



**SIZZLING  
SUMMER SCIENCE**

**DISTRICT 219**

**For Ages 5 - 13**

**June 11 - 15 and**

**June 18 - 22, 2012**

**at Niles West High School**

Register online at

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

# SIZZLING SUMMER SCIENCE 2012

Welcome to our fifth 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, 2012.

## Location

- Classes are held at Niles West High School, 5701 W Oakton Street, Skokie, IL.

## Parking and Drop Off

- Parking is available at the South end of the building, accessible from Gross Point Road.
- Drop-off will take place in the bus lane at the south 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 18, 2012 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 cancelled, 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) 626-2671
- Registration questions: Please call the Skokie Park District at (847) 674-1500.

# CLASSES BY AGE OF CAMPER AS OF SEPTEMBER 1, 2012

	June 11 - 15		June 18 -22	
	1:00 - 2:25	2:35 - 4:00	1:00 - 2:25	2:35 - 4:00
<b>5 Year Olds</b>	Colorful Science	Colorful Science		
<b>6 Year Olds</b>	Colorful Science Science and Art Outdoor Explorer	Colorful Science Outdoor Explorer	Bugs, Butterflies, More	
<b>7 Year Olds</b>	Science and Art Outdoor Explorer	Outdoor Explorer	Bugs, Butterflies, More	Joy of Math
<b>8 Year Olds</b>	Advanced Chess Polymers Toys Outdoor Explorer	Chess Toys Rocket Design Outdoor Explorer	Polymers Science and Art Advanced Chess	Soaring the Skies Chess Survivor Illinois Joy of Math
<b>9 Year Olds</b>	Polymers Toys Flying Advanced Chess Water Bottle Rockets Forensics	Chess Toys Beauty Rocket Design Patterns	Polymers Science and Art Advanced Chess Forensics	Soaring the Skies Beauty Chess Survivor Illinois
<b>10 Year Olds</b>	Advanced Chess Flying Polymers Toys Forensics Catapults Water Bottle Rockets	Science Olympiad Toys Chess Beauty Water Bottle Rockets Patterns	Polymers Soaring the Skies Forensics Advanced Chess Survivor Illinois	Soaring the Skies Beauty Chess Survivor Illinois
<b>11 Year Olds</b>	Astronomy Flying Advanced Chess Catapults Rocket Design Forensics	Science Olympiad Color Chess Beauty Water Bottle Rockets	Soaring the Skies Advanced Chess Survivor Illinois Forensics	Color Beauty Chess
<b>12 Year Olds</b>	Astronomy Advanced Chess Beauty Rocket Design	Color Nanotechnology Advanced Catapults	Beauty Advanced Chess Survivor Illinois	Color
<b>13 Year Olds</b>	Astronomy Advanced Chess Beauty	Color Nanotechnology Advanced Catapults	Beauty Advanced Chess	Color
<b>12 - 13 Year Olds Extended</b>			Biomedical Careers (Double Session)	

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



June 18 - 22

**EXPLORING BIOMEDICAL CAREERS AT NORTSHORE UNIVERSITY HEALTHSYSTEM**

Age 12 - 13

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.



*Instructor: Ingrid Erickson*

**SESSION 2 EXTENDED, 1:00 - 4:00 p.m., JUNE 18 - 22, 2012**

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



June 11 - 15

**COLORFUL SCIENCE**

Age: 5 - 6  
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: Christi Camel*

**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*

**OUTDOOR EXPLORER**

Age: 6 - 8  
232838-01  
\$45



Come explore the woodlands and prairies of Niles West! Experience the plants and animals that thrive here and learn about nature from the ground up. If you love exploring outside and learning about animals and plants native to Illinois, then this session is for you.

*Instructor: Chris Barnett*

**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*

**CHESS - INTERMEDIATE AND BEYOND**

Age: 8 - 13  
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 OF 'TOYS'**

Age: 8 - 10  
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*

**SESSION 1A, 1:00 - 2:25 P.M., JUNE 11 - 15, 2012**

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



June 11 - 15

### WATER BOTTLE ROCKETS

Age: 9 - 10  
232842-01  
\$45

This course will use inquiry and experimental design to explore the chemical and physical variables that affect rockets. Water bottle rockets will serve as a model for experimentation.

*Instructor: Michael Nocella*



### FLYING WITH BERNOULLI

Age: 9 - 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: Howard Swider*



### FORENSIC DETECTIVES

Age: 9 - 11  
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 Pauley*



### 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: Neil Koreman*

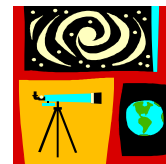


### IMAGING IN ASTRONOMY

Age: 11 - 13  
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*



### ROCKET DESIGN

Age: 11 - 12  
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: Jen Sipiera*



### THE CHEMISTRY OF BEAUTY

Age: 12 - 13  
232851-01  
\$45

Learn the science behind beauty products that make you beautiful (like hair relaxers, hair dyes, and curly perms) and how to make your own lip balms, bath salts, and soap.

