



# THE GOVERNOR'S SCHOOL for SCIENCE AND TECHNOLOGY

## 2020 Graduating Class Profile

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### ***Community***

The Governor's School for Science and Technology (GSST) serves the approximately 490,000 residents of the Virginia peninsula, reaching from the Chesapeake Bay to the historic Williamsburg area. The region is home to NASA Langley Research Center, Thomas Jefferson National Accelerator Facility, Northrop Grumman Newport News, Canon Virginia, Huntington Ingalls Newport News Shipyard, Veterans Administration Medical Center, Hampton University, The College of William and Mary, Christopher Newport University, Virginia Institute of Marine Science, and installations of all branches of the United States Military.

### ***High School***

GSST was founded in 1985 and is one of nineteen Governor's Schools in Virginia that serve as regional magnet programs for gifted high school students. GSST provides high-achieving students with a community of peers taking advanced courses in math, science, and technology, along with a rigorous grounding in research methodology. Students are drawn from nineteen high schools in seven school divisions (Hampton, Newport News, Poquoson, Williamsburg-James City County, York County, Gloucester County, and Isle of Wight County) and spend approximately half of their school day (3.25 hours) at the GSST. In addition to rigorous, college-level course work, seniors conduct an Honors Research/Mentorship project outside school hours. Students completing the program earn a Virginia Governor's Seal.

### ***Faculty***

The rigor of the GSST program rests on the exceptionally strong math and science backgrounds of its twelve faculty members. All hold degrees in mathematics, science, or computer science; six hold masters degrees and six hold doctorate degrees.

### ***Curriculum***

All courses are taught at a college level and many are accredited as dual enrollment courses by local colleges. Curricula promote active scientific learning through extensive laboratory investigations which incorporate advanced scientific technologies. Communication skills are developed through multimedia presentations to peers and professionals.

### ***Admissions***

The admissions process is a competitive one based on mathematics and science achievement, teacher recommendations, and standardized test scores.

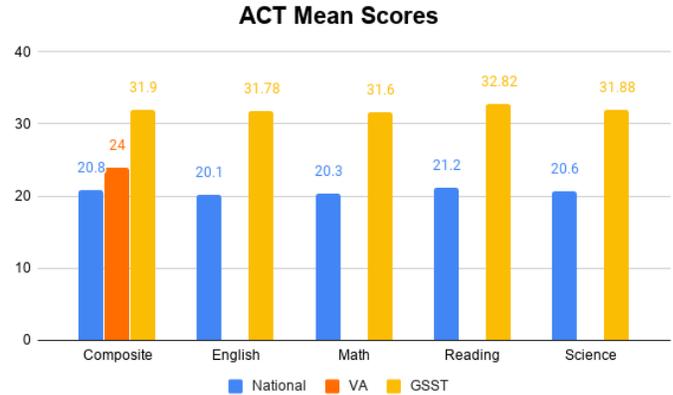
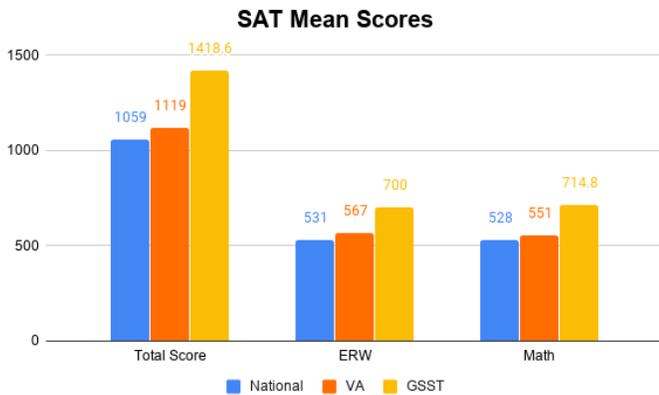


The Governor's School at New Horizons is a current and a founding member of the *National Consortium of Secondary STEM Schools*.

