MARYLAND STATE DEPARTMENT OF EDUCATION
PREPARING WORLD CLASS STUDENTS

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December 17, 2015

The Honorable Edward J. Kasemeyer
Senate Budget and Taxation Committee
3 West Miller State Office Building
Annapolis, MD 21401

The Honorable Maggie McIntosh
House Appropriations Committee
121 House Office Building
Annapolis, MD 21401

RE: 2015_p.98_MSDE_Preliminary Education Technology Plan

Dear Chairman Kasemeyer and Chairman McIntosh:

This attached report is submitted in accordance with the requirements of the 2015 Joint Chairmen's Report (page 98).

The language specifically requests that MSDE, in consultation with the Department of Information Technology and LEAs, develop a State Education Technology Plan that identifies the technology, both wired and wireless infrastructure and equipment, that is needed in each public school to support online assessment administration and digital learning in an environment that is conducive to one-to-one access to digital resources, including "bring your own device" options. The plan should include recommendations to conduct a statewide analysis of the technology capabilities of each LEA based on the plan's proposed technology, identify gaps in technology readiness across the State, and estimate the cost of implementing the plan. MSDE should request funds in the fiscal 2017 budget to conduct the statewide analysis. MSDE shall submit a draft State Education Technology Plan as a preliminary report by December 15, 2015, in order to receive feedback from the local education agencies and other stakeholders.

Should you have questions or need additional information, please contact Henry Johnson, Ph.D., Interim Deputy State Superintendent, at (410) 767-0651 or by email at henry.johnson@maryland.gov.

Sincerely,

Jack Smith | JM

Jack R. Smith, Ph.D.
Interim State Superintendent of Schools

C: Henry Johnson, Ed.D.
Doug Strader, Ph.D.

Joint Chairman's Report 2015

Maryland State Education Technology Plan (R00A01 p. 98)

Maryland State Department of Education

Division of Curriculum, Assessment, and Accountability

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December 2015

Introduction

Pursuant to the Joint Chairmen's Report- Operating Budget, April 2015 (R00A01, p. 98), the Maryland State Department of Education (MSDE) is required to submit a draft State Education Technology Plan as a preliminary report to identify the technology needs to support online assessment administration and digital learning in an environment conducive to one-to-one access of digital resources, including "bring your own device" options. Because the Maryland State Technology Plan is currently being developed by the Maryland Instructional Technology Advisory County, this report serves to outline the current state of educational technology in Maryland and details the recent work done around the updated plan. The final report, due June 1, 2016, should identify gaps in technology readiness and access and identify the cost of implementing a Statewide Education Technology Plan.

This report is organized by the four main requests:

A. The technology needs for digital learning in each LEA
B. LEA readiness for online PARCC assessment and one to one access implementation
C. A State Education Technology Plan
D. The status of digital and other educational innovations

To collect the data required, MSDE staff developed a survey that was disseminated to all 24 Local Education Agencies (LEAs) via Local Accountability Coordinators (LACs), Chief Information Officers, and Superintendents (see Attachment 1). Responses were received from 18 LEAs in total; these responses demonstrated the wide range of technology access, wireless access, and capacity for supporting digital learning. However, the overall theme demonstrates LEAs that are continuously doing more with less. Despite decreasing funding for technology, all reporting districts are working towards intentional technology integration with centrally supported, ongoing professional learning for teachers.

A. Technology needs for digital learning

LEA technology purchases and integration

There is little uniformity as to the actual devices and technology tools that districts purchase, and many purchases are determined by cost. All districts have a mix of desktops, laptops, and tablets of varying brands. Prevalent desktop and laptop brands are Dell, Lenovo, and Apple, and many LEAs have purchased Chromebooks, iPads, and other portable computing devices. In addition to personal computing devices, districts also reported increased purchases of additional instructional technology such as document cameras, interactive whiteboards, graphing calculators that interact with whiteboards, and multimedia interactive podiums.

Some LEAs like Wicomico County have developed technology packages for their classrooms. They recently opened a new middle school this year and implemented a standard classroom

configuration of: a teacher laptop station, interactive device (eBeam), document camera, wireless access, and laptop carts to be shared in a 1 device: 2 student ratio. Standardization can assist in equitable distribution across schools, but is often difficult to finance and implement.

LEAs have identified the need for thoughtful use of technology in order to ensure that teachers are not simply creating digital versions of the same work. To support that process, districts have developed strong instructional technology offices working to support teachers as they implement educational technology in all grade levels and contents. Anne Arundel County has developed an eCoach model for online training and ongoing support for educators. Prince George's County implemented several innovative professional learning programs for county educators, such as the Sharing Technology with Educators Program (STEP), the GEM (Google Education Mentors) Training Program, and the SMART(board) Educator Teacher Training Program. Kent County expects that teachers incorporate technology into the everyday classroom and support this expectation through Discovery Education's Digital Leader Corps.

By using the SAMR (Substitution, Augmentation, Modification, Redefinition) model in the development of digital curriculum, training programs, and educator professional learning, students are given the opportunity demonstrate 21st century critical thinking skills by creating digital posters, developing videos and podcasts, designing webpages and blogs, and collaborating on digital projects. In addition to technology integration, the majority of districts utilize online coursework to supplement student learning; this effort is especially useful for students in rural areas, those in home and hospital care, as well for enrichment and career training.

Technology integration and instructional software

As LEAs have identified varying priorities around technology integration, the extent to which digital learning occurs on a daily basis is not uniform. Districts use a wide variety of instructional software that range from content specific like Discovery Education to content management systems such as Edmodo. While some districts has clearly delineated policies and expectations around digital learning, others articulated that the tools and infrastructure are in place but the implementation varies by school.

Several identified innovative methods of blended or flipped classrooms. In Howard, blended courses are used to support original credit, credit recovery, home and hospital instruction, summer school and alternative education. In Montgomery and St. Mary's County, online learning was developed for credit recovery and access to AP/IB courses.

Prince George's developed the "Take your teacher home iPod program", where students take lessons created by teachers home on their iPODS. In Talbot. teachers have software to record video and post lectures, assignments, resources online, and prepare student centered (self-paced) lessons online.

Home access for staff and students

In order to continue the learning and digital access outside of the classroom, many LEAs have secured cloud based programs to allow students and teachers to communicate or work remotely. Most LEAs have purchased Learning Management Systems such as Edmodo or Edline to allow teachers to share assignments with students. Many also have remote desktop or VPN (Virtual Private Network)/SSL VPN access for non-cloud based programs.

To encourage the continued collaboration between students, the majority LEAs have subscribed to either Microsoft Office 365/One Drive or Google Applications for Education (GAFE). These tools allow students and teachers to share work via private, secured network. Network administrators can create different levels of security and access for specific grade levels, users, and programs. Having the ability to use GAFE or Office 365 means that students can continue the conversation and work after leaving the school and in case of absence, students have a method of receiving the work remotely. In addition, as part of the partnership between MSDE and Microsoft, all students and educators have access to five free licenses to Microsoft Office 365 for use at home.

Bandwidth and internet access

There is a wide range of school level bandwidth throughout the state, ranging from 50 mbps up to 5Gb. Some districts have shifted to a fiber only network while others have a blend of copper and fiber. Many factors are involved in the decision making for bandwidth acquisition, as it is a costly purchase. A district must first invest in the fiber network itself and ensure that it reaches each of its schools, which in remote areas can be difficult or presently impossible. The bandwidth itself is a cost as well, and the needs for each school or LEA may vary depending on the amount of devices or access points in any given building. Districts that have implemented 1 to 1 or BYOD will have higher bandwidth needs than those with a higher student to device ratio.

While the majority of LEAs have wifi access at all of their schools, the access and security measures vary by policy. All with wifi give access to staff and students filtered to CIPA compliant standards but not all offer guest access or only offer very limited access.

Technology Costs

All technology purchased or leased (network infrastructure, wireless, firewall, content filter, computers, software systems, etc.) have annual maintenance agreements. Often these are overlooked with one-time grant funds and must be covered in future years in operating budgets. In addition to these agreements are the annual refresh of hardware, salaries of technology staff, and professional development which are all ongoing costs. Another concern is the increasing costs of firewall, bandwidth, storage (private cloud), and filtering, virus scanning, detection and eradication licenses.

To give an indication of the yearly costs, Frederick County allocates $3.5 million annually to maintain and operate its technology infrastructure alone. Prince George's spends approximately $15 million a year to maintain its current network infrastructure, wireless networks, technology refresh of devices, instructional technologies, and various software applications.

Technology Funding

A key concern of the state and LEAs is that funding is not keeping up with demand; while stimulus funding, Race to the Top, and supplemental grants specifically for technology have been helpful in the short term, LEAs are not receiving the rate of funding needed to remain competitive. LEAs do receive educational aid from the State, in the form of unrestricted funds, that could be used by the LEAs for technology.

Most LEAs rely heavily on their county government and other local sources for funding, which is not often sufficient for their increasing needs. Capital budget funds are typically geared towards infrastructure improvements, which are also a necessity, rather than devices. Thus, they must purchase devices from their LEA operating budget. Some LEAs identified Qualified Zone Academy Bonds (QZAB) as an additional source of funds, as well as utilizing lease purchasing for technology refresh.

Due to shrinking budgets and increasing technology demands, many LEAs find innovative ways of closing the funding gap. Calvert noted that a computer donation program has saved approximately $8.5 million over the past 7 years. Other plans include the continual search for supplemental grant funding,

Via Harford County, "Without state or federal infusion of capital investment, we continue to educate our local funding source (county) to invest in technology for instruction." Since the county itself is the source for the majority of expected funding, many LEAs plan on requesting additional funds from their county, as well as requesting an increase in technology refresh funds from their local Board Of Education. Wicomico plans to create community awareness of the need to fund technology and develop a funding plan that is adequately distributed to all stakeholders to ensure that funding is a priority.

Universal Service Program for Schools and Libraries (E-Rate) funding has historically been a reliable source of funding; through this program eligible schools can receive discounts on eligible category one services (telecommunications, telecommunications services and Internet access) and category two services (internal connections, managed internal broadband services and basic maintenance of internal connections). (Universal Service Program for Schools and Libraries Guide 2014). Discounts range from 20-90% but reimbursements for telecommunication services will be phased out over the next three years.

LEAs were asked calculate total technology funding and E-rate funding for FY15 as well as the total amount spent on technology through Race to the Top. As detailed in the chart below, funding for technology varies greatly.

Maryland Technology Funding by LEA

District	Total RTTT	E-rate FY15	Total FY 15 Funding
Allegany	$2,000,000	$375,000	$1.4m
Anne Arundel	$3,845,000	$1660.189 (Projected $820,000 for FY16 and $300,000 for FY17)	$16,351,759
Harford	$645,000	$488,000 (deposited into general fund, not directed back to technology)	$9.9m
Frederick		$450,000	$2.75m, including $1m

			in onetime capital funds
Howard	$526,414	$980,294.97 (13/14)	$19m
Prince Georges	$1.3m	In process	$35,561,086
Montgomery		$2,180,266	$50,726,271
St. Mary's	$1,584,779.55	$149,573.89	Not supplied
Queen Anne's	$429,693.89	$85,398	Not supplied
Talbot	$180,000	$136,000	$2,200,000
Wicomico	$ 282,592.37	$224,544.95	$ 758,304.21
Baltimore City	$11,489,474	$3,048,089.26	$21,927,041
Dorchester	$404,592.61	$262,749.16	$1,467,341.77
Carroll	$855,532	$135,792	$464,000 (excludes LEA funding)
Calvert	$229,748.75	$103,947.63	$2,097,524
Kent	$405,426	$22,000	$802,000
Charles	$660,649	$204,355.82	$9,736,676
Baltimore	$1,026,058	$1,921,688.17	Not supplied

B. LEA readiness for online PARCC assessment and one to one access implementation

When MSDE and LEAs were planning for the first PARCC administration, one of the greatest concerns was related to the number of available devices to test students online. Districts initially reported needing roughly 75% paper for the first administration. MSDE then budgeted accordingly. Through subsequent preparations, grant appropriations, and scheduling creativity, districts were able to assess roughly 82% of their students online, generating a savings greater than $2,200,000. Districts were able to successfully overcome issues related to the number of available devices, scheduling, configuring devices, and available bandwidth.

For the 2014-2015 administration, the PARCC assessments contained two parts, the Performance-based Assessment (PBA) window and the End of Year (EOY) window. The table below includes a state level summary of the participation by mode of delivery for each administration.

PARCC State Totals:

Test Administration	Paper-Completed	Online-Completed	Totals	% Paper	% Online
PBA	165,435	734,161	893,820	18%	82%
EOY	163,890	729,930	899,596	18%	82%

Access to technology

LEAs have varying priorities and initiatives, which is why there is such a wide range of technology access plans and student/device ratios. Most LEAs responded with ratios disaggregated by grade band; many have different programs or plans by grade band as well. (see below).

1:1	2:1	3:1	4:1 or higher
Talbot- 6-12 Balt Co- 1-3 Kent- 1-10 Montgomery- 3-6 Queen Anne's- 5-12 Talbot- 6-12	Allegany Prince Georges Howard- 1.8:1 Charles- 1.5:1 Carroll- HS- 1.8:1 Calvert- 1.6:1 Anne Arundel- 1.45:1 Talbot K-5 Kent- 11-12 Harford- HS Frederick- MS Talbot- K-5	Baltimore County Kent- K Montgomery- 7-8 Queen Anne's- K-4 Carroll- ES	Dorchester- ES 5:1, MS & HS 4:1 Harford- ES- 6.7:1, MS- 3.9:1 Frederick- ES- 6:1, HS- 5:1 Montgomery- K-2 & 9-12 4:1 St Mary's County- 4:1 Wicomico (not specified) Baltimore City- 5:1

One to one device ratio

Ten of the eighteen reporting districts have no immediate plan to implement a 1:1 device program. All cited costs as the reason; Wicomico pointed to the need for funding to support the purchase and/or leasing of the hardware, the added infrastructure and human resources, and the cost to maintain, repair, and replace devices.

Six districts have achieved the 1:1 ratio in specific grade bands; Queen Anne's is currently operational in grades 5-12 and will be extending down to 4th and 5th grade in the next few years. Talbot County currently is 1:1 in all middle and high schools; for 10 years, laptops have been issued to students in grades 9-12 and as part of a take home program.

Many districts are piloting or working towards the 1:1 ratio; Calvert is piloting in grades 4-6 with HP Streambooks and Frederick piloting in one middle school.

Four districts are currently working towards 1:1 in the next few years; Prince George's (2018), Baltimore (2018), Kent (2018), and Anne Arundel (2020). Baltimore City is investigating a technology refresh program to bring the district closer to this ratio, which will necessitate the development of policies, guidance, and expectations for educators and student around use of technology and social media.

BYOT/D (Bring your own technology/device)

Many LEAs are implementing or investigating BYOD as an alternative to 1:1 programs due to cost. Currently seven districts report having a BYOD program or policy for the majority of their schools. Often, the use of devices is determined by the principal and teacher which means that the implementation is not uniform.

Several districts have implemented a limited BYOD program which means that the devices are not permitted on the district network (student must use their own data). This school year, three districts are piloting BYOD; St. Mary's, Charles, and Harford which hopes to have implemented in all middle and high schools by the end of SY16. Six districts have no plans to implement a BYOD program, citing equity, legal, and accessibility concerns.

Current equitable access plans include utilizing current school resources (laptop carts, library checkout) and the expectation that teachers will identify and plan for these needs. Several districts included plans to assist in technology access at home; Howard and Montgomery work with local businesses and non-profits to extend discounts to families or provide refurbished devices.

C. State Education Technology Plan

In 2011, the Maryland Instructional Technology Advisory Council published *Investing in Instructional Technology: Accelerating Educational Reform in Maryland* to serve as an interim report until a current Maryland Technology Plan could be developed. During the development of a State Technology Plan, all efforts are made to align with the goals cited in the current National Technology Plan published by the U.S. Department of Education, Office of Educational Technology. The most recent National Plan was last updated in 2010 with promises to release the 2015 plan this past April, but this publication has yet to be released.

A decision was made to update the *Investing in Instructional Technology: Accelerating Educational Reform in Maryland* until the National Technology Plan has been published; this report is currently in its' final stages. Although Maryland school systems develop their own Technology Plans, they look to the National and State Technology Plan for guidance, which is why many LEA plans have not been updated very recently. Below is an overview of the work of the Advisory Council to date, each goal and sub-goal has been updated and is supported by LEA Exemplars (see Attachment 2).

> **Vision:** Empower all students to become informed, engaged, digital learners who are productive and responsible citizens of a global society.
>
> **Mission:** Establish student-centered digital learning environments where students are empowered to think creatively and critically as engaged members of a learning community by building the capacity of our educators and providing equitable access to digital resources.
>
> **Goal 1:** Student Learning
>
> **Goal 2:** Educator Proficiency

Goal 3: Equitable Access

Current LEA policies, procedures, and initiatives around instructional technology

Because districts create their own policies around technology, the content, timeline, and depth of such policies greatly vary. All reporting LEAs have or are in the process of developing instructional technology procedures and plans for teacher, student, and guest use and many cite the forthcoming Maryland State Education Technology Plan as a guide for amending or creating future Technology Plans. Often the policies themselves are decided by the local school board, with details such as implementation and distribution of technology left to LEAs. Many have incorporated technology plans into their vision or mission statements and several point to a strategic plan outlined on their LEA website. A common concern is that technology must be intentionally and thoughtfully integrated into the classroom setting, which means that rollout of digital resources has been slower and more deliberate.

In Harford County, a technology planning committee has been meeting for 18 months and a vision statement, a mission statement, and belief statements have been identified. In districts such as Anne Arundel, Allegany, and Frederick Counties, acceptable use policies are in place for staff, students, and families for use of technology both in school and at home. Queen Anne's, Montgomery, and Prince George's counties shared the development of a Strategic Plan for technology use in the districts which highlights the need for thoughtful and deliberate planning.

As part of their Vision 2018 strategic plan, Howard County highlighted the importance of technology to daily teaching and learning, "Technology is leveraged so that students have access to learning experiences that meet their needs and interests." This vision requires:

- Coordinating resources across operations and instruction to support student learning;
- Continuous improvement of technology infrastructure and device access to increase student access to learning; and
- Developing blended learning (through professional learning and digital content integration) models that provide greater flexibility for when and how students learn.

D. Status of digital and other online educational innovations

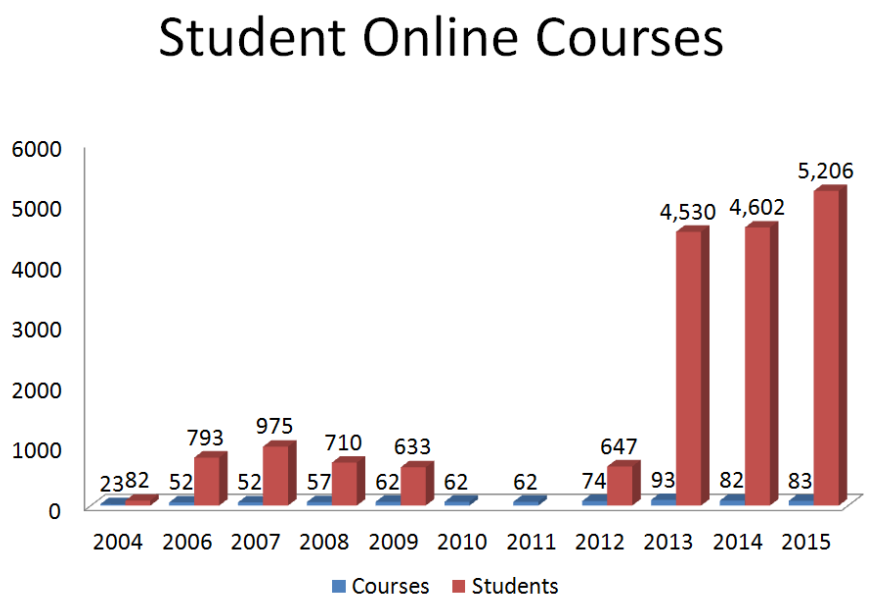
As evidenced by the progress noted in the Digital Learning Now Report Card (Foundation for Excellence in Education, 2014) and Keeping Pace (Evergreen Education Group, 2014), school systems in Maryland have been working toward the integration of digital resources into instruction to support teaching and learning. Maryland school systems understand the value and benefit of incorporating digital resources into the classrooms and are striving to create student centered environments. Many have a target of 1:1 student to device access. Others are finding ways to broadcast classroom instruction from one school to another.

Enrollment in online student courses has risen from 647 in school year 2011–2012 to 5,206 for school year 2014–2015. Race to the Top Funding supported numerous technology related

projects. Over the past two years, Digital Innovation Grant funding has provided multiple school systems with seed money to institute some innovative initiatives.

Student Online Course Program

As depicted in the chart below, Maryland has witnessed a dramatic increase in student enrollment and completion of online courses over the past three years.



Although this is encouraging data, online program opportunities need to expand further. In order to accomplish this and remain in compliance with state laws and regulations, MSDE anticipates changes in the program for the upcoming school year. The proposed changes will address levels for approval, accessibility and reporting guidelines.

Race to the Top Funding allowed the State to develop and offer:

- A powerful one-stop access portal for all stakeholders, Learn MD, that includes access to a multi-state Resource Exchange of searchable digital resources, Dashboards, and other State supported systems
- A Learning Management System that includes online registration system and houses the following:
    - 8 Student Online STEM Courses: Cyber Security; Administration of Justice II; Environmental Science; Video Game Design; Foundations of Computer Science; Computer Science Concepts and Principles; Financial Literacy; Foundations of Technology
    - 13 Adolescent Literacy Student Modules
    - 8 STEM Student Modules
    - 6 Algebra II Student Modules
    - 320 Intervention/Enrichment Student Modules – English Language Arts, Mathematics, Disciplinary Literacy for Science and Social Studies

- 2 PARCC Assessment Student Blended Courses – 12 modules each
- 6,000 searchable teacher and student digital resources
- 21 Professional Development Courses

The Governor's Digital Innovation funding was utilized in a variety of ways by recipient school systems. The proposals submitted included statements of need, supporting data, and a comprehensive implementation/evaluation plan. Results of each initiative are summarized below:

2013-2014 Digital Learning Innovation Grant Funding Initiatives

Frederick County Public Schools
This project transformed traditional 8th grade ELA and Science classrooms in thirteen middle schools through the development and implementation of trans-disciplinary Project Based Learning (PBL). A series of PBL units were written by teachers to include digital tools that enhance creativity, communication, critical thinking and collaboration among students and teachers. A professional learning program was developed and implemented that supported all 8th grade ELA and Science teachers as they implemented the units into their classrooms and expanded their knowledge, skill and confidence in integrating technology effectively. An external evaluator was hired to assess the progress and effectiveness of the pilot.

G**arrett County Public Schools**

This "Telepresence" project provided the ability for students, teachers, and professionals throughout Garrett County and the world to synergize without the restraints of location or walls. The County school system faced school closings, reduction of certified staff and redrawing of school districts forcing the reconfiguration of grades by building a K-3, 4-6, 7-12 model. By placing Polycom Video Conference/Telepresence equipment in four targeted schools, Garrett County teachers were able to broadcast courses from a base school to satellite schools, communicate among classes and schools, connect with professionals around the world, and offer AP courses that were previously unavailable due to low enrollment or lack of a certified teacher in the school. The professional growth included an initial focus on the use of technologies followed by a shift in the instructional applications of the program through horizontal and vertical grade level collaboration, and reflections based on data collection.

Baltimore County Public Schools

This project targeted K-2 students and their teachers in three identified elementary schools with comparable demographic index scores. BCPS developed and implemented a Maryland College and Career Ready Standards (MCCRS) -aligned 1:1 personalized and blended learning environment for K-2 students in ELA. Students have 24/7 access to relevant, high quality learning experiences. Curriculum delivered in blended learning environments includes embedded formative assessments, multiple pathways for adaptive instruction, varied multimedia resources, and is fully aligned to the MCCRS. Local funding provided a new teaching and learning position in each pilot school. Grant funding supported:

- professional development modules embedded directly into the new curriculum that address personalized learning, and

- development of a professional learning community that addresses student customized paths in online and blended learning environments.

Carroll County Public Schools

This project included an emphasis on providing digital content and resources to students on a 24/7 basis. The project addressed two activities:

1. Hosted by the vendor, multimedia content included virtual labs, simulations, speeches, primary documents, etc. that align with the Maryland College and Career Ready Standards and other adopted Maryland content standards. These resources are available to students, teachers and parents on a 24/7 basis. Using formative assessment, summative assessment, and daily student performance, this product allows teachers to personalize the assignment of assets for their students. Professional development addressed the navigation and access of the resource, the incorporation of multimedia and reading passages into instruction, and the critical thinking skills needed as digital media is used.
2. Access is provided to Discovery Education Science Techbooks (6 year license) for all teachers and students in grades 3 – 8. These 24/7 Techbooks align with NGSS and provide multiple paths for learning that include video clips, articles, simulations, reflective assessments, and access to primary documents that include news articles, authentic videos, etc. Focused professional development will be provided to all 3-8 science teachers.

A 2 day mini-conference was held for all CCPS leaders and teachers to provide more in-depth professional development for both activities.

Washington County Public Schools

This project, iWrite, continued efforts to meet Washington County's goal to increase student literacy rates for reading/writing through learning experiences with professional development provided collaboratively by the University of Maryland's Writing Project. The project implemented iWrite through a target low-income, high-needs feeder pattern (four schools are involved). Washington County built and supported a vertically aligned culture where thoughtful integration of technology supports standard teaching and learning in a 1:1 environment. The potential that this program offers is a personalization of the student's academic experience that prepares them for career, college, and workforce. Funding was used for professional development, creating a 1:1 learning environment, and developing the infrastructure to support density of coverage.

