

**Academy of Aerospace
and Engineering
&
Greater Hartford Academy of
Mathematics and Science
Informational Presentation**

Welcome

**Prospective Students
and Families**



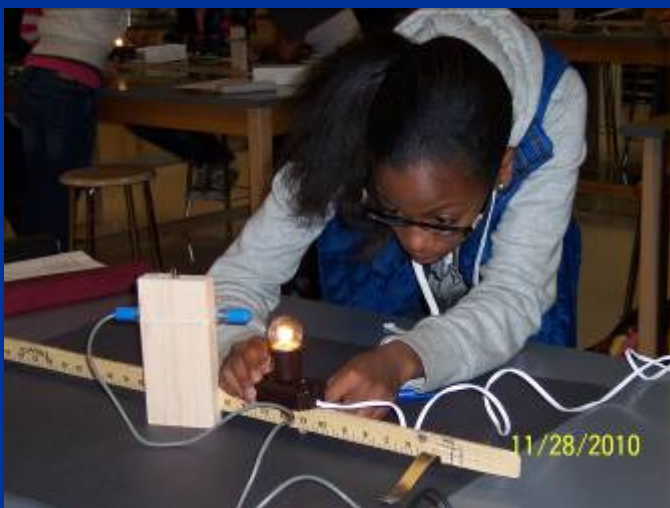
Top Five Reasons for You to Choose Our Schools

1. You love STEM (Science, Technology, Engineering and Math).
2. You enjoy being challenged in rigorous and demanding courses.
3. You thrive in a small school atmosphere with supportive teachers, staff, and students.
4. You value a vibrant and diverse learning community.
5. You take an active part in your learning and love hands-on and minds-on activities

1. You love STEM (Science, Technology, Engineering and Math).



- Unique Courses
- Advance Placement Courses
- State-of-the-art laboratories and equipment
- Research Opportunities
- Internships



Math & Science Elective Courses

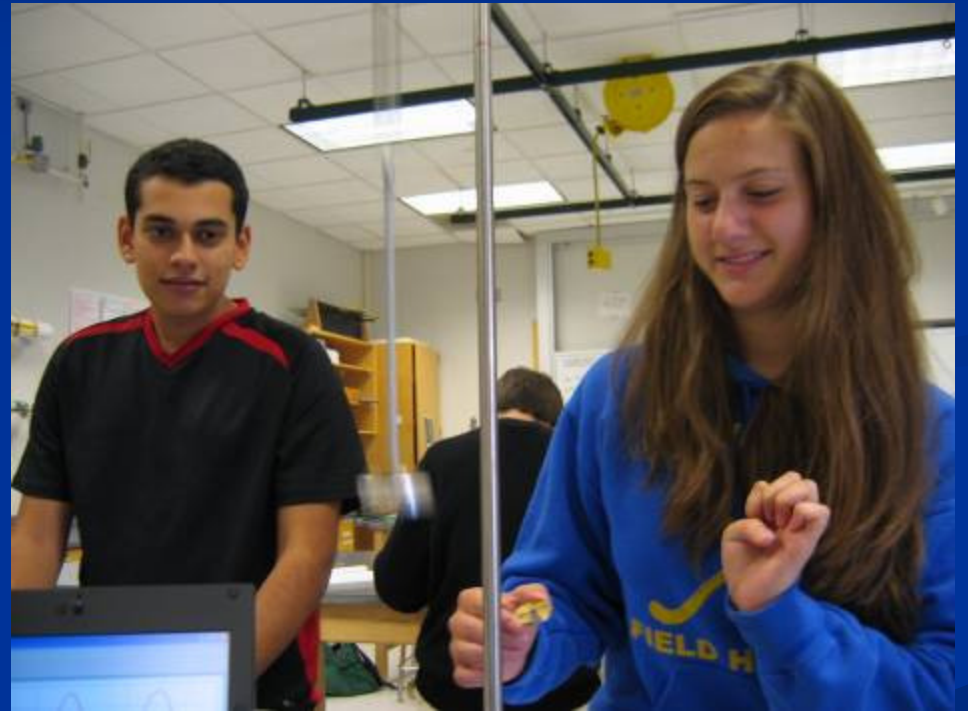
- AP Biology
- AP Chemistry
- AP Physics C
- AP Statistics
- AP Calculus AB
- AP Calculus BC
- AP Computer Science
- River Ecology
- Environmental Science
- Meteorology
- Physical Astronomy
- Oceanography
- Linear Algebra
- Multivariable Calculus
- Differential Equations
- Human Evolution Biodiversity
- Evolutionary Biology
- Molecular Biology
- Anatomy & Physiology
- Leadership in Science, Engineering, and Medicine
- Forensic Science
- Thermodynamics
- Material Science
- Nuclear Science
- Photonics

