### Vision 2018: Fulfilling the Promise of Preparation

# Recent Highlights

Spring 2014

of the HOWARD COUNTY PUBLIC SCHOOL SYSTEM

#### Goal 1 Every STUDENT achieves academic excellence in an inspiring, engaging, and supportive environment

- All 12 high schools took part in the OECD Test of Schools in February. HCPSS is the first Maryland school system to participate in this new international benchmark, which is based upon the well-known PISA (Programme for International Student Assessment) and ranks academic performance for 15-year-old students in many countries. The results, available next year, will show how well each high school ranks globally in reading, math, and science instruction, and help ensure that HCPSS curriculum is aligned to top-level international, as well as national, benchmarks.
- All 12 Howard County high schools earned the Safe Sport Award from the National Athletic Trainers Association in January. The award recognizes school athletic programs that create a comprehensive athletic health care administrative system, promote safe and appropriate practice and competition facilities, and develop injury and illness prevention strategies. HCPSS is the first school system in the state to win the award for all of its high schools.
- Digital camera systems have been installed on nearly half of the HCPSS school buses, and plans are in place to equip all buses with the cameras over the next few years. The new cameras support the recommendations of the Joint Task Force on School Safety and supplement current processes for addressing complaints of bullying behavior. Details: www.hcpss. org/schools/transportation.
- A new financial center, complete with a NYSE electronic stock ticker, allows Academy of Finance students at the Applications and Research Laboratory to experience live market conditions and gain hands-on practice in investing and portfolio management. Students who take part in the Academy of Finance and other HCPSS career academies gain a head start toward success in college and a rewarding career, through advanced-level instruction, industry exposure, interaction with field professionals, and practical application.
- The HCPSS STEM Festival in February drew more than 1,000 community members to celebrate student and school achievement in science, technology, engineering, and math. Participants explored a wide variety of student project displays and demonstrations, including the Student Spaceflight Experiment Program (SSEP), robotics, Trout in the Classroom, and many more. The event was held in conjunction with the annual STEM Fair, where panels of scientists, engineers and educators judged 175 middle and high school research projects for winner recognition in March.



Reservoir High School's Foundations of Technology class created a model city using a 3D printer, which can produce objects of virtually any shape from a three-dimensional, digital model. Students applied math and science concepts and architectural principles to design the buildings using computer design software. 3D printers offer exciting real-world learning opportunities for students at eight high schools. The groundbreaking project is an example of the hands-on learning experiences that engage students in learning through solving real-world problems, collaboration, and innovation.

- The Class of 2013 outperformed state and national peers on the SAT, earning an average score of 1653, which is an increase of 21 points over the previous graduating class, 170 points greater than the average for Maryland schools, and 155 points greater than the average for schools nationwide. A combined SAT score of 1650 is widely considered to indicate college and career readiness.
- HCPSS was named to the College Board's 4th annual AP District Honor Roll, which recognizes districts that have increased participation among diverse student populations in Advanced Placement classes and tests while maintaining or improving the percentage earning high scores. More than 64 percent of the HCPSS Class of 2013 took at least one AP course. More than half took at least one AP exam; of those, more than 84 percent earned a score of 3 or higher – the level accepted for college-level course credit at many colleges and universities.
- Astronauts on the International Space Station this spring will conduct a science experiment designed by Murray Hill Middle School student Kevin He. The project is one of just 15 selected among 1,344 student proposals submitted nationally. Science classes at participating HCPSS middle schools learned about forces and motion in science classes, then worked in teams to design research proposals for microgravity experiments. This is the second year that an HCPSS student project was selected for the space flight. The project is an example of the exploratory learning experiences that typify the next-generation science curriculum.

## Recent Highlights continued



A new School Wellness Center opened in December at Bollman Bridge Elementary. This is Howard County's first in-school health center, provided through a partnership with the Howard County Health Department. Similar to a doctor's office, but located inside the school, the Wellness Center offers preventive and primary health care and mental health services for all BBES students during school hours. Onsite wellness centers have been associated with higher levels of student achievement, and can be especially valuable for children who lack access to health care.

### Goal 2 Every STAFF member is engaged, supported, and successful.

- Nineteen teachers achieved National Board Certification this year, bringing the total number of board-certified teachers at HCPSS to 138 – one of the highest participation rates in Maryland. National Board Certification is an advanced teaching credential achieved through a rigorous, peer-reviewed process. Successful candidates must demonstrate subject matter expertise, the ability to design effective learning experiences, and partnerships with colleagues, parents and the community.
- A delegation of 60 elite South Korean science teachers visited HCPSS elementary, middle and high school classrooms in January to study best practices in innovative STEM (science, technology, engineering and mathematics) instruction. Each Korean teacher was paired with a job-alike HCPSS counterpart to share ideas and techniques. This is the third year in which a Korean delegation has studied the school system.
- A new Staff Hub streamlines access to information and online resources for HCPSS employees and provides an effective forum for cross- and inter-functional collaboration. The site provides a personalized, intuitive, and collaborative experience, with advanced search capability and responsive design that accommodates increasingly mobile access.
- The Bright Minds Foundation awarded nine teacher grants in February, totaling \$14,775, to sponsor innovative classroom projects. Bright Minds enhances educational opportunities for all Howard County students through support of equity, innovation and lifelong learning.

### Goal 3 FAMILIES and the COMMUNITY are engaged and supported as partners in education.

- Four Curriculum Information Sessions for parents were held in January and February. Hundreds of participants learned about the new HCPSS curriculum in mathematics and English/language arts and its alignment to the Common Core standards, and discovered ways that they can help their child at home. Detailed information about the curriculum, including many enrichment resources and tips for parents, can be found at www.hcpss.org/academics/.
- Seventeen participants representing eight different countries are taking part in the International Parent Leadership Program (IPLP) this year. The seven-week program introduces international parents to school and system procedures, encourages involvement in the school community, and fosters leadership roles on behalf of the system's nearly 6,000 international students. Nearly 200 participants have graduated from the IPLP since 2006.

#### Goal 4 Schools are supported by world-class ORGANIZATIONAL PRACTICES

Lean Six Sigma and other continuous improvement methodologies are widely used by manufacturing and other industries to improve safety, efficiency, and profitability. HCPSS is now using this approach to redesign processes to improve consistency and efficiency and reduce waste.

The process has already yielded impressive results. For example, a successful HVAC Lean project has significantly improved comfort levels and delivers more than \$22 thousand in annual energy savings per building. In another project, a manual teacher transfer request process has been automated, vastly improving reliability and shortening process time, and saving thousands of pounds of paper per year.

Zero-based budgeting (ZBB) was used for the first time in developing the FY15 school system operating budget. Zero-based budgets evaluate all proposed annual expenditures on the basis of strategic priorities. The process is more flexible and transparent and helps to identify cost-savings opportunities. The ZBB process delivered \$3.4 million in savings for the FY15 budget alone.

Follow our progress in achieving Vision 2018

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