Kent County Public Schools

This project provides access for all students to inquiry-based learning facilitated by technology. Gizmos (5 year license), simulated math and science activities for all teachers and students, allow for deeper conceptual understanding for both NGSS and Common Core Standards of Mathematics. Discovery Education Techbooks (6 year license) supports the transition process to NGSS in sixth and seventh grades. The 24/7 Techbooks align with NGSS and provide multiple paths for learning that include video clips, articles, simulations, reflective assessments, and access to primary documents that include news articles, authentic videos, etc. Differentiated 1:1 purchases expanded a fifth grade initiative, met the needs of sixth and seventh grade, and

expanded the high school 1:1 digital environment. EPortfolios for grades 6–12 are provided through a cloud solution.

SEED School

This project provided a comprehensive digital learning hub for the school that is available during and after the school day. SEED school recognizes the need to increase its focus on digital learning to improve student outcomes, better prepare their students for the changing workforce, and increase student marketability. This digital hub provides in-school and after-school programs, allows for the development of ePortfolios, fosters individual and cooperative decision making skills, and encourages the development of multimedia projects to support service learning projects and community outreach. In addition, the SEED School offers a program that allows students to become Adobe certified. Professional development opportunities addressed personalized learning, the effective integration of technology into instruction, and the creation of a student-centered environment.

2014–2015 Digital Learning Innovation Grant Initiatives

Baltimore County

Baltimore County expanded their Digital Conversion 2.0 Program by.

- increasing the potential for 5th and 6th grade mathematics students in three targeted schools to become more active participants in their learning by using assessment and feedback. Students became more proactive in their education. conducting professional development that centered on analyzing student work and the use of formative assessments to provide meaningful feedback in student-centered learning environments· developing, purchasing and curating digital resources within the county's Learning Management System
- purchasing Tech books and leasing student mobile devices, supporting the transition between elementary and middle schools through professional development communities

Garrett County

Last year Garrett County leveraged Digital Learning funds to establish a video conferencing system among all schools as well as provide the digital devices needed for successful implementation of the PARCC assessments. This year the County provided access to digital devices as well as built entrepreneurship opportunities for middle school students using the Digital School of Entrepreneurship model.

Carroll County

Carroll County strengthened learning in secondary mathematics classrooms by creating comprehensive digital learning environments that include interactive, multimedia resources for all students that are supported by the Discovery Education Math Techbook. The project transformed teaching and learning by effectively integrating digital experiences, improving instruction and student performance.

Frederick County

Frederick County transformed traditional 6th grade language arts and science classrooms into comprehensive digital learning environments through Project Based Learning this year. A set of trans-disciplinary PBL units was written by teachers and piloted in the classroom. The units included tools that enhance creativity, communication, critical thinking and collaboration among students and teachers. A professional learning program was developed and implemented that trained all 6th grade language arts and science teachers on integrating these units into their classrooms and expand their knowledge, skill and confidence in using technology tools to create comprehensive digital learning environments.

Howard County

Howard County built multiple pathways to world language proficiency by utilizing technology and a personalized learning model. Funds supported the purchase of computer hardware, software licenses and foundational professional learning activities. The goals of this program included:

- increasing the number of students enrolled in world language courses;
- increasing student proficiency in world language;
- increasing the number of students achieving high levels of proficient and taking advanced placement/high level course, and
- increasing the number of students taking less frequently taught languages by utilizing blended and online courses

Somerset County

The Somerset Digital Learning Initiative enhanced instruction and increased College and Career Readiness for secondary students in grades 9–12 by using a 1:1 tablet initiative with built in Learning Management System and Curriculum Management System. Many of Somerset students lack access to the Internet and/or technology at home. Students took their Kunos home already loaded with resources and assignments so that lack of access to the Internet will not impact learning.

Wicomico County

The Wicomico Innovative Learning Digital Environment enhanced middle school learning environments by providing the Discovery Education Social Studies Techbook to students in grade 7 and expanded to grades 6 and 8. Professional development was provided to transform classrooms into digital learning environments; to effectively use technology to enhance the writing process; and, to create trans-disciplinary experiences. Middle school teachers built an instructional repository of lessons to include primary documents and other resources for teacher and student use.

Prince Georges

Student Achievement and Teacher Training through Digital Learning built a cloud-based, digital learning environment in which students are active creators and users of digital tools, interactive instruction resources, and browser based devices. Digital Literacy training for students provided support in reading and writing digital text, technical skills, and collaboration. Teachers received training in the alignment of digital resources with State standards; using technology to develop digital formative assessments, and integrating PARCC compliant and browser-based devices into instruction.

Harford County

Harford County's Digital Conversion Initiative increased 10th and 11th grade student achievement in all English II and English III classes through blended learning instruction and individualized learning using Houghton Mifflin Harcourt Collection e-text. Teachers participated in professional development that examined blended-learning, innovative instructional strategies, and activities to address the needs of students, including those with special needs. Every student and teacher received a device, creating a dynamic learning environment by using on-demand content and seamless integration of digital tools.

Summary

In keeping with current trends, LEAs and educators have been asked to do more with less and have succeeded. The needs and demands for educational technology are continually increasing in order to remain competitive and address the expectations outlined in the Maryland College and Career Ready Standards. LEAs are consistently seek new sources of funding as well as innovative methods of delivering technology integrated learning for both students and adults but ensuring equity for all learners is becoming more difficult.

Recommendations:

- Conduct a full survey of the current capabilities, needs, policies, and programs in place around education technology in each LEA.
- Establish an ongoing State Workgroup to evaluate and draft policies and recommendations about education technology, including:
    - best practices;
    - professional learning;
    - program evaluation;
    - resource sharing;
    - policy development; and
    - funding sources and processes

Joint Chairman's Report 2015, R00A01, Maryland State Education Technology Plan

Attachment 1- State survey responses and supplemental materials

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Allegany County
LAC Name: Marsha Miller
LAC Contact Information: marsha.miller@acpsmd.org or 301-759-2021
Contributors to the Survey: Nil Grove, Chief Information Technology Officer, Robert Johnson, IT

Technology Requirements			
Question	Response	Supporting/ Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	Technology request forms are used for technology requirements	See attached document: ACPS Technology Request Form	Technology, policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Lenovo products (laptops and desktops) HP printers I Pads (limited) Approximately 600 items		Technology, finance
TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	Grade band is not significant Approximately 2:1		Technology
TR 4. What are your current policies and programs, initiatives around 1 to 1 technology? What is the current and proposed future level of implementation?	No policies and programs Not applicable – not looking for 1 to 1 Model for ACPS is the Active Learning Lab – 4 students at a learning center/table	2 policies attached: Information Technology Responsible Use – Students, File JIK Technology Responsible Use – Employees – File GBM	Technology
TR 5. What are your current policies, programs, and around BYOD programs and what is the current level of	BYOD is available for all staff and students Allowed use is determined by the principal and teacher	See attached document: ACPS Student Equipment Loan or Program Access Agreement	Technology, Instruction

implementation?			
TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	No plans – if students don't have a device, they can borrow from a laptop cart		Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Discovery Ed – Streaming and Techbooks Engrade Assessments ASPEN student information system IXL Edmodo Active Learning Lab (one school) STEM classrooms (Grade 4) Biomedical Science Classes Read 180 and Math 180 Interventions 12 Grade Online Speech CTE- Online Computer Logic and Intro to Computers Grades 6-8- Keyboarding, Intro to Computers, Intro to Coding Grades 6-7- Online Financial Literacy		Instruction
Comments:			
Technical Questions			
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Windows OS IT technicians support all building devices No difference for online testing		Technology
TQ 2. To what extent do you use a virtual desktop?	Do not use virtual desktop		Technology
TQ 3. Do students and staff	Web Assign and Edmodo		Technology

have a method to access work outside of the school?	Discovery Ed, Engrade and ASPEN		
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Maintenance - Software and subscriptions - Hardware replacements – generally on a 5 year cycle		Technology, Finance
TQ 5. What instructional software does your district have? Can students access them outside of school?	See TR7 and TQ3 Microsoft volume licensing All can be accessed outside of school		Technology, Finance
TQ 6. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	All tools and infrastructure are in place to provide digital learning The extent varies in each school K-12 classrooms have access to Discovery Streaming K-8 classrooms have access to Discovery Science Techbooks Grades 9-10 Biomedical Science 12th grade dual enrollment opportunities- Online Speech CTE-Online Computer Logic Grades 6-8- Keyboarding, Intro to Computers, Intro to Coding Grades 6-7- Online Financial Literacy		Instruction
TQ 7. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	1 gigabit per building All schools have Wifi for teachers, students and guests		Technology

Comments:			
Funding Questions			
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Race to the Top - $200,000 – FY '15 Local - $500,000 technology devices, $500,000 for maintenance and software Title I - $100,000 ARC - $100,000		Technology, Finance
FQ 2. What was the amount of e-rate funding for FY2015	$375,000 @ 74%		Technology, Finance
FQ 3. What are your consistent sources of funding?	Local		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	Consistently look for grant opportunities for funding		Technology, Finance, Instruction
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	Five years – close to 2 million dollars spent on technology - Equipment and infrastructure – 1.2 million - $90,000 software conversion tools to provide online services - $350,000 Assessment package (Engrade) - $120,000 Student Instructional Intervention System (Math 180) - $244,000 Teacher/Principals Evaluation System (software and technology)		Technology, Finance
Comments:			

Student Equipment Loan or Program Access Agreement

Dear Parent(s) / Guardian(s) and Student:

Your child has been provided equipment or program access from the Allegany County Public Schools for use according to the requirements for participation in (name the ACPS Instructional Program) program at (name of school hosting the program).

This form describes the responsibilities for proper care and use of this equipment or program access. This form must be signed by the student and parent and then returned to the teacher before the equipment/software can be issued. You may choose not to take the equipment home or use the program by checking that box below and returning the form.

This equipment or program access is provided to you without charge by Allegany County Public Schools. This equipment/ software is the property of Allegany County Public Schools and is not the property of the student or parent. This equipment or software is provided to the student for instructional purposes and may be sent or used at home as needed. It must be returned at the end of the school year or when the student is no longer participating in the above program.

Parent(s) / Guardian(s) and Student Responsibilities are:

1. To bring the equipment to or use the software in class at the direction of the teacher.
2. To exercise appropriate care and responsibility for the equipment and software access, and to replace equipment that is damaged, stolen, or lost as a result of negligence with a new piece of equipment of the same model in the original packaging, or payment of the value of the equipment, approximately $500, to Allegany County Public Schools. If restitution is not made, your child may be removed from the program.
3. To immediately notify the teacher if the equipment cannot be located or software access has been compromised.
4. To return the equipment or relinquish program access at the teacher's request if the teacher feels the equipment or software is being cared for irresponsibly.
5. To maintain the original configuration and settings of the equipment and software as provided by ACPS.
   a) Removal of the security profile from the device is prohibited.
   b) Apps may not be added or deleted to the device.
   c) Pictures, Audio, Video, and Internet history stored on the equipment become property of ACPS.
   d) Software access is only provided to the student and should not be shared.

Privacy concerns for personal information stored on the iPad and other devices (If applicable)

ACPS will NOT be responsible for personal information stored on the device or stored/accessed in cloud services associated with your personal/child's cloud account. You may use a personal cloud account to be used on the ACPS device used by your child. The Family Sharing feature in iCloud is encouraged for families with multiple Apple accounts. It is the responsibility of the parent/guardian and the student to ensure safeguarding of passwords and maintaining the security of personal information. Services like iMessage, Facetime, Photostream, iCloud and email, among others, can contain personal or private information. Sharing these services between family devices and family accounts and ACPS devices can be easily misunderstood - please be aware of the limitations and operations of these services before activating them on your child's ACPS issued device.

It is expected that the equipment and program access will be returned in good repair and the student will not misuse or damage the equipment nor use the software irresponsibly. If you have equipment problems, please notify the teacher of the program at once for replacement or repair. If you choose to use the device at home, outside of the ACPS filtered network, your child may be exposed to inappropriate material. Please monitor and supervise your child's use of the device at home.

☐ I agree to the conditions stated above. ☐ I do not want my child to bring the equipment home.

Your signature indicates that you have read and understand the agreement, that you assume the responsibility for the safe-keeping of the equipment/software, and are responsible for its loss or damage.

Student's Name		Student's Signature	
Parent/Guardian's Name		Parent/Guardian's Signature	
Date Issued		Date Returned	
Bar Code (if applicable)		Equipment/Software Type	
Teaching Staff Name		Teaching Staff Signature	
Apple ID (if applicable)	AID @acps.k12.md.us		

INFORMATION TECHNOLOGY RESPONSIBLE USE - STUDENTS FILE: JIK

Purpose

This policy establishes the foundation for responsible use of information technology by ACPS students.

Definitions

Information technology is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data.

Responsible use of information technology is use which supports or enhances the education of ACPS students. Responsible use includes but is not limited to:

1. Accessing ACPS information technology and social media for instructional purposes and ACPS-sanctioned activities consistent with instructional requirements.
2. Personal use of information technology and social media in a way that does not interfere with student work, cause disruptions to the school or classroom environment, result in additional costs to ACPS or violate ACPS policies or applicable laws.
3. Practicing responsible, ethical, and legal behavior, in compliance with federal, state and applicable copyright and fair use laws.
4. Exercising special care with ACPS-owned devices.
5. Practicing good digital citizenship through safe, supportive, effective learning environments which is dependent on students demonstrating respect for themselves and others.
6. Accessing information technology on the ACPS network for instructional purposes beyond the regular school day. In these cases, use must be in accordance with the educational goals of the school system.
7. Taking responsibility to safeguard usernames and passwords which help protect personal and confidential data. The use of sound recordings, video recordings, photos, and personal observations in a supportive positive educational environment in accordance with directory information and for approved educational purposes.
8. Participating in the Internet Safety instruction program provided by the school system at every grade level.

Policy Statement

Information technology use in the Allegany County Public Schools (ACPS) is for educational purposes, such as accessing curriculum-related information, sharing resources, and promoting innovation that enrich the curriculum and the instructional program. Information technology extends the classroom beyond the school building by providing access to information resources on local, state, national, and international electronic networks such as the Internet. Use of the Internet for purposes of locating information and facilitating communication are critical literacy skills. Responsible use of information technology is required of students whether using personal devices and programs, school system devices, or school system programs.

Information technology use is a privilege which can be revoked. Inappropriate use will be addressed by school-based administrative disciplinary actions. There is no expectation of privacy while connected to the ACPS network.

The use of the Allegany County Public School System's network shall be compliant with the Children's Internet Protection Act (CIPA). CIPA requires the use of filters restricting access to non-compliant resources which are deemed unacceptable for use by staff or students. ACPS information technology operations shall include back-up and caching of data and communications, logging of activity, monitoring of general use patterns, and other such activities that are necessary to comply with CIPA. CIPA compliance extends to ACPS owned equipment and to Bring Your Own Device (BYOD) equipment utilizing the ACPS Network.

Legal Reference			
Policy Cross Reference	**Adopted**	**Reviewed**	Revised June 12, 2007, 1st Reading July 12, 2007, 2nd Reading July 14, 2009, 1st Reading August 11, 2009, 2nd Reading August 9, 2011, 2nd Reading February 10, 2015, 1st Reading March 10, 2015, 2nd Reading April 23, 2015, 2nd Reading

Joint Chairman's Report 2015, R00A01, Maryland State Education Technology Plan

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Anne Arundel
LAC Name: Leigh Mann
LAC Contact Information: ltmann@aacps.org
Contributors to the Survey: Technology – Greg Barlow, Instruction – Stephanie Kelly, Mary Tillar

Technology Requirements			
Question	Response	Supporting/ Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	5 year plan is to look at 1:1 device access. AACPS is currently assessing BYOD options. Additionally, AACPS is committed to providing innovative learning platforms/curriculum access to our students and educators. This includes Distance Learning, Online Courses, Integrated Technology connections through PBL, and Cyber challenge and competitions.		Technology, policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Windows desktops and laptops, Chromebooks, iPads, SmartBoards, projectors, document cameras, sound systems and lots of software. All these tools are aids to teaching and learning.		Technology, finance
TR 3. What is your current student/device ratio? Please also disaggregate by grade	1.45 students to each computing device. HS – 1.38:1		Technology

band.	MS – 1.35:1 ES – 1.67:1		
TR 4. What are your current policies and programs, initiatives around 1 to 1 technology? What is the current and proposed future level of implementation?	Our Board has issued a policy that allows students to bring their own device. These devices are not allowed to be connected to the AACPS network. We are looking at possibly allowing them on the AACPS network.	http://www.aacps.org/aacps/boe/board/newpolicy/Sections/section_900/policy902.15.pdf http://www.aacps.org/aacps/boe/board/newpolicy/Sections/section_900/adminreg902.15.pdf	Technology
TR 5. What are your current policies, programs, and around BYOD programs and what is the current level of implementation?	Our Board has issued a policy that allows students to bring their own device. These devices are not allowed to be connected to the AACPS network. We are looking at possibly allowing them on the AACPS network.	http://www.aacps.org/aacps/boe/board/newpolicy/Sections/section_900/policy902.15.pdf http://www.aacps.org/aacps/boe/board/newpolicy/Sections/section_900/adminreg902.15.pdf	Technology, Instruction
TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	Students would be able to check out and use a Chromebook from the media center for the day.		Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Technology incorporation is evident in: * the natural integration within the curriculum as tech connections * the System training on technology's role as an instructional tool * the development of purposeful newsletters on tech integration * the curriculum, instruction, and assessment learning platforms (PARCC learning alignment - TGM and demonstration of standards mastery * focused train the trainer training model for tech integration for new initiatives * school-based		Instruction

	eCoach assignments with on-going professional learning to ensure coaching/ application is based on current research		
Comments:			
Technical Questions			
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Windows 7, 8.1, 10. Chrome O/S 43 and higher. 68 Support Techs for 120 schools, 80,000 pieces of equipment. No difference for online testing.		Technology
TQ 2. To what extent do you use a virtual desktop?	None. No interest in this.		Technology
TQ 3. Do students and staff have a method to access work outside of the school?	Yes.		Technology
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	We lease Windows computers so all costs for these are ongoing. Support Technician costs are ongoing. All hardware needs to be refreshed so all costs become ongoing. Technology is not a one-time expense.		Technology, Finance
TQ 5. What instructional software does your district have? Can students access them outside of school?	See below.		Technology, Finance

Title	Version	License type	Home version
Adobe Air	16	Plug-In	Yes
Adobe Connect Add-in	11.9.972	Plug-In	Yes

Adobe Flash Player ActiveX, NPAPI, PPAPI Plugins	16.0.0.305	Plug-In	Yes
Adobe Reader	11.0.10	Free Download	Yes
Adobe Shockwave	12.1.7	Plug-In	Yes
Alice Programming	2.4 & 3.1	Free Download	Yes
Any Video Converter	5.7.8	Free Download	Yes
Any Video Converter Pro	5.7.8	Free Download	Yes
Audacity	2	Site	Yes
GeoGebra	4.4.23	Free Download	Yes
Google Chrome Browser	65.16	Free Download	Yes
Google Earth	7.1.5	Free Download	Yes
Image Blender	2.51	Individual	Yes
Inspiration	9.2	Enterprise	Yes
Internet Explorer	11	Free Download	Yes
Java Runtime 2 Platform	8 Update 31	Plug-In	Yes
Kidspiration	3	Individual	Yes
Kurzweil 3000	12.39	Site	No
MathType	6.7	Site	No
Microsoft .NET	4.5.50938	Free Download	Yes
Microsoft Mathematics	4	Free Download	Yes
Microsoft Office Professional Plus	2013 SP1	Enterprise	No
Microsoft Photo Story	3	Free Download	Yes
Microsoft Producer	3.0.3012.0	Free Download	Yes
Microsoft Silverlight	5.1	Free Download	Yes
Pixie 3	3.10.06	Individual	No
QuickTime	7.7.6	Free Download	Yes
Scratch	2	Free Download	Yes
SketchUp Make	15.3.331	Free	Yes

		Download	
SMART Notebook	11.4.564.0	Site	Yes
SMART Product Drivers	11.4.872.1	Site	Yes
SMART Response	4.8.497	Site	Yes
System Center Endpoint Protection	4.8.204	Enterprise	No
Type to Learn 4	1.21n	Site	No
VLC Media Player	2.2.0	Free Download	Yes
Windows Essentials 2012: Movie Maker	16.4	Free Download	Yes
Windows Media Player	12.0.9600	Free Download	Yes
Windows Operating System	Windows 7 (64 bit) SP1	Enterprise	No
WinPlot	1.55	Free Download	Yes

TQ 6. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Digital learning takes place in: * the value of the Instructional technology platform * differentiated instruction (e.g. Flipped learning/ concept exploration model) * AACPS movement to an eCurriculum teaching and learning model * piloting of etechbooks * the implementation of a Virtual online classroom pilot * digital infused Instruction learning expectations in the Superintendent's Triple E elementary PBL initiative * online program expansions to include possibilities with concurrent enrollment with AACC. * Magnet focused lessons; including student writing of Apps and software infusion (e.g. Minecraft)		Instruction
TQ 7. What is the current level of bandwidth in schools? Please detail how many	Half our schools are on 1gbps fiber, the other half on 50mbps copper. All		Technology

schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	schools have wireless for AACPS devices. No non-AACPS devices are allowed on the AACPS network.		
Comments:			
Funding Questions			
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	$16,351,759 The AACPS Office of Budget and Finance. County, State and Federal.		Technology, Finance
FQ 2. What was the amount of e-rate funding for FY2015	$1,660.189. Due to changes in the E-Rate rules, the amount will be about $820,000 for FY16 and $300,000 for FY17.		Technology, Finance
FQ 3. What are your consistent sources of funding?	The AACPS Office of Budget and Finance.		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	AACPS has no ability to generate revenue. We can only ask our county for additional funding.		Technology, Finance, Instruction
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	Edge routers and firewalls - $500,000. Data storage devices - $600,000. Chromebooks - $2,500,000. Handheld devices for teacher observations - $245,000.		Technology, Finance
Comments:			

Program History

- **88%** of eCoaches earned 1 MSDE credit by completing eCoach Orientation that includes a face-to-face class and online modules in Blackboard (Adult Learner, Digital Citizenship and Differentiation).
- **2004-2005** eCoach participants received a digital camera for their schools.
- **2005-2006 - 24 out of 88** eCoaches earned **1 MSDE credit** for participation in 3 five-hour online modules: Grant Writing, Online Collaborative Projects and the Reflective Practitioner.
- During **2006-2007**, **Internet Safety** sessions were held for teachers sponsored by the Office of Instructional Technology, Volunteer Office and Anne Arundel Community College.
- Tammy Worcester, author of *50 Quick and Easy PowerPoint Activities* spent a day with the 2006-2007 eCoaches.
- During **2007-2008**, **Hall Davidson,** *Discovery Education,* presented at the Fall in-service
- **2009-2010**- eCoaches attended exciting sessions about building Leadership Capacity, H.E.A.T (The LoTi Project), Blogging, Wikis, Cool Movie Production, PD Ideas from Smart , Cool Media Tools , Digital Citizenship , Smart Technologies, OneNote, Creating Sure-Fire Web Pages
- In-service days simulate mini-conferences as attendees select sessions.
- Examples of **2010-2015 sessions** included:
- Presentations by other eCoaches such as Playing it SMART with Substitutes, Audacity, One Note, Mobile Devices, Blackboard
- Web 2.0 Tools, Kidspiration, Pixie, SMART 15
- SMART Recorder/Enhancing Software
- Discovery Streaming, Tech Matrix, PD Modules, Chromebooks, Office 365, Code,, Infographics, Wixie, Inspiration, Scratch

Upcoming Events

Professional Development Opportunities

Fall In-service: October 21, 2015

Possible Topics for 2015-16 : Electronic Portfolios, Florida Technology Matrix, Pixie, Professional Development Modules Building Leadership Capacity, Education You Tube, Adobe Connect, Maryland Technology Literacy Standards, Digital Citizenship, Emerging Technologies, Online Databases, Multimedia Tools, Blackboard WebPages for Teachers/Schools, Web 2.0 Tools, Infographics, Google Applications, PhotoStory, One Note, One Drive, Coding/Scratch, Edmodo, Discovery Education, Smart Technology updates, Inspiration/Kidspiration, Wixie

Spring In-service: April 18, 2016

Celebrate the year by sharing successful PD,

Common Ground Conference:

April 28 or April 29, 2016

On-going Opportunities

Professional Development Follow-up and Community Sharing through Blackboard.

