

**ACADEMY OF
AEROSPACE &
ENGINEERING**

EXPLORATIONS IN SCIENCE Spring 2012 SESSIONS

Presented by the Academy of Aerospace and Engineering (AAE)
15 Vernon Street, Hartford CT 06106

AAE is proud to offer its "Explorations in Science" program for families in the Greater Hartford Region. The goal is to excite, inspire and educate students in Science, Technology, Engineering and Mathematics (STEM) careers. Explorations in Science gives students and their parent/guardian the opportunity to use resources at the Academy of Aerospace and Engineering to explore scientific concepts beyond the normal school courses.

Please join us for any of these sessions

Session 1: Saturday, March 10

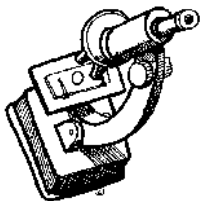
Session 2: Saturday, March 24

Session 3: Saturday, April 28

Session 4: Saturday, May 12



Sessions run from 8:30 am to 2:30 pm (snacks and pizza lunch included)



Students & parent/guardians working together!

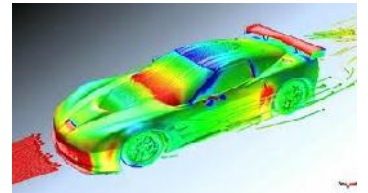
Learning exciting science & engineering topics and skills!!

Exploring & understanding investigations as a team!!!

Increasing students' abilities and confidence in STEM topics!!!!

Having a fun family day to be remembered!!!!

Please see the back of this page for descriptions of these activities for 6th and 7th graders and their parent/guardian.



What is the cost of this program?

The Explorations in Science program is **FREE** to 6th & 7th grade students accompanied by a parent/guardian and working as a team in these activities.



How do I apply?

Acceptance is on a first come, first served basis with limited space for each activity. You are encouraged to promptly enroll. Application forms are available in the Guidance Area of your school or contact Jake Mendelsohn at jmendelsohn@crec.org

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jmendelssohn@crec.org 860-757-6359



Myth Busters

It's a tough job separating truth from urban legend, but the *Myth Busters* program is here to have you take a critical look of your everyday world. Each activity will feature various scenarios for you to examine common myths and use modern-day science to show you what's real and what's fiction. That's right, you will do more than explain how something may or may not be scientifically possible. Through trial and error you will actually demonstrate it!



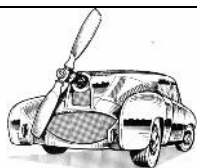
Forensic Science

Join a team of investigators in gathering evidence simulated from a crime scene and perform the analysis needed to solve a crime. The science of forensics has gained popularity in recent years thanks to TV shows like "CSI" and highly publicized trials. Students and parents will learn together how science is used to solve crimes, explore such techniques as DNA analysis, thin layer chromatography, ink analysis, fingerprints, handwriting analysis, hair and fiber identification and analysis of trace chemicals. By doing this, the students will gain skills to reinforce their studies in the subjects of chemistry, biology, and physical science.



Robotics

Take an exciting journey into the world of robotics by designing, building, and programming your own Robot. This program offers fun-filled, hands-on introduction to Robotics. Students and parents will learn the basic principles of mechanics, sensors, and programming using the latest in LEGO Robotics. The only experience necessary is an enthusiasm to try something new and the desire to learn how machines in our modern world are operated and controlled.



Motion & Mechanics

Is it a car? Is it a plane? Whatever it's called, the students and adults in this activity will design, build and test it in exciting challenges as they explore Newton's Third Law, aerodynamics, and the engineering process. Each team will complete the activity with a greater understanding of specific scientific and engineering concepts and how they apply to the vehicle they built.



DNA & Genetics

What makes us all different? Why do we act or look the way we do? Is it a mystery or can it be explained by science? We are all unique individuals with our own special gift to give to the world. Come discover what makes you unique by exploring the world of Genetics. Students and parents will be engaged in hands-on activities which will help them explore their traits, their own DNA structure, and the genetic combinations that helped make them all individuals. By the end of this exciting experience they will have extracted their own DNA which they can bring home with them. Have fun being a Molecular Biologist!

Spring 2012 Explorations in Science Program Application Form

Applications due by Friday, February 24, 2012

(Applications accepted on a first come, first served basis)

Please PRINT information in black or blue pen.

Student Information:

Name _____ Grade _____
School _____ Town _____
Home Address _____
City _____ Zip _____ Phone _____

Parent/Guardian Information:

Name _____ Relation to Student _____
Street Address (if different) _____
City _____ Zip _____ Email _____
Home Phone _____ Cell Phone _____
Emergency Contact _____
Emergency Phone _____ Relation to Student _____

Application Information:

- * Put a "1" in your **first choice** of activity and session.
- * Put a "2" in your **second choice**. You can put the "2" in a different activity in the same session or in any activity in a different session.
- * Put a "3" in your **third choice**.
- * If there are open spaces, we might be able to place you in an activity in a second session.
- * Spaces will fill quickly so the sooner you apply, the more likely you will get your choice.

IMPORTANT INFORMATION

Sessions meet Saturdays, 8:30 am to 2:30 pm.

This program is for current 6th and 7th grade students.

You will be notified as to which session and activity you are accepted into.

A parent/guardian is required to be with each student. The program is NOT for students alone.

Mar 10	Mar 24	Apr 28	May 12	ACTIVITY
				Myth Busters
				Forensic Science
				Robotics
				Motion & Mechanics
				DNA & Genetics

Please fax or mail this application form to:

AAE

Attn: Jake Mendelssohn

15 Vernon Street, Hartford, CT 06106

Fax (860) 757-6399 jmendelssohn@crec.org