



# SIZZLING SUMMER SCIENCE

DISTRICT 219

**For Ages 6 - 14**

**June 10 - 14 and**

**June 17 - 21, 2013**

**at Niles North High School**

Register online at

[www.skokieparkdistrict.org](http://www.skokieparkdistrict.org)

# SIZZLING SUMMER SCIENCE 2013

Welcome to our sixth season of Sizzling Summer Science. At District 219, science isn't just about studying from a textbook and taking tests ... it's about experiencing and exploring. Our highly qualified science teachers know that science education can be exciting and empowering for everyone, and we look forward to introducing some young budding scientists to the thrill of discovery.

Many of our high school students go on to successful careers in the sciences. Two past District 219 students have actually won the Nobel Prize, one in medicine and one in chemistry. Who knows: maybe one of this summer's Sizzling Science participants will go on to win one, too! At the very least, the program will allow your children to explore their favorite science topics and to develop a unique connection to our high schools.

We look forward to seeing you this summer!

Nanciann Gatta, Superintendent  
Niles Township High School District 219



# Important Information

## Registration

- Please register on-line at [www.skokieparkdistrict.org](http://www.skokieparkdistrict.org)

## Cost

- \$45 per class for single session classes and \$100 for double session classes (Biomedical Careers)
- Includes one t-shirt per student, class certificates and lab supplies.

## Eligibility

- Select classes by the age of your child as of September 1, 2013.

## Location

- Classes are held at Niles North High School, 9800 N Lawler Ave, Skokie, IL.

## Parking and Drop Off

- Parking is available at the North end of the building, accessible from Lawler Avenue.
- Drop-off will take place in the bus lane at the north end of the building. Students should be dropped off at the curb – not in the middle of the bus lane or parking lot.
- Parents may escort children into the building lobby to be met by students, who can escort them to their rooms.

## Scholarships

- A limited number of scholarships are available for families in need of financial assistance.
- To make a request for financial assistance, please call 847-626-2671. Requests made after May 17, 2013 will not be considered.

## Faculty

- **Sizzling Summer Science** faculty are District 219 teachers who are extremely knowledgeable in their teaching areas. Varied backgrounds, disciplines, and experience allow them to provide your child with enjoyable and rewarding learning experiences.

## Refund Policy/Liability

- Registration fees are non-refundable once class has begun.
- Classes with low enrollment will be canceled, and a full refund will be issued.

## Questions?

- Program and scholarship information: Contact Lois Wisniewski, Director of Science, at [loiwis@d219.org](mailto:loiwis@d219.org) or (847) 626-2220.
- Registration questions: Please call the Skokie Park District at (847) 674-1500.

# CLASSES BY AGE OF CAMPER AS OF SEPTEMBER 1, 2013

	<b>June 10 - 14</b>		<b>June 17 -21</b>	
	1:00 - 2:25	2:35 - 4:00	1:00 - 2:25	2:35 - 4:00
<b>6 Year Olds</b>	Bubble-ology Science and Art Colorful Science	Colorful Science	Science and Art	
<b>7 Year Olds</b>	Science and Art Bubble-ology Colorful Science	Colorful Science	Science and Art	
<b>8 Year Olds</b>	Advanced Chess Polymers Toys	Chess Science and Art Boom Bang Chemistry	Soaring the Skies Advanced Chess	Science and Art Chess
<b>9 Year Olds</b>	Polymers Advanced Chess Intro to Programming Toys	Chess Science and Art Boom Bang Chemistry Toys	Soaring the Skies Advanced Chess Intro to Programming	Science and Art Chess
<b>10 Year Olds</b>	Advanced Chess Polymers Forensics Intro to Programming Catapults STEMapalooza	Chess Boom Bang Chemistry 3D Animations Toys Flying STEMapalooza	Advanced Chess Intro to Programming Treasure Hunt Human Body	Soaring the Skies Chess Science Olympiad 3D Animations
<b>11 Year Olds</b>	Advanced Chess Intro to Programming Gases Catapults STEMapalooza	Color Chess 3D Animations Flying STEMapalooza	Advanced Chess Astronomy Intro to Programming Treasure Hunt Human Body	Chess Science Olympiad 3D Animations Soaring the Skies
<b>12 Year Olds</b>	Advanced Chess Game Programming Gases Rocket Design	Color Intro to Programming Advanced Catapults	Advanced Chess Game Programming Astronomy	Intro to Programming Treasure Hunt Human Body
<b>13-14 Year Olds</b>	Advanced Chess Game Programming Gases Rocket Design	Color Intro to Programming Advanced Catapults	Advanced Chess Game Programming Astronomy	Intro to Programming Treasure Hunt Human Body
<b>12 - 14 Year Olds Extended</b>			Biomedical Careers (Double Session)	