Industry Connections

- **Distinguished Speaker Series**
 - Once per month
 - Academic, industry and medical leaders
 - Discuss college and career
- **Career Symposium**
 - For Juniors and seniors
 - Seminars on college and career
- **Industry Summer Internships**
 - About 20 students per year
 - Leading engineering, science, and medical industry partners
- **Company Mentorship Programs**
 - Hamilton Sundstrand
 - Kaman
- **Site Visits**
- **Industry Advisory Board**

2. You enjoy being challenged in rigorous and demanding courses.

- Science courses are lab based and intensive
- Math courses are sequenced to build deep understanding of essential math skills
- Homework is an integral part of the learning Process
- College Ready



College Acceptances 2011

- Amherst College
- Central Connecticut State University
- Cornell University
- Florida Tech
- Fordham
- George Washington
- Rensselaer Polytechnic Institute
- South Dakota School of Mines and Technology
- Tufts University
- UCONN (4)
- UCONN - Honors (4)
- University of Chicago
- University of Delaware
- Virginia Tech
- Worcester Polytechnic Institute
- Yale University

Past College Acceptances

- Boston College
- Boston University
- Brandeis University
- Brown University
- Bucknell University
- Carnegie Mellon University
- Cornell University
- Dartmouth College
- Drexel University
- Florida Institute of Technology
- Fordham
- Howard University
- Johns Hopkins University
- Massachusetts Institute of Technology
- Morehouse College
- New York Institute of Technology
- Northeastern University
- Providence College
- Rensselaer Polytechnic Institute
- Smith College
- South Dakota School of Mines and Technology
- Southern Connecticut State University
- Stanford University
- Syracuse University
- Trinity
- Tufts University
- Tulane University
- United States Military Academy – West Point
- University of Chicago
- University of Connecticut
- University of Delaware
- University of Hartford
- University of Kansas
- University of New Haven
- University of Notre Dame
- University of Pennsylvania
- University of Vermont
- Virginia Tech
- Wesleyan University
- Western Connecticut
- Williams College
- Worcester Polytechnic Institute
- Yale University



CREC
Capitol Region Education Council

3. You thrive in a small school atmosphere with supportive teachers, staff and students.



- 200 Aerospace Academy (full day) students
- 200 Math and Science Academy (half day) Students
- Equivalent 12:1 student to teacher ratio

4. You value a vibrant and diverse learning community.

- Students from 43 cities and town.
- Suburban, urban, and rural.
- Culture of dignity and respect for all
- Humane, diverse, and ethical community



Home Towns

- Avon
- Berlin
- Bloomfield
- Bolton
- Bristol
- Burlington
- Canton
- Chester
- Coventry
- Cheshire
- Cromwell
- East Granby
- East Hartford
- East Windsor
- Ellington
- Enfield
- Farmington
- Glastonbury
- Granby
- Haddam
- Hartford
- Hebron
- Manchester
- Marlborough
- Middletown
- New Britain
- Newington
- Plainville
- Plymouth
- Portland
- Rocky Hill
- Simsbury
- Southington
- South Windsor
- Suffield
- Tolland
- Vernon
- Wallingford
- West Hartford
- Wethersfield
- Windsor
- Windsor Locks
- Wolcott

5. You take an active part in you learning (hands-on and minds-on)



- Develop students into Active Learners
- 21st Century Skills
 - Collaboration
 - Critical Thinking
 - Communication
 - Creativity
- Lab Based Courses
- Internships

Greater Hartford Academy of Mathematics and Science

A Half-Day Math and Science Program



Important Half Day Information

- 11 year relationship with most districts
- Students attend the Academy for math and science classes and their home school for all other classes
- Student is member of both the Academy and their home high school
- The home school determines weighting and issues grades and transcripts
- The home district issues the diploma – students graduate from their home high school
- Ability to make new friends and to keep the old

Academic Schedule

		Monday	Tuesday	Wednesday	Thursday	Friday
Ninth and Tenth Grade Math & Science Classes from 7:30 to 10:30	7:30	A	C	B	A	A
	to				B	B
	10:30	B	A	C	R	C
					C	C
	10:30 to 12:30	L - Lunch	L - Lunch	L - Lunch	L - Lunch	L - Lunch
		M	M	M	M	M
Eleventh and Twelfth Grade Math & Science Classes from 12:30 to 4:00	12:30	Alpha (AL)	Alpha	Beta	Beta	Alpha
	to	Beta (BE)		Alpha		Beta
		Gamma (GA)	Gamma	Delta	Delta	Gamma
	4:00	Delta (DE)		Gamma		Delta

Math and Science Courses

■ Ninth Grade

- Foundations of Physics
- Foundations of Earth Science
- Math - Algebra 1, Geometry, Algebra 2

