



the stars challenge

WINTER 2012

inspiring future innovators

KEY DATES

December 22:
Applications due

December 30:
Notification
of acceptance
by e-mail

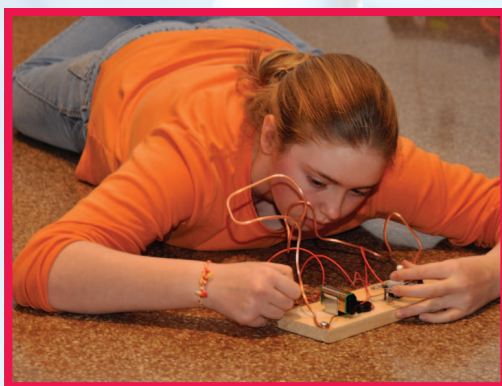
January 4:
Tuition is due

Week of January 9:
Classes start

Apply on-line at
www.starschallenge.org

Mission

The Stars Challenge is a science enrichment program for top 6th, 7th, and 8th graders hosted by Monmouth University. Our goal is to involve more middle school students in science and technology. Developing top notch scientists, engineers, and mathematicians is critical to maintaining America's lead in technology and innovation.



Electricity really does flow through these wires.

Our goal is to nurture students' passion and curiosity about science. We start with excellent teachers who lead creative, hands-on classes. Working in small groups, students tackle real world problems and see how they can make a positive impact on society through science and technology.

The Stars Challenge

We started our sixth year this fall. So far, we've taught 49 courses which have been attended by 718 students from about 40 different schools. The classes are filled with energy and excitement as students explore areas of science that interest them in a risk-free environment.

Winter 2012 Courses

Ms. Hui will be teaching her wildly successful **Forensics** class for 6th grade investigators. If you love solving mysteries, this class is for you.

For 7th graders, Mrs. McCarthy will be back to explore the world of chemistry in **Is It**

Science or Magic? Your world is full of chemical mysteries. Ever wonder how ice cream becomes a solid or why bubbles are spheres and not cubes? Come find out if your world is filled with chemistry or magic.

Mr. Coe will be offering **Explore the Universe** to 8th graders who are curious about the larger universe we live in. Ever wonder if there's life somewhere out in the vast universe?

Mr. Valente will take 7th and 8th graders on an exploration of the physical world in **Explore, Imagine, and Build**. Each week you'll investigate and discover the rules that govern the physical properties of the world around you. You'll design and build projects that demonstrate your discoveries.

More detailed information can be found on our web site, www.starschallenge.org. Send us email (chappell@starschallenge.org) or call (732-530-1061) if you have any questions.



Students taking their first look at the Jupiter in **Explore Our Universe**.

Winter 2012 Logistics

Classes will meet on the campus of Monmouth University for 10 weeks beginning January 9. Classes typically meet from 6 p.m. to 8 p.m. Tuition is \$500. Some needs-based scholarships are available. Please see our web site for more details and to use our on-line application.

FORENSICS - 6TH GRADE

Did you ever wonder how investigators solve crimes? Do you enjoy watching episodes of CSI? Well, this course is for students who love solving mysteries. Each session will provide students an opportunity to build investigative skills and work like a crime scene investigator. Students take active roles as characters in the mysteries. Student-sleuths will analyze physical evidence and debate possible hypotheses. We will learn how to use evidence to reconstruct a crime scene. Labs will show students how to analyze lipstick samples, fiber samples, and mystery powders. If mysteries have always intrigued you, and you would rather be actively solving them than just reading about them, then this forensics course is perfect for you. This course will be taught by Ms. Shirley Hui, science teacher at Cedar Drive School in Colts Neck. Classes will be on Monday evenings from 6 to 8 at Monmouth University starting January 9.

**IS IT SCIENCE or MAGIC - 7TH GRADE**

Did you ever wonder why jello jiggles? Why oil floats on water? Why cabbage juice turns some liquids green and some red? Why ice cream won't freeze until it's below zero degrees? Why bubbles are spherical not cubic? Why Alka Seltzer fizzes? By observing, questioning, and experimenting, students will investigate the field of chemistry. They will study the gas laws, acids and bases, as well as the properties of solids, solutions, and polymers. Join us for this exciting course and learn how chemistry makes this science, not magic. This course will be taught by Mrs. Roseann McCarthy, Chemistry teacher at Ocean Township High School. Classes will meet on Monday evenings from 6 to 8 beginning January 9.

EXPLORE, IMAGINE AND BUILD - 7TH and 8TH GRADE

While watching your favorite television show, a news alert flashes a warning about possible tornadoes or electrical storms sweeping across your town. How will you protect yourself, your family and your house? Why are roller coasters so much fun? Why can't you walk on a planet ten times the mass of the Earth? Why would space travelers be crushed if a spaceship accelerated to almost the speed of light (even though you see this all the time at the movies)? How does a karate expert break boards with their hands? You'll find out by taking this course. Each week you'll investigate and discover the rules that govern one or two physical principles. Then you'll explore the ideas yourself by creating and building devices that illustrate these ideas. You will take these devices home to amaze your friends, family or teachers or use them to compete in class competitions. The winning team gets tasty donuts! This course will be taught by Mr. John Valente, physics teacher at the Marine Academy of Science and Technology (MAST). Classes will meet on Monday evenings from 6 to 8 beginning January 9.

EXPLORE THE UNIVERSE - 8TH GRADE

"I learned that you can never dream, think, or imagine too big when it comes to the universe. With all that is unknown in our vast, vast universe, at least one of my crazy ideas is bound to be real." This quote by a former student captures the essence of this astronomy course. You'll ask the questions that have puzzled you as you look into the vastness of the night sky. You'll find as you discover some answers, even more questions will arise. This course will be taught by Mr. Marc Coe, science teacher at Cedar Drive School in Colts Neck. Classes will meet on Tuesday evenings from 6 to 8 beginning January 10.