



ACADEMY FOR THE ADVANCEMENT OF SCIENCE AND TECHNOLOGY

Environmental and Sustainability Education for the 21st Century

Bergen County Academies

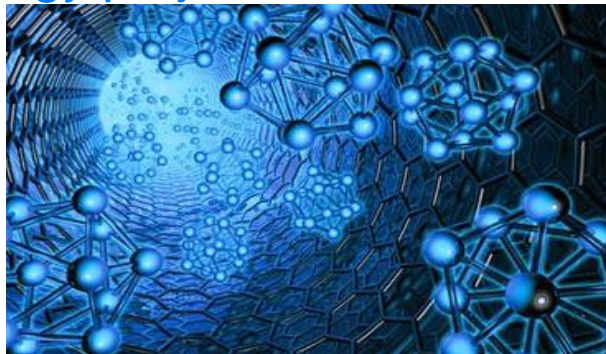
Overview

Original BCA program introduced in 1992

Core Focus – Physical Sciences, Sustainability and
Alternative Energy

Unique Opportunities

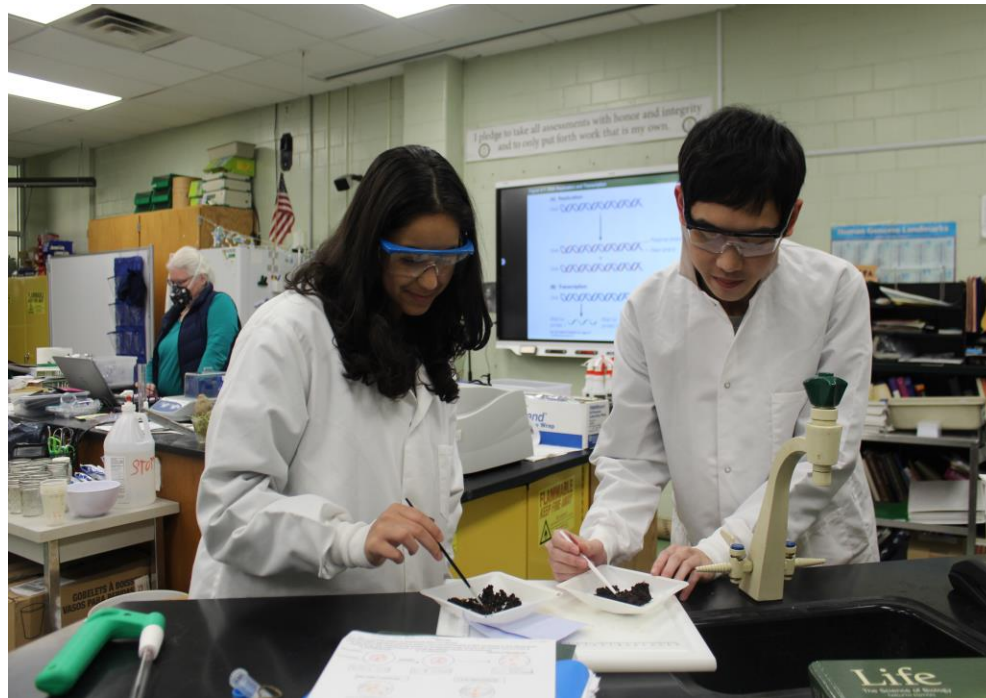
- Nanotechnology
- Organic and Inorganic
Chemistry Applications
- Electron Microscopy
- Sustainable energy projects



Freshmen Year

The start of high school is an exciting time for a student and the opportunities available to AAST students makes freshmen year especially exhilarating.

Focus classes: Chemistry and Biology



Sophomore Year

The unique opportunities continue in sophomore year as students progress through class and lab work in Physics and Chemistry. What makes AAST curriculum unique is that the physical sciences are integrated and have unique lab rotations throughout the school year.