Monday - Friday, 1:00 - 4:00 P.M.



June 17 - 21

**EXPLORING BIOMEDICAL CAREERS AT NORTHSORE UNIVERSITY HEALTHSYSTEM**

Age 12 - 14  
232853-01  
\$100



What careers are available in the medical field? Find out as we explore options such as radiology, lab technicians, x-ray, physical therapy and other careers in collaboration with NorthShore University HealthSystem's Skokie Hospital in this double session, running from 1-4 p.m. This course will include field trips.

*Instructor: Ingrid Erickson*

**SESSION 2 EXTENDED, 1:00 - 4:00 p.m., JUNE 17 - 21, 2013**

Monday - Friday, 1:00 - 2:25 P.M.



June 10 - 14

**BUBBLE-ODOGY**

Age 6 – 7  
232833-01  
\$45



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.

*Instructor: Margaret Donnelly*

**COLORFUL SCIENCE**

Age 6 – 7  
232839-01  
\$45



Explore the colors of the rainbow! Each day will be a different experiment with color and its' properties (i.e. prisms, mixing colored gels, UV beads, etc.)

*Instructor: Meghan McGovern*

**CHESS – INTERMEDIATE AND BEYOND**

Age: 8 – 14  
232835-01  
\$45



Using chess to teach problem solving and critical skills, we will investigate sharp tactics, end game and opening game theory. The class will show students problem solving techniques and logic that is used in chess and reasoning. The chess instructors are strong players who have a great deal of tournament experience.

*Instructor: Harry Kyriazes*

**SCIENCE AND ART**

Age 6 – 7  
232834-01  
\$45



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.

*Instructor: Susan Arcus*

**SLIPPERY, SLIMY, BOUNCY POLYMERS!**

Age 8 – 10  
232837-01  
\$45



Polymers are all around us. From the clothes we wear, to the containers which hold our food, and even our own bodies are made of polymers. In this course, we will study many polymers which are both fun to play with and useful!

*Instructor: Michael Boll*

**SCIENCE OF 'TOYS'**

Age: 8 – 9  
232849-01  
\$45



This course will help to teach students about the science of the toys they play with everyday. We will investigate both simple and complex toys such as remote controlled cars, water rockets, bouncy balls, and more.

*Instructor: Richard Thielsen*

**INTRODUCTION TO COMPUTER PROGRAMMING USING SCRATCH**

Age 9 – 11  
232838-01  
\$45



This course is designed for young students that enjoy math and have a passion for working on the computer. They will learn some of the basic fundamentals of computer science using Scratch, a programming language learning environment enabling beginners to get results without having to learn syntactically correct code writing first. Created by the MIT Media Lab, it is intended to motivate young learners through playfully experimenting and creating projects, such as interactive animations, games, etc.



*Instructor: David Ruth*

**SESSION 1A, 1:00 - 2:25 P.M., JUNE 10 - 14, 2013**

Monday - Friday, 1:00 - 2:25 P.M.



June 10 - 14

### FUN WITH FORENSICS

Age 10  
232843-01  
\$45



In this course, you will learn the tricks and the trade of a forensic detective. You will be given cases to solve, and you will have a great time working with others to solve them. You will also learn math and science principles while you have fun solving these cases.

