



### KEY DATES

September 22:  
Applications due

September 28:  
Notification  
of acceptance  
by e-mail

October 3  
Tuition is due

October 3 and 14  
Classes start

Apply on-line at  
[www.starschallenge.org](http://www.starschallenge.org)

Questions:  
(732) 609-2797

### Mission

The Stars Challenge is a science enrichment program for top 6th, 7th, and 8th graders that began in 2006. 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.

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 teams, students tackle real world problems and see how they can make a positive impact on society through science and technology.

### Fall 2017 Courses

For 7th and 8th grade girls, Mr. Roche and Mr. Hanas will teach **Code Secrets: Girls, Science, and Coding 0010**. This offering will challenge the young ladies to develop computational



One secret of coding: teamwork really helps solve problems. And is fun!

thinking as we introduce additional platforms and languages for exploration. Newcomers are welcome and we'll quickly have you "up to speed".

Ms. Burich of the NJ Sea Grant Consortium will be leading 6th and 7th graders in their investigations of the marine, coastal, and estuarine habitats of the New Jersey shoreline in **Explore Our Shore Like Never Before**. You'll get to know first-hand some of the unique marine life of the Jersey Shore.



Students design, build, and test underwater remotely-operated vehicles in Explore our Shore.

6th and 7th graders will be using their creativity and knowledge of physical science to design and build the winning solution to the challenges Mr. Valente will bring to **Olympics of the Mind**.

For 8th graders, we're offering **Is It Science Or Magic?** by Ms. Aimée Babbín. Have you ever wondered why Jello jiggles? Why oil floats on water? Through observing, questioning, and experimenting, students will learn how chemistry makes magic.

### Fall 2017 Logistics

Classes typically meet from 6 p.m. to 8 p.m. for 10 weeks beginning in early October. Exact times and locations are on the reverse side. Tuition is \$500. Some needs-based scholarships are available. Please see our web site, [www.starschallenge.org](http://www.starschallenge.org), for more details and to use our on-line application.

## **CODE SECRETS: GIRLS, SCIENCE, AND CODING 0010 - 7<sup>TH</sup> and 8<sup>TH</sup> GRADE GIRLS**

We enjoyed a fun-filled, fast-paced experience in July during our “for girls only” coding course that involved multiple aspects of computer science. We’ll definitely replicate the fun-filled aspects, but using new technology and introducing some new platforms and languages. During the first half of the course, new students will get “up to speed” using Hour of Code activities and veterans will experiment with the Arduino Digital Sandbox. By the second half of the course all students will be working together on MIT Scratch, HTML/CSS and MIT App Inventor projects. All students will be challenged with opportunities to creatively apply programming concepts. Mr. Michael T. Roche and Mr. Christopher Hanas of High Technology High School will teach this course. Classes will meet on Tuesday evenings from 6 to 8 PM beginning October 3 at High Technology High School in Lincroft.

## **EXPLORE OUR SHORE LIKE NEVER BEFORE - 6<sup>TH</sup> and 7<sup>TH</sup> GRADE**

Summer may be over but you can still enjoy the beach and learn much more about it. This course provides hands-on and minds-on investigations of the marine, coastal and estuarine habitats of the New Jersey shoreline. For example, have you ever wondered why waves push your surfboard forward or how rip currents form? You’ll get to know first-hand some of the unique marine life of the Jersey Shore from plankton to crabs, fish, reptiles and mollusks. You will also participate in several dissections. We’ll meet at Sandy Hook on Saturdays where you will participate in hands-on investigations of the park’s salt marsh, barrier beach, and maritime forest environments. This course will be taught by Ms. Diana Burich of the NJ Sea Grant Consortium at Sandy Hook. Classes will meet Saturdays from 9 am to 12 noon at the NJ Sea Grant Consortium building on Sandy Hook beginning October 14.

## **IS IT SCIENCE OR MAGIC? - 8<sup>TH</sup> GRADE**

Have you ever wondered why Jello jiggles? Why oil floats on water? Why ice cream won’t freeze until it’s below zero degrees? Why bubbles are spherical not cubic? These phenomena aren’t magic – they are all explained by chemistry! Through observing, questioning, and experimenting, students will investigate the field of chemistry. Join us for this exciting course and learn how chemistry makes magic. This course will be taught by Ms. Aimee Babbins of High Technology High School on Tuesday evenings from 6 to 8 at High Technology High School beginning October 3.

## **OLYMPICS OF THE MIND - 6<sup>TH</sup> and 7<sup>TH</sup> GRADE**

Creativity is the name of the game in this course! With your newly made friends, you’ll use your creativity and knowledge of physical science to create solutions to design challenges. For example, one challenge will be to build a memorial tower to commemorate the 150th anniversary of the founding of your town. You’ll need to design your tower out of a single sheet of copy paper. Winning towers typically reach heights greater than six feet! Another challenge is pulling your 5 year old daughter up out of a well using only wind power. Will your team win the challenge? This is your opportunity to innovate – to explore. This is Olympics for the mind! This course will be taught by Mr. John Valente of the Marine Academy of Science and Technology (MAST). Classes will meet on Tuesday evenings from 6 to 8 PM beginning October 3 at High Technology High School.