11:00 am

WHERE | Queensbury WHBI School, Classroom #126

FEE | Resident \$15; Non-Resident \$25

## SILLY SCIENCE EXPLORERS!

Our young scientists will explore the silly and exciting world of science through hands-on experiments. This program explores the basics of science in the world around us, using supplies that we experience every day.

FOR | Ages 4-12

WHEN | July 31 (Monday)

TIME | 10:00-11:00 am

WHERE | Gurney Lane Recreation Area Pavilion

FEE | Resident \$15; Non-Resident \$25

## ROBOTIC FRIEND

In this exciting and new program, explore the world of *Cubelets*. Cubelets are magnetic blocks that when stuck together form the basis for mini robots. Each robot cube has its own function and can be added to other cubes to create multi-purpose simple machines.

FOR | Ages 7-13

WHEN | August 8 (Tuesday)

TIME | 10:00-11:00 am

WHERE | Queensbury WHBI School, Classroom #128

FEE | Resident \$15; Non-Resident \$25

## BEGINNER COMPUTER PROGRAMMING WORKSHOP FOR CHILDREN

**Program Instructor: Wendy Single, Fifth Grade Teacher, Odyssey of the Mind Club Advisor and LEGO Club Advisor at the Queensbury Intermediate School, and Staff Technology Trainer for Queensbury Union Free School District.**

Using Scratch, a programming language developed by MIT, students will create their own interactive stories and animations.

As young people create their Scratch projects, they learn important mathematical and computational ideas; while also, learning to think creatively, reason systematically, and work collaboratively. Students will also explore the basic computer programming behind games like Angry Birds and Plants vs. Zombies, as they explore activities that are a part of the Code.org programming initiative. This exciting program will have kids totally engaged right from the start!

FOR | Grades 3-5 (for the 2017-2018 school year)

WHEN | August 16 (Wednesday)

TIME | 9:00 am-12:00 pm

WHERE | Queensbury WHBI School, Classroom #213

FEE | Resident \$55; Non-Resident \$65

# IS YOUR CHILD "MAD" ABOUT SCIENCE?

Class sizes:  
10 min | 20 max

All Mad Science educators hold Bachelor's Degrees in STEM.

We are thrilled to partner with **Mad Science of the Capital District** to offer the following outstanding and unique science programs! All programs are curriculum correlated and meet S.T.E.M. (Science, Technology, Engineering, and Mathematics) objectives. Professional equipment and materials will be used. All supplies are included. These programs will encourage team-building, as we work collaboratively to solve real-world S.T.E.M. problems!

## ENERGY BURST! 1

Catapult into this exciting program as children explore the energy of motion. They pop, jump and flip with hopping, swimming, and swinging toys. They check out the kinetic energy in rubber, band-wound gadgets and reach their potential with the Catapult Take-Home. True hands-on science fun!

FOR | Grades K-5

WHEN | July 7 (Friday)

TIME | 10:30-11:30 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

## CARNIVAL\* – 2 BRIXOLOGY LEGO® WORKSHOP

Feel the thrill as you build a spinning swing ride! Learn about the forces and mechanical engineering concepts behind some of your favorite amusement park rides. Then, improve and test the design to create an even wilder one!

FOR | Grades K-5

WHEN | July 11 (Tuesday)

TIME | 9:00-10:00 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

\*Special Note  
Below

## SPACE TRAVEL – NASA WORKSHOP 3

Launch into an investigation of propulsion systems. Use the compressed air inside balloons to create thrust — race a balloon rocket and design your own car engine. See the principles of propulsion at work! **This class will include an outdoor Rocket Launch!**

FOR | Grades K-5

WHEN | July 11 (Tuesday)

TIME | 10:30-11:30 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

\*Special Note  
Below

## CHEM IN A FLASH! 4

Hop on board the chemistry express for a high-speed science experience! Perform instantaneous experiments in this fast-paced class on split-second reactions that go like mad! Pick up an Action Flask and have a blast!

FOR | Grades K-5

WHEN | July 13 (Thursday)

TIME | 1:00-2:00 pm

WHERE | Queensbury WHBI School,  
Classroom #224

FEE | Resident \$15; Non-Resident \$25

## TOWERS – 5 BRIXOLOGY LEGO® WORKSHOP

Find out how structural engineers use ideas from physics to solve problems. Work together to build a structurally sound tower with a working elevator, then test and improve your design for strength and stability.

FOR | Grades K-5

WHEN | July 19 (Wednesday)

TIME | 1:00-2:00 pm

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

## SPACE PHENOMENA – 6 NASA WORKSHOP

Explore the phenomenal events that take place in the night sky. Create impact craters and observe as "meteors" fall through a model atmosphere. Watch a "comet" form out of household materials right before your eyes!

FOR | Grades K-5

WHEN | July 25 (Tuesday)

TIME | 9:00-10:00 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

\*Special Note  
Below

## SPACE TECHNOLOGY – 7 NASA WORKSHOP

Explore space-related technologies used on Earth. Steer a laser beam through a laser maze, find hidden mountains using the principles of radar technology, and see the technological advances that improve our exploration of the universe. It's out-of-this world!

FOR | Grades K-5

WHEN | July 25 (Tuesday)

TIME | 10:30-11:30 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

\*Special Note  
Below

## SLIME TIME! 8

Ooze into a gooey hour of sliming around! Create slime using the Mad Science recipe, and then enter the Slime Olympics! Take home your own concoction of Mad Science Slime! It's an ooey-gooey great time!

FOR | Grades K-5

WHEN | August 1 (Tuesday)

TIME | 9:00-10:00 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

## CHE-MYSTERY 9

In this super science class, you will learn about Physical and Chemical changes. Make your own Super Ball, too! It's super-cool and super-interesting science! Your child is the chemist in this lab!

FOR | Grades K-5

WHEN | August 7 (Monday)

TIME | 10:00-11:00 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

## MOVING MOTION! 10

Children catapult into Newton's three laws of motion. They yank a cloth from under dishes, send crash test dummies flying, and launch mini-rockets across the room. They see action-reaction forces at work with the twirling Newton Spinner Take-Home. So, let's get moving and have an awesome time doing it!

FOR | Grades K-5

WHEN | August 22 (Tuesday)

TIME | 9:00-10:00 am

WHERE | Queensbury WHBI School,  
Classroom #126

FEE | Resident \$15; Non-Resident \$25

## VEHICLES! – 11 BRIXOLOGY LEGO® WORKSHOP

Get in gear as an automotive engineer! Build a motorized vehicle and learn how to optimize it. Use wheels, axles, and gears to reduce friction and make it work better. Then shift things into a higher gear to get a hands-on understanding of transmissions and gear ratios!

FOR | Grades K-5

WHEN | August 24 (Thursday)

TIME | 10:00-11:00 am

WHERE | Queensbury WHBI School,  
Classroom #128

FEE | Resident \$15; Non-Resident \$25



Hands-on  
science  
FUN!

We have plenty of incredible programs to engage your child's curiosity. Children can explore and enjoy different topics; and most of all, have FUN!

To be exact, it's SUPER SCIEN-TASTIC FUN!

Does your child LOVE science?  
Sign up for the

# SUPER SCIENCE 11 PACK

for \$110 and SAVE \$55!

**An Incredible Value!**

**\*SPECIAL NOTE:** Your child may stay at the WHBI, if registered for programs 2 & 3 on 7/11 or 6 & 7 on 7/25. Adult supervision will be provided during the half-hour break between the classes and they may bring a snack and drink.

Class sizes: 6 min | 15 max