Office of Instructional Technology
Carver Staff Development Center
2671 Carver Road
Gambrills, MD 21054
410-222-1693

AACPS eCoach 2004 - Present

Empowering One Teacher at a Time

" In the 21st century, students must be fully engaged. This requires the use of technology tools and resources, involvement with interesting and relevant projects, and learning environments—including online environments—that are supportive and safe.... In the 21st century, educators must be given and be prepared to use technology tools; they must be collaborators in learning—constantly seeking knowledge and acquiring new skills along with their students. " ***— Arne Duncan, U.S. Secretary of Education, March 3, 2010***

Office of Instructional Technology

Impact on AACPS

The eCoach Program through the years:

- 2014-2015– 116 eCoaches, 8 Liaisons represented –112 Pre-12 Schools and Special Centers
- 2012-2013– 103 eCoaches represented 103-PK-8 schools
- 2011-2012– 98 eCoaches represented 103-PK-8 schools
- **2010-2011-**103 eCoaches represented 103-PK-8 schools.
- **2009-2010-** 94 eCoaches represented 103 PK-8 schools.
- **2008-2009**– 91 eCoaches represented 87 PK-8 schools.
- **2007-2008**— 96 eCoaches represented 89 PK-8 schools
- **2006-2007–** 92% of elementary schools, 89% of middle schools and 75% of special centers participated in the program. Total number of eCoaches: **105**

AWARDS

The grant award winner for **2013:** Tammy Duvall, Waugh Chapel Elementary

MSET Outstanding Technology Leader 2010-2011
Diana Strohecker, Principal of Nantucket Elementary

Anne Arundel County's MSET Technology Leader 2009-2010
Diane Bragdon, Principal of Bates Middle

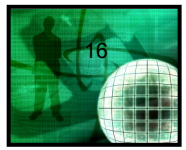
MSET Outstanding Technology Educator 2009-2010
Julie Olson , Nantucket Elementary

eCoach Position Description

Who? Teachers, PreK-12, with a minimum of two successful teaching years in AACPS, who regularly infuse technology into instruction.

What? eCoaches will receive a stipend, 1 substitute days, MSET registration (limited number) by:

- providing **Onsite support.** (ex. Technology Workshops, Overview AACPS Tech Connections for New Teachers, Navigating the AACPS Webpage, File Management, Use of Software Applications, Email Issues).
- serving as the school's contact with the Office of Instructional Technology and maintaining open communication with their assigned Resource Teacher.
- Optional: conducting 1-2 hours of **Community Outreach** (Parent Training and/or Tech Showcase).
- attending the Fall and Spring Professional Development Days.
- Sharing PD modules and the Florida Technology Matrix.
- attending one full day of the MSET conference (limited number able to attend due to funding).
- attending training, through the eCoach program, in the instructional use of new software and hardware.
- providing peer assistance in the use of software and hardware as they are integrated into the curriculum.



Why?

- NCLB states that students will be technology literate by eighth grade. ***Maryland Technology Literacy Standards*** were accepted as part of the Maryland Voluntary State Curriculum, February 2007.
- eCoaches will serve as onsite support to share exemplary methods and skills for incorporating technology into instruction.
- eCoaches have the opportunity to collaborate with other eCoaches through their professional learning community in Blackboard.
- eCoaches serve as technology leaders and have opportunities for professional growth in the use of emerging technologies and technology integration.
- eCoaches provide documentation of activities by submitting a log twice a year.

County Name: Baltimore
LAC Name: Baltimore County Public Schools (BCPS)
LAC Contact Information: Lloyd Brown
Contributors to the Survey: Lloyd Brown, Jodi Obenstine, Nick Argyros

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Baltimore County Public Schools (BCPS) incorporates technology use in all schools for students and teachers currently. Each teacher and various staff members have mobile technology for productivity and as a teaching tool. BCPS currently has plans in place to investigate the installation of interactive projectors into instructional spaces throughout the school district. In addition, our Students and Teachers Accessing Tomorrow (S.T.A.T.) initiative continues to transform teaching and learning throughout the district. This year BCPS has implemented mobile technology in Grades 1-3 throughout the district as well as Grade 6 at seven of our middle schools. All staff and students must sign an acceptable use agreement and abide by those rules/policies when using our technology and infrastructure.	
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	BCPS purchased the following in the past two years: • HP Revolves for students and teachers to provide personalized and blended learning opportunities. • HP Revolves for administrators to provide professional learning to staff, communicate to colleagues and stakeholders, and other administrative tasks. • HP Desktops for student labs, clerical staff, and library labs. • Interactive Projectors in classrooms and open learning areas.	

	• Portable Interactive Displays in open learning areas and for staff development. • Document Cameras to display learning content to projection wall. • Printers for students and staff.	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	Our current device to student ratio is 3 to 1 overall. In elementary schools it is 1:1 for Grades 1-3, eleven elementary school's ratio is 1:1 for Grades K-5. In seven middle schools, it is 1:1 for Grade 6. In all high school and middle schools there are shared lab spaces for all students making the ratio different at each school and grade level based on the schools' needs.	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	BCPS is in the second year of a multi-year rollout to provide devices as a tool to all students and teachers (S.T.A.T. initiative). Currently, BCPS has provided technology to eleven elementary schools Grades K-5, seven middle schools Grade 6 and over 100 elementary schools Grades 1-3. For the upcoming years, we will continue to implement our rollout plan by providing technology to all grade levels K-12. Our goal is to be fully implemented by 2018.	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	BCPS currently does not actively support a BYOD program. We provide mobile devices to teachers, some staff members, and over 35,000 students currently. There are multiple resources within a facility for staff and students to use computing devices including mobile carts, labs, and other staff desktops.	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	As previously mentioned, BCPS is in the middle of a 1:1 initiative that provides access to all students to create equity across schools and grade levels. Students are not required to provide their own technology. Additionally, BCPS has worked with Baltimore County Public Library to provide the school system wireless	

	network in all libraries. Additional options for providing internet access to all students is being explored with county government and internet service providers.	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Technology resources are provided to all schools in varying formats based on grade level and where they are within our 1:1 rollout. Teachers and students currently use their mobile device for instruction, planning, collaboration, and communication. In many locations BCPS also uses document cameras, projectors, printers, interactive whiteboards and a wide variety of technology resources to supplement teachers and students. BCPS views technology as an additional resource for students and teachers. BCPS continues to transform teaching and learning through the teaching process and incorporates devices where it makes the most sense, but not as the primary focus for education. Last year, a systematic learning management system was rolled out as part of our digital ecosystem, known as BCPS One. BCPS One is an internally developed single sign-on portal for digital resources, instructional tools, professional learning resources, and administrative tools. All new enterprise level applications are vetted through an internal process for inclusion into this portal for instructional use.	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	BCPS is a Wintel based computing environment, with Microsoft operating systems and productivity tools. In special needs schools we also utilize iPads with unique apps/software tailored for students with unique needs. Our	

	newer computer devices use Win 8.1 operating system. Our legacy devices use Windows 7. We have technical support staff that support all aspects of our hardware, operating systems, and software. Most of our devices that are four years and newer can be used for testing.	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	BCPS does not use virtual desktop systems in our classrooms.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Ongoing cost requirements are for additional technology requests for administrative areas, damages that are not covered under warranty or accidental damage, accessories such as headphones, cases for devices going home, etc. The infrastructure costs, to support these devices, continue to fund the preparation of facilities for mobile use for instruction and productivity. Ongoing costs maintain warranty, support, lease payments, and software development costs to support instructional technology use, and normal costs related to bandwidth and other IT services with recurring charges.	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	BCPS has a wide variety of resources to use for instruction and productivity. Some of the programs can be accessed at home with our students who take devices home through BCPS One, which is BCPS' internal portal to curriculum resources including enterprise level software applications. BCPS is an Office 365 school district. We leverage Office 365 currently to collaborate, share documents, and communicate. BCPS also has programs related to Career and Technology education that require specific technology needs including software. BCPS software licenses range from per seat to districtwide.	

TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (e.g. flipped classroom model). Is technology incorporated into the everyday classroom?	BCPS has undertaken a fundamental shift in teaching and learning to meet its (BCPS) *Theory of Action*: "To equip every student with the critical 21st century skills needed to be globally competitive, BCPS must ensure that every school has an equitable, effective digital learning environment. All students will have access to a digital learning device and personalized, blended, interactive curriculum." This digitally-enhanced curriculum is allowing teachers to facilitate a blend of digital and face-to-face instruction. Student learning is driven through digital resources and tools curated by content experts and delivered in a learning management system in order to provide equitable access to a rigorous curriculum that removes barriers for students and emphasizes 21st century skills. Assessments, both formative and summative, are available in the learning management system and allow teachers to customize learning based upon student learning needs and preferences. BCPS has implemented the following timeline for its transition to 1:1 learning environments for students: • 2014–2015 Students at Lighthouse Schools (10 schools), Grades 1–3 • 2015–2016 Students at Lighthouse Schools, Grades K, 4, 5 and students at all elementary schools (100 schools), Grades 1–3; Students at seven Lighthouse Middle Schools, Grade 6 • 2016–2017 Students at all elementary schools, Grades K, • 4, 5; Students at all middle schools • 2017–2018 Students at all high schools Currently, middle and high school students may choose to access ubiquitous learning using digital learning	

	strategies and resources such as blended learning, online courses, purchased digital content, BCPS created and curated digital learning objects accessed through BCPS One, virtual instruction delivered through Webinars, and real time student performance data that allows students and teachers to engage in responsive teaching and learning anchored in performance and mastery. Secondary students are provided with opportunities to take courses, full-day programs, and credit recovery options fully online.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, and guest, restricted).	Schools currently have between 30Mbps and 1Gbps of network bandwidth to the district's main data center. This main data center currently has 5Gbps of internet service available to all schools and offices. All BCPS schools have at least one wireless access point in all educational areas running on 802.11n (some have 802.11ac as well), along with 802.11a. The district uses a secure SSID (closed) for teachers and students, and allows an open Guest SSID that has very limited access to the internet and is bandwidth limited.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	BCPS received funding from a number of sources. Those include the general BCPS budget, e-rate, state and federal grants.	
FQ 2. What was the amount of e-rate funding	BCPS received $1,921,688.17 in the 2014 year as per USACs Website.	
FQ 3. What are your consistent sources of funding?	Continued cuts and redirects to budgets in all areas of operation within BCPS are impacted including Information Technology (DoIT). Each year DoIT	

	receives funding from the general budget to support the maintenance and operation of the DoIT for BCPS. All funding is to support BCPS One, S.T.A.T. Device Rollout, Infrastructure Upgrades, and other IT projects.	
FQ 4. What is the plan to close the gap between needs and funds?	The Department of Information Technology works very closely with the Department of Finance and the Budget Office to iterate BCPS's technology needs, our future plans, and funding sources. BCPS is regularly exploring additional funding mechanisms to ensure that we are able to close the gap between needs and funds. In addition, BCPS works closely with its vendors to ensure we are receiving the highest quality for the lowest price.	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	BCPS is building and releasing a single source of student information portal called the Education, Assessment, and Student Information (easi) System. easi was released August 2010 and implemented in a phased manner over multiple fiscal years. This approach ensures that all users are trained appropriately by the Department of Organizational Development as each phase is released, and allows for the Project Management Office (PMO) to gather and document all requirements via stakeholder and user focus group sessions to ensure that core user needs are met. easi is broken into the following three phases: (1) Teacher Portal (2) Monitoring and Scaling, and (3) Teacher Site Expansion of Features. Each of the easi Storage Area Network [SAN] storage ($394,281), commvault ($244,908), backup tape ($140,638), and brocade switch ($32,624) line items will be one-time costs in the amounts noted above. Also for Year 1, 4 Virtual Machine (VM) Host Servers x $51,460/server = $205,840 and one small application server = $7,767. Total- $1,026,058	

County Name: Baltimore
LAC Name: Baltimore County Public Schools (BCPS)
LAC Contact Information: Lloyd Brown
Contributors to the Survey: Lloyd Brown, Jodi Obenstine, Nick Argyros

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Baltimore County Public Schools (BCPS) incorporates technology use in all schools for students and teachers currently. Each teacher and various staff members have mobile technology for productivity and as a teaching tool. BCPS currently has plans in place to investigate the installation of interactive projectors into instructional spaces throughout the school district. In addition, our Students and Teachers Accessing Tomorrow (S.T.A.T.) initiative continues to transform teaching and learning throughout the district. This year BCPS has implemented mobile technology in Grades 1-3 throughout the district as well as Grade 6 at seven of our middle schools. All staff and students must sign an acceptable use agreement and abide by those rules/policies when using our technology and infrastructure.	
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	BCPS purchased the following in the past two years: • HP Revolves for students and teachers to provide personalized and blended learning opportunities. • HP Revolves for administrators to provide professional learning to staff, communicate to colleagues and stakeholders, and other administrative tasks. • HP Desktops for student labs, clerical staff, and library labs. • Interactive Projectors in classrooms and open learning areas.	

	• Portable Interactive Displays in open learning areas and for staff development. • Document Cameras to display learning content to projection wall. • Printers for students and staff.	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	Our current device to student ratio is 3 to 1 overall. In elementary schools it is 1:1 for Grades 1-3, eleven elementary school's ratio is 1:1 for Grades K-5. In seven middle schools, it is 1:1 for Grade 6. In all high school and middle schools there are shared lab spaces for all students making the ratio different at each school and grade level based on the schools' needs.	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	BCPS is in the second year of a multi-year rollout to provide devices as a tool to all students and teachers (S.T.A.T. initiative). Currently, BCPS has provided technology to eleven elementary schools Grades K-5, seven middle schools Grade 6 and over 100 elementary schools Grades 1-3. For the upcoming years, we will continue to implement our rollout plan by providing technology to all grade levels K-12. Our goal is to be fully implemented by 2018.	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	BCPS currently does not actively support a BYOD program. We provide mobile devices to teachers, some staff members, and over 35,000 students currently. There are multiple resources within a facility for staff and students to use computing devices including mobile carts, labs, and other staff desktops.	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	As previously mentioned, BCPS is in the middle of a 1:1 initiative that provides access to all students to create equity across schools and grade levels. Students are not required to provide their own technology. Additionally, BCPS has worked with Baltimore County Public Library to provide the school system wireless	

	network in all libraries. Additional options for providing internet access to all students is being explored with county government and internet service providers.	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Technology resources are provided to all schools in varying formats based on grade level and where they are within our 1:1 rollout. Teachers and students currently use their mobile device for instruction, planning, collaboration, and communication. In many locations BCPS also uses document cameras, projectors, printers, interactive whiteboards and a wide variety of technology resources to supplement teachers and students. BCPS views technology as an additional resource for students and teachers. BCPS continues to transform teaching and learning through the teaching process and incorporates devices where it makes the most sense, but not as the primary focus for education. Last year, a systematic learning management system was rolled out as part of our digital ecosystem, known as BCPS One. BCPS One is an internally developed single sign-on portal for digital resources, instructional tools, professional learning resources, and administrative tools. All new enterprise level applications are vetted through an internal process for inclusion into this portal for instructional use.	
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Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	BCPS is a Wintel based computing environment, with Microsoft operating systems and productivity tools. In special needs schools we also utilize iPads with unique apps/software tailored for students with unique needs. Our	

	newer computer devices use Win 8.1 operating system. Our legacy devices use Windows 7. We have technical support staff that support all aspects of our hardware, operating systems, and software. Most of our devices that are four years and newer can be used for testing.	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	BCPS does not use virtual desktop systems in our classrooms.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Ongoing cost requirements are for additional technology requests for administrative areas, damages that are not covered under warranty or accidental damage, accessories such as headphones, cases for devices going home, etc. The infrastructure costs, to support these devices, continue to fund the preparation of facilities for mobile use for instruction and productivity. Ongoing costs maintain warranty, support, lease payments, and software development costs to support instructional technology use, and normal costs related to bandwidth and other IT services with recurring charges.	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	BCPS has a wide variety of resources to use for instruction and productivity. Some of the programs can be accessed at home with our students who take devices home through BCPS One, which is BCPS' internal portal to curriculum resources including enterprise level software applications. BCPS is an Office 365 school district. We leverage Office 365 currently to collaborate, share documents, and communicate. BCPS also has programs related to Career and Technology education that require specific technology needs including software. BCPS software licenses range from per seat to districtwide.	

TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (e.g. flipped classroom model). Is technology incorporated into the everyday classroom?	BCPS has undertaken a fundamental shift in teaching and learning to meet its (BCPS) *Theory of Action*: "To equip every student with the critical 21st century skills needed to be globally competitive, BCPS must ensure that every school has an equitable, effective digital learning environment. All students will have access to a digital learning device and personalized, blended, interactive curriculum." This digitally-enhanced curriculum is allowing teachers to facilitate a blend of digital and face-to-face instruction. Student learning is driven through digital resources and tools curated by content experts and delivered in a learning management system in order to provide equitable access to a rigorous curriculum that removes barriers for students and emphasizes 21st century skills. Assessments, both formative and summative, are available in the learning management system and allow teachers to customize learning based upon student learning needs and preferences. BCPS has implemented the following timeline for its transition to 1:1 learning environments for students: • 2014–2015 Students at Lighthouse Schools (10 schools), Grades 1–3 • 2015–2016 Students at Lighthouse Schools, Grades K, 4, 5 and students at all elementary schools (100 schools), Grades 1–3; Students at seven Lighthouse Middle Schools, Grade 6 • 2016–2017 Students at all elementary schools, Grades K, • 4, 5; Students at all middle schools • 2017–2018 Students at all high schools Currently, middle and high school students may choose to access ubiquitous learning using digital learning	

	strategies and resources such as blended learning, online courses, purchased digital content, BCPS created and curated digital learning objects accessed through BCPS One, virtual instruction delivered through Webinars, and real time student performance data that allows students and teachers to engage in responsive teaching and learning anchored in performance and mastery. Secondary students are provided with opportunities to take courses, full-day programs, and credit recovery options fully online.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, and guest, restricted).	Schools currently have between 30Mbps and 1Gbps of network bandwidth to the district's main data center. This main data center currently has 5Gbps of internet service available to all schools and offices. All BCPS schools have at least one wireless access point in all educational areas running on 802.11n (some have 802.11ac as well), along with 802.11a. The district uses a secure SSID (closed) for teachers and students, and allows an open Guest SSID that has very limited access to the internet and is bandwidth limited.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	BCPS received funding from a number of sources. Those include the general BCPS budget, e-rate, state and federal grants.	
FQ 2. What was the amount of e-rate funding	BCPS received $1,921,688.17 in the 2014 year as per USACs Website.	
FQ 3. What are your consistent sources of funding?	Continued cuts and redirects to budgets in all areas of operation within BCPS are impacted including Information Technology (DoIT). Each year DoIT	

	receives funding from the general budget to support the maintenance and operation of the DoIT for BCPS. All funding is to support BCPS One, S.T.A.T. Device Rollout, Infrastructure Upgrades, and other IT projects.	
FQ 4. What is the plan to close the gap between needs and funds?	The Department of Information Technology works very closely with the Department of Finance and the Budget Office to iterate BCPS's technology needs, our future plans, and funding sources. BCPS is regularly exploring additional funding mechanisms to ensure that we are able to close the gap between needs and funds. In addition, BCPS works closely with its vendors to ensure we are receiving the highest quality for the lowest price.	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	BCPS is building and releasing a single source of student information portal called the Education, Assessment, and Student Information (easi) System. easi was released August 2010 and implemented in a phased manner over multiple fiscal years. This approach ensures that all users are trained appropriately by the Department of Organizational Development as each phase is released, and allows for the Project Management Office (PMO) to gather and document all requirements via stakeholder and user focus group sessions to ensure that core user needs are met. easi is broken into the following three phases: (1) Teacher Portal (2) Monitoring and Scaling, and (3) Teacher Site Expansion of Features. Each of the easi Storage Area Network [SAN] storage ($394,281), commvault ($244,908), backup tape ($140,638), and brocade switch ($32,624) line items will be one-time costs in the amounts noted above. Also for Year 1, 4 Virtual Machine (VM) Host Servers x $51,460/server = $205,840 and one small application server = $7,767. Total- $1,026,058	

County Name: Calvert
LAC Name: Cathy Page
LAC Contact Information: pagec@calvertnet.k12.md.us
Contributors to the Survey:

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Technology implementation follows the guidelines established in Policy #2718 Responsible and Appropriate Use of Computer Systems and Other Electronic Communication Media and the attached procedures. In addition, the Board of Education approved a Future Ready resolution at their meeting on October 8, 2015.	http://www.calvertnet.k12.md.us/departments/administration/policies/documents/2718.pdf http://www.calvertnet.k12.md.us/departments/administration/policies/documents/2718.1.pdf http://www.calvertnet.k12.md.us/departments/administration/policies/documents/2718.2.pdf https://www.boarddocs.com/mabe/calvert/Board.nsf/files/A2VKVB4E1977/$file/Future%20Ready%20Board%20Resolution.pdf
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Computers, Laptops, iPads, HP Streambooks. All of these tools are used in a variety of ways. Laptops and computers have been used for online testing. All are used in classrooms for research and various in-class work. Applications such as Agile minds and various online tools are used daily.	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	CCPS has approximately 10,127 laptops/desktops for direct student instruction. This is a 1.6:1 student to computer ratio. There are approximately	

	741 HP Streambooks that were just purchased so far this year. Approximately 475 iPads are being used via the Instructional Technology department. Labs and mobile devices are used by multiple grade levels. We have 3671 managed devices at the elementary level, 2390 managed devices at the middle school level, and 3325 managed devices at the high school level. The HP Streams are unmanaged from the district on our guest network. On average, there are 8500 unmanaged district devices on the guest network per day in addition to our 10,127 (laptop/pc) managed devices.	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	CCPS does not have a district policy or program for 1 to 1. Several schools have been piloting it in grade levels. HP Streambooks are being used in grades 4, 5, and 6 are being used at this time.	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	CCPS supports BYOD. Implementation is determined at the school level by principals. Use in the classroom and by teachers varies greatly across the district. Guidelines for students are listed in the *Students' Rights, Responsibilities and Code of Conduct.*	http://www.calvertnet.k12.md.us/departments/administration/codeofconduct/documents/codeofconduct.pdf
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	There is no expectation that students provide their own devices for instructional purposes. When students are allowed to use their own devices in the classroom, district-purchased devices are available for their use.	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	This is happening in a variety of ways. Several schools have a group of school-based staff that work together to plan and devise ways to integrate the technology. These technology teams have been successful in the planning and implementation of instructional technology. Other schools have teachers that devise and develop independently. Teacher specialists in the Office of Instructional Technology work with teachers to assist in training	

	and integration. Some Supervisors provide staff development in technology-related applications.	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Support for devices varies greatly depending on the device. Currently, the CCPS IT department is only able to provide OS support for desktop and laptops for the school system. Support and upgrades for those devices occur via the IT department. Support on devices such as iPads are handled at the school-level via warranties and outside companies. Before this year, online testing was only administered on Laptops or Desktops. This year, there may be a possibility that we can use HP Streambooks to test. We are still investigating this. Currently, there is one computer technician per 5 instructional buildings. Each technician is responsible for approximately 2,000 managed devices.	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	We do not use a virtual desktop. CCPS uses Office 365 for staff and students. Both can access content from outside of the school.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	The standard typical ongoing costs of an IT department – support/maintenance on equipment, major licenses, battery backups, repair/replacement parts, office supplies, consulting etc. The cost for bandwidth and equipment to continue expanding the backbone has been costly and continues to grow each year. While there is a drastic need for more staff to support technology, we have not increased staff – so, the ongoing cost has not increased. Total cost of ownership models predict that upfront cost account for a maximum of 40% of TOC.	

TQ 4. What software licences does your district have? Can these programs be accessed outside of school?	CCPS uses the MEEC agreement for Microsoft Products. CCPS has Office 365 licenses for staff and students. These programs can be accessed outside of school.	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Digital Learning occurs every day in CCPS in various ways. Since 99% of our classrooms have SMARTBoards, at the bare minimum there are components of technology incorporated in classrooms every day. There are a handful of classrooms where more sophisticated digital learning is taking place, however this is rather minimal across the entire district. CCPS also offers online learning courses. Approximately, 120 seats are used in various courses.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	In CCPS, all but 1 elementary schools have wifi. The Board of Education and 28 instructional sites have wifi. All access points are 802.11n. There are 2 wireless networks – a “trust” wireless network and a “guest”.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Technology is funded through money allocated in the CCPS budget, e-rate funding, and $229,748 from Race to the Top. The RTTP money was used mainly for assessment solutions to help the system assess and collect data locally. Also it was used for STEM initiatives. The IT department’s budget for FY15 was $1,534,130. This included everything from infrastructure related equipment, contracts, support costs for all major applications (HR/Finance, Gradebook, SIS, Assessment application, Observation/Evaluation application, email archiving, major	

	licenses, UPS, paper for report cards, staff training, repair/replacement parts, office supplies, bandwidth, all IT equipment, all district technology equipment, all school-based infrastructure related equipment, consulting for all technical assistance – network-related or related to applications like HR/Finance etc… It does not include salaries of staff. Money in the CCPS budget is allocated to schools and departments to purchase their own technology at their discretion. For FY15 Schools and Departments spent approximately $306,946 from allocated CCPS Board of Education or raised school activity funds money. In addition, there have been various grants through the department of Special Ed. which was about $26,700.	
FQ 2. What was the amount of e-rate funding	$103,947.63	
FQ 3. What are your consistent sources of funding?	In addition to e-rate funding, he Board of Education allocates money in the annual budget.	
FQ 4. What is the plan to close the gap between needs and funds?	There is no plan to create more funds. CCPS has been exceptional in its ability to be efficient with the limited funds allocated to technology. The IT department is greatly understaffed and limited money has been put into infrastructure over the past 7-10 years. CCPS provides the best possible technology infrastructure, support, troubleshooting and access with the limited resources that it has. CCPS has a donation program for computers that has saved the system approximately 8.5 million dollars over the past 7 years. This does not include mobile devices. CCPS will continue to do the best they can with the resources they have.	
FQ 5. Out of the funding received	For FY15, all of the Race to the Top	

<table>
<tr>
<td>through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.</td>
<td>money that was intended for technology was spent on technology. It was approximately $229,748.

