THE GOVERNOR'S SCHOOL
for
SCIENCE AND TECHNOLOGY

Prospective Student Pipeline Newsletter #5
November 17, 2021

The Prospective Student Pipeline is a virtual community for families who want to learn more about The Governor's School for Science and Technology (GSST). By subscribing to this newsletter, you'll get information about what's happening at GSST plus notifications of upcoming events for prospective students.

Director's Notes: Ms. Vikki Wismer

Choosing Your Strand:

When students apply to GSST, they are asked to choose one of three strands. The choice of strand determines the science courses that the student will be taking during his or her two years at GSST. All students take the same research courses, regardless of strand, and math placement is determined by past math course work and achievement on our placement testing. Our science courses contain rigorous, college-level science content, infused with real-world applications from emerging technologies and fields of study.

Biological Sciences:
- Courses: 11th grade: College Chemistry, 12th grade: College Biology
- Appropriate for: Students considering careers in the health sciences, life sciences, biology or chemistry research or engineering
- Unique opportunities: extensive lab work, including restriction enzyme analysis, PCR, CRISPR/Cas and comparative physiology of aquatic, amphibian, and terrestrial mammals through dissection labs

Engineering:
- Courses: 11th Grade: Calculus Based Physics, 12th Grade: Modern Physics
- Appropriate for: Students considering engineering and other STEM careers

- Unique opportunities: In the EDIE (Engineering Design, innovation and Entrepreneurship) Lab, students learn digital electronic systems, CAD (Computer Aided Design) and the engineering design process. This knowledge is applied to keystone engineering design projects, such as the AirDuino, a collaboration with The College of William and Mary, in which students will construct a microcontroller-based air pollution detector device, program it and collect data at various locations in the Hampton Roads region.

Computational Sciences:
- Courses: 11th Grade:Computational Physics (algebra-based physics and programming); 12th Grade: C++ programming and introduction to data science
- Appropriate for: Students interested in computer science, software engineering, data science, and related fields
- Unique opportunities: The first year course teaches fundamental principles of physics and computational programming in Python. In the second year, students study C++ programming along with foundational concepts in data science, provided through a landmark pilot collaboration between GSST and the Computational Modeling and Data Analytics program at Virginia Tech.

College Planning Corner with Dr. Ellen Fithian:

Getting Started on College Planning:
When should parents and students start planning for college? I recommend that they start when a student begins taking high school courses - which can be as early as 7th grade for math and foreign language. Further, families of students aspiring to competitive colleges should plan to finish their college search by the beginning of senior year, so they can commence submitting applications as early as October and November. This timeline gives the student the option of applying to an early action or early decision school, as well as being considered for honors programs and merit scholarships that have early deadlines. So what should students be doing in 7th through 10th grades?

7th and 8th grades:
- *Investigate available options* for unique high school programs, such as International Baccalaureate, district-level magnet schools in the arts or other areas, and The Governor's School for Science and Technology. Find out what's special about each option - courses, extracurricular opportunities, etc. Next, what is the admission process for each? Are there prerequisite courses? How are students evaluated? If your child hopes to attend GSST, ask your school counselor whether enrollment in another type of program is compatible with also attending Governor's School in 11th grade.

9th grade:
- *Explore extracurricular activities.* Most middle schools have fairly limited offerings, so when teens begin high school, I encourage them to explore a range of activities in order to find those that are most enjoyable. As students progress through high school, however, they should think about pruning their activities so that they can focus their energies on a few favorites.
- *Spend some time on Khan Academy* to familiarize themselves with the PSAT and take at least one practice test over the summer.

10th grade:
- *Take the PSAT*, which is given at a student's home high school in mid-October.
- *Begin researching colleges* and making campus visits.
- *Apply to GSST* in January if the student feels the program would be a good fit.

For more general thoughts about what parents should be doing in 7th through 10th grades, click here to be taken to an article on my informational website, The Sidelines: Parent Guide to College Admissions (www.sidelinesguide.com).

FREE Summer Programs in Virginia

It seems like last summer just ended, yet it's already time to start thinking about the next one. Applications are open for two great programs, both of which are **FREE** to Virginia public school students.

Summer World Language Academies

Here's another great academic opportunity brought to you by the Virginia Department of Education - a **FREE** three week, residential program to study one of several foreign languages. Students spend three weeks on a college campus, taking language classes and attending enrichment and social activities. There are two types of programs: *full immersion,* in which students speak in the foreign language all day, every day, and *partial immersion.*

Full immersion programs:
Languages offered: French, German, and Spanish
When: June 18 - July 9, 2022
Where: Washington and Lee University

Partial immersion programs:
Languages offered: Japanese and Latin
When: June 19 - July 10, 2022
Where: Randolph Macon College

Who can apply?
Students can apply in either 10th or 11th grade to attend the following summer.

How and when do you apply?
Speak to your school counselor. The first step is completing an online application form, which is submitted to your high school. High schools choose which students to nominate to the VDOE, which makes the final selections. Ask your school counselor when your application is due.

Click here to learn more.

BLAST
(Building Leaders for Advancing Science & Technology)

The BLAST program is a **FREE** three day program in which students live on a college campus for three days and engage in STEM activities. BLAST is a collaboration between the Virginia Space Grant Consortium, UVA, Virginia Tech, and ODU, along with the Commonwealth of Virginia.

Where and when in the program?
Students can choose which of three sessions to apply to, all offered during the summer of 2022:
Old Dominion University: June 19-22
Virginia Tech: July 10-13
University of Virginia: July 31-August 3

Who can apply?
The program is open to Virginia residents who are current 8th and 9th graders.

How and when do you apply?
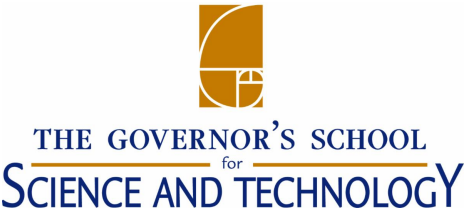An online application is available now through February 7th.

Click here for more information.

Tell a Friend About the PSP! Everyone is Welcome!

If you know someone who might be interested in learning about The Governor's School, or who would benefit from any of the more general information provided here, please encourage him/her to subscribe by signing up on the **Prospective Student Pipeline** tab of our website.

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