*Instructor: Kim Conner-Davis*



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



June 11 - 15

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*Instructor: Christi Camel*

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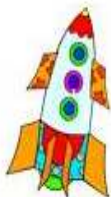


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### CHESS FOR BEGINNERS

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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 OF 'TOYS'

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Learn the science behind beauty products that make you beautiful (like hair relaxers, hair dyes, and curly perms) and how to make your own lip balms, bath salts, and soap.

*Instructor: Kim Conner-Davis*

**SESSION 1B, 2:35 - 4:00 P.M., JUNE 11 - 15, 2012**

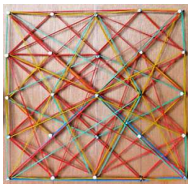
Monday - Friday, 2:35 - 4:00 P.M.



June 11 - 15

**INVESTIGATING PATTERNS: INTEGRATING SCIENCE AND MATHEMATICS**

Age: 9 - 10  
232854-01  
\$45



Campers will focus on mathematical investigations that involve experimentation to develop conclusions. This workshop will focus on the notion of patterns: creation, predicting next terms, and representation via graphing. Examples of investigations may include measuring circumference of water balloons, rubber band competitions, and more!

*Instructor: Danny Newman / Esther Song*

**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*

**WATER BOTTLE ROCKETS**

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232842-02  
\$45



This course will use inquiry and experimental design to explore the chemical and physical variables that affect rockets. Water bottle rockets will serve as a model for experimentation.

*Instructor: Michael Nocella*

**THE CHEMISTRY OF COLOR**

Age: 11 - 13  
232844-01  
\$45

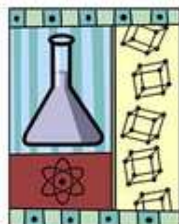


Your world is full of color! Learn why fireworks can be made, each burning with their own unique color. Examine why neon lights are red and street lights yellow. Explore how pigments in plants can change their colors. Experiment with markers and dyes to find hidden colors. It's all about the science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

*Instructor: Michael Boll*

**NANOTECHNOLOGY**

Age: 12 - 13  
232840-01  
\$45



Nanotechnology is the study and manipulation of material on the atomic or molecular level. In this class, applications of nanotechnology in medicine, oil spills, and sunscreens will be explored. Please note: scientific notation will be taught and used extensively. A scientific calculator is highly recommended for usage in the class.

*Instructor: Margaret Donnelly*

**UNDER SIEGE ADVANCED - THE SCIENCE OF CATAPULTS**

Age: 12 - 13  
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: Neil Koreman*

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June 18 - 22

**BUGS, BUTTERFLIES AND MORE**

Age: 6 - 7  
232833-01  
\$45



Do you enjoy playing with bugs? Would you like to learn more about them? You will meet an insect or arachnid each day and learn what it eats, how it transforms, and how it protects itself from enemies. It will be a buggy afternoon.

*Instructor: Lisa McKenna*

**SLIPPERY, SLIMY, BOUNCY POLYMERS!**

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*Instructor: Gina Milanesio*

**SOARING THE FRIENDLY SKIES**

Age: 10 – 11  
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*

**SURVIVOR ILLINOIS**

Age: 10 – 12  
232852-01  
\$45



Explore how native peoples survived long before colonists arrived in Illinois. Learn where to find shelter, how to build fires without a match, which native plants are edible, how to navigate in the field, and how to make simple tools. This is a hands-on course; expect to get dirty, sweaty and tired.  
*Instructor: Neil Koreman*

**THE CHEMISTRY OF BEAUTY**

Age: 12 – 13  
232851-03  
\$45



Learn the science behind beauty products that make you beautiful (like hair relaxers, hair dyes, and curly perms) and how to make your own lip balms, bath salts, and soap.  
*Instructor: Kim Conner-Davis*

**SESSION 2A, 1:00 - 2:25 P.M., JUNE 18 - 22, 2012**

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June 18 - 22

**THE JOY OF MATH: LEARNING FROM AROUND THE WORLD**

Age: 7 - 8  
232848-01  
\$45

This course will investigate and play games with origins around the world that utilize and strengthen math skills and concepts. We will also discover and create different artistic patterns found in non-European countries.

Students will be challenged to think about mathematics as a part of culture, not separate from it.

*Instructor: Danny Newman / Esther Song*



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232836-03  
\$45

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232835-04  
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