Here is a breakdown:

<table>
<tr><td>7155 RTTT STEM</td><td>50,877.86</td></tr>
<tr><td>7163 RTTT EIS SCANNER</td><td>901.00</td></tr>
<tr><td>7166 RTTT PROMISING PRINCIPALS</td><td>2,529.20</td></tr>
<tr><td>7184 COMP. ASSESSMENT SOLUTIONS</td><td>108,357.00</td></tr>
<tr><td>7191 TEACHER PRINCIPAL EVALUATION</td><td>40,412.29</td></tr>
<tr><td>7192 TPE ADDITIONAL FUNDS. Laptops</td><td>26,671.00</td></tr>
<tr><td></td><td></td></tr>
<tr><td>TOTAL -----</td><td>229,748.35</td></tr>
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<td colspan="3">Comments:</td>
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Joint Chairman's Report 2015, R00A01, Maryland State Education Technology Plan

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Carroll County Public Schools
LAC Name: Lisa A. Busher
Supervisor of Accountability and Assessment / Local Accountability Coordinator
LAC Contact Information: labushe@carrollk12.org Phone 410-386-1514
Contributors to the Survey: Steven Johnson, Assistant Superintendent of Instruction
Gary Davis, Chief Information Officer
Margaret Pfaff, Director of Curriculum and Instruction
Kimberly Dolch, Director of High Schools
Cynthia McCabe, Director of Elementary Schools
G. Tom Hill, Director of Middle Schools
Christopher Hartlove, Chief Financial Officer

Technology Requirements			
Question	Response	Supporting/Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	Teachers are encouraged to plan interactive lessons that engage students in inquiry and/or performance based learning activities. Teachers are encouraged to integrate technology into these learning activities when appropriate and to the extent resources are available.	Master Plan: http://www.carrollk12.org/admin/researchaccount/masterplan/default.asp Tech Cost Gap Analysis (attached) CCPS Race to the Top Technology Spending (attached)	Technology, Policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	System-wide full-coverage wireless, mobile laptop carts, student laptops, ceiling mounted projectors, interactive projectors, response systems, Discovery streaming. E-readers – encourage independent reading, support instruction Tablets – assessment for pre-k and kindergarten		Technology, Finance

TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	Elementary-2.95:1 Middle-2.35:1 High-1.8:1 However, this includes teacher laptops that are considered instructional and can be used by students.		Technology
TR 4. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	CCPS does not currently have, nor does it have any future plans for, a 1 to 1 technology initiative.		Technology
TR 5. What are your current policies and programs around BYOD, and what is the current level of implementation?	CCPS has a BYOD program for all staff and students in grades 3-12. This is our first full year of implementation in all schools.	http://www.carrollk12.org/instruction/default.asp	Technology, Instruction
TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	Our BYOD regulations clearly state that BYOD is optional; therefore, teachers must provide the necessary technology for all lessons to students who cannot or will not provide his/her own technology.	Item #12 in FAQ – Staff: http://www.carrollk12.org/instruction/default.asp	Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Second year of BYOD; electronic textbook in Science and Math; MVOL courses; Office 365; Interventions on line; and approved software. Discovery Education's Math Techbook available to all middle and high school teachers Discovery Education's Science Techbook available in grades 3 – 8 Discovery Education Streaming available preK – 12 for multi-media resources Various Web 2.0 tools used for student response Inquiry based activities require internet research		Instruction
Comments:			

Technical Questions			
Question	Response	Supporting/Linked Documents	Topics
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Computers that support Windows 7/10 –the specs may vary depending on the use. They do not differ for online testing since the devices used for online testing are the same as the ones used for everything else. iPads are being used in Special Education. We currently have 1 on-site technician per 4.5 schools.		Technology
TQ 2. To what extent do you use a virtual desktop?	We do not use Virtual Desktops for instruction but more for administrative purposes. It is not currently a cost-effective solution. However, we continue to lead the initiative through MDREN to create a state-wide education Virtual Desktop infrastructure to realize economies of scale to make it a cost-effective solution.		Technology
TQ 3. Do students and staff have a method to access work outside of the school?	Students have access to their data via Microsoft Office 365. Staff have access using their CCPS Laptop with VPN or SSL VPN on non-CCPS devices.		Technology
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	This question is too broad to answer. Technology is a cycle that the budget supports. When you increase your technology, the budget to sustain it increases based on the replacement cycle. Support includes all maintenance contracts as well as staffing. Total Cost of Ownership is a very complex equation and the upfront versus ongoing is really not a relevant factor. The key question is: what is the Total Cost to implement and sustain the technology. Our gap analysis was provided to MSDE October 2014 and it has not changed significantly. However, here are some annual licensing costs specific to some of our instructional titles: Edublogs - $2,000.00 Turnitin - $26,184.00 Discovery (science) - $89,659.70 DreamBox - $55,680.00 Mindworks (MS & GT reading) - $47,385.00 TCI (social studies) - $7,104.50 Kuta Software (math) - $6,795.00 TOTAL - $234,808.20		Technology, Finance, Instruction

TQ 5. What instructional software does your district have? Can students access them outside of school?	Centrally, we are part of MEEC and are licensed to all Microsoft Products that are a part of the MEEC contract. The remainder are purchased by individual cost centers.	Software and Home Access List (attached)	Technology, Finance
TQ 6. To what extent does digital learning take place in your district, either during the school day or from home (e.g., flipped classroom model). Is technology incorporated into the everyday classroom?	Very limited digital learning – there are a handful of teachers that integrate a flipped model of instruction. Technology is incorporated daily into secondary science, but otherwise, daily integration does not typically occur. Yes, technology is incorporated – it takes place in selected disciplines every day, occasionally in other disciplines; Also some curriculum is designed to incorporate technology; still have technology issues to use daily with every student.		Instruction
TQ 7. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	CCPS has a 10Gb county-wide fiber network. Each school is connected to the backbone at 10Gb except two small Elementary Schools that are connected at 100Mb. The ISP connection is 1Gb. We have system-wide wireless with full coverage. The wireless system is segmented into Secure and Guest. All non-CCPS devices connect to the Guest network while CCPS Domain devices connect to Secure.		Technology
Comments:			
Funding Questions			
Question	Response	Supporting/Linked Documents	Topics
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Capital Budget included $200,000 for technology – these funds are geared towards infrastructure rather than end-user devices. No specific other revenue was received from the State or County for Technology. The school system must choose to use some of its unrestricted state and local funding for technology; attached is the budget for our FY 2015 Technology Services Cost Center, which includes maintaining the system's wired network, wireless access, and computers (which are on a 5-year replacement cycle).	FY 2015 Unrestricted Operating Budget for Technology Services (attached)	Technology, Finance

	Some schools choose to use their own funds to supplement provided technology – these are usually in the form of supplemental-type devices such as cameras and in consumables. Race to the Top funding is addressed in item FQ 5		
FQ 2. What was the amount of e-rate funding for FY2015?	$135,792.00		Technology, Finance
FQ 3. What are your consistent sources of funding?	There are no dedicated sources of funding specific to technology. It is anticipated that unrestricted funding for the Technology Services Department will be allocated similarly in future years.		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	There is no specific plan at this time.		Technology, Finance
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	Not including additional grants, the total technology amount was $264,000. MSDE already has all of the information related to these purchases as it was reported out in great detail. $855,532 was spent on technology. Details are on the attachment.	CCPS Race to the Top Technology Spending (attached)	Technology, Finance
Comments:			

IDENTIFYING TECHNOLOGY INFRASTRUCTURE FUNDING GAPS: Cost estimates below should only reflect the technology infrastructure funding gaps not supported by your district's current or projected Information Technology budget.		
County Name: Carroll		
CIO/Technology Director Name: Gary R. Davis		
CIO/Technology Director Contact Info: grdavis@carrollk12.org		
QUESTIONS	**CIO NARRATIVE**	**COSTS**
Gap cost (**for technology not funded by your district**) to move all schools to a 1-1 so that all students have equal access to digital learning?	*This includes one time tripling of technology operating and CIP budget spread over a 4 year cycle (estimated life of student devices is actuallly 3 years): device cost, wiring closet switches, wireless access points and controllers, servers, cabling, service and maintenance contracts, upgraded firewalls and content filters (to allow higher throughput), new core switches, etc. I put in an extra $2 million for construction of additional wiring closet spaces, expansion of Data Center, office equipment, utilities, etc.*	$34,800,000.00
Gap cost **(for technology not funded by your district)** to initiate BYOD programs in all of your schools that do not currently support BYOD?	*Our Wireless is full coverage for all schools but does not account for density. Most costs for wireless expansion are covered in the first item. However, additional wireless access points would still likely be needed to account for growth of BYOD.*	$500,000
What is the gap cost **(for technology not funded by your district)** associated with getting all of your schools connected to the Internet with sufficient bandwidth to support 100% online testing and a 1-1 environment? We will use the SETDA Recommendations and change their metric from the staff to devices. The target date for this is the 2016-2017 school year. Broadband Access for Teaching, Learning, and School Operations 1) An external Internet connection to the Internet Service Provider (ISP): At least 1 Gbps per 1,000 devices; 2) Internal wide area network (WAN) connections from the district to each school and among schools within the district: At least 10 Gbps per 1,000 devices.	*According to this formula, with a 1:1 ratio for student and staff and BYOD of 1 device per student and staff, we would need a 72GB ISP service. This is based on NetworkMD pricing of $7,355 per month per 1Gb.*	$6,354,720.00
What is the gap cost **(for technology not funded by your district)** associated with administering PARCC assessments 100% online?	*I am making the assumption that performing all of the necessary upgrades in the other line items will compensate for this.*	$0.00
Gap cost for the human capital needed to support 1-1 digital learning and 100% online testing (additional technicians, instructional technology positions, etc.). **Again, not funded by district.**	*We do not currently have any Instructional Technology staff at schools. Further, we have technicians at a 1 to 4.5 schools ratio. An increase of this magnitude would require us to have 2 Technicians and 2 Instructional Techs at each school and to allow for the growth of general IT staff to accommodate all of the new infrastructure, etc. would require 191 new positions at an average of $85K annually including benefits.*	$16,235,000.00
Enter other technology funding gaps here and/or add records to this chart (e.g., moving from textbooks to digital content). **Again, not funded by district.**	*Unknown - instructional decision - will put in number just as a guess.*	$1,000,000.00
Total funding gaps year one (sum all of the above)	Total	$58,889,720.00
Ongoing annual funding gap estimate (total estimate explain what it covers)	Based on 4 Year Replacement Cycle for hardware	$30,591,500.00

Carroll County Public Schools Race to the Top Technology Spending

MSDE NOGA	Grant Name	Description	Amount
115745-004	Race to the Top Participating LEA Grants, Project 4	270 laptops, 9 mobile carts and accessories	$ 264,579
125704-01	RTTT 11/29: LEA System Application and Infrastructure	wireless coverage mapping (contract) and 8 wireless access points with wireless controller solutions, access point licenses, and wireless controllers	235,383
144940-01	RTTT Teacher and Principal Evaluation Implementation Grant	29 tablet computers with accessories	36,201
145164-01	RTTT Student Instructional Intervention System - Project 21/42	Contract - programming to re-design and create significant enhancements to the internally developed Testing & Assessment Center	47,591
155306-01/-02	RTTT Teacher and Principal Evaluation Implementation Grant	136 laptops, 10 tablets w/accessories, 3 wireless access points	143,057
154595-01	RTTT Promising Principals Technology Grant	iPad Air (4)	2,592
155610-01	RTTT LEA Assessment System Grant (17/32)	60 laptops, 2 mobile carts, 50 projectors with mounting and instructional accessories.	80,992
164190-01	RTTT LEA Assessment System Grant (17/32)		41,667
154305-02	RTTT ELC: Kindergarten Readiness Assessment	5 laptops	3,470
			$ 855,532

Software	Home Access
Accelerated Math	
Acrobat Pro	
Active Chemistry resource with It's About Time	
Active Inspire	
Active Physics resources with It's About Time	
Adobe Creative and Production Suite – one time license	
Adobe Flash/Reader	
Agricultural Experience Tracker	X
Alldata online information system	
Audacity	
AutoCad (Drafting)	
AutoDesk suite –home access to AutoDesk suite online – yearly through PLTW and MSDE agreement	X
Bitstrips	
CASE online	X
Caterpillar Service Information System (through Alban Tractor, Inc.	
Comic Creator	
ConnectEd	X
Destiny Follett	X
Discovery Education Math Techbook 6-8 Algebra, Geometry	X
Discovery Education Streaming Media	X
Disovery Education Techbook for Grades 3-8	X
EbD Online	
Econed.org	
Elements	
Engineering By Design network curriculum	
Everfi	
FEFE/Take Charge Now	
Final Cut Pro – one time license	
Finale 2007	
Flocabulary	X
Geometer's Sketchpad	
History Alive	
Hrblockdollarsandsense.com	
I-Car, yearly subscription	
Identifix online information	
JA Finance Park	X
Java 8	
Jostens	
KCA (Glencoe)	
Learning A-Z	X
Lego Robotics	

LegoNXT – one time license	
Mailbox Gold	
MakeBeliefsComix.com	
Mixcraft 4	
Movie Maker	
MyAccountingLab (pearson) – through textbook software	
MyBizLab-through textbook software	
MyMathLab--new Trig textbooks	X
National Academy Foundation (NAF) – NAFTrack (data, assessments and curriculum	
Newbyte Genetics Simulation Software	
NIMS	
One Note	
OSHA online student certification	
Pearson Interactive Science for Middle School	
Pearson VUE testing center (CISCO)	
Penelope	
Photo shop	
Photoshop Elements Premiere Bundle	
PLTW Learning Management System (LMS) – software downloads	
Practical Money Skills	
READ 180 – includes SRI and Reading Plus	X
Remind 101	
SAM	
ServeSafe Online	
Smart Music	
Smart Sound	
SmartStocks.com	
SP2 – Safety and Pollution Prevention Training	
Spaleon	
Star Math	
Stratalogica	
Study Island	
Studyspanish.com	
Teacher Curriculum Institute	
TestGen	
ToolingU	X
Turnitin.com	X
Videos on Demand	
www.conjuguemos.com	
www.contrenconnect.com	
www.netacad.com (Cisco)	

CARROLL COUNTY PUBLIC SCHOOLS
EXPENDITURE STATUS REPORT

SELECTION CRITERIA: expledgr.key_orgn like '11%175'
ACCOUNTING PERIOD: 1/15

SORTED BY: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL,ACCOUNT
TOTALED ON: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL
PAGE BREAKS ON: FUND,CLASSIFICATION,CATEGORY

FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-01
1ST SUBTOTAL-100 TOTAL SALARIES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
101	NON INSTR CLASSIFIED	282,035.00	37,189.60	.00	37,189.60	244,845.40	13.19
105	NON INSTR OVERTIME	5,000.00	.00	.00	.00	5,000.00	.00
120	ADMIN EXEMPT SALARY	401,336.00	25,997.32	.00	25,997.32	375,338.68	6.48
	TOTAL TOTAL SALARIES	688,371.00	63,186.92	.00	63,186.92	625,184.08	9.18
1ST SUBTOTAL-200 TOTAL CONTRACTED SVCS							
211	RENTAL EQUIP/MACHINERY	3,000.00	.00	1,296.00	1,296.00	1,704.00	43.20
299	OTHER CONTRACTED SERVICE	15,000.00	.00	.00	.00	15,000.00	.00
	TOTAL TOTAL CONTRACTED SVCS	18,000.00	.00	1,296.00	1,296.00	16,704.00	7.20
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS							
302	OFFICE SUPPLIES	5,000.00	.00	.00	.00	5,000.00	.00
308	BOOKS & PERIODICALS	400.00	.00	.00	.00	400.00	.00
325	GENERAL SUPPLIES	2,000.00	.00	.00	.00	2,000.00	.00
328	COMPUTER EQUIP. < $5,000	25,000.00	7,701.91	7,701.91	15,403.82	9,596.18	61.62
	TOTAL TOTAL SUPPLIES/MATERIAL	32,400.00	7,701.91	7,701.91	15,403.82	16,996.18	47.54
1ST SUBTOTAL-400 TOTAL CHARGES							
402	LOCAL MILEAGE REIMBURSE	1,500.00	.00	.00	.00	1,500.00	.00
403	LICENSE FEES	45,000.00	.00	1,905.22	1,905.22	43,094.78	4.23
422	DUES	4,100.00	.00	3,000.00	3,000.00	1,100.00	73.17
456	PROFESSIONAL DEVELOPMENT	2,500.00	.00	.00	.00	2,500.00	.00
	TOTAL TOTAL CHARGES	53,100.00	.00	4,905.22	4,905.22	48,194.78	9.24
	TOTAL	791,871.00	70,888.83	13,903.13	84,791.96	707,079.04	10.71

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FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-03 STUDENT SERVICES
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
328	COMPUTER EQUIP. < $5,000	5,000.00	5,295.81	6,112.08	11,407.89	-6,407.89	228.16
TOTAL	TOTAL SUPPLIES/MATERIAL	5,000.00	5,295.81	6,112.08	11,407.89	-6,407.89	228.16
TOTAL	STUDENT SERVICES	5,000.00	5,295.81	6,112.08	11,407.89	-6,407.89	228.16

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FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-04 STUDENT HEALTH
1ST SUBTOTAL-400 TOTAL CHARGES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
403	LICENSE FEES	.00	.00	1,905.22	1,905.22	-1,905.22	.00
TOTAL	TOTAL CHARGES	.00	.00	1,905.22	1,905.22	-1,905.22	.00
TOTAL	STUDENT HEALTH	.00	.00	1,905.22	1,905.22	-1,905.22	.00

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ACCOUNTING PERIOD: 1/15

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PAGE BREAKS ON: FUND,CLASSIFICATION,CATEGORY

FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-06 OPERATION OF PLANT
1ST SUBTOTAL-100 TOTAL SALARIES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
101	NON INSTR CLASSIFIED	1,195,697.00	99,641.44	.00	99,641.44	1,096,055.56	8.33
102	NON INSTR HOURLY CLASSIF	50,000.00	2,308.00	.00	2,308.00	47,692.00	4.62
105	NON INSTR OVERTIME	10,000.00	.00	.00	.00	10,000.00	.00
106	NON INSTR LONGEVITY	8,220.00	685.00	.00	685.00	7,535.00	8.33
120	ADMIN EXEMPT SALARY	411,504.00	26,830.58	.00	26,830.58	384,673.42	6.52
189	ECD STIPEND	20,340.00	1,560.00	.00	1,560.00	18,780.00	7.67
	TOTAL TOTAL SALARIES	1,695,761.00	131,025.02	.00	131,025.02	1,564,735.98	7.73
1ST SUBTOTAL-200 TOTAL CONTRACTED SVCS							
201	MAINT. & REPAIR OF EQUIP	550,000.00	-190,491.21	500,569.62	310,078.41	239,921.59	56.38
299	OTHER CONTRACTED SERVICE	200,000.00	-34,592.31	6,842.50	-27,749.81	227,749.81	-13.87
	TOTAL TOTAL CONTRACTED SVCS	750,000.00	-225,083.52	507,412.12	282,328.60	467,671.40	37.64
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS							
310	EQUIP MAINT & REPAIR SUP	30,000.00	-1,949.82	22,809.88	20,860.06	9,139.94	69.53
317	COMPUTER REPAIR SUPPLIES	5,000.00	.00	.00	.00	5,000.00	.00
325	GENERAL SUPPLIES	115,000.00	2,257.14	2,972.28	5,229.42	109,770.58	4.55
328	COMPUTER EQUIP. < $5,000	334,000.00	-60,952.73	145,382.89	84,430.16	249,569.84	25.28
	TOTAL TOTAL SUPPLIES/MATERIAL	484,000.00	-60,645.41	171,165.05	110,519.64	373,480.36	22.83
1ST SUBTOTAL-400 TOTAL CHARGES							
402	LOCAL MILEAGE REIMBURSE	20,000.00	.00	.00	.00	20,000.00	.00
403	LICENSE FEES	50,000.00	29,517.24	233,977.03	263,494.27	-213,494.27	526.99
404	COMMUNICATIONS	144,000.00	20,277.54	46,792.53	67,070.07	76,929.93	46.58
456	PROFESSIONAL DEVELOPMENT	10,000.00	.00	.00	.00	10,000.00	.00
	TOTAL TOTAL CHARGES	224,000.00	49,794.78	280,769.56	330,564.34	-106,564.34	147.57
1ST SUBTOTAL-500 TOTAL NEW EQUIPMENT							
503	DATA PROCESSING EQUIPMEN	.00	-101,612.00	101,612.00	.00	.00	.00
	TOTAL TOTAL NEW EQUIPMENT	.00	-101,612.00	101,612.00	.00	.00	.00
1ST SUBTOTAL-600 TOTAL REPLACEMENT EQUIP							
603	DATA PROCESSING EQUIPMEN	.00	.00	362,229.22	362,229.22	-362,229.22	.00
	TOTAL TOTAL REPLACEMENT EQUIP	.00	.00	362,229.22	362,229.22	-362,229.22	.00
	TOTAL OPERATION OF PLANT	3,153,761.00	-206,521.13	1,423,187.95	1,216,666.82	1,937,094.18	38.58

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FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-07 MAINTENANCE OF PLANT
1ST SUBTOTAL-400 TOTAL CHARGES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
403	LICENSE FEES	.00	.00	1,905.22	1,905.22	-1,905.22	.00
417	GASOLINE	3,000.00	151.58	.00	151.58	2,848.42	5.05
	TOTAL TOTAL CHARGES	3,000.00	151.58	1,905.22	2,056.80	943.20	68.56
	TOTAL MAINTENANCE OF PLANT	3,000.00	151.58	1,905.22	2,056.80	943.20	68.56

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FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-08 FIXED CHARGES
1ST SUBTOTAL-400 TOTAL CHARGES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
460	EMPLOYEE RETIREMENT/PENS	199,318.71	14,773.78	.00	14,773.78	184,544.93	7.41
461	EMPLOYEES' SOCIAL SECURI	175,582.39	14,184.88	.00	14,184.88	161,397.51	8.08
465	INSURANCE - LIFE	2,423.33	204.04	.00	204.04	2,219.29	8.42
466	INSURANCE LTD	2,759.73	226.48	.00	226.48	2,533.25	8.21
468	INSURANCE - OPTICAL	171.94	13.48	.00	13.48	158.46	7.84
470	INSURANCE - MEDICAL	377,112.00	29,602.00	.00	29,602.00	347,510.00	7.85
477	INS-WORKMENS COMPENSATIO	17,161.59	1,439.45	.00	1,439.45	15,722.14	8.39
478	INS-DENTAL	14,809.44	1,190.94	.00	1,190.94	13,618.50	8.04
	TOTAL TOTAL CHARGES	789,339.13	61,635.05	.00	61,635.05	727,704.08	7.81
	TOTAL FIXED CHARGES	789,339.13	61,635.05	.00	61,635.05	727,704.08	7.81

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FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-12 MID-LEVEL ADMINISTRATION
1ST SUBTOTAL-200 TOTAL CONTRACTED SVCS

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
207	PRINTING AND BINDING	15,000.00	.00	11,064.18	11,064.18	3,935.82	73.76
299	OTHER CONTRACTED SERVICE	75,000.00	-16,478.50	92,100.85	75,622.35	-622.35	100.83
	TOTAL TOTAL CONTRACTED SVCS	90,000.00	-16,478.50	103,165.03	86,686.53	3,313.47	96.32
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS							
325	GENERAL SUPPLIES	.00	3,827.10	842.18	4,669.28	-4,669.28	.00
328	COMPUTER EQUIP. < $5,000	170,000.00	18,207.01	122,746.55	140,953.56	29,046.44	82.91
	TOTAL TOTAL SUPPLIES/MATERIAL	170,000.00	22,034.11	123,588.73	145,622.84	24,377.16	85.66
1ST SUBTOTAL-400 TOTAL CHARGES							
403	LICENSE FEES	10,000.00	.00	5,715.67	5,715.67	4,284.33	57.16
404	COMMUNICATIONS	127,000.00	30,170.48	.00	30,170.48	96,829.52	23.76
456	PROFESSIONAL DEVELOPMENT	1,000.00	.00	.00	.00	1,000.00	.00
	TOTAL TOTAL CHARGES	138,000.00	30,170.48	5,715.67	35,886.15	102,113.85	26.00
	TOTAL MID-LEVEL ADMINISTRATIO	398,000.00	35,726.09	232,469.43	268,195.52	129,804.48	67.39

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SORTED BY: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL,ACCOUNT
TOTALED ON: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL
PAGE BREAKS ON: FUND,CLASSIFICATION,CATEGORY

FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-13 SPECIAL EDUCATION
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
328	COMPUTER EQUIP. < $5,000	.00	15,581.40	13,150.14	28,731.54	-28,731.54	.00
	TOTAL TOTAL SUPPLIES/MATERIAL	.00	15,581.40	13,150.14	28,731.54	-28,731.54	.00
1ST SUBTOTAL-400 TOTAL CHARGES							
403	LICENSE FEES	.00	.00	15,241.78	15,241.78	-15,241.78	.00
	TOTAL TOTAL CHARGES	.00	.00	15,241.78	15,241.78	-15,241.78	.00
	TOTAL SPECIAL EDUCATION	.00	15,581.40	28,391.92	43,973.32	-43,973.32	.00

SELECTION CRITERIA: expledgr.key_orgn like '11%175'
ACCOUNTING PERIOD: 1/15

SORTED BY: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL,ACCOUNT
TOTALED ON: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL
PAGE BREAKS ON: FUND,CLASSIFICATION,CATEGORY

FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-16 TEXTBOOKS & INST SUPPLIES
1ST SUBTOTAL-300 TOTAL SUPPLIES/MATERIALS

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
325	GENERAL SUPPLIES	5,000.00	.00	3,814.90	3,814.90	1,185.10	76.30
328	COMPUTER EQUIP. < $5,000	1,625,000.00	-3,635.13	1,564,625.01	1,560,989.88	64,010.12	96.06
	TOTAL TOTAL SUPPLIES/MATERIAL	1,630,000.00	-3,635.13	1,568,439.91	1,564,804.78	65,195.22	96.00
	TOTAL TEXTBOOKS & INST SUPPLI	1,630,000.00	-3,635.13	1,568,439.91	1,564,804.78	65,195.22	96.00

SELECTION CRITERIA: expledgr.key_orgn like '11%175'
ACCOUNTING PERIOD: 1/15

SORTED BY: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL,ACCOUNT
TOTALED ON: FUND,CLASSIFICATION,CATEGORY,1ST SUBTOTAL
PAGE BREAKS ON: FUND,CLASSIFICATION,CATEGORY

FUND-1 CURRENT OPERATING FUND
CLASSIFICATION-1 UNRESTRICTED EXPENDITURE
CATEGORY-17 OTHER INSTRUCTIONAL COSTS
1ST SUBTOTAL-400 TOTAL CHARGES

ACCOUNT	- - - - - TITLE - - - - -	BUDGET	PERIOD EXPENDITURES	ENCUMBRANCES OUTSTANDING	YEAR TO DATE EXP + ENC	AVAILABLE BALANCE	YTD/ BUD
403	LICENSE FEES	100,000.00	.00	158,133.47	158,133.47	-58,133.47	158.13
	TOTAL TOTAL CHARGES	100,000.00	.00	158,133.47	158,133.47	-58,133.47	158.13
	TOTAL OTHER INSTRUCTIONAL COS	100,000.00	.00	158,133.47	158,133.47	-58,133.47	158.13
	TOTAL UNRESTRICTED EXPENDITUR	6,870,971.13	-20,877.50	3,434,448.33	3,413,570.83	3,457,400.30	49.68
	TOTAL CURRENT OPERATING FUND	6,870,971.13	-20,877.50	3,434,448.33	3,413,570.83	3,457,400.30	49.68
TOTAL REPORT		6,870,971.13	-20,877.50	3,434,448.33	3,413,570.83	3,457,400.30	49.68

County Name: Charles County Public Schools
LAC Name: Cliff Eichel
LAC Contact Information: ceichel@ccboe.com
Contributors to the Survey: Bj Devkota, Director of Technology; Sherri Davis, Budget Analyst

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	The technology plan has been written to incorporate future developments in technology and to ensure a leadership role for Charles County 1. Integrate technologies that engage students into all classrooms on a regular basis; 2. Provide all staff with the knowledge and skills to effectively use and integrate technology to enhance student learning and to support school and system goals; 3. Access to digital information for teachers, support staff and administrators will increase productivity; 4. Provide access to current technology to effectively support all teachers, students, and staff; 5. Reflect the growing influence of technology by using staffing models that will support technology and technology integration onsite and centrally; and 6. Offer students, staff and community of Charles County the greatest opportunity to be equipped for life in the information age including an immersive digital classroom at the James E. Richmond Science Center.	
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Personal Computers: 4716 Laptops: 6586 Tablets: 1075 Projectors: 313 SmartBoards and Tables: 150 Document Cameras: 225 Classrooms need to be equipped with computers (PCs, laptops and tablets) so that the ratio of students for each computer	

	moves closer to a 1:1 ratio. There should be a system in place to ensure that computers, laptops and tablets are updated and repaired in a timely fashion and replaced every five to seven years depending on the year end general fund balance. Audio Visual technology in the classroom provides projection of computers, interactive instruction and streamed images. There should be a system in place to ensure that this audio video equipment is updated and repaired in a timely fashion and replaced every six to eight years depending on the year end general fund balance.	
TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	**Level** **Devices** **Students** **Ratio** **ES** 8027 11987 1.5 **MS** 5108 5917 1.2 **HS** 7135 8409 1.2 **Total** 20270 26313 1.3 We counted all the classroom and lab computers, laptops, and tablets including mobile laptop carts.	
TR 4. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	Currently we have close to 8500 laptops and tablets for student instructional use and testing. These laptops are on carts of 15 or 30. We have 26,313 students in Charles County Public Schools. In order to meet the 1:1 initiative, we need to purchase 17,813 more mobile devices. Laptop cost is $800 each and it will give us 5-7 years of usage. 17,813 X $800 = $14,250,400	
TR 5. What are your current policies around BYOD programs and what is the current level of implementation?	CCPS is piloting a Bring Your Own Device (BYOD) program. The program is being “phased in” across the district at elementary, middle and high schools. It allows for students and staff to use their personal device, such as personal laptop, tablet, or smartphone, to connect to the Internet for approved classroom activities. We will have a total of seven pilot schools this year.	Visit www.ccboe.com/byod for more information.
TR 6. What equity plans do you have in place to support students	Teachers frequently provide collaborative lessons which encourage students to work	

who cannot provide their own technology?	together, sharing information accessed through personal devices. When individual work is assigned, students may use computers, laptops, tablets and other devices located in classrooms, labs and/or in the Media Center. A student's learning experience or academic performance will not be affected because he or she does not have an Internet-connected device to bring to school. CCPS is committed to ensuring equity in education for all of its students. Students are not required to provide a personal device for school use, even if they do own one. Use of personal electronic devices is optional. Learning can be enhanced greatly for the entire class even if only a handful of students have a device.	
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Although more teachers are using technology applications in their classrooms than in years past, there is still much more that needs to be accomplished in order for all teachers to effectively integrate technology into instruction in their classrooms on a daily basis. Educators need to use applications that use higher level thinking skills and classroom instruction that models a constructivist approach to student learning. Students need to be assessed to determine the effectiveness of technology use in the classroom. Systems that encourage and facilitate collaboration among teachers need to be expanded in order to provide quality educational experiences for students. Appropriate resources, including up-to-date materials and technologies, must be available and continuously supported, funded, maintained and updated. - Infuse technology resources and technology-related knowledge and skills into all curricula to align with the Maryland Common Core - Require the use of technology resources in all curricular areas and all classrooms to support the Maryland Common Core - Continue to identify, research, and implement a variety of new and emerging technologies to enhance student learning o Interactive Whiteboards (SmartBoards, SmartTables)	

	○ Interactive Clickers ○ LCD Projectors ○ Digital classroom and textbooks including on-line digital content ○ IPad and other tablets ○ Distance learning using telepresence ○ BYOD ○ STEM technologies. Engineering and design including the software and hardware such as the 3D printers. ○ Code.org K-12 and Computer Programming ○ Bio Med ○ Project Lead the Way ○ EverFi for Financial Literacy or Digital Literacy ○ Turn it In ○ Clever ○ Edline for homework posting (students and parents) ○ Edline for gradebook management ○ Formative Assessment in FASTTEST with instant results ○ FLEXCAT Classroom Audio system that allows real-time monitoring and interaction of cooperative learning groups so that teachers can adjust instruction as needed to keep all students learning and actively engaged.	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	We are predominantly a Windows environment. However, we also maintain approximately1000 iOS devices. Our technical requirements are the same for Instruction and PARCC testing.	

TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	We do not use virtual desktop. However, we have virtual servers in our data center and schools. Students have access to Microsoft Office 365 and library resources from outside the schools. Staff have access to Microsoft Office 365 but we need to work with our Staff Development Office to provide additional training. Staff with authorization have 24*7 VPN remote access.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	We have approximately 20,000 pieces of technology equipment in CCPS. We are required to replace old equipment every five years but the reality is seven to eight years. We purchased approximately 5000 new laptops and desktops in order to get ready for PARCC testing. Our current budget is not enough to sustain the replacement cycle. However, whenever possible we receive supplemental operating funds to cover the delta depending on the year end funds. When we increase our technology, the budget to sustain technology equipment needs to increase based on the replacement cycle. Total ongoing support includes all hardware/software maintenance contracts. Ongoing cost for devices, software, internet service, human capital license will be 5%-20% depending on the contract. We had provided this information in detail to MSDE last year.	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	• Inspiration 9 • Multisim • Autodesk • Robot C • Sketchup 2014Pro • Woodcock Johnson III (Sped) • Keyboarding Without Tears • MicroType CKPro • DrawPlus X6 • MoviePlus X6 • PagePlus X8 • PhotoPlus X7	

	• WebPlus X7 • building blocks • Snap! Finch and BirdBrain Robot Server • Notepad++ • Rur-Ple • Python • Adruino • Fritzing • NetLogo • Eclipse • PyCharm • Handy Image Mapper • RoboMind • Cerberus FTP • Cisco Security Device Manager • Cisco Packer Tracer • Lego Mindstorms Education EV3 • Tathl Putty • TFTP Server • TeraTerm • Hyperterminal • GlobalScape • TFTPD64 • Serial to USB driver • Netstumbler • Thunderbird • Syslog Server • Wireshark • Virtual Box Basic • Java Development Kit • JES+ Finch • Rhinoceros 5 • LearnMate Server • NI Instruments Academic Site License, (including Multisim 13.0) • Cisco Network Assistant • WebAssign (Web-based, no install) • TurningPoint These programs are accessible only from schools. Students have access to Digital Library Resources, Office 365 and Edline portal from home.	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from	We use Discovery United Streaming in our classrooms including on-line digital content. We have also piloted Vitalbooks digital textbook	.

home (e.g. flipped classroom model). Is technology incorporated into the everyday classroom?	program in the past. Some teachers and schools have tested the flipped classroom model with our students. We might pilot Discovery digital textbooks starting next year. Please note that access to the digital textbooks may last only one semester, or a year, or up to six years depending on the contract with the content provider.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	Our internet bandwidth capacity is 800 meg. All school buildings are connected via dark fiber with 10 gig between 3 distribution centers and 2 gig from the distribution center to the schools. All locations have WIFI. High schools have 802.11ac, middle and elementary schools have legacy 802.11n only. BYOD Teacher and BYOD Student is restricted but guest access is open. However, teacher, student and guest require a password in order to comply with CIPA.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	General operating funds: Total - $ 6,642,923 • Budgeted - $2,237,570 • Year End Supplemental - $4,405,353 Loan • Cisco loan for PARCC infrastructure $2,872,287 Race to the Top • Race to the Top for Technology $660,649 Increased funding for technology in upcoming budget cycles will be necessary to keep Charles County Public Schools a leader in the state.	
FQ 2. What was the amount of e-rate funding	$204,355.82	
FQ 3. What are your consistent sources of funding?	General operating budget is our consistent source of funding. State and federal grants only fund special projects.	

FQ 4. What is the plan to close the gap between needs and funds?	Over the past ten years, the school system has obligated funds for short –term loans with minimum financing to support the technology infrastructure and replace outdated equipment. This practice, however, has committed funds over an extended period, leaving less funding for instructional initiatives. In addition, to the extent possible, the school system utilizes transfers from the prior year fund balance as a source of funding.	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	Race to the Top Total: $3,041,208 Technology spent Total: $660,649 We purchased personal computers, laptops, tablets and other technology accessories under the RTTT guidelines. 2012 $10,936 2013 $309,813 2014 $20,407 2015 $221,466 **Total $660,649**	
Comments:		

County Name: Dorchester
LAC Name: Anna Howie
LAC Contact Information: howiea@dcpsmd.org; (410)228-4747, extension 1032
Contributors to the Survey: LeAnn McWilliams and Theresa Connors

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Our district initiative is to increase digital learning through the Discovery Streaming Plus platform and resources.	Technology Plan
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Desktops Laptops Chromebooks iPads HP Streams Network Infrastructure These devices have been purchased for instruction and testing.	WASP Inventory System
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	Elementary: 5:1 Middle: 4:1 High: 4:1	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	Based on best practices for digital learning, we do not plan to move to a 1 to 1 program. However, we do plan to increase the # of devices to students.	Technology Plan
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	We do not have any current policies around BYOD programs. With the increase of devices purchased in our school system, we have no need to implement a BYOD program.	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	We will continue to increase the number of devices per school.	
TR 6. How are you incorporating technology into the classroom every	We are currently using Discovery Techbooks in some of our mathematics	Technology Plan

day? Please provide specific examples of current technology integration in schools and classrooms.	and science courses. Teachers are using technology to deliver instruction. Specific examples of current technology we use in our schools are classrooms are as follows: - Holt-McDougal online resources - Think Central - Google Docs - Web 2.0 Tools	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	We primarily use Windows 7 Pro or higher to join the domain. Mobile devices (Apple iOS) joint to our MDM. We employee 3 full time computer repair technicians that service varies schools and average about 1200 devices per tech. It does not differ from online testing.	Technology Plan
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	Our district does not use virtual desktop. Staff and students can access work outside of the school through the web.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Licensing, increased personnel, increased maintenance cost are examples of our ongoing costs which represent 20% of the technology budget.	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	All of our textbooks (web-based/software licenses) Assessment & Data Management Hosting Services Formative Action System for Teacher Effectiveness SIRS Discovery United Streaming Destiny Library Services World Book Online APEX Learning	

	Naviance First in Math Compass Learning Kurzweil Read Naturally ISP Student Information System MS Window & Office Products McAfee Antivirus Spam Filter DCPS Website Hosting MEEC Annual Membership Automated Notification System Web Filter Financial Software User Membership Visitor/Student Check-In System Telephone Services AESOP	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	We are in the beginning stages of converting to digital learning. This does not happen every day.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	We currently have 1 GB bandwidth burstable to 10GB in all of schools with the exception of one school that does not have fiber optics. All of our schools have Wi-Fi access. This access is available to teachers, students, and guests as required. Everything through our network is filtered (restricted).	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	We received funding from the following sources for the 2014-2015 School Year: - Local Funding ($800,000) - e – rate ($262,749.16) - RTTT ($404,592.61)	

FQ 2. What was the amount of e-rate funding	$262,749.16	
FQ 3. What are your consistent sources of funding?	e-rate funding	
FQ 4. What is the plan to close the gap between needs and funds?	We will continue to apply for funds.	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	$404,592.61 was spent on technology from Race to the Top. 25 iPads w/ cart 25 Chromebooks w/ cart 46 Teacher Laptops 125 Laptops & 5 carts 62 Wired keyboards for iPads 2 Supervisor Laptops 16 Tablets w/ keyboards 32 AP License Upgrade 36 Wireless Access Points 1 Access Control Radius Server (for MDM project) 210 Notebooks & 7 carts	
Comments:		

County Name: Frederick County
LAC Name: Debbie Gilmartin
LAC Contact Information: deborah.gilmartin@fcps.org

Contributors to the Survey:

Derek Rook, Director of Technology Infrastructure
Mary Jo Richmond, Supervisor of Media Services
Kevin Cuppett, Executive Director of Curriculum, Instruction and Innovation
Jamie Aliveto, Director of System Accountability and School Improvement

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	The district has an Acceptable Use policy in place at all schools. Acceptable Use is in place for using FCPS technology at school and at home. See TR3, TR6, TQ5	
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Large scale purchases have included: Chromebooks, convertible Windows tablets, iPads, laptops, desktops: all of these devices have been purchased for students and staff for productivity, curriculum, and innovation and are used in schools and Central Office. Interactive White Boards: IWBs are used in many of our classrooms by teachers and also are used by our students during instruction	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	High School: 5:1 Middle School: 2:1 or slightly better (mostly chromebooks) Elementary School: 6:1 These are not segregate by grade level, in most cases the systems are shared throughout the schools on carts.	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	One school, New Market Middle, is piloting the implementation of 1:1 this year. 8th graders have paid $60.00 if they want to bring the device home with them. Most have chosen to do this. The 6th and 7th graders only have access to their device during the school day. All students are subject to Acceptable Use regulation when using the device at home. Our firewall and security	http://education.fcps.org/nmms/one%20to%20one Computers, Acceptable Use

	protections remain in place for the students when devices go home with students.	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	All secondary schools have implemented BYOD for staff and students. All elementary schools have implemented BYOD for staff. Some elementary schools have implemented BYOD for their upper grades.	Electronic Devices Computers, Acceptable Use
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	At times, instructional activities allow for students to work together in a group and teachers have students share devices. In addition, in regards to BYOD, schools do often provide students with a school provided device as needed in a lesson. In our 1 to 1 school, all students have been provided with their own device for use at school and home.	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	A significant portion of the district's curriculum resources is housed digitally and is linked through Curriculum Now resource page. Many examples can be found just by clicking through the link. Many resources are locked down and only available to FCPS employees.	Curriculum Now
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Minimum: Windows 7, Server 2003, Chrome 41, Office 2010, 2GB RAM for PCs, 4GB Ram for chromebooks, 128GB local storage, 11" screen or larger. All new devices must be PARCC compliant.	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	Students and staff have to ability to access much of their work via Google Apps for Education outside of the school environment. Also, teaching staff can access their drives from the traditional network from a remote location.	VPN portals are available
TQ 3. What ongoing cost requirements do you have in	Many of our products may have installation/integration costs and they often move to an annual maintenance fee	

comparison to upfront costs paid this past year?	structure. FCPS allocates $3.5 million annually to maintain and operate its technology infrastructure alone.	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	We have a bunch: Examples: PeopleSoft, eSchool, Microsoft Office/365, Microsoft Campus agreements, VMWare, SQL server, Tableau, Security Essentials, Oracle, ELLevation; EBSCO Host; etc. Numerous digital content licenses: Discovery Education, Brain POP, Jason Project, Britannica Encyclopedia, HMH math and ELA digital content; middle school social studies text licenses; etc. Numerous program specific licenses: AutoCAD, some type of graphics suite; Project Lead the Way software; Deep Freeze; Insight; Faronics; etc. There are a bunch more.	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Most FCPS teachers have a working laptop/desktop to utilize in the classroom for presentation of information. More than 60% of these are over 6 years old. In addition, schools have computer labs (anywhere from 1-6). 50%-60% of these labs have computers 6+ years old. In the 2014-15 school year, through the district's TechNOW initiative, grants, and other system expenditures, an additional 11,687 active chromebooks went to our schools. The majority of the chromebooks went to middle schools, but high schools, and elementary schools also benefitted from these purchases. Along with this deployment, the district held yearlong educator effectiveness academies (EEA's) around technological expression and delivery. Teachers have been trained on the Flipped Classroom, but more importantly have learned about the SAMR model to assist them as they establish a purpose for thoughtfully integrating technology into instruction. Teachers value using technology in their lessons, but have expressed a need for more devices. In addition, each school focuses a section of their Continuous Strategic Improvement plan on Technological Expression and Delivery, working to enhance digital learning opportunities in each classroom. A variety of digital learning tools are utilized including tools to support formative assessment.	

TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wi-Fi and the level of openness and access (teacher, student, guest, restricted).	We currently run 1.6 Gbps in our system. All schools are wireless enabled with an enterprise system for staff and a guest system for open student use. The guest is more restricted. Both networks are password protected and content filtered.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	1 million in onetime capital funds from Frederick County Government 1.2 million in digital grants $50,000 in other tech grants In addition, we spent operating funds to maintain our current expenses. We had $500K for technology refresh last year.	
FQ 2. What was the amount of e-rate funding	Approximately $450,000, going down annually as telecom is phased out.	
FQ 3. What are your consistent sources of funding?	State and local funds	
FQ 4. What is the plan to close the gap between needs and funds?	Requesting increase in technology refresh funds from local BOE Always seeking grant funds Reallocating some current funds whenever possible (specifically for digital content acquisition)	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	We did not receive Race to the Top funding	
Comments:		

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Harford
LAC Name: Philip Snyder
LAC Contact Information: Philip.snyder@hcps.org, 410-588-5292
Contributors to the Survey: Andrew Moore, CIO; Martha Barwick, Coordinator of Instructional Technology

Technology Requirements			
Question	Response	Supporting/ Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	See Appendix A A technology planning committee has been meeting for 18 months to recommend decisions to Senior Leadership. At this point, a vision statement, a mission statement, and believe statements have been identified. These statements are guiding future initiatives such as BYOT, tablets in the classroom, and the design and implementation of digital curriculum in a Learning Management System (LMS), *its Learning*.	Appendix A: Portable Communication Device Policy, Responsible Use Procedure Appendix B: Instructional Transformation Vision and Mission	Technology, policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Learning Management System – component of a digital transformation of instruction Tablets – mobile computing Wireless Network – complete Wi-Fi in all schools		Technology, finance

TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	Elementary 6.7 students:1 computer Middle 3.9 students:1 computer High 2.0 students:1 computer		Technology
TR 4. What are your current policies and programs, initiatives around 1 to 1 technology? What is the current and proposed future level of implementation?	To date, Harford does not have the funding to implement 1:1. Our strategy is to implement 1 computer per 2 students.		Technology
TR 5. What are your current policies, programs, and around BYOD programs and what is the current level of implementation?	Policies: See the RUP 3rd and 4th Quarter SY15, Implemented BYOT in 1 HS and 3 MS 1st – 2nd Quarter SY16 Implement BYOT in all HS (10 additional) 3rd-4th Quarter SY16 implement BYOT in all MS (6 additional)		Technology, Instruction
TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	Utilize existing devices (tablets, laptops, desktops in classrooms)		Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	**LMS**: itslearning is in pilot phase through the 15-16 school year, implemented with three sections of HS Science course, GeoHazards and in all high schools throughout English 10. Curriculum writers continue to develop digital curriculum in other content areas. **Web 2.0 tools**: Teachers use Web 2.0 tools as appropriate to their classroom when access to tablets or laptops is available or when BYOT devices are being used. Over the 14-15 school	http://media.hcps.org/hcpsmedia/video/instrtech/DigitalHarfordTECH4.mp4	Instruction

	year, 680 teachers received professional development in the area of utilizing Web 2.0 to support instruction. **Office 365**: Office 365 is being implemented in HCPS to afford teachers the ability to collaborate with students digitally and create digital notebooks. 242 early adopters received PD in the 14-15 school year. All teachers will receive PD in the 15-16 school year. **Interactive Technologies**: Interactive Technologies, including Interactive Whiteboards, and ActivExpression devices are used in most classrooms in HCPS to engage students in whole group instruction. ActivExpressions allow for immediate whole class student data that provides a voice for students, can be used to further conversation and also be used to further inform learning opportunities.		
Comments:			
Technical Questions			
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Win7 OS of all desktops/laptops. Win8 OS for windows-based tablets. 55% of current computer inventory is 5-7 yrs old, not capable of conducting the PARCC assessments. 13 computer technicians support 54 schools, 4 central office locations. Avg 1600 computers per technician for support/maintenance. 4 instructional technology specialists per 3000		Technology

	teachers for PD support. No difference for on-line testing.		
TQ 2. To what extent do you use a virtual desktop?	Virtual desktop not is use (Too costly to implement)		Technology
TQ 3. Do students and staff have a method to access work outside of the school?	Homework and information posted to student/parent portal called Edline, accessible from home. Students who are involved in the LMS have access to their digital portal at home. All students have access to Office 365 at home.		Technology
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	All technology (network infrastructure, wireless, firewall, content filter, computers, software systems, etc.) all have annual maintenance agreements. Often these are overlooked with one-time grant funds and must be covered in operating budgets. Additionally, annual refresh of hardware, salaries of Technology staff, and professional development are all ongoing.		Technology, Finance
TQ 5. What instructional software does your district have? Can students access them outside of school?	Microsoft Office 365 (Outside accessible) Edline student/parent portal (outside accessible) Its Learning (LMS) (outside accessible) Pixie (ES) (internal only) Inspiration/Kidspiration (All grades (internal only) Many more, too numerous to mention (content specific, intervention) (internal only)		Technology, Finance
TQ 6. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology	Dependent on the individual school and the access to hardware in each school. 85% of classrooms have Interactive Technologies that are used every day		Instruction

incorporated into the everyday classroom?			
TQ 7. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	All HS/MS/ES schools – 500MB ea. All 53 schools have Wi-Fi (production, BYOT, and guest VLANs) filtered to CIPA compliant standards		Technology
Comments:			
Funding Questions			
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	"$0" of capital funds for 3 straight years. This funding is primary source for new and refresh of technology. $9.9M of operating budget (40% salaries, 24% supplies for maintenance, 36% contract services)		Technology, Finance
FQ 2. What was the amount of e-rate funding for FY2015	FY15 - $488K treated as revenue and deposited into general fund; not directed back to technology.		Technology, Finance
FQ 3. What are your consistent sources of funding?	Operating budget for salaries, supplies, and maintenance agreements. Capital for purchase/refresh of technology ($0 in FY14, FY15, FY16)		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	Without state or federal infusion of capital investment, we continue to educate our local	Appendix C: Technology Gap Analysis	Technology, Finance, Instruction

	funding source (county) to invest in technology for instruction. Please see attached Appendix C for Gap Analysis HCPS submitted last Fall.		
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	$645K total from FY11-FY16. Breakdown: $200K Wireless LAN @ 1 HS $445K Tablets devices		Technology, Finance
Comments:			

Appendix A
Portable Communications Policy

POLICY TITLE: **Portable Communication Devices**		
ADOPTION/EFFECTIVE DATE:	MOST RECENTLY AMENDED:	MOST RECENTLY REAFFIRMED:
6/11/1990	7/29/2013	
POLICY/PROCEDURE MANUAL SUMMARY CATEGORY:		
School Management		

I. Purpose

The purpose of this policy is to establish criteria regarding student use of portable communication devices as defined herein.

