



Academy for the Advancement of Science and Technology

STEM Education for the 21st Century
Bergen County Academies

Overview of AAST

Original BCA program introduced in 1992

Core Focus – Physical Sciences

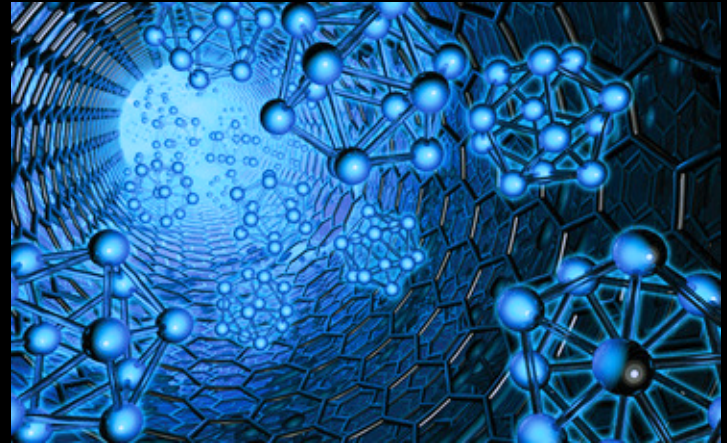
Unique Opportunities

Nanotechnology

Optics

Microscopy

Chemical Engineering



Seeks students interested in science, research and math

Freshmen Year

The start of high school is an exciting time for any student and the opportunities available to AAST students makes freshmen year especially exhilarating. In addition to science courses unique to the academy, AAST students also take math and humanities classes with BCA students from other academies.

Chemistry, Biology and Physics (3 courses)

Topics in Science and Research

↳ **Microscopy, Nanotech & Optics**

Math based on your abilities

American Literature I

World Language

World History

PE & Health



Sophomore Year

The unique opportunities for AAST students continue sophomore year as students progress through class and lab work in Physics and Chemistry and begin their Biology studies. Also, AAST sophomores explore Chemical Engineering in a course exclusive to the AAST program at BCA.



Chemistry, Biology &
Physics
Chemical Engineering
Math
American Literature II
World Language US
History I
PE & Health

Junior Year

During the Junior year, students complete their final core science classes and have opportunities to take college-preparatory courses. Importantly, many AAST students use Junior year as a time to make their learning experiences truly stand out from the rest as they delve deeply into an independent research project.

Research Opportunities

Physical and Organic Chemistry

Physics

Math (AP Calc, etc.)

AP Courses Available

US II or IB History

IB English Option

World Language

PE & Health



Senior Year

The flexibility to tailor a senior year experience is offered to all AAST students. The number of core requirements may decrease during this final year, but the opportunities certainly do not. AAST seniors often continue their science studies through research or via our incomparable Senior Experience program. Many AAST seniors pursue opportunities in math, the humanities or other areas that pique their interests.

Science Option

Research Opportunities

Senior Experience Internship

Math (APs and Higher)

PE & Health

English

AP Courses Available

Humanities Options

IB World Language II

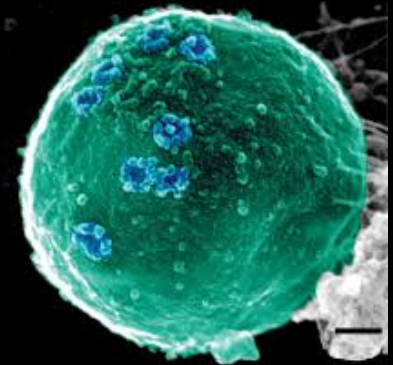
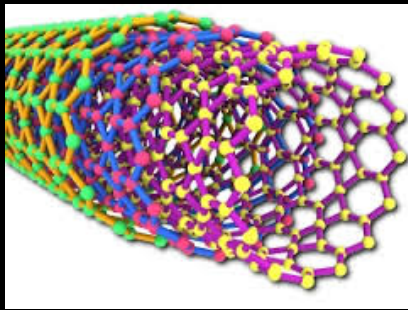
IB History II



Research @BCA

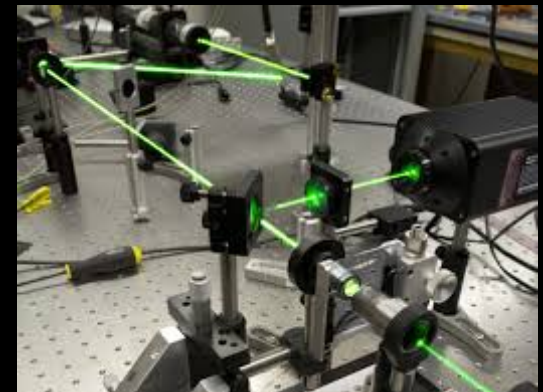
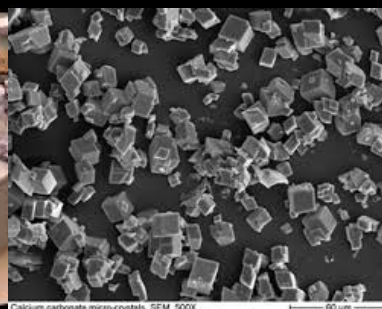
BCA has state-of-the-art research facilities to support original student research in a number of areas, including those highlighted below. As an academy that specializes in preparing students for a variety of STEM related fields, hands-on work and original research are central to the teaching and learning approach taken within AAST.

Chemistry and Nanotech



Cell Biology

Microscopy



Optics

So Much More...

Summarizing all that BCA and AAST have to offer is impossible in a short slideshow. Are we a great school? We believe so and the successes of our students and graduates tell us so. But, you really must attend one of our Open Houses if you want to begin understanding our program, students, faculty and facilities.

Projects & Electives

Clubs

HackBCA

Internships

AAST Day



AAST Accolades and Graduates

As Bergen county's original academic academy, AAST has been creating unique opportunities for county students for over 20 years. In that time, our students have earned countless accolades and our graduates have gone onto successful careers in a wide array of fields. Below are just a few of the awards received by AAST students over the years and a partial list of the careers our graduates are pursuing.

Accolades

- Intel Science Finalist
- Siemens Competition Finalist
- ISEF Finalist
- National Merit Scholar
- NJRSF 1st Place
- Physics Olympiad Finalist
- Biology Olympiad Finalist
- Chemistry Olympiad Finalist
- YSAP Grant Awardee
- Gold Medal Scholastic Art & Writing
- National Winner HS Poetry Contest

Career Paths

- Academic & Industrial Scientist
- Research Director
- Medicine
- Pharmacology
- Computer Science
- Chemical Engineering
- Mechanical Engineering
- Law
- Finance
- Journalism
- Government & Public Service

Should YOU Apply?

Figuring out where to attend high school is an important decision. Thankfully, as Bergen county residents, prospective students have a variety of excellent options to consider. Is BCA and AAST an option for you to consider? Let's find out.

