

EXCELLENCE IN SCIENCE AND MATH EDUCATION FOR THE 21ST CENTURY



INTEL SCHOOLS OF DISTINCTION STAR INNOVATOR 2007

Bergen County Academies
Hackensack, New Jersey



The sign in Principal Daniel Jaye's office says it all: Tell me why it's good for kids.

A school-wide passion to do what's best for children has led Bergen County Academies (BCA) to the top spot in the Intel Schools of Distinction competition: the Star Innovator Award.

Bergen County Academies is a county-wide, public high school where inquiry-based learning is the norm, and math and technology permeate the curriculum. Over 20 percent of teachers have a doctorate, and more than half bring years of real-world experience into the classroom.

BCA is a school where classes run from 8:00 to 4:10, the bell never rings, and 14-year-olds are trusted with college-level independence and responsibility.

And here's the quality of education—and the BCA culture—in a nutshell. In spring 2007, the school opened a stem cell research lab, complete with a flow cytometer and the ability to manipulate stem cells.

The next day, rather than rest at the top of the mountain, the school started climbing another one.

Now, BCA is about to take delivery of a scanning electron microscope that will anchor a new nanotechnology center, and it has lured experts from New York University, the City University of New York, and the federal government to spearhead the center. A virtual trading floor is also in the works, and an international campus is in discussion.

Why?

Because they're what kids need. In today's global economy, anything less would sell kids short. And that's the last thing BCA would ever do.



Vocational Education Updated

Chartered as a vocational school, Bergen County Academies offers career and technical education for a world where job options—and the regional economy—are driven more by biotechnology, financial services, digital technology, and entertainment than by the traditional trades. Chemicals and pharmaceuticals are key industries in New Jersey. Widely respected Hackensack University Medical Center is within shouting distance. New York City is just across the George Washington Bridge.

So it's only fitting that BCA fosters the next generation of scientists and mathematicians — not to mention a new crop of innovative inventors, entrepreneurs, artists, and restaurateurs.

Intel Star Innovator Award

The annual, nationwide Intel Schools of Distinction Awards recognize outstanding success at implementing innovative math and science programs. The Star Innovator Award is the capstone, honoring a school whose comprehensive program excels at incorporating dedication to academic excellence, innovative and effective use of technology, parent and community engagement, and professional development and teamwork.

“Bergen County Academies is the perfect storm. We’re what happens when everything goes right—when students, parents, teachers, administrators, and community are all in alignment. But the notion that you have to be in a rich district to do what we’re doing is absurd. Anyone can partner to get resources and establish internships. Anyone can do meaningful videoconferencing on a shoestring. As educators, we have to dream bigger. Then we have to make it happen.”

Daniel Jaye
Principal and Director
Bergen County Academies



A Passionate Learning Community

BCA challenges kids to find their passion and follow it as far as they can. Hands-on activities, project-based teaching, and inquiry-driven research are used to engage students and enhance learning.

Math is integrated throughout the curriculum, and presented as an essential tool for understanding and improving the world we live in. Engineering students see math's relevance as they compete in robotics or bridge-building contests or design assistive technologies for a sister school that accommodates students with special needs. Future chefs build spreadsheets as they create business plans for a restaurant of the future.

Technology is ubiquitous. It supports the curriculum, brings in the outside world, and empowers students to forge global connections. Technology also delivers economies of scale, for example, enabling all interested students to participate in a videoconference interview with NASA aquanauts. The

school has approximately a 1:1 ratio of computers to students, complemented by unprecedented software capabilities and scientific technology.

Some of the best learning takes place outside the classroom. Seniors spend Wednesdays in a year-long internship that may carry them anywhere from Merrill Lynch to Columbia University's Stem Cell and Tissue Engineering Lab. Younger students devote time on Wednesdays to school-wide interdisciplinary projects, research, and clubs. Competitions are highly valued, with the school fielding large teams for math and robotics contests and many others.

But good as the Bergen County Academies experience is, it's very much a work in progress. "We're only going to get better," says Jaye. "We have to. It's what kids need."



Advancement of Science and Technology

Business and Finance (International Baccalaureate program)

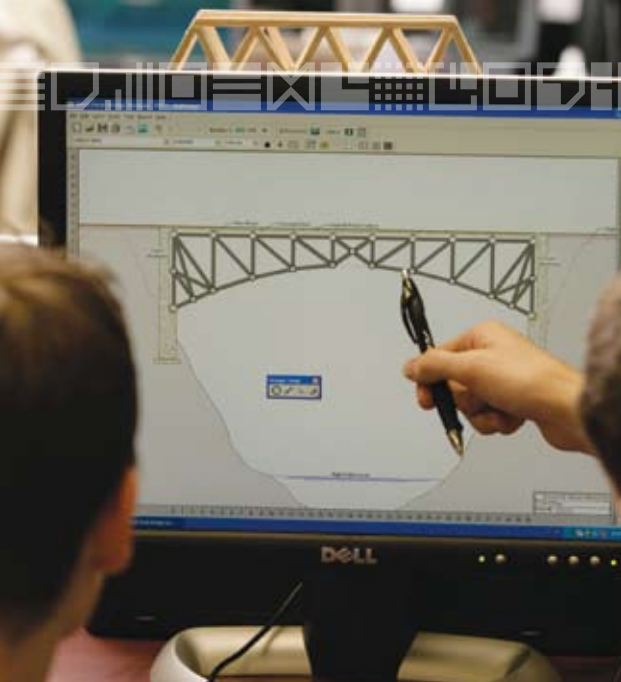
Culinary Arts and Hotel Administration

Engineering and Design Technology

Medical Science Technology

Telecommunications and Computer Science

Visual and Performing Arts



About Bergen County Academies

County-wide high school established in 1992

Part of Bergen County Technical School District

Students admitted as freshmen to one of seven academies

- Academy for the Advancement of Science and Technology
- Academy for Business and Finance (International Baccalaureate program)
- Academy for Culinary Arts and Hotel Administration
- Academy for Engineering and Design Technology
- Academy for Medical Science Technology
- Academy for Telecommunications and Computer Science
- Academy for Visual and Performing Arts

100% graduation rate over four years

1,100 students, slightly more girls than boys

95 teachers, 20% with a PhD

Flexible scheduling, extended school day

“Schools of Distinction winners serve as models of excellence in math and science education that show other schools how they can reinvigorate their own programs. The Bergen County Academies, this year’s Star Innovator, excels at integrating math and science throughout the curriculum, making their relevance clear to students, and encouraging remarkable achievement.”

Craig R. Barrett
Chairman of the Board
Intel Corporation

Learn More

What can you learn from Bergen County Academies? Read about the school’s practices in areas such as policy, leadership, funding, infrastructure, curriculum, and professional development, and see what results BCA students are achieving. Look for Sharing What Works: Effective Practices from the Intel Schools of Distinction Star Innovator 2007.¹

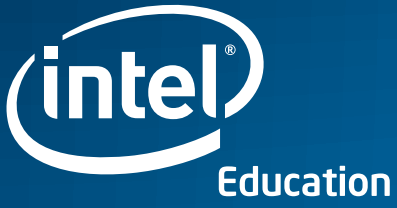
Learn more about the Intel Schools of Distinction Awards.

Visit us on the Web at <http://www.intel.com/education/schoolsofdistinction/>.

Explore Bergen County Academies and Bergen County Technical Schools.

Visit <http://bcts.bergen.org>.

1. www.video.intel.com (search Bergen)



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