*Instructor: Tina Schmidt*

### STEMAPALOOZA

Age 10-11  
232855-01  
\$45



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

*Instructor: Gordon Booker*

### UP, UP AND AWAY!

Age 11 - 14  
232840-01  
\$45



Learn about the dynamics of hot air balloons and the effects of pressure, volume, temperature and density. We will end the week with a hot air balloon competition.

*Instructor: Andy Klamm*

### UNDER SIEGE – THE SCIENCE OF CATAPULTS

Age 10 – 11  
232841-01  
\$45



During a siege, trebuchets were one of the most fearsome weapons of medieval times. In this workshop, we will explore the science employed within a variety of catapults, design and build our own catapult, and participate in our own siege.

*Instructor: Sonia Pietrzyk*

### ROCKET DESIGN

Age 12 – 14  
232847-02  
\$45



The student will learn how to use the experimental method to design a better bottle rocket. The goal is to design a rocket that flies for the longest amount of time by altering fins, body size, nosecones and amount of water added to pressure vessel.

*Instructor: Aaron Weiss*

### GAME PROGRAMMING WITH STARLOGO

Age 12 – 14  
232842-01  
\$45

Are you interested in making your own games on the computer? This course will introduce students to the basics of how to program a computer through the creation of a video game using StarLogo, created by MIT Media Lab.



*Instructor: Matt Fahrenbacher*

**SESSION 1A, 1:00 - 2:25 P.M., JUNE 10 - 14, 2013**

Monday - Friday, 2:35 - 4:00 P.M.



June 10 - 14

### COLORFUL SCIENCE

Age 6 - 7  
232839-02  
\$45



Explore the colors of the rainbow! Each day will be a different experiment with color and its' properties (i.e. prisms, mixing colored gels, UV beads, etc.)  
*Instructor: Meghan McGovern*

### CHESS FOR BEGINNERS

Age 8 - 11  
232835-02  
\$45



We will use chess to teach critical thinking skills. The class will explore basic checkmating, beginning tactics, and introductory opening ideas. The class will also develop chess principles and recurring patterns. Due to the chess strength of our chess instructors, more advanced players may participate.  
*Instructor: Harry Kyriazes*

### SCIENCE AND ART

Age 8 - 9  
232834-02  
\$45



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.  
*Instructor: Susan Arcus*

### BOOM, BANG, CHEM & PLAY

Age 8 - 10  
232848-01  
\$45



Discover the magical world of chemistry, and learn about the booms and bangs of chemical reactions. We will have fun with hands-on experiments and demonstrations.

*Instructor: Andy Klamm*

### SCIENCE OF 'TOYS'

Age 9 - 10  
232849-02  
\$45



This course will help to teach students about the science of the toys they play with everyday. We will investigate both simple and complex toys such as remote controlled cars, water rockets, bouncy balls, and more.  
*Instructor: Richard Thielsen*

### FLYING WITH BERNOULLI

Age 10 - 11  
232846-01  
\$45



How did that plane do that? Campers will design, build and test planes - fly them in a challenge! What could be cooler?

*Instructor: Aaron Weiss*

**SESSION 1B, 2:35 - 4:00 P.M., JUNE 10 - 14, 2013**



Monday - Friday, 2:35 - 4:00 P.M.



June 10 - 14

### 3D ANIMATIONS AND STORYTELLING WITH ALICE

Age 10 - 11  
232851-01  
\$45



Have you ever wanted to bring stories you have read about or created on your own to life? The power of 3D graphics on your personal computer now makes that possible! This course explores the creation of 3D animations and stories through the use of the Alice 3D programming software.

*Instructor: Matt Fahrenbacher*

### STEMAPALOOZA

Age 10-11  
232855-02  
\$45



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

*Instructor: Gordon Booker*

### INTRODUCTION TO COMPUTER PROGRAMMING USING SCRATCH

Age 12 - 14  
232838-02  
\$45



This course is designed for young students that enjoy math and have a passion for working on the computer. They will learn some of the basic fundamentals of computer science using Scratch, a programming language learning environment enabling beginners to get results without having to learn syntactically correct code writing first. Created by the MIT Media Lab, it is intended to motivate young learners through playfully experimenting and creating projects, such as interactive animations, games, etc.