# 2020 Graduating Class Profile

## 86 Seniors

### SAT & ACT Score Comparisons



### Acceptances in Top 100 Colleges

#### US News 2020 Top 10

Princeton University	2
Harvard University	1
Columbia University	2
MIT	1
Yale University	1
Stanford University	3
Northwestern University	1
Duke	3
Johns Hopkins University	3

#### US News 2020 Top 50

Georgia Tech	9
University of Virginia	35
Wake Forest University	1
College of William and Mary	22
Northeastern University	1
Rensselaer Polytechnic Institute	3
Tufts University	1
University of California Irvine	1
University of California Santa Barbara	2
University of Florida	2
University of Georgia	2
University of North Carolina Chapel Hill	3
University of Texas at Austin	3
University of Wisconsin – Madison	1
Villanova University	1

#### US News 2020 Top 100

Clemson University	2
George Washington University	1
Ohio State	1
Penn State	7
Purdue University	4
Rutgers University	1
University of Maryland College Park	2
University of Pittsburgh	2
Colorado School of Mines	3
Drexel	2
Fordham University	1
NJIT Albert Dorman	1
North Carolina State University	5
Stevens Institute of Technology	2
Texas A&M	4
University of Minnesota	1
Virginia Tech	37

#### US News 2020 Top 25

Brown University	2
Caltech	1
Cornell University	2
Rice University	1
Vanderbilt University	2
Emory University	2
U.C. Berkeley	2
U.C. Los Angeles	3
University of Southern California	2
Carnegie Mellon	1

**2019-2020 Scholarship Awards Offered: \$8,173,676**

# Program of Study

## *\*College-level Course Offerings*

### **\*Science Courses:**

Advanced Chemical Analysis  
Advanced Biological Analysis  
Calculus-based Engineering Physics I & II  
Calculus-based Engineering Physics III & IV  
Computational Physics  
Engineering Design, Innovation and Entrepreneurship

### **\*Mathematics Courses:**

College Modern Pre-calculus  
College Calculus  
College Applied Calculus  
Multivariable Calculus/Linear Algebra  
Differential Equations

### **\*Research Courses**

Research Methodology & Statistical Analysis  
Honors Research and Mentorship

*\*Courses and faculty are approved for dual enrollment through the Virginia Community College System.*

## **Honors Research and Mentorship Program**

### ***Program Description***

A primary goal of the GSST is to provide students with an opportunity to conduct serious scientific research. All students take a junior year course in Research Methodology and Ethics, which introduces research methodology, statistics, critical thinking skills, and skills of scientific writing and presentation. In their senior year, students design and conduct a year-long research project under the direction of a scientific, engineering, medical or other professional in the community. The field component is supported by formal course work which guides students through the entire process, from the selection of a problem to the final presentation. In addition to their outside mentor, each student is assigned a faculty advisor to assist and evaluate mentorship research.

### ***The Project***

Major aspects of the mentorship experience include preparation of a formal written proposal for their project, oral presentation of proposal and status report at mid year to GSST faculty, final research document, and presentation of final results to a panel of professionals in appropriate fields at the GSST Spring Research Symposium. In addition, many students present their findings at local, regional, and national science competitions and symposia. Exceptional work has been published in professional journals.

### ***Research Sites***

Research sites that have participated in the GSST Honors Research/Mentorship program include NASA Langley Research Center, Thomas Jefferson National Acceleration Facility, Virginia Institute of Marine Science, MITRE Corporation, College of William and Mary, Virginia Tech Extension Center, Hampton University, Christopher Newport University, Virginia Living Museum, local engineering firms, hospitals, and a variety of individual medical and professional firms.



### *Extracurricular Activities*

In addition to its rigorous academic offerings, GSST students participated in a number of extracurricular activities and competitions.

- HUNCH – Participating in NASA’s High Schools United to Create Hardware program, a team of senior engineering strand students designed and fabricated transportable foot loop restraints using bio-mimicking adhesives for International Space Station astronauts.
- I/ITSEC Future Leaders Pavilion at Orlando, FL.
- ICAT – Award winning teams of senior students conceived, proposed, and designed engineering projects focused on the integration of artistic creativity and engineering discipline in an invitation-only program sponsored by the Institute for Creativity, Arts, and Technology at Virginia Tech.
- Verizon App Challenge– Students create app concepts that will have an impact on their local school. The GSST team won both best in State and Region.

GSST students participated in the following with many students earning regional and national recognition:

- Math Contest at Christopher Newport University
- Great Computer Challenge at Old Dominion University
- International Science & Engineering Fair in Los Angeles, California
- Tidewater Science & Engineering Fair at Old Dominion University
- Virginia Junior Science & Humanities Symposium at James Madison University

## Contact Information

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**The Governor’s School for Science and Technology**  
CEEB Code: 471019



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