■ Tenth Grade

- Foundations of Chemistry
- Foundations of Biology
- Math – Geometry, Algebra 2, Precalculus

■ Eleventh Grade

- Science Elective
- Math Elective
- Math or Science Elective

■ Twelfth Grade

- Science Elective
- Math Elective
- Math or Science Elective

Academy of Aerospace and Engineering

A full day STEM program



History and Future

- Fourth year of the program
- First graduating class this year
- Full Day Program became the Academy of Aerospace and Engineering in 2010
- New school for the fall of 2014
 - Location will likely be in Windsor
 - In the process of designing the new school
- Developing Industry Advisory Board

Important Full Day Information

- 4th year of full day program
- Made AYP each year on CAPT - 2011 Scores
 - Reading Proficient+: 92% Goal+: 59%
 - Writing Proficient+: 100% Goal+: 87%
 - Math Proficient+: 87% Goal+: 59%
 - Science Proficient+: 90% Goal+: 67%
- The Academy issues grades and transcripts
- The Academy awards the diploma
- The home district works with CREC for special education needs

Academic Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
9 th and 10 th grade Math & Science	A	C	B	A	A
				B	B
11 th and 12 th grade Humanities	B	A	C	R	B
				C	C
9 th – 12 th Arts and Engineering	L - Lunch	L - Lunch	L - Lunch	L - Lunch	L - Lunch
	M	M	M	M	M
9 th and 10 th grade Humanities	Alpha (AL)	Alpha	Beta	Beta	Alpha
	Beta (BE)		Alpha		Beta
	Gamma (GA)	Gamma	Delta	Delta	Gamma
	Delta (DE)		Gamma		Delta
11 th and 12 th grade Math & Science					

Humanities Courses

■ Ninth Grade

- American Literature
- U.S. History
- Spanish
- PE

■ Tenth Grade

- Power of Voice
- Civics
- Spanish
- Health

■ Eleventh Grade

- World Literature or AP Language and Composition
- World History/AP World History
- Spanish

■ Twelfth Grade

- AP U.S. History or Psychology/Sociology
- Research and Writing/College and Creative Writing
- AP English Literature and Composition
- Spanish

Arts & Engineering

- Arts and Engineering Block in the middle part of the day
- Engineering Classes including computer science, CAD, Digital Design, Web Design, Aerospace Fundamentals
- Art classes taught by the Arts Academy artist instructors



Graduation Requirements

Humanities

- 4 years of English
- 3 years of Social Studies, including:
 - 1 year in U.S. History
 - 1/2 credit in Civics/U.S. Government
- 1 year of Arts or Vocational Education
- 3 years in world language

Mathematics

- 4 years of mathematics, including successful completion of one course beyond Algebra II

Sciences

- 4 years of science including:
 - 1 year of Biological Science
 - 1 year of Physical Science (Physics, Chemistry, Biology)

Applied Arts

- 1/2 credit in Technology or Computer Science/Engineering

Physical Education/Health & Personal Development

- 1 credit of Physical Education
- 1/2 credit of Health

Elective Courses

- 8 credits including a minimum of:
 - 2 1/2 credits of math, science, or engineering electives
 - (beyond minimum requirements)
- 1/2 credit in Wellness Seminar
- 1 credit for Senior Project

Transportation, Lottery, and Application Information

Magnet School Transportation

- Regional Transportation Zone
- Transportation is provided within the zone only
- Transportation is provided by CREC or the Home District
- Pick-up and drop-off to cluster stops based on student home addresses



Making an Informed Choice

The Regional School Choice Office recommends that all families of prospective students:

- Visit the RSCO website

www.choiceeducation.org

- Attend a RSCO school fair
- Go to the open houses for schools you are interested in selecting for the lottery
- Visit a RSCO satellite site or drop in to the RSCO Parent Info Center if you need additional assistance

Lottery Information

- You may choose up to five schools
 - Students go to the top of the lottery list for their first choice school, bottom of the lottery list for their fifth place choice
 - Lists are ordered by choice level first (1st, 2nd, 3rd choice)
 - Lists are randomized for each choice level
 - You may be chosen by your second or third place school before your first place school, depending on the number of spots available at each school and the number of applicants at each school
 - You do not need to make five choices, you may choose just one or two schools if that is all you are interested in attending
- One offer lottery
 - Only one offer will be made to each student
 - Once a student is selected for a school, they come off of all other lists



How To Apply

- Regional School Choice Office
<http://www.choiceeducation.org>
- Application Information on-line
- Apply on-line or in-person
- School can *NOT* take applications
- All applications are due January 20th
- Offer letters should go out in March

**Thank you for
your interest in our schools.**

**We appreciate the
opportunity to share
the qualities that make
our schools Unique.**