II. Policy Statement

In order to maintain a secure and orderly learning environment, student use and possession of portable communication devices, as defined herein, shall be subject to the rules and regulations set forth herein.

III. Definitions

A. Portable Communication Device (PCD) means any electronic or battery powered instrument which transmits or receives voice, text**,** data or information in any form including, but not limited to, cell phones, laptop computers, smart phones, tablets, electronic readers or language translators and which is not owned by Harford County Public Schools (HCPS).

B. Regular School Day means the time when students are required to be in homeroom to the time of dismissal.

IV. Rules

A. Students enrolled in Harford County public schools are not permitted to possess or use any PCD except as provided by this policy.

B. Students may possess or use a PCD on school grounds and buses under the following circumstances.

1) Students in any grade may possess and use a PCD on school grounds and buses when authorized to do so pursuant to the student's Individualized Education Plan or Section 504 Plan.

2) Teachers may allow students to use a PCD in the school building for an instructional purpose if the teacher has received authorization from an administrator and the usage follows the Acceptable Use Policy for Students.

3) Students in high schools may possess a PCD on school grounds and buses during the regular school day provided:

   a) The student keeps and maintains the PCD so it cannot be seen by others;
   b) The student does not use or activate the PCD in any fashion.

4) Students in middle school may possess a PCD on school grounds during the regular school day provided the PCD is kept and maintained in the student's locker and is deactivated.

5) Students in elementary school may possess a PCD on school grounds during the regular school day provided the PCD is kept and maintained in the student's backpack or cubbie and is deactivated.

6) Students enrolled in any grade may use PCDs on school grounds before the regular school day and after the regular school day.

7) Students in any grade may use PCDs on school buses before or after the regular school day provided:

a) students may not use PCDs for conversation, calls, photographing or videoing;

b) such use does not include implementation of the audio component of the PCD unless the student uses ear buds.

C. Students' possession or use of PCDs permitted under this policy shall not:

1) disrupt the educational environment;
2) violate federal or state law or regulation;
3) violate Board policy and procedure including Board policy and procedure relating to student conduct and harassment; or
4) invade the privacy of other students.

E. Students and their parents are responsible for any theft of, loss of or damage to the student's PCD in accordance with general HCPS policy set forth in the Student Handbook/Calendar.

Board Approval Acknowledged By:

_____

Barbara P. Canavan, Secretary and Treasurer

Board of Education of Harford County

Policy Action Dates		
ACTION DATE	ACTION DATE	ACTION DATE
Adopted 6/11/1990	Amended 11/26/2001	
Amended 7/8/1991	Amended 8/14/2006	
Amended 6/10/1996	Amended 7/29/2013	
Amended 6/9/1997		

Responsibility for Policy Maintenance & References		
LAST EDITOR/DRAFTER NAME: Patrick Spicer	JOB POSITION OF LAST EDITOR/DRAFTER: General Counsel	
PERSON RESPONSIBLE:	JOB POSITION OF PERSON RESPONSIBLE:	
DESIGNEE NAME: N/A	JOB POSITION OF DESIGNEE: N/A	
REFERENCE 1 TYPE:	REFERENCE 1 NO.	REFERENCE 1 DESCRIPTION:
REFERENCE 2 TYPE:	REFERENCE 2 NO.	REFERENCE 2 DESCRIPTION:
REFERENCE 3 TYPE:	REFERENCE 3 NO.	REFERENCE 3 DESCRIPTION:
REFERENCE 4 TYPE:	REFERENCE 4 NO.	REFERENCE 4 DESCRIPTION:
REFERENCE 5 TYPE:	REFERENCE 5 NO.	REFERENCE 5 DESCRIPTION:
POLICY NUMBER PRIOR TO NOVEMBER 1, 2005: School Administration - .02.08.033		

PROCEDURE

Harford County Public Schools

PROCEDURE TITLE Responsible Use		
ADOPTION/EFFECTIVE DATE February 2, 2015	MOST RECENTLY AMENDED::	MOST RECENTLY REAFFIRMED:
POLICY/PROCEDURE MANUAL SUMMARY CATEGORY:		

I. Purpose and Scope

This procedure sets forth the criteria, terms, and conditions with which the Harford County Public Schools community must comply when utilizing HCPS telecommunication devices and/or resources.

II. Definitions

A. Telecommunication devices means any electronic or battery powered instrument which transmits or receives voice, text, data or information in any form including, but not limited to cell phones, computers, smart phones, tablets, electronic readers or language translators.

B. Telecommunication resources means any HCPS computer network; software; application(s); software as a service or any other system which permits the transmission of any form of communication whether through wireless or wired means.

C. Personal telecommunication devices means a telecommunication device owned by a person or entity other than HCPS

D. Networks means a system which transmits data between computers or computer systems, including wired and wireless technologies.

E. Internet means the collective public network of computers and computer networks.

F. Software means any application or script that can be executed on a computer system, server, or other electronic device.

G. Content filter means a software or device designed to block access to material based on its content.
H. CIPA means the Children's Internet Protection Act (Pub. L. No. 106-554 (2000) (codified at 20 U.S.C. §§ 6801, 6777, 9134 (2003);47 U.S.C. § 254 (2003)).
I. FERPA means the Family Educational Rights and Privacy Act (20 U.S.C § 1232g; 34 CFR Part 99).
J. HCPS community means HCPS employees, students, volunteers, or any person who is permitted access to HCPS telecommunication devices or resources.

III. Procedures

HCPS community shall be required when accessing HCPS telecommunication resources to agree to and comply with the following terms and conditions.

A. HCPS community use of HCPS telecommunication devices or resources

1. Use for educational purposes only. The HCPS community agrees to:
    1. Access and exchange information to promote research and instruction for educational purposes only.
    11. Protect and care for all technology and devices.
    111. The review of all communications, files, and data by the system administrators, principal, and district officials.
    IV. Practice responsible, ethical, and legal behavior when downloading files from the Internet or other sources for educational purposes and agree to avoid the intentional introduction of computer viruses and other malicious software.
    v. The content filtering of all Internet access pursuant to, but not limited to, CIPA.
    v1. Evaluate the legitimacy of information presented or certain actions (like "downloadable files") initiated online via content filter.
    v11. Report inappropriate use of technology immediately. It is important to report misuse, damage, and/or inappropriate content to teachers or staff members who can address the issue, submit work orders or fix problems in a timely manner.
2. Digital citizenship and cyber-safety. The HCPS community agrees to:
    1. Keep personal information (including but not limited to, home/mobile phone number, mailing address, photos, and password(s)) and that of others private in accordance with FERPA and other applicable laws and resolutions. The HCPS community agrees to:
        1. Communicate only with people I know.
        2. Follow safety guidelines posted by sites to which I subscribe.
        3. Be aware of and/or modify the privacy settings on any website to I which subscribe.
        4. Understand that anything I do online or electronically is not private and can be monitored.
    11. Show respect for myself and others when using technology including social media. It is important to:

1. Use appropriate language in all communications. Profanity, obscenity and offensive or inflammatory speech and/or tone are prohibited.
2. Seek help if I feel unsafe, bullied or witness unkind behavior in accordance with the Board of Education of Harford County's Bullying, Cyberbullying, Harassment or Intimidation of Students Policies and Procedures.

111. Integrity and attribution. The HCPS community agrees to:

1. Evaluate and cross-reference sources for bias and credibility.
2. Foster innovation by challenging ideas, supporting tolerance, and honoring independent thought.

B. HCPS community use of personal telecommunication devices

The use of personal telecommunication devices to support education is a privilege. Adherence to this procedure will enhance the learning environment as a whole. In addition to the terms and conditions stated above, the HCPS community agrees to:

1. Take full responsibility for personal devices. HCPS is not responsible for the security of personal technology devices. Personal telecommunication devices may not be left at school before or after school hours.
2. Use personal devices for an instructional purpose in accordance with the HCPS Personal Communication Device Policy.
3. Immediately comply with teachers' requests to shut down devices or close the screen. Devices must be in "silent" mode and put away when asked by teachers.
4. Transmit or post photographic images/videos only when such action is for a legitimate instructional purpose.
5. Charge personal telecommunication devices prior to bringing them to school and operate from their own batteries while at school. Charging will be available on a limited basis and at the teacher's discretion.
6. Use the HCPS wireless (Wi-Fi) connection in order to comply with the use of content filters. The HCPS community will not bypass the network restriction by using an external network.
7. Understand that bringing personal telecommunication devices on premises with the intent to infect the network with a virus, worm or other program designed to alter, damage, destroy, or provide access to unauthorized data or information is in violation of the Responsible Use Procedure and will result in disciplinary actions. HCPS has the right to collect and examine any device that is suspected of causing problems or is the source of an attack or virus infections.

8. Understand that HCPS will not support personal telecommunication devices.

Approved By:

Barbara P. Canavan

Superintendent of Schools

Dec. 2 '15
Date

PROCEDURE

Harford County Public Schools

Procedure Action Dates		
ACTION DATE	ACTION DATE	ACTION DATE
Adopted 02-02-2015		

Responsibility for Procedure Maintenance & References		
LAST EDITOR/DRAFTER NAME: Drew Moore	JOB POSITION OF LAST EDITOR/DRAFTER: Director of Information and Technology	
PERSON RESPONSIBLE	JOB POSITION OF PERSON RESPONSIBLE	
DESIGNEE NAME	DESIGNEE POSITION	
REFERENCE 1 TYPE	REFERENCE 1 NO	REFERENCE 1 DESCRIPTION
REFERENCE 2 TYPE:	REFERENCE 2 NO	REFERENCE 2 DESCRIPTION
REFERENCE 3 TYPE	REFERENCE 3 NO	REFERENCE 3 DESCRIPTION
REFERENCE 4 TYPE	REFERENCE 4 NO	REFERENCE 4 DESCRIPTION
REFERENCE 5 TYPE:	REFERENCE 5 NO	REFERENCE 5 DESCRIPTION
PROCEDURE NUMBER PRIOR TO NOVEMBER 1, 2005:		

Appendix B

Vision: Learning and Leading in a Digital World

Mission: Create an active and dynamic learning environment using cutting-edge, on-demand content and seamless access to digital tools that will inspire all learners.

Belief Statements:

- Technology can enhance learning and productivity in ways otherwise not possible.
- Using sound digital literacy skills, appropriate tools should be accessible and implemented at the appropriate time for the appropriate purpose.
- Applying ethical and responsible guidelines associated with technology, an infrastructure must be built that removes barriers to access available technology.
- Technology must be modeled appropriately by all HCPS administrators, staff, teachers and students.
- Technology use must be guided by understanding and applying ethical and responsible guidelines.
- Technology resources should be integrated through the curriculum to support higher order thinking skills, communication skills, collaboration, and problem solving.
- Technology integration must be supported by continuous, high quality professional development.
- Technology should facilitate production and creation of content.
- Learning in the future will be unimaginably different--the district must be adaptive to technological change.

Appendix C

Technology Gap Analysis

IDENTIFYING TECHNOLOGY INFRASTRUCTURE FUNDING GAPS: Cost estimates below should only reflect the technology infrastructure funding gaps not supported by your district's current or projected Information Technology budget.				
County Name: Harford				
CIO/Technology Director Name: Andrew Moore				
CIO/Technology Director Contact Info: drew.moore@hcps.org				
QUESTIONS	**CIO NARRATIVE**	**COSTS**	**Freq**	**Formula**
Gap cost (**for technology not funded by your district**) to move all schools to a 1-1 so that all students have equal access to digital learning?	Cost associated with providing one device per student. This cost would be required every four years for refresh of device.	**$ 29,944,000**	Every 4 years	38000*788
Gap cost **(for technology not funded by your district)** to initiate BYOD programs in all of your schools that do not currently support BYOD?	Hardware, software, Licensing costs associated with management of Wi-FI network and user's BYOT. (Annual)	**$ 612,000**	per year	$300K (its Learning) + $360K (3000 teachers*6hrs*$20/hr) PD
What is the gap cost **(for technology not funded by your district)** associated with getting all of your schools connected to the Internet with sufficient bandwidth to support 100% online testing and a 1-1 environment? We will use the SETDA Recommendations and change their metric from the staff to devices. The target date for this is the 2016-2017 school year. Broadband Access for Teaching, Learning, and School Operations 1) An external Internet connection to the Internet Service Provider (ISP): At least 1 Gbps per 1,000 devices; 2) Internal wide area network (WAN) connections from the district to each school and among schools within the district: At least 10 Gbps per 1,000 devices.	Given SETDA recommendations, HCPS would require 55Gpbs Internet bandwidth connection. Utilizing NetworkMD pricing model of $7,355/mo/1Gb.	**$ 4,854,300**	per year	38,000 student devices+3000 teacher devices+14,000 fixed devices=55,000 devices $7,355/mo/1Gbps
What is the gap cost **(for technology not funded by your district)** associated with administering PARCC assessments 100% online?	Assumption that items 6-8 would cover the gap cost here.	**$ -**		
Gap cost for the human capital needed to support 1-1 digital learning and 100% online testing (additional technicians, instructional technology positions, etc.). **Again, not funded by district.**	1 Technician and 2 Instructional Technology position dedicated to each school would be required. Additional central IT staff to manage and support the additional infrastructure. Requires total of 157 positions	**$ 10,043,914**	per year	53 schools * 2 Inst tech = 106 Inst Tech+4 central Office Inst Tech =110 42 comp techs + 5 Central Office level II techs = 47 157 total positions * $85,000 (loaded)
Enter other technology funding gaps here and/or add records to this chart (e.g., moving from textbooks to digital content). **Again, not funded by district.**	Licensing for Learning Management System to accommodate digital content/curriculum. 6 hrs per teacher per year dedicated Technology training. Annual fee for content area digital curriculum/content	**$ 1,500,000**	per year	$300K/yr (its Learning) + $360K (3000 teachers*6hrs*$20/hr) PD + $840K/yr (digital curriculum) Digital Curiculum (4 content areas @ 7 grade levels @ $30K/yr (from Eng 10 project))
Total funding gaps year one (sum all of the above)		**$ 46,954,214**		Sum of items 6:11)
Ongoing annual funding gap estimate (total estimate explain what it covers)	Items 7:11 + 25% of item 6	**$ 24,496,214**		Items 7:11 + 25% of item 6 (distributing total of item 6 over 4 years)

TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.
TR 2.a What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.
TR 2.b What is your current student/device ratio? Please also disaggregate by grade band.
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?
TQ 4. What software licences does your district have? Can these programs be accessed outside of school?
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?
FQ 2. What was the amount of e-rate funding?
FQ 3. What are your consistent sources of funding?
FQ 4. What is the plan to close the gap between needs and funds?
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.

TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.

Vision 2018
Goal 1 of the HCPSS Strategic Plan:Every student achieves academic excellence in an inspiring, engaging and supportive environment.

Outcome 1.3

Technology is leveraged so that students have access to learning experiences that meet their needs and interests.

- Strategy 1.3.1 – Expand options for earning credits, including credit for external courses, technical training and certifications, internships, and externships.
- Strategy 1.3.2 – Provide relevant technologies, including collaborative online environments, that enhance learning.
- Strategy 1.3.3 – Provide convenient options for learning through flexible scheduling, digital education, and 24/7 access to online resources.

The Howard County Public School System (HCPSS) adopted a learning management system in December 2014. The adoption of this digital teaching and learning system is in support of the following three goals aligned with the HCPSS strategic plan: *Vision 2018: Fulfilling the Promise of Preparation*:

- Expand access to learning through blended instruction. (1.3.2; 1.3.3)
- Leverage technology and digital content to assess student performance. (1.5.1; 1.6.2)
- Provide staff opportunities to work collaboratively and interdependently through professional learning communities. (2.1.6; 2.2.4)

The adoption of a learning management system and integrated gradebook, and student information systems will enhance and support personalized learning throughout the school district. The HCPSS will be developing and publishing “master” course content for each subject area in Canvas by August 1, 2015. The curriculum materials will be shared with each teacher, aligned with their teaching assignment and shared via the learning object repository in Commons. By having teachers access both the gradebook and their curriculum materials in the same system, the teaching and learning experience will fundamentally shift from one of paper-pencil to real time 24 hour access to digital content, communication and feedback.

We are approaching infrastructure, curriculum, access to data, and professional learning as an integrated process using the *Vision 2018: Fulfilling the Promise of Preparation* strategic plan. Our robust network and wireless infrastructure, coupled with HCPSS-provided devices and student owned devices, is allowing students more access to instructional resources. As these improvements have been realized, we have also been integrating digital content in instruction and providing professional learning to move teachers from substituting technology to higher levels which include modification and redefinition to engage and transform instruction. Specific practices include:

- Coordinating resources across operations and instruction to support student learning
- Continuous improvement of technology infrastructure and device access to increase student access to learning
- Developing blended learning (through professional learning and digital content integration) models that provide greater flexibility for when and how students learn

Supporting Documents/Links:
Vision 2018

ISTE (International Society for Technology Education) Standards

NETS-S

NETS-T

NETS-A

NETS-C

Maryland Digital Literacy and Computing Pre-K – 8 Framework

TR 2.a What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.

Major Technology (hardware) purchases by HCPSS in past 2 years	**Purpose for each type of device or tool**
Apple MacBook 13in Laptops	Replace out-of-warranty Apple MacBook White laptops assigned to all teachers
Casper / JAMF Mobile Device Management (MDM)	Manage all Apple computers in HCPSS
Aruba Wireless Access Points (WAP)	Extend wireless access in schools.
Aruba Clearpass Appliance	Manager Aruba wireless networks in schools & offices

Ricoh Duplicators	Replace out-of-warranty duplicators in schools
Apple iPads	Provide tablets for all Paraeducators
Dell Latitude 3340 Laptops	Replace out-of-warranty general purpose mobile labs (GPML) in schools
Dell Latitude 3340 Laptops	Additional computers for MAP Testing
Apple MacBook Pro laptops	Replace out-of-warranty technology teacher mobile labs (TTML) in schools
Apple iPhones	Replace all HCPSS assigned cellphones with smartphones
Epson BrightLink Short-Throw Interactive Projectors	Replace projectors that are not interactive in select schools and offices
Universal Power System (UPS)	Back-up power for technology in case of commercial power failure
Kyocera printers	Replace out-of-warranty GPML & TTML printers in Elementary & Middle schools
Fluke Aircheck Wi-Fi Tester	Test equipment for wireless network
Mitel Controller	Replace & stabilize telephone system controller in central office
Dell Servers, Load Balancers, Switches, Racks etc.	New Synergy Student Information System (SIS)
Konica Minolta Multi-Function Devices (MFD)	Replace out-of-warranty MFDs in all schools and offices
Provantage Bluetooth Wireless Scanners	Inventory technology in all schools and offices
Cisco 10GB Interface modules	Connect to Comcast 10GB internet service
LobbyGuard Scout Visitor Management Systems	Enhanced school security by checking & recording all visitors

TR 2.b What is your current student/device ratio? Please also disaggregate by grade band.

1.8: 1 or 1.8 students for every 1 computer

See Computer Matrix

TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of

implementation?

Elkridge Landing MS is the only 1:1 program in the school system that was initiated as a pilot in 2013. There is no plan to refresh the technology.

TR 4. What are your current policies around BYOD programs and what is the current level of implementation?

Beginning in the 2015–2016 school year, students in all middle and high schools are permitted to use personal devices for HCPSS–approved activities and connect to the Internet for approved instructional activities.
BYOD provides teachers another way to present material and gives students flexibility to find resources that are particular to classroom instruction. Having students use their own technology in class speeds up the research process once they've been given an assignment.
Access to instructional resources, increased collaboration, personal productivity, and an enhanced learning environment are outcomes of the BYOD program.
Teachers and students have indicated a number of benefits associated with BYOD: increased student independence/autonomy, increased student engagement, and the ability of BYOD to facilitate student communication and collaboration.
The amount of class time in which students are using their laptop, tablet, or smartphone in class varies, depending the curricular unit and teacher preferences.

Supporting Documents/Links
HCPSS BYOD Website information with links to guidelines and FAQs/ Responsible Use of Technology and Social Media

TR 5. What equity plans do you have in place to support students who cannot provide their own technology?

We work with Bright Minds to provide refurbished devices to students in need of a device.

TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.

In Grades PK-5 staff members are using Wixie in classroom instruction across all areas of the curriculum. Wixie allows students to create products that show their creativity and mastery of the content.

In Grades PK-5, students are receiving keyboarding instruction several times a week from their homeroom teachers and technology teachers. Activities vary across grade levels. Students in primary grades are focused more on activities that teach keyboarding awareness skills. Students in Intermediate grades almost exclusively use Type to Learn 4 which teaches proper keyboarding technique.

Students in participating fifth grade classes, secondary fine arts, and secondary gifted and talented use Mahara to create electronic portfolios. Portfolios offer students an opportunity to establish a positive digital footprint by showcasing samples of student work and reflecting on their work and the work of their peers. Many students in the secondary level use their Mahara electronic portfolio as part of their job or college application.

All elementary schools have at least one full time technology teacher (based on enrollment) that instructs all students for 1 hour per week. Lessons are from the Howard County technology teacher curriculum and fully aligned with the ISTE Nets and the Maryland Digital Literacy and Computing PK-5 framework and integrate with the grade level content standards. Technology teachers also provide a variety of professional development opportunities and support for school-based staff on best uses of instructional technology in the classroom.

Eight elementary schools are participating in the Elementary School Model. In these schools the technology teacher collaborates with instructional staff and co-teaches lessons that successfully implement the appropriate use of technology that is equivalent to about 1 hour of technology instruction per week over the course of the school year.. They also provide a variety of professional development opportunities for staff.

The secondary technology support teachers in HCPSS provide job embedded professional learning through co-teaching as well as professional learning during planning time and after school to strengthen the classroom teachers knowledge on technology skills and practices. The goal is that the classroom teachers will be embedded these skills and practices into classroom instruction. The main focus of the professional development is collaboration and communication using digital tools as well as representing learning with digital media.

This year HCPSS adopted Canvas, and LMS, which allows all classroom teachers many options for incorporating various digital tools regularly into instruction. As we shift from paper

content to digital curriculum, teachers can access lessons, resources, assignments, quizzes, discussions, announcements, grades, etc, which in turn they can incorporate into their instruction.

Supporting Documents/Links:
Wixie Product Information

Wixie Student Samples
(Takes about 15 seconds to load since there are 41 slides)

ePortfolio Overview

TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?

See Computer Matrix

The same computers are available for online testing.

TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?

We do not use virtual desktops. Teacher have access to Canvas and Google Apps for Education outside of the HCPSS domain.

TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?

FY16 Ongoing Cost	Description	Upfront Cost Paid Last Year (FY15)
$1,074,060	Wide Area Network Services (WAN)	$1,155,949.01
$529,200	Internet Access Service	$355,300.00

TQ 4. What software licences does your district have? Can these programs be accessed outside of school?

Wixie has been purchased for all Elementary students and Staff. Wixie is a web-based program and can be accessed 24/7 on computers or tablets.

Type to Learn 4 has been purchased for all elementary students. Students who choose to download the software on their home computers can access it outside of school.

Mahara is an open-source electronic portfolio application that is used in participating fifth grades, secondary fine arts and secondary gifted and talented. Mahara is a web-based program and is available on devices outside of school.

Google Apps for Education: All Staff and Students accessible 24/7

Canvas: All Staff, students and parents, accessible 24/7

OIT Software:
Comic Life for Mac
Comic Life for PC
GradeKeeper
Inspiration
iWork
Kidspiration
Pixie 2

Supporting Documents/Links:
Wixie System Requirements

TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?

Digital learning takes place through several models. Teachers have access to digital content they incorporate into daily instruction as part of “technology infused classroom”. Types of blended learning include station rotation and flipped classroom models. Content is supported through student and teacher access to the Canvas learning management system. Students have access to other district-wide content-specific applications, electronic textbooks, electronic portfolios and online coursework. Blended learning courses are available to middle and high school students that offer a combination of face-to-face and online sessions.

Blended courses support original credit, credit recovery, home and hospital instruction, summer school and alternative education. HCPSS offers synchronous video instruction for classes that are taught from a “home school” location and broadcast through video conferencing to “remote schools”. Students in remote schools access live instruction and collaborate with classmates through an interactive video conferencing application and view/submit assignments through the Canvas learning management system. Lastly, fully-online courses are available for high school level courses based on student need. Schools approve student requests based on the following criteria: Does the school offer the course? Does the student have a schedule conflict preventing them from taking it when offered? Is the student seeking early college access or early graduation? Is the enrollment an administrative placement? Students are supported through the Digital Education Program as well as school based mentors as needed.

TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).

All schools have WiFi coverage for staff, students, and guests. The guest network is restricted. Bandwidth: HS - 5 GB, MS - 3 GB, ES - 1GB

FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?

FY2016 Technology Dept Funding Received	Sources	Description
5,000,000.00	Capital / Construction Budget	Technology Project #1021
10,877,501.00	Operation Budget	Information and Network Technology Support Program 9714
3,002,660.00		Telecommunication Program #7203

FQ 2. What was the amount of e-rate funding?

For E-Rate Program Funding Year 2013 (7/1/2013 - 6/30/2014), HCPSS received $980,294.97 in estimated revenue.

We are currently in the reimbursement filing stage for funding year 2014.

FQ 3. What are your consistent sources of funding?

Consistent Sources of Funding	Description
Capital / Construction Budget	Technology Project #1021
Operating Budget	Information and Network technology Support Program 9714
Operating Budget	Telecommunication Program #7203

FQ 4. What is the plan to close the gap between needs and funds?

Increased funding for new construction tech and systemic renovations.

FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.

Race To The Top Funding	Spent of Technology	Technology Purchased	Grant Manager
LEA Assessment Grant	$334,688	Servers, racks and hardware for SIS and LMS Project	Justin Benedict
Teacher Principal Evaluation Grant	$189,136	ipads	Juliann Dibble
Promising Principals Grant	$2,590	ipads	Juliann Dibble
TOTAL	**$526,414**		

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Kent County
LAC Name: Dr. Nina Newlin
LAC Contact Information: nnewlin@kent.k12.md.us
Contributors to the Survey: Dan MacLeod

Technology Requirements			
Question	Response	Supporting/ Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	See linked documents.	Responsible Use Policy Strategic Technology Plan 2015-2018	Technology, policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	**Elementary** • iPads- apps, lower cost, sustainability • Chromebooks- compatibility with Google apps, low cost **Middle** • iPads **High** • Macbook Air- wide variety of applications,		Technology, finance

	durability, mobility		
TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	1:3 (grade K) 1:1 (grades 1-10) 1:2 (grades 11-12)		Technology
TR 4. What are your current policies and programs, initiatives around 1 to 1 technology? What is the current and proposed future level of implementation?	We plan to expand our 1:1 to include grades 11-12 the next 2 years. KCPS also plans to refresh 8th grade laptops next year. KCPS does not support BYOD since we have 1:1 devices.		Technology
TR 5. What are your current policies, programs, and around BYOD programs and what is the current level of implementation?	We currently do not support BYOD district-wide. We have provided network access to dual enrollment students with their own device on some occasions.		Technology, Instruction
TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	KCPS is committed to providing access for each student in grades 1-12 to have access to a device at anytime during the school day.		Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	• Google Docs/Classroom • Office 365 • Dreambox - grades K-6 • Scholastic Inventory - Reading and Math - Grades 2-9 • KRA		Instruction

	• Discovery Education • Gizmos • Conceptua math • Digital ELA textbooks • Online reading interventions		
Comments:			
Technical Questions			
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	• Chromebooks- 4GB RAM • iPads- 16 GB (elementary) • iPads- 32 GB (middle) • Macbook Airs-(13 inch, 128 GB RAM (high) We use all of these devices for testing.		Technology
TQ 2. To what extent do you use a virtual desktop?	NA		Technology
TQ 3. Do students and staff have a method to access work outside of the school?	Yes, all of our web-based subscriptions are available from any device at any time except our finance and teacher evaluation systems.		Technology
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs	Ongoing costs include the following: • Laptop batteries		Technology, Finance

paid this past year?	• Power cords • Laptop parts • Projector bulbs • Projectors • VGA adapters • Batteries • Remote controls • iPad apps		
TQ 5. What instructional software does your district have? Can students access them outside of school?	• Google Docs/Classroom • Office 365 • Dreambox - grades K-6 • Scholastic Inventory - Reading and Math - Grades 2-9 • KRA • Discovery Education • Gizmos • Conceptua math • Digital ELA textbooks • Online reading interventions Yes, they are all accessible outside of school.		Technology, Finance
TQ 6. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Digital learning is an integral part of our mission. It is expanding rapidly, especially with our professional learning model through Discovery Education's Digital Leader Corps. KCPS expects that		Instruction

	teachers incorporate technology into the everyday classroom.		
TQ 7. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	Up to 100 MB is available in each school. All schools have sufficient wifi as the majority of our staff and student devices are wifi-dependent. Teachers and students are placed on separate wireless networks. Guest are placed on an internet-only network.		Technology
Comments: See "Kent Digital Learning Transformation Oct 15" presentation attached in email for additional information.			
Funding Questions			
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	• QZAB- $330K for infrastructure upgrades • CAS grant- $107K for devices & Schoolnet • Kent County Commission- $144K for 9th grade laptops Local Budget • $106K –Apple lease • $15K- supplies • $100K- contracts		Technology, Finance
FQ 2. What was the amount of	$22K		Technology,

e-rate funding for FY2015			Finance
FQ 3. What are your consistent sources of funding?	The local budget has been consistent in the past but the future remains uncertain.		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	Seek out grants and partnerships. KCPS is also pursuing consolidation of schools to create efficiencies.		Technology, Finance, Instruction
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	See Chart 1 below		Technology, Finance
Comments:			

RTTT Projects- Chart 1

Project Activity	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Total**
1) Hire Data Manager	$39,000	$52,000	$52,000	$52,000	$195,000
2) Purchase Computer Equipment/Data System	$35,000	$22,200	$22,200	$22,200	$101,600
3) Test Bank Development	$1,875				$1,875
4) Purchase Instructional Computers	$0	$12,800	$12,800	$10,351	$35,951
Subtotal to be Funded w/ RTTT Grant	**$75,875**	**$87,000**	**$87,000**	**$84,551**	**$334,426**

Updated 10/8/2015

Additional RTTT Projects

1. Project 29 ($71,000 for wireless equipment)

Technology, Learning, & Leading

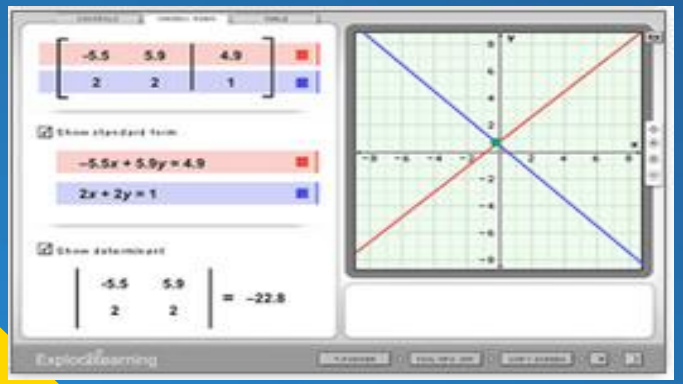
Kent County Public Schools

October 6, 2015

KCPS embraces technology!

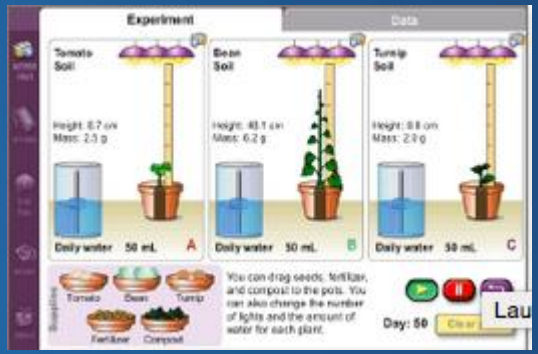
Kent County was awarded the Digital Learning Grant in the fall of 2013. Through grant funds, Kent County was able to purchase materials aligning with its new mission of providing "personal learning within a collaborative community”.

- Techbook -
  - Science: grades K - biology & chemistry
  - Social Studies: grades 6-9
  - Health: grades K-9
  - Math: grades 6- algebra II
- Streaming Plus - Common Core lessons for ELA & Math
- Online resources including audio, video, print, and non print text



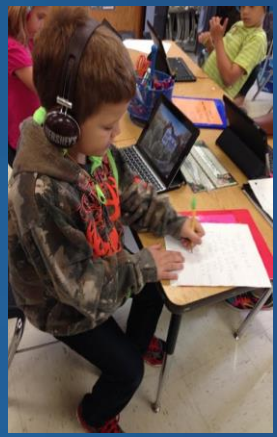
Digital Resources:
Gizmos - district-wide license for all teachers and students.

Concept-based modules for math and science.
Professional Development for teachers



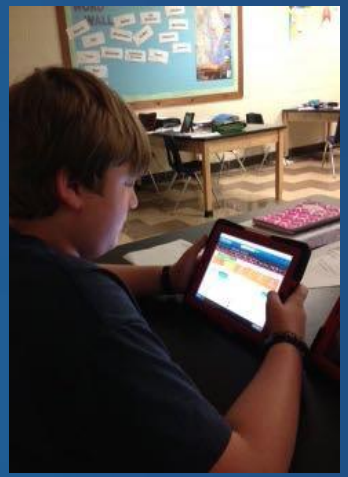
Technology Applications

- ★ Google Docs/Classroom
- ★ Dreambox - grades K-6
- ★ Scholastic Inventory - Reading and Math - Grades 2-9
- ★ KRA
- ★ Discovery Education
- ★ Gizmos
- ★ Conceptua math
- ★ Digital ELA textbooks
- ★ Online reading interventions



Devices for 1:1 initiative:

- ★ Elementary
  - iPads- grades 1-2
  - Chromebooks - grades 3-5
- ★ iPads - Grades 6 & 7
- ★ Macbooks - Grade 8-10
- ★ Mac carts, labs- grades 11-12



Teacher Leaders

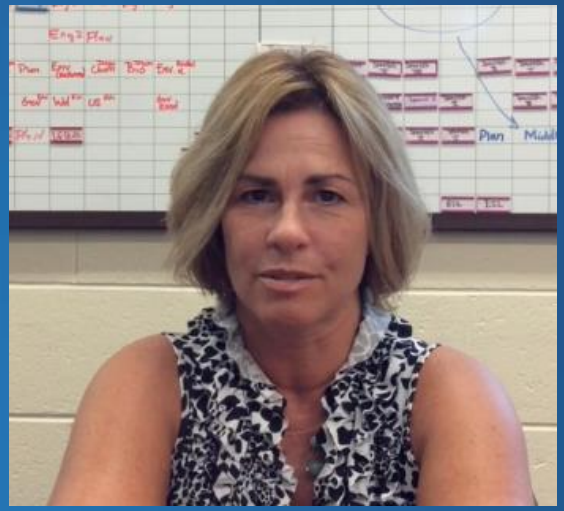
Major Benefits:

- ★ Collaboration(selection of teacher leaders, initial meeting, follow-up meetings, generation of new ideas- e.g. Pinterest to organize digital resources)
- ★ Student engagement
- ★ Communication with parents (Weebly at KCMS)

Major Challenges:

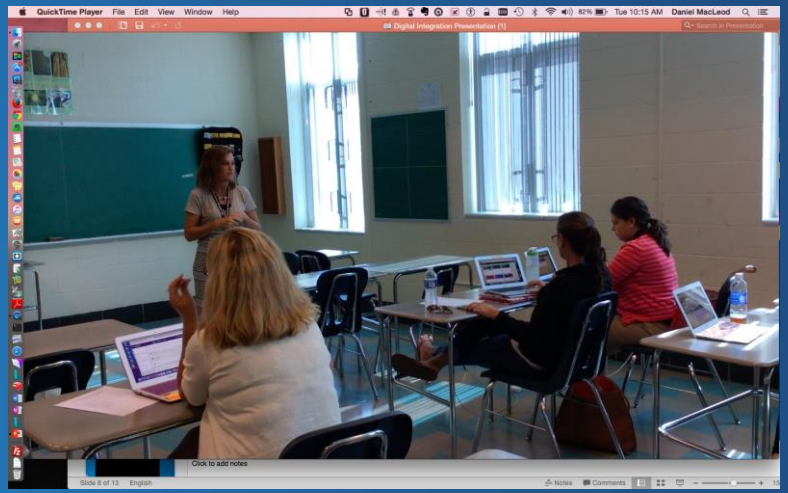
- ★ Tech support for the large numbers of new devices
- ★ Ongoing professional development
- ★ Sustaining and expanding 1-1
- ★ Building school leadership

Building school leadership



Developing Leadership through the Discovery Digital Learning Corps:

- ★ Administrator Sessions
- ★ Give principals needed tools to improve schools
- ★ Integrate with PLC work



Developing Leadership through the Discovery Digital Learning Corps:

- ★ Teacher Sessions
- ★ Recruit teacher-leadership teams from each school
- ★ In school coaching

Technology Requirements

Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	MCPS has both a strategic technology plan and an acceptable use policy that describe this information. The links to those plans and documents are provided in the adjacent column	http://www.montgomeryschoolsmd.org/uploadedFiles/departments/technology/Strategic_Tech_Plan.pdf http://www.montgomeryschoolsmd.org/departments/policy/pdf/igtra.pdf
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	* Desktops - We use these for teacher work stations in the classrooms, for the security systems in the schools, for front office staff, and for administrative use. * **Chromebooks** - Provide a greater number of devices to teachers and students for the purpose of teaching and learning, as well as taking advantage of a collaborative environment such as Google Apps for Education * Promethean boards - we purchase these as part of our school modernization or new school models. These are placed in select classrooms depending on instructional use. * **Wireless networking** - to upgrade the wireless technology at 50 schools for the increased use and dependency for mobile devices, online testing, and BYOD * Laptops and tablets - these are used for primary reading testing, KRA administration, and for special courses (technology, PE, arts, ESOL, pre-K)	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	K-2 1 to 4 3-5 1 to 1 6 1 to 1 7-8 1 to 3 9-12 1 to 4	

TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	I don't believe there are any policies involving a 1-to-1 technology. Until this past school year and our investment in Chromebooks, our ratio was approximately 5:1. We are still not at 1:1, but we have provided enough technology usage for students to more than adequately have access in schools, especially for critical purposes such as online testing.
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	BYOD exists at every school and is made available to students at each school unless the individual school administration request it not be provided due to their instructional needs. For those that have access, use is governed by terms and conditions that students and staff must accept each time they log onto the network with their personal devices. Staff has a deeper level of access which is provided when they connect to a wireless network dedicated to staff, where those staff members are required to log in with their existing credentials.

TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	Our first priority is to provide technology-rich environments for all students when they are in school. We are in progress with accomplishing this through our 21st Century Classroom project. We installed Promethean boards across classrooms, implemented wireless technologies in every learning space, and deployed chromebooks district-wide to targeted grade levels. We are continuing with this rollout as budget allows. We partner with community and local businesses in order to extend discounts to families for cable connections, wireless connections, and for providing laptops and refurbished computers. Many schools are now purchasing devices that can be checked out of the media center in order to be used at home
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Teachers are using technologies to access the curriculum, provide students access to videos, podcasts, primary source documents, online reading material, interactive math applications, science simulations, and multi-media content. Not only are students consumers of online content, they are also using technology to create evidence of their learning. Students complete critical challenges, create digital posters, engage in online assessment, develop videos and podcasts, design webpages and blogs, and collaborate on research projects.

Technical Questions

TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	We currently provide technology that utilizes either a Microsoft platform or Google Apps for Education. The technology requirements are determined prior to the summer months when technology is refreshed in each school, to take advantage of software and other technologies that are required for teaching and learning.
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	Virtual desktop technology is not currently in use in schools. Currently, that technology is used by several members of the tech support staff for the purpose of gaining remote control to servers or desktops that require administration or support.
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	We are able to finance most of our equipment costs, including devices, Promethean technologies, and wireless supplies.
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	Software budgets have been drastically reduced over the last three years due to budget restrictions and also a strategic shift to more cloud-based technologies. Current licenses in the district include Microsoft Office and LanSchool. We also purchase licenses for Scholastic products and a handful of other instructional applications.
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Technology is incorporated every day in the classroom. Students are also given homework where they need to access online resources to complete it. We use online learning for credit recovery and access to AP/IB courses, and we have developed hybrid courses for summer school and supplemental online content for face to face instruction.

TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	MCPS is configured as a hub-and-spoke network. Currently, bandwidth to schools is, at a minimum, 100Mbps per school, and will reach up to 1Gbps as schools complete their migration to upgraded electronics and from our providers. All schools currently have access to wireless networking (Wifi) and will do so using one of three methods - one for preconfigured devices on a private SSID, and two that are part of the BYOD solution for staff access and guest/student access.

Funding Questions

FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Operating (Current County Revenue): $26,702,909 CIP (Current County Revenue + Recordation Tax): $23,538,000 Technology Fund (Royalties): $485,362 **Total: $50,726,271**
FQ 2. What was the amount of e-rate	$2,180,266
FQ 3. What are your consistent sources	Operating & CIP
FQ 4. What is the plan to close the gap between needs and funds?	The technology office works through the operating & CIP budget process for funding needs. The needs identified by the office compete with other requests from inside MCPS as well as the county.
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased	MCPS did not receive any funding from Race to the Top.

This survey is intended to be completed collaboratively between the district offices of Technology, Curriculum & Instruction, Instructional Technology, Finance, and any other parties who may be able to provide information relevant to the survey. Please submit the survey with attachments as necessary to Melissa.Finkel@maryland.gov by October 22nd and schedule one LEA follow up call time at http://goo.gl/forms/fu4DlLbECT

County Name: Prince George's County Public Schools
LAC Name:
LAC Contact Information:
Contributors to the Survey: W. Wesley Watts Jr. (Information was included from the Grants Office, Instructional Technology, and Software purchased by C&I, Highlights from Title One programs, and information from the Budget)

Technology Requirements			
Question	Response	Supporting/ Linked Documents	Topics
TR 1. What are the district policies/initiatives and plans for technology use in schools? Please include information around what plans are being implemented.	Technology is prevalent in all of our schools throughout the county. With the implementation of the Strategic Plan, the district will incorporate technology into its Digital Literacy Plans. The School District implemented Google Apps for all students Grade 3 and above beginning in 2009. The use of Google Apps (Collaborative Suite and Google Classroom) is used in hundreds of our classrooms daily. Wireless Access is available in all schools (except charters) and the computing device ratio is increasing to 2 students to 1 mobile device in schools [based upon enrollment of 3rd grade to 12th grade]. *Note – this does not include desktops or devices assigned to staff.	Attached (Acceptable Use Policy, Use of Social Media in Schools)	Technology, policy
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Completion of Wireless Infrastructure in Schools. (The school district spent $23 million dollars over a 3.5 year period.) Increase in the school district's bandwidth. Thousands of computing devices (80% mobile). The purpose of the purchases is to increase student access,		Technology, finance

	support PARCC testing, and build out our network infrastructure. Regarding Computing Devices, Desktops (1,900 Apple, 16,300 PC's) Laptops (12,600 Apple, 17,000 PC's) The district's primary mobile operating system is iOS. (24,100 plus iPads and 5,800 iPods) The district also uses chromebooks (25,800) Total – 103,500 computing devices		
TR 3. What is your current student/device ratio? Please also disaggregate by grade band.	The district will be at a student to mobile device ratio of at least 2 students to every 1 mobile device in all schools [based upon the enrollment from 3rd grade and above] (except charters) by December 2015. We do not disaggregate by grade band.		Technology
TR 4. What are your current policies and programs, initiatives around 1 to 1 technology? What is the current and proposed future level of implementation?	The district has several schools (less than 10) that currently have a 1 student to 1 mobile device ratio. A mobile computing device is defined as a laptop, tablet or chromebook. Current Plans: In FY16 – 2 students to every 1 mobile computing device ratio (3rd grade and above) In FY17 – 4 students to every 3 mobile computing device ratio (3rd grade and above) In FY18 – 1 student to every one mobile device ratio (3rd grade and above) The school district is currently working on the development of a comprehensive technology plan to support instruction, administration, and operations.		Technology
TR 5. What are your current policies, programs, and around BYOD programs and what is the current level of implementation?	The School District has a Cell Policy in place for students (See Attachment for TR5). The district has not expanded the policy to include larger computing devices such as laptops. At this time, no plans to expand.	YES (Attachment for TR5)	Technology, Instruction

TR 6. What equity plans do you have in place to support students who cannot provide their own technology?	Our goal is to provide mobile access to all students from the 3rd grade to the 12th grade by FY18. There will computing devices available for lower elementary and primary grades but not necessarily at the ratio same ratio from 3rd to 12th grade. We are currently working on the level of availability for these grades now.		Technology, Instruction
TR 7. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Google Apps for Education is being used by thousands of teachers and students. (Google Classroom) Projectors and/or interactive boards in 85% of all classes. Teachers are using Edmodo and Google Classroom to inform parents and students. Several schools (approximately 12 are one to one utilizing technology throughout the day.) Sharing Technology with Educators Program (STEP) GEM (Google Education Mentors) Training Program SMART(board) Educator Teacher Training Program Please also see Question TQ6.		Instruction
Comments:			
Technical Questions			
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do	The school system uses a variety of devices throughout the school district. The school district uses Operating Systems from Apple and Microsoft. Desktops (1,900 Apple, 16,300 PC's) Laptops (12,600 Apple, 17,000 PC's) The district's primary mobile operating system is iOS. (24,100 plus iPads and 5,800 iPods) The district also uses chromebooks (25,800) Total – 103,500 computing devices *Note – Included		Technology

these differ for online testing, and if so, how?	above are only equipment that is 4 years old or less. The district has many more systems older than 4 years old. No. Online Testing requirements are incorporated into our system requirements and are part of doing business.		
TQ 2. To what extent do you use a virtual desktop?	The school district does not use a virtual desktop. No plans for this technology at this time. The district does virtualize many of its servers.		Technology
TQ 3. Do students and staff have a method to access work outside of the school?	Yes. The school district uses Google Apps for Education for both our students and staff. They can access it from home. *Not all teachers use Google as a means to distribute work to students.		Technology
TQ 4. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	There are many on-going costs: Network Refresh, Data Center Refresh, Computing Device Refresh, Software Maintenance and Licenses, Hardware maintenance on data center and networking equipment. (PGCPS spends approximately $15 million a year to maintain its current network infrastructure, wireless networks, technology refresh of devices, instructional technologies, and various software applications, etc.)		Technology, Finance
TQ 5. What instructional software does your district have? Can students access them outside of school?	The district has several software licenses. Microsoft, Adobe, Apple, Oracle, Discovery, Houghton Mifflin, McGraw Hill, NWEA, Performance Matters, FileMaker Pro, iStation, iReady, Achievement 3000, Learning A-Z, Study Island, Rosetta Stone, BrainPOP, Lexia, Destiny Online Library Circulation Catalog, ProQuest E-Library, Waggle, Certification Partners IT Curriculum, MARC Union Wizard Bundle, Moodle, Safari Montage, MDM, Antivirus, and many others…. Yes. Most of these titles are available at home also. [Gathering other educational titles that the district is using.		Technology, Finance
TQ 6. To what extent does digital learning take	Title One's TEDL program (Link is provided)	http://www1.pgcps.org/titl	Instruction

place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Take your teacher home (iPod program where students take lessons created by teachers home on their iPODS) Flipped classroom type learning… Technology Training Offering to Teachers and Staff (Link Provided) Sharing Technology with Educators Program (STEP) PGCPS Strategic Plan – Digital Literacy College and Career Readiness Summit Google Summit (Oxon Hill High School – January 30, 2016) Annual *Powering Up With Technology* (PUWT) Conference Schools operating a 1:1 program using mobile devices i.e. ipads, chromebooks (modified version and or schoolwide) Gamification Classroom	e1/ http://www1.pgcps.org/it/training/ http://www1.pgcps.org/promise/ http://www1.pgcps.org/summit/ https://sites.google.com/a/pgcps.org/puwtconference/ https://sites.google.com/a/pgcps.org/wmms-rela-intellects/home	
TQ 7. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	All schools have WiFi (except charters). Charter Schools are responsible for their own infrastructure. All staff and students have accounts; we also allow guest access with approval. Elementary (100Mbps) Middle, High, Administrative (1Gbps) ISP (10Gbps – planning to upgrade to 20Gbps this year)		Technology
Comments:			

Funding Questions			
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Our funding comes from the General Fund and Lease Purchase Funds. Last year Our entire Division's Budget including salary and benefits was $35,561,086. The district also applies annually to receive QZAB funds to help fund some infrastructure projects.		Technology, Finance
FQ 2. What was the amount of e-rate funding for FY2015	The district applies for e-rate discounts annually. Priority One requests are generally funded but due to the changes in the program; reimbursements for telecommunication services will be phase out over the nest three years. Generally the district has received between 3 and 5 million in priority one reimbursements over the past 5 years. When the district receives a reimbursement, the funds go back to the general fund and decisions are made to how this money is spent. This year the district also applied for infrastructure projects (application is pending.)		Technology, Finance
FQ 3. What are your consistent sources of funding?	General Funds Lease Purchase for Technology Refresh QZAB – the district has received some funding from this program over the past four years.		Technology, Finance
FQ 4. What is the plan to close the gap between needs and funds?	The district created a Strategic Plan last year with this year being the first year of implementation. The district is now creating a comprehensive Technology Plan to align and support the Strategic Plan. The Comprehensive Technology Plan will be completed this year.		Technology, Finance, Instruction
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	PGCPS received approximately 23 million in Race to the Top funds. During the 5 years, approximate 1.3 million. (See Attachment for FQ5) Other supplemental grants funded the following technologies: Performance Matters ADMS and Online Testing Platform (Services) - $733, 506 Performance Matters Services - Online Tool to Transfer Test	Yes (Attachment for FQ5)	Technology, Finance

	Items (Services) - $20,290 807 Chromebooks and 26 carts (Hardware) - $380,516 Smartboard for testing Office Training (Hardware) - $4,191		
Comments:			

Prince George's County Public Schools
Maryland State Department of Education (MSDE) Survey

Question: **Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.**

Response:

Prince George's County Public Schools Race to the Top total grant award was $23.5 million, of which the district allocated $1.3 million to Project #2 – Data Warehouse over the course of five (5) project years. PGCPS recognizes that the use of data is essential to school reform and improving instruction and learning for students. To this end, the district has enhanced its existing data systems to provide a data infrastructure consisting of a platform for data access, a process to ensure data quality and integrity, and a discipline for data analysis and utilization that will support educational reform, principals, teachers, students, and education policymakers.

