



MathScience  
Innovation Center

*Imagine. Create. Lead.*

**Choose from among six course offerings and explore the exciting worlds of math, science, and computer technology. All classes meet for 8 days at the MathScience Innovation Center. The Virginia Department of Education and the MathScience Innovation Center support this special program for students identified as gifted who are currently in grades 6, 7, and 8.**

**Students from 13 school divisions are eligible to participate:**

Caroline  
Charles City County  
Chesterfield  
Colonial Heights  
Goochland  
Hanover  
Henrico  
Hopewell  
New Kent  
Petersburg  
Powhatan  
Prince George  
Richmond

**Contact  
Information**  
MathScience

Innovation Center  
2401 Hartman Street  
Richmond, VA 23223  
www.msinnovation.info  
Tel: 804.343.6525  
Fax: 804.343.6529

# Regional Governor's School for Middle School Youth Summer, 2010

## Choices for Students Currently in the 6th & 7th Grade

### Building Beyond Earth

What challenges do we face as we reach beyond Earth's boundaries, exploring and perhaps someday colonizing the great unknowns of outer space? What will it take to survive? Come discover the new technologies being developed to help us make the next leap into space. Discover how nanotechnology may be used to build an "elevator to space" and manipulate an actual scanning electron microscope as you explore the nano world. Design and build an ROV for exploring Jupiter's moon Europa, develop a rocket launching system, or discover new ways that solar energy may be used to power lunar rovers. Investigate magnetic and ion propulsion as two new methods of interplanetary travel. Experience the future of space exploration today!

### RoboQuest

Imagine yourself as a robotics expert, seeking to meet the challenges of today's world. Robotic technology is being used to deal with issues of climate change, micro-engineering, and much more. Be one of the first to discover PicoCrickets, tiny computers that you program to react, interact, and communicate with lights, motors, and sensors. Learn to program the LEGO NXT robot brain to overcome challenging obstacles as you work with a dynamic robotics team. Experience the latest in robotic innovations as you enter the world of RoboQuest!

### CSI: Student Academy

In order to solve crimes, it takes the efforts of many individuals. Experience the different roles and examine how the teamwork of crime scene investigators, detectives and forensic scientists can exonerate the innocent and convict the guilty. Become a crime scene investigator and search a simulated crime scene to collect evidence using accurate search methods and authentic evidence collection procedures. Learn techniques used by forensic specialists in a lab setting. Obtain and examine latent prints, use serology, DNA and drug analysis to determine "who dunnit." Field trips and guest speakers will enhance this fascinating experience.

## Choices for Students Currently in the 7th & 8th Grades

### I Am Nano

Get the real scoop on nanobites and nanobots. Explore what's hot and what's really not nano in our world today. From the tiniest scale, learn how gecko's climb and why mood rings really work. Find out how gold nanoparticles play a role in cancer medicine. Take a trip to a tissue engineering lab and watch how humans use biomimicry to recreate a silk worm's thread. Check out your skills as a nanotechnologist as you filter gold nanoparticles, build liquid crystal thermo sensors, and spin "nanofibers." Discover why nanoscience is the hot topic in today's science world.

### Fractals:

#### Where Math, Art and Science Meet

A bolt of lightning streaks across the sky as you search the internet looking for the iTunes that your friend raved about on her Facebook wall. Unable to hear the music, you ask your little brother to turn off the Star Wars movie that he is watching for the tenth time. Can you guess what all these events have in common? Fractal geometry! Come explore one of the newest and most exciting fields in mathematics and science. Learn how fractals are used in medicine, computer networking, art, music, visual special effects, and even DNA sequencing. Create your own fractal tie-dye, compose an original fractal musical arrangement, discover fractals in chemical reactions and much more.

### From the Ground Up

How do architects, interior designers and artists create buildings, rooms, and artistic products "from the ground up?" What skills are needed to turn inspiration into reality? Discover the language of architecture and the palette of design. Bring your knowledge of math, architecture, and art together and create a unique scale structure of your own. Watch your original creation rise up from blueprints, to elevations, to a 3-D model. Make your own stained glass and floor coverings as you develop ideas for an interior design board. Interact with professionals and learn their secrets for creating and implementing a successful project. Perhaps you will be the next Frank Lloyd Wright!

**This class will be held at the Virginia Center for Architecture 2501 Monument Avenue, Richmond, VA 23220**

## Division Contacts for Gifted & Talented Programs

**Caroline County**  
Ms. Marcia Perkins  
804-633-508

**Charles City County**  
Dr. Pat Alexander  
804-829-9219

**Chesterfield**  
Ms. Cathy B. Glenn  
804-594-1767

**Colonial Heights**  
Mr. Joseph Douglas  
804-524-3400

**Goochland**  
Ms. Connie Foreman  
804-556-5613

**Hanover**  
Ms. Rebecca Alexander  
804-365-4551

**Henrico**  
Ms. Judy Williams  
804-652-3790

**Hopewell**  
Mrs. Marilyn Brown  
804-541-6400

**New Kent**  
Mr. Nate Collins  
804-966-9650

**Petersburg**  
Ms. Suzanne Vaughan  
804-862-7086

**Powhatan**  
Ms. Patty Haskins  
804-598-5782

**Prince George**  
Mrs. Sheila Roalf  
804-733-2700

**Richmond**  
Mr. Rodney Fout  
804-780-7805

## Registration Information

1. The Summer Regional Governor's School will be held on July 6, 7, 8, 9, 12, 13, 14, 15. **All classes will be held at the MathScience Innovation Center with the exception of From the Ground Up, which will be held at the Virginia Center for Architecture.** Classes will meet from 8:30 am to 3:00 pm. Students are expected to attend every day. Check your calendar carefully!
2. Your school's gifted program teacher or guidance department has application packets. The application packet consists of teacher recommendations and a written essay. You may also download the packet from the MSiC web site: [www.msinnovation.info](http://www.msinnovation.info). Note that this program is for students identified as gifted by their school divisions.
3. Return the completed application packet to the gifted program teacher or guidance counselor in your school by **February 24, 2010 or by the date set by your school.**
4. The MathScience Innovation Center will notify students of acceptance through e-mail or US mail by **April 22, 2010.**
5. For additional information contact:  
Debbie Mitchell: Phone 804.343.6525, Ext 243,  
Web: [dmitchell@msinnovation.info](mailto:dmitchell@msinnovation.info)  
Daphne Schmidt: Phone 804.343.6525, Ext 244,  
Web: [dschmidt@msinnovation.info](mailto:dschmidt@msinnovation.info)

## Registration Form

Secure an application packet from your school's teacher of the talented and gifted or guidance department, or download the packet from the MSiC web site: [www.msinnovation.info](http://www.msinnovation.info)

"In accordance with federal laws, the laws of the Commonwealth of Virginia and the policies of the School Board of the City of Richmond, the Richmond Public Schools does not discriminate on the basis of sex, race, color, age, disabilities or national origin in the provision of employment and services. The Richmond Public Schools operates equal opportunity and affirmative action programs for students and staff. The Richmond Public Schools is an equal opportunity/affirmative action employer. The Section 504 Coordinator is Mr. Harley Tomey, Richmond Public Schools, 301 North Ninth Street, Richmond, VA 23219, 804.780.7911. The Title IX Officer is Ms. Willi A. Williams, Richmond Public Schools, 301 North Ninth Street, Richmond, VA 23219, 804.780.7716."

The United States Department of Education's Office of Civil Rights may be contacted also at P.O. Box 14620, Washington, D.C. 20044-4620. Telephone: 202.208.2545.

