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 a 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)

For questions, contact Dr. Donna L. Poland at (804) 225-2884 or email at Donna.Poland@doe.virginia.gov