*Instructor: David Ruth*

### THE CHEMISTRY OF COLOR

Age 11 - 14  
232844-01  
\$45



Your world is full of color! Learn why fireworks can be made, each burning with their own unique color. Examine why neon lights are red and street lights yellow. Explore how pigments in plants can change their colors. Experiment with markers and dyes to find hidden colors. It's all about the science of color!

*Instructor: Michael Boll*

### UNDER SIEGE ADVANCED - THE SCIENCE OF CATAPULTS

Age 12 - 14  
232841-02  
\$45



During a siege, trebuchets were one of the most fearsome weapons of medieval times. In this workshop, we will explore the science employed within a variety of catapults, design and build our own catapult, and participate in our own siege.

*Instructor: Sonia Pietrzyk*

**SESSION 1B, 2:35 - 4:00 P.M., JUNE 10 - 14, 2013**

Monday - Friday, 1:00 - 2:25 P.M.



June 17 - 21

### SCIENCE AND ART

Age 6 - 7  
232834-03  
\$45



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.

*Instructor: Susan Arcus*

### CHESS - INTERMEDIATE AND BEYOND

Age 8 - 14  
232835-03  
\$45



Using chess to teach problem solving and critical skills, we will investigate sharp tactics, end game and opening game theory. The class will show students problem solving techniques and logic that is used in chess and reasoning. The chess instructors are strong players who have a great deal of tournament experience.

*Instructor: Harry Kyriazes*

### SOARING THE FRIENDLY SKIES

Age 8 - 9  
232836-02  
\$45



Future pilots will build paper airplanes, balsa wood gliders, rubber-band powered airplanes, and experiment with flying disks as they learn some of the basics of how and why things fly. Everything built is for the future pilot to take home. So fasten your seat belts . . . we will have lots of fun building and flying our creations.

*Instructor: Conrad Musleh*

### INTRODUCTION TO COMPUTER PROGRAMMING USING SCRATCH

Age 9 - 11  
232838-03  
\$45



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*Instructor: David Ruth*

### TREASURE HUNT!

Age 10 - 11  
232852-01  
\$45



Learn how to read topographical maps and use a compass to find your way around the woodlands near Niles North. With map and compass in hand, you will seek to find a treasure buried deep in the forest!

*Instructor: Aaron Weiss*

**SESSION 2A, 1:00 - 2:25 P.M., JUNE 17 - 21, 2013**

Monday - Friday, 1:00 - 2:25 P.M.



June 17 - 21

### HUMAN BODY: THE GOOD, BAD AND UGLY!

Age 10 - 11  
232854-01  
\$45



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 your blood and guts and why your body has all of that good, bad and ugly stuff!

*Instructor: Karishma Bhatt*

### IMAGING IN ASTRONOMY

Age 11 - 14  
232845-01  
\$45



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.

*Instructor: Elizabeth Ramseyer*

### GAME PROGRAMMING WITH STARLOGO

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*Instructor: Matt Fahrenbacher*

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Monday - Friday, 2:35 - 4:00 P.M.



June 17 - 21

### CHESS FOR BEGINNERS

Age 8 - 11  
232835-04  
\$45



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*Instructor: Harry Kyriazes*

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232834-04  
\$45



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*Instructor: Susan Arcus*

### SCIENCE OLYMPIAD MINI COURSE

Age 10 - 11  
232850-01  
\$45



This class will be designed to give campers an early taste of science fun and exploration and get them excited about science.

*Instructor: Elizabeth Ramseyer*

### SOARING THE FRIENDLY SKIES

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232836-03  
\$45



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June 17 - 21

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USING SCRATCH**

**Age 12 - 14  
232838-04  
\$45**

**SCRATCH**



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*Instructor: Aaron Weiss*

**HUMAN BODY: THE GOOD, BAD AND UGLY!**

**Age 12 - 14  
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\$45**



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*Instructor: Karishma Bhatt*

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