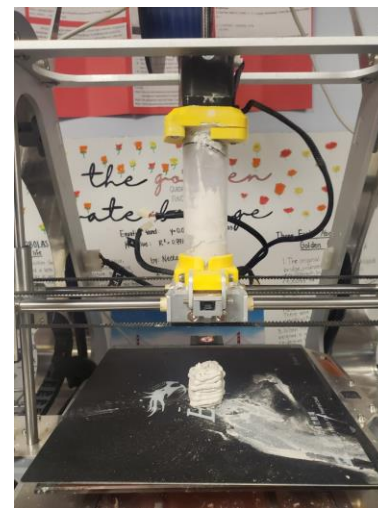
Focus Classes: AP Chemistry and Physics



Junior Year

The unique opportunities in junior year include sustainability with a focus on organic chemistry as it applies to energy production and storage and green chemistry practices.

**Focus Classes: Sustainable Chemical Processes,
Advanced Physics**



Senior Year

Senior students will have 2 semesters dedicated to applications using transition metals, catalysts, electrochemistry and energy analysis. Students will be introduced to the world of current and future energy production with an emphasis on the development of renewable sources of energy.

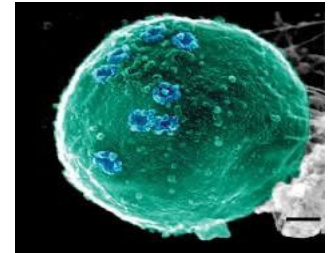
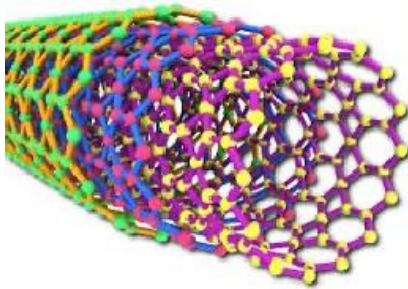
Focus: Inorganic Chemistry & Resource Applications Alternative Energies



Research @BCA

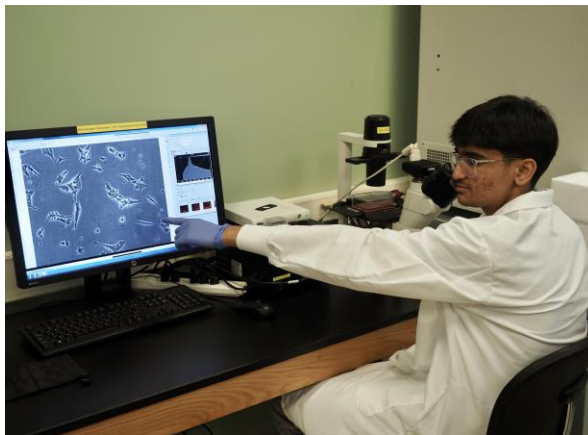
BCA has state-of-the-art research facilities to support original student research in a number of areas, including those highlighted below. As an academy that specializes in preparing students for a variety of STEM related fields, hands-on work and original research are central to the teaching and learning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

Chemistry and Nanotech



Cell Biology

Microscopy

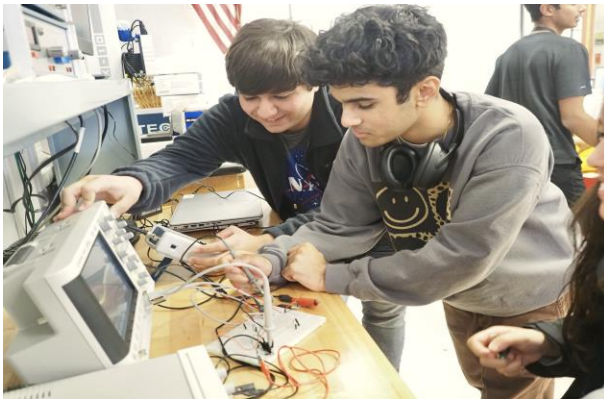


Optics

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. We hope you'll consider applying!

Senior Internships
Projects and
Electives
Clubs
Sports



AAST Accolades and Graduates

As Bergen county's original academic academy, AAST has been creating unique opportunities for county students for over 25 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

- Regeneron 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
- Sustainability Policy and Practice
- Agricultural /Environmental Scientist
- Chemical Engineering
- Mechanical Engineering
- Urban Planner
- Ecologist
- Energy Systems Engineer
- Sustainable Architecture
- Renewable Energy Analyst

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.

