

Governor's STEM Academy Brief



Office of Career, Technical, and Adult Education

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The purpose of the monthly brief is to provide information, resources, and a networking vehicle to support the STEM (science, technology, engineering, and mathematics) Academies in Virginia.

GOVERNOR'S STEM ACADEMIES SPOTLIGHTS

The Hampton City Public Schools Governor's Health Sciences Academy at Bethel High conducted a day of health careers exploration as a summer activity. The morning of July 20, inquisitive rising 8th graders arrived at Bethel High, eager to learn more about health and medical careers during the full day of activities.

The first stop was the Sentara Careplex in Hampton. There, students learned about careers in respiratory therapy, medical technology, and biomedical engineering. They toured a sleep lab as they learned about diagnosing sleep disorders.

At the second stop, students were involved with an interactive demonstration with the Hampton Fire Department/Emergency Medical Services (EMS). They were able to board an ambulance and explore the equipment used in life saving procedures. The Hampton Fire Department/EMS also brought their all-terrain vehicle and discussed how it is used in cases of emergency at local beaches and in search and rescue missions.

Students then toured Bethel's Governor's Health Sciences Academy classrooms and learned details about the application process and requirements. The last stop was at the Medical Careers Institute in Newport News. Students learned of careers in radiology, sonography, and health care administration. It was a fun-filled day as students learned about exciting careers in the health sciences.

CURRENT DEVELOPMENTS IN HEALTH SCIENCE

Looking Forward: Diagnostics, Biotechnology Research and Development, and Health Informatics

- [Entrepreneur's Business Idea Center: Health Care/Medical](#) page allows users to investigate entrepreneurial business ideas for people in the medical field.
- [A study from the University of New Mexico's Health Sciences Center](#) and [an article from Medical Economics](#) explore the benefits of using telemedicine to diagnose patients and why it should be the focus of physicians for future practice.
- [A Washington Post article](#) presents another side of telemedicine from a physician's point-of-view.
- [Future for All's medical technology page](#) provides a look into recently invented or future technology in the medical field, ranging from brain-computer interface to slowing aging to bionic limbs.
- [The Mayo Clinic's Center for Regenerative Medicine](#) delivers a variety of news sources, research, and blogs focusing on regenerative medicine.

Technology Shorts

- [This TED Talk](#) explores the idea of using technology to create an inexpensive, quick Nano-detector that can be injected into the body to search for cancer.
- [A TED Talk](#) and [a Times & Star article](#) explain the use of virtual working laboratories in schools that allow students to perform experiments rather than just reading about what college students and businesses are doing.

- [A TED Talk](#) by Chieko Asakawa details how, as a young girl, she used technology to help her adjust to life after becoming blind and is now using technology to help blind people operate independently in life.

INSTRUCTIONAL STRATEGIES—HEALTH SCIENCE

- [Howard Hughes Medical Institute's Bio Interactive site](#) includes films, lectures, and classroom resources created by a team of artists, scientists, and educational experts and are targeted toward high school students in an effort to engage students in the exciting world of science.
- [Bio Interactive's YouTube channel](#) offers videos and short films to supplement lesson plans and lectures.
- At [this GeneEd site](#), preview lesson plans, lab experiments, and highlights of the genetics' world.
- [This TED-Ed lesson](#) is about genetics.
- [Inner Body](#) allows users to explore all parts of the human anatomy in 2D interactive and 3D rotation and zoom.
- Follow the [National Institute of Health National Library of Medicine on Twitter](#) and stay current on all of the latest news.
- Peruse [Discovery Education's lesson plan library](#) for teacher-contributed lesson plans.
- [Discovery Education's America's Navy STEM for Classroom](#) provides lesson plans about robotics, sonar, oceanography, and more.
- Explore the tools and resources from the [Association of Surgical Technologists](#).

CAREERS IN HEALTH SCIENCE

- Visit [Explore Health Careers](#) to learn about all types of health careers, the opportunities available to students, and how to interact with professionals in those fields.
- [This article from Bloomberg](#) provides valuable information for those interested in studying to become a doctor.
- [The College Board's bigfuture](#) provides information for anyone interested in a career as a pediatrician.
- [This article from the American Academy of Pediatrics](#) explains the pilot program for an electronic change to the Maintenance of Certification (MOC) Assessment Part 3 exam for pediatricians.
- [U.S. News & World Report](#) and [The Princeton Review](#) provide information about careers in physical therapy.
- [The American Society of Radiologic Technologists](#) shares information about the field.
- [U.S. News & World Report](#) and [Explore Health Careers](#) provide information for anyone interested in the field of occupational therapy.

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