



## Innovative Technology in Academic-Year Governor's School Classrooms

All of the Academic-Year Governor's Schools (AYGS) utilize technology to facilitate instruction in classrooms where fast-paced knowledge acquisition, innovation, and perpetual change are constants. The categories reference only a small sample of the ways AYGS programs are implementing technologically-based instruction.

**Virtual/Physical Studios:** Bridging the online-offline gap, these technologies offer a solid approach to on demand information acquisition.

- The Governor's School of Southside Virginia (Keysville) instructors utilize *Panopto* software to record introductory lessons as well as booster lessons for all disciplines. These recordings allow students to view a lesson utilizing their Blackboard account. It is beneficial not only as an intro to a concept but also in lieu of a lesson due to an absence or if a student needs to review information to gain concept mastery.
- Maggie L. Walker Governor's School (Richmond) provides an online Economics and Personal Finance course to every student.
- Massanutten Governor's School uses *Moodle* and *ThinkWave* through Google to offer more paperless mode of learning. These are used to turn in documents, discussion boards, and provide reading materials to students.
- The Governor's School at Innovation Park (IP@GS-Prince William) uses a distance learning approach in the Intro to Research class so students can spend class time on actual research. IP@GS has online modules including content and assessments in Research Ethics, Technical Writing, Displaying Data, and Research Statistics that students must complete outside of class.
- Commonwealth Governor's School (Fredericksburg) utilizes *Tandberg* video broadcasting system at all six CGS sites. Students have the ability to access video conference classroom instruction "live" from anywhere via the internet as well as watch archived lessons.
- Shenandoah Valley Governor's School offers Engineering II as a virtual dual enrollment course with UVA.

**Digitized Classrooms:** Instructional technology is not considered a standalone tool. Instead, digitization is dispersed throughout every facet of learning. Technology hardware is the tool of learning.

- Students take Blue Ridge Virtual Governor's School (Palmyra) core courses in the local school classrooms with teachers, but use interactive computer technology (*Google Apps for Education*) in large-scale projects to solve problems collaboratively with students from other member districts, to professionally present their academic findings and to pursue individual academic interests.

- Maggie L. Walker Governor’s School’s ‘Bring Your Own Device’ program supports every student with ubiquitous wireless access throughout the facility.
- Commonwealth Governor’s School provides 30 iPads for each site to support instruction and learning with digital tools.

**Tangible Computing:** These technologies embed computation and learning mechanisms into instruction.

- Chesapeake Bay Governor’s School (Tappahannock) provides *PASCO SPARK* Computer Ready Probeware for use in measuring water quality, motion, pH, Gas Laws (pressure and temperature), and forces.
- All Southwest Virginia Governor’s School (Pulaski) students have *ALEKS* accounts. Assessment and Learning in Knowledge Spaces (*ALEKS*) is an artificial intelligence mathematics program developed through the National Science Foundation. Students use *ALEKS* over the summer prior to the start of school to help ensure that they have mastered specific math skills.
- Southwest Virginia Governor’s School students use *Chromebooks* to read e-textbooks, access *Schoology* (a new learning management system) and *Adobe Connect* for some of their interactive class sessions.
- Maggie L. Walker Governor’s School’s digital media program supports students in virtual 3-D design as well as in film study/making.

**Opening of Information Platforms:** Physical silos of schools and classrooms disappear as digital media and social communication networks link the past and the present through course content.

- Central VA Governor’s School’s (Lynchburg) research course students often *Skype* with content experts outside of the region; for example, the astronomy department at UVA *Skype* weekly with the handful of students who conduct research in astronomy each year.
- Southwest Virginia Governor’s School students of Anatomy & Physiology use online simulation programs for further engagement with specific topics including simulations for students to perform a coronary artery bypass surgery, cruciate surgeries, and surgery preparation. Students also collaboratively designed iPhone apps to integrate information learned about organ systems.
- Mountain Vista Governor’s School (Warrenton) students use iPads to *FaceTime* meetings and to *Skype* with college professors/researchers to support their two-year research program. Students have used distance learning equipment to connect with researchers at the Miami Project who are working to cure paralysis from spinal cord injury.
- At Thomas Jefferson School for Science and Technology (Fairfax) a new network initiative (Jefferson Collaborative Inquiry Research Network-JCIRN) links students to a community of professionals and researchers, as well as databases, for importation to support research projects.

More information on each Academic Year Governor’s School is linked at [http://www.doe.virginia.gov/instruction/governors\\_school\\_programs/academic\\_year/index.shtml](http://www.doe.virginia.gov/instruction/governors_school_programs/academic_year/index.shtml)

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