The funding allocation of $1.3m for Project #2 – Data Warehouse was primarily used on the items listed below:

- **$1.2m - Contracted Services (Technology Based)**
  - Data Warehouse Requirement Services is a contract that will assist the school district with the overall implementation of the Data Warehouse as well as defining the computer systems, other technology requirements and various training services. The funding allocated for this initiative/contract was $1,202,132 over a four (4) year period.
  - Learn MD (Technical Contracted Services) is a web based portal site sponsored by MSDE to allow local LEAs the ability to see information as it relates to Common Core, Race to the Top, Blackboard, etc. The funding allocated for this initiative/contract was $81,602 in project year 5.

Also, within the overall RTTT grant, Project #12 – STEM, allocated a total of $100,000 for technology based purchases, below is a list of those items:

- **$100,000 – Equipment**
  - Laptop computers for daily STEM instruction. The funding allocated for this initiative/equipment was $60,000 over a four (4) year period.
  - STEM Related Equipment to be used in the classroom for daily STEM instruction. The funding allocated for this initiative/equipment was $40,000 in project year 4.

ADMINISTRATIVE PROCEDURE

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

INFORMATION TECHNOLOGY SERVICES
ACCEPTABLE USAGE GUIDELINES

0700
Procedure No.

September 1, 2013
Date

I. **PURPOSE:** To provide guidelines intended to assist users in following established practices and procedures to use technology in a responsible and productive manner.

II. **POLICY:** The Prince George's County Public Schools' Wide Area Network (WAN) has been created to link school buildings, administrative sites, and support facilities together for the purposes of accessing and sharing information in accordance with the goals and objectives set forth by Prince George's County Public Schools. The Prince George's County Public Schools' Local Area Networks (LAN's) have been created to connect computing devices, printers, and other devices at the building level to collaborate and share information. Students are expected to use these networks and PGCPS technology for educational purposes. Employees are required to use the school system technology with the scope of their employment. All users are expected to follow the accepted and established guidelines for technology usage. Board Policy 0115

III. **BACKGROUND:** Prince George's County Public Schools (PGCPS) views technology (including computing devices, scanners, digital cameras, video projectors, video cameras, and the Internet) as instructional tools for learning. As such, policies and procedures outlined in the Student Rights and Responsibilities Handbook apply to the use of all technology tools. Any student who is a user of the PGCPS Network is expected to use technology resources for educational purposes only. Employees, authorized contractors and volunteers of PGCPS are expected to use technology resources for educational and/or PGCPS administrative purposes only. Any user of the PGCPS Network, Internet, and technologies should always reflect academic honesty, high ethical standards, and moral responsibility.

IV. **DEFINITIONS:**

A. A user is defined as anyone with access to the PGCPS network.

B. Technology includes hardware, software, digital and web-based resources.

C. Computing device is defined as technology tools connecting to the PGCPS network.

V. **GENERAL PROCEDURES**:

A. Employees are responsible for the appropriate care and security of ALL PGCPS issued equipment/devices.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

ADMINISTRATIVE PROCEDURE

INFORMATION TECHNOLOGY SERVICES
ACCEPTABLE USAGE GUIDELINES

0700
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B. **All users are responsible for the activity, which occur on their PGCPS user account.**

C. All users are to log off all systems before they leave their workstation.

D. All users are prohibited from sharing accounts and/or passwords with anyone.

E. Any PGCPS school or administrative entity may be represented by a website on the pgcps.org web site.

F. No local accounts can be created on computers without prior approval from the Division of Information Technology (IT).

G. Only approved software may be installed on PGCPS devices. The approved software listing is located: www1.pgcps.org/it/software.

H. Personnel from the Division of Information Technology, IT Technicians, school-based designees and staff authorized by the Chief Information Officer are the only individuals who will have administrative rights to computers on the PGCPS domain.

I. No students or unauthorized user is to be given administrative rights and/or administrative passwords to any computer with in the PGCPS domain.

J. Cyberbullying, harassment, or intimidation will not be tolerated.

K. All computers are to be joined to the PGCPS domain unless exempted by the Division of Information Technology.

L. Student and/or employee information must be secured and reside on school system equipment or **district approved** online resources.

M. Students may only access information they are authorized to use, and need for assignments and/or other school related activities.

N. All users are responsible for their own data and system data applicable to their duties. Sensitive information should be stored in the user's personal network folder (if available). All files should also be backed up to an external media (flash drive, CD or other removable disk) and stored in a secured place. Certain critical sites will have building backups, but only for redirected My Documents or office group shares.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

ADMINISTRATIVE PROCEDURE

INFORMATION TECHNOLOGY SERVICES
ACCEPTABLE USAGE GUIDELINES

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O. **All users will be held accountable for any violations of the Acceptable Usage Guidelines that can be traced to their individual accounts.**

VI. **PROCEDURES:**

A. **Technology Acceptable Uses**

Acceptable use of technology and all related resources requires users to:

1. Protect private information such as addresses, phone numbers, or passwords.

2. Use appropriate language. This applies to public messages, private messages, material posted on Web pages.

3. Respect all copyright laws.

4. Respect network limitation when sending or receiving information. There is no limitation on the size of e-mails, either internally or externally. We do, however, have a 10Mbps limit on attachments leaving or entering the network; but no limitation on the size of attachments within the network.

5. Use the computing devices for their intended educational purposes only.

6. Understand that use of the computing device or the network for illegal activities is strictly prohibited.

B. **Prohibitions**

The following actions are prohibited to all users and web managers of the PGCPS Network. They include but are not limited to:

1. Group account log-ins.

2. Damaging computing devices, computer systems or computer networks, degrading or disrupting equipment of system performance.

3. Trespassing in another's files, folders or work.

4. Utilizing the network for commercial purposes.

5. Displaying a logo of any commercial entity not directly related to Prince George's County Public Schools.

6. Displaying copyrighted material, including graphics, without specific written permission to do so.

7. Using a pgcps.org web site for anything other than educational or administrative purposes as deemed appropriate by PGCPS. This includes having links to any external site that does not directly relate to the instructional and/or administrative goals of PGCPS.

8. Accessing or linking to websites that contain material deemed vulgar or offensive. These include, but are not limited to websites containing any text, graphic, audio or visual representation of sex, acts of perversion, or any vulgar or obscene material, or that contain images or representations of full frontal or partial nudity lacking in any educational, scientific, or artistic value. Users should avoid these websites and should under no circumstances possess any of these materials on their computer.

9. Accessing or linking to websites that contain material deemed inappropriate. These include but are not limited to web sites containing any text, graphic, audio or visual representation of materials that contradict the morals and values of the Prince George's County Public Schools. All users are to avoid websites promoting hatred, racial/religious/sexual discrimination, use of illegal drugs/alcohol/tobacco, criminal activities, computer/network hacking; except for educational purposes related to carrying out job responsibilities.

10. Using the PGCPS WAN or e-mail to promote the annoyance, harassment or attack of others.

11. Purporting to misrepresent PGCPS in any way whatsoever.

12. Utilizing the network for any illegal activity, including violation of copyright or other licenses or contracts.

13. Accessing "chat lines" or entering "chat rooms" not part of a class activity under direct supervision of a teacher, or are educationally inappropriate; or, are outside the scope of an employee's job responsibilities.

14. Using abusive or otherwise objectionable language in either public or private messages.

15. Posting anonymous messages.

16. Posting any files that prove detrimental to web services performance. This includes unauthorized scripts, programs, and large files that may impede network operations.

17. Users causing undue congestion of the network through lengthy downloads of files, or by engaging in idle activities; e.g., students playing games not part of a class activity: or, employees involved in actions other than their job responsibilities.

18. Vandalizing the data of another user.

19. Attempting to gain unauthorized access to resources, files, or any device on the network; e.g., use of hacking, spy ware tools, etc.

20. Identifying one's self with another person's name or any misrepresentation of one's true identity.

21. Using an account password of another user.

22. The theft of data, equipment, or intellectual property.

C. **Consequences**

If it has been determined that a user has improperly used the equipment or its resources in any manner, the user can expect disciplinary actions which may include, but are not limited to:

1. Immediate suspension of equipment access.

2. Disciplinary action by school/office administration.

3. Letter of reprimand.

4. Arrest and prosecution.

5. Additional disciplinary action may take place as outlined.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

ADMINISTRATIVE PROCEDURE

INFORMATION TECHNOLOGY SERVICES
ACCEPTABLE USAGE GUIDELINES

0700
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September 1, 2013
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D. Web Acceptable Uses

Acceptable use of PGCPS Web Sites and all related resources requires web managers to:

1. Use the web site to improve communications and services of the school or office with students, staff, parents and the entire community of Prince George's County Public Schools.

2. Protect private information such as addresses, phone numbers, or passwords.

3. Use appropriate language.

4. Respect all copyright laws.

5. Use the issued web account for the intended educational and administrative purposes only.

6. Understand that use of the web site for illegal activities is strictly prohibited.

7. In the use of photography on a web page, when identifying a specific person by first and last name, written permission by way of the standard PGCPS release should be on file. Group or candid photographs are not subject to the use of a release.

8. Utilizing the network for commercial purposes.

E. **Process for Reporting Inappropriate Use of the Network or Web Site**

If a user believes that there has been a violation of these guidelines, the user is to immediately contact a teacher, school administrator or supervisor. A good rule of thumb is, "when in doubt … ask."

F. **E-mail Services**

Every PGCPS employee is eligible for an email account.
Users should:

1. Use their Prince George's County Public Schools email address for

school system business.

2. Users are advised to acquire and use a "personal" e-mail address when signing up for list servers, circulars, newsletters, or any other non-educational purposes.

3. Review their Quarantine files regularly.

G. **Mobile Devices**

PGCPS provides devices to designated employees which must be used for the sole purpose of conducting official school system business. Any personal use charges associated with the device are the responsibility of the individual user.

1. Replacement of all lost, stolen or damaged devices and/or accessories will be the responsibility of the user.

H. **Virtual Private Network (VPN) Access**

The Division of Information Technology currently offers VPN access to a limited number of staff, in order to access the PGCPS network resources from an external location.

VII. **RELATED PROCEDURES:** Administrative Procedure Number 10101, Student Rights and Responsibilities Handbook.

VIII. **MAINTENANCE AND UPDATE OF THESE PROCEDURES:** This Administrative Procedure originates with the Division of Information Technology and will be updated, as needed.

IX. **CANCELLATIONS AND SUPERSEDURES:** This Administrative Procedure cancels and supersedes Administrative Procedure 0700 dated July 1, 2009.

X. **EFFECTIVE DATE**: September 1, 2013.

Distribution: Lists 1, 2, 3, 4, 5, 9 and 10

ADMINISTRATIVE PROCEDURE

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

USE OF SOCIAL MEDIA IN SCHOOLS

5180
Procedure No.

August 1, 2013
Date

I. PURPOSE: To establish guidelines related to the use of social media in schools, to differentiate between the appropriate and inappropriate use of social media and to articulate consequences when the inappropriate use of social media disrupts the educational environment, constitutes cyber bullying and/or creates a hostile learning environment.

II. INFORMATION: Social media has become a powerful tool for the transmission of information. When used appropriately, social media is a valuable educational tool enabling students to begin to build a positive digital footprint. When misused, social media may have the impact of substantially disrupting opportunities for learning to take place and negatively affect the student's future career and college aspirations.

III. DEFINITIONS:

A. Social Media is an electronic medium where users may create and view user generated content such as, uploaded or downloaded videos, photographs, blogs, podcasts, wikis, instant messages, texts, tweets and/or email content. Social media is any form of online publication or presence that allows end users to engage in multi-directional conversations in or around content on the website. Examples of social media sites include, but are not limited to, Facebook, MySpace, Twitter, Instagram, Google+ etc.

B. Bullying, Harassment and Intimidation (BHI) are anti-social behaviors that are carried out repeatedly over time with the intent to cause harm and are characterized by an imbalance of power.

C. Cyber Bullying is a form of indirect or social bullying that uses technology via text or images to humiliate, harass, embarrass, tease, intimidate, threaten, or slander one or more students. Cyber bullying is the act of being cruel to others by sending or posting harmful material (including compromising photographs) online or through a cell phone or other electronic device.

IV. PROCEDURES:

A. Appropriate Use of Social Media by Students in the School Environment

1. Under the supervision of a teacher as a part of the instructional program, students may be required to access and use social media in school. Such activity must be aligned to the curriculum standards, educational goals and objectives of the lesson or unit of study.

2. Students may only access information they are authorized to use and that they will need for assignments and/or other school related activities.

3. Students **MUST** protect and keep their passwords confidential.

4. Student should keep their email addresses and phone numbers private at all times.

B. Inappropriate Use of Social Media by Students includes, but is not limited to:

1. Accessing or linking to websites that contain material deemed vulgar or offensive. This includes, but is not limited to: websites containing any text, graphic, audio, or visual representation of sex, acts of perversion, or any vulgar or obscene material, containing images or representations of full frontal or partial nudity lacking in any educational, scientific or artistic value. Users **MUST** avoid these websites and should under no circumstances possess any of these materials in the school setting.

2. Accessing websites promoting hatred, racial, religious, sexual discrimination, use of illegal drugs, alcohol, tobacco and/or criminal activities.

3. Using abusive or otherwise objectionable language in either public or private messages.

4. Posting anonymous or signed messages that are defamatory.

5. Identifying one's self with another person's name or any misrepresentation of one's true identity.

6. Posting libelous, inflammatory, purposely disruptive statements or similarly inappropriate material, obscene language, serious threats or gestures, defamatory audio, visual or written content.

7. Targeting one or more students, teachers or staff using negative comments, photographs, or threats.

8. Attempting to interact with or monitor the activities of administrators or other PGCPS employees on social networking sites.

C. Student Responsibilities

1. Each student has a responsibility not to interfere with the education of other students.

2. Students are expected to adhere to the Information Technology Services Acceptable Use Guidelines.

3. Students are to refrain from using electronic devices in a manner deemed inappropriate by the Prince George's County Public Schools.

4. Students should report any inappropriate electronic content received on school equipment to their classroom teacher.

5. During non-school hours students receiving inappropriate, threatening or harassing electronic communication/imagery that will impede their ability or that of their peers to participate in their educational program **MUST** immediately inform their parents; and on the next business day inform the school administration and/or their grade level counselor for appropriate intervention.

D. School System Responsibilities

The school system does not govern the personal use of the aforementioned technology outside of the school. However, in instances wherein the content of social media is attributed to the use of said devices outside of school and creates a threat to students, staff or administration, substantially disrupts and/or impedes opportunities for learning, the school will apply disciplinary action in accordance with the *Students Rights and Responsibilities Handbook.* Therefore, parents are strongly encouraged to monitor their child's use of social media outside of school that may impact their child's or other student's educational opportunities.

V. **RELATED PROCEDURES:** Administrative Procedure 0700, Information Technology Services Acceptable Usage Guidelines; Administrative Procedure 4170, Discrimination and Harassment; Administrative Procedure 5132, Cell Phones and other Portable Electronic Devices; Administrative Procedure 5142, Gangs and Similar Destructive Group Behaviors; Administrative Procedure 5143,

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS PGCPS

ADMINISTRATIVE PROCEDURE

USE OF SOCIAL MEDIA IN SCHOOLS

5180
Procedure No.

August 1, 2013
Date

Bullying, Harassment or Intimidation and Administrative Procedure 10101, Code of Student Conduct.

VI. **MAINTENANCE AND UPDATE OF THESE PROCEDURES:** This procedure originates with the Division of Student Services, Department of Student Engagement and School Support and will be updated as needed.

VII. **CANCELLATIONS AND SUPERSEDURES:** None. This is a new Administrative Procedure.

VIII. **EFFECTIVE DATE:** August 1, 2013.

Distribution: Lists 1, 2, 3, 4, 5, 6, 10 and 11

ADMINISTRATIVE PROCEDURE

PORTABLE ELECTRONIC DEVICES

5132
Procedure No.

August 1, 2014
Date

I. **PURPOSE:** The purpose of this Procedure is to provide a district-wide process to ensure that the use of portable electronic devices (PEDs) is permitted and encouraged for instructional use, provided that it does not disrupt the educational environment.

II. **POLICY:** Prince George's County Public Schools (PGCPS) permits the use of PEDs for instructional purposes during the school day, and at other times with the approval of school administrators. School administrators are encouraged to approve staff requests to permit students to use PEDs for instructional use or at other appropriate times on school property. (Board Policy 5132.) The school system assumes no liability for theft, loss, damage or unauthorized use of student-owned PEDs possessed by students on school property.

III. **DEFINITIONS:**

A. "Cell phone" includes, and is not limited to, iPhones, "smart" phones, Internet enabled phones and other PEDs that are capable of placing and/or receiving telephone calls (including personal listening devices such as earphones, ear buds, "Bluetooth", etc.), text messages, browsing the internet, creating and distributing videos, taking photographs, and the like.

B. "Disrupt the educational environment" includes, and is not limited to, any use of portable electronic devices that interferes with:

1. Teaching and/or learning during school hours, including conduct that is insubordinate, profane, illegal, obscene, violent, disrespectful, harassing, intimidating or otherwise impermissible in the Student Rights and Responsibilities Handbook; and

2. The safe operation of the school bus, such as causing distraction for the bus driver due to lights from PEDs that are used when it is dark outside; passing PEDs around the bus, taking photos, recording videos or similar conduct which may affect the bus driver's ability to safely operate the school bus.

C. "Electronic communication" means a communication transmitted by means of an electronic device, including, but not limited to, a telephone, cellular phone, computer, or pager.

D. "Portable Electronic Device", or PED, is an electronic device that emits an audible signal, visual signal, vibration, displays a message, or otherwise summons the possessor. This may include, but is not limited to: cell phones, paging devices, electronic emailing devices, radios, tape players, CD players, DVD players, video cameras, iPods or other MP3 players, portable video game players, laptop computers, personal digital assistants (PDAs), cameras, iPads, e-readers and any device that provides a connection to the Internet.

PGCPS Great By Choice

ADMINISTRATIVE PROCEDURE

PORTABLE ELECTRONIC DEVICES

5132
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E. "School Hours" means the time a student enters the school bus or school property until the end of the school's designated "school day" or when the student exits the school bus. "School Day" means the regular school day with a designated starting time and ending time as defined by the local school system. "School day" may also include different starting and ending times for students with extended instructional hours, or who are involved with school-related field trips or extracurricular activities.

F. "School property" includes parking lots, school buses, and outside or inside all areas of the school building.

G. "Turned off" or "powered off" means the device is not activated. Devices in quiet, vibrate or other modes, except off, are not considered turned off or powered off.

H. "Use" includes carrying or possessing a PED that emits an audible signal, vibrates, displays a message or otherwise summons the possessor. A PED in an "off" position or silent mode and stored out-of-sight in a back-pack, book bag, pocket, purse, vehicle, locker, etc. shall be not be deemed "in use."

IV. **PROCEDURES:**

A. Approved Use of PEDs in Schools:

1. Students are permitted to use PEDs while riding to and from school on PGCPS buses, as long as it does not impact the safe operation of the school bus. Students may not use PEDs while getting on or off the school bus.
2. Students are encouraged to use PEDs for instructional purposes, with school administrator approval.
3. At times when PED use is not permitted, PEDs must be turned off or on silent mode and stored in a back-pack, book bag, pocket, purse, locker, vehicle, etc.
4. The school principal or designee may allow additional times for students to use PEDs at school, such as during lunch period, in approved designated areas, or during the following times:

    a) Before or after the school day on school property;
    b) During after school, evening or weekend extracurricular activities while on school property;
    c) While attending school sponsored or school related activities on or off school property; or

ADMINISTRATIVE PROCEDURE

PORTABLE ELECTRONIC DEVICES

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d) In an emergency situation with the permission of the teacher, instructor, counselor, coach, school security, program director, or administrator.

B. Prohibited Use of PEDs in Schools:

1. The use of PEDs at any time other than those specified in Section IV.A above.
2. The use of PEDs in locker rooms or bathrooms.
3. "Sexting" or the taking and/or transmission of nude or sexually explicit photos or videos in school.
4. The unauthorized or unlawful sharing or electronic posting of images taken or stored on PEDs during school hours and/or on school property.
5. Taking, uploading or sharing photos, recording audio, or capturing video during the school day in a manner that reflects bullying, harassment, intimidation or cyber bullying.
6. Using PEDs in any manner that reflects violations in the Student Rights and Responsibilities Handbook.

C. Administrators, faculty, and staff may request at any time that students must turn off and put away PEDs. Failure to do so may result in disciplinary action and possible confiscation by the school principal. School administrators are required to consult with parents/guardians regarding a student's misuse of a PED and appropriate responses in accordance with the Code of Student Conduct.

D. Responses to Alleged Violations of this Procedure:

1. Any staff member, student or individual having knowledge or reasonable suspicion of alleged violations of this procedure should promptly report this information to the school principal/designee.

2. The school principal/designee will respond to alleged violations of this procedure in accordance with the Student Rights and Responsibilities Handbook.

3. In limited, urgent circumstances requiring immediate action, the school principal may confiscate a PED if he/she reasonably believes that confiscation is necessary to help protect the health, safety or welfare of students or staff. The school principal shall take reasonable measures to label and secure the item until such time the PED is returned to the student or parent/guardian as soon as possible.

ADMINISTRATIVE PROCEDURE

PORTABLE ELECTRONIC DEVICES

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E. Waiver of Liability:

1. Student owned PEDs: Students assume full responsibility for their PEDs. The school system may not assume liability for theft, loss, damage or unauthorized use of PEDs possessed by students on school property.

2. PGCPS-issued PEDs: Students are responsible for using PGCPS-issued PEDs in a manner that is consistent with the Information Technology Acceptable Use Guidelines in Board Policy 0115 and Administrative Procedure 0700. Students or parents/guardians shall timely report any damage, such as breakage, malfunction or loss, of PGCPS-issued PEDs to the proper school authority, such as school security, the school principal/designee, or a school administrator. If the cause of the reported damage is due to the student's misuse, PGCPS may require payment for the cost of repair or replacement of the PED.

V. **RELATED PROCEDURES:** Administrative Procedure 0700, Information Technology Services Acceptable Usage Guidelines; Administrative Procedure 5142, Gangs, Gang Activity and Similar Destructive or Illegal Behavior; Administrative Procedure 5143, Bullying, Harassment or Intimidation; Administrative Procedure 5150, Student Responsibilities, Rights, Involvements; Administrative Procedure 5180, Use of Social Media in Schools; Administrative Procedure 10101, Code of Student Conduct; and Administrative Procedure 10201, Disruptive Acts Requiring Security Measures.

VI. **MAINTENANCE AND UPDATE OF THESE PROCEDURES:** These procedures originate with the Division of Student Services and will be updated as needed.

VII. **CANCELLATIONS AND SUPERSEDURES:** This procedure supersedes Administrative Procedure 5132, Cell Phones and Other Portable Electronic Devices, dated August 23, 2010.

VIII. **EFFECTIVE DATE:** August 1, 2014.

Distribution: Lists 1, 2, 3, 4, 5, 6, 10, and 11

County Name: Queen Anne's County
LAC Name: David Brown
LAC Contact Information: David.Brown@qacps.org
Contributors to the Survey: QACPS Leadership team

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Acceptable Use of Electronic Networks Policy Student Device Agreement Student Device Procedure QACPS Master Plan	www.qacps.org/onetoone
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	HP Chromebook 14 is the device for 5th through 8th grade students. Dell Latitude 3340 is the device for 9th through 12th grade students HP Elitebook Revolve laptops for teachers Aerohive AP330 for wireless in the 5th through 8th grade classrooms AeroHive AP370 for wireless in the 9th through 12th grade classrooms. Interactive whiteboards for some classrooms to be used with Smartboard software for teaching curriculum. IPads have been purchased by the schools or other departments for testing, assessment, and apps to teach curriculum.	
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	5th – 12th is 1:1 K-4th 3:10	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	All students 5th through 12th grade have access to a mobile device. Plan is to extend that to 3rd and 4th grade.	www.qacps.org/onetoone Acceptable Use of Electronic Networks Policy Student Device Agreement Form Student Device Agreement

		Student Device Procedure
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	No BYOD student devices with the 1:1 initiative	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	All students 5th through 12th grade have access to a mobile device	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	All 3rd – 12th grade students have Gmail accounts and access to the core services of Google Apps. Teachers use Google Classroom and Google Drive to share files with students. We use online curriculum like AgileMinds, Math180, Wonderworks, and Discovery Education.	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Windows 7 for desktops/laptops Use an online ticketing system to report technology problems. 1 technician to fix Chromebooks. 1 technician to fix HS laptops and assist with Chromebook repairs. 3 technicians to handle problems reported on Webdesk. 2 technicians to handle server, switches, wireless and other hardware problems. During testing we provide regional support. We don't have enough technicians to provide school based support during testing at all the schools.	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	No, we do not use virtual desktop No except for online services like Google Apps, PowerSchool, etc	

TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Since implementing 1:1, we had to spend $25,000 in parts to fix student devices. We also hired two technicians to handle repairs (around $70,000). We also collect the devices at the end of the year. It takes around 15 people for a week to collect, diagnose and report problems found with student devices ($12,000).	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	Microsoft Campus Licensing • Students & Staff have access to download a copy of Office 365 on their personal devices Accessible Online: • Discover learning • Edivation • Google Apps for Education • Performance Matters Data Warehouse • Powerschool • STAR 360 • Start-to-Finish Books • Unique Learning • Curriculum Loft • Boardmaker Online • Goalbook App • Read Naturally • Fast Forward • Jamestown Readers • Student Instructional Intervention Systems • Three Ring • Worldy Wise	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	Digital learning has been integrated into all curriculum areas in everyday instruction in grades 5th - 12th due to the 1-1 initiative. In grades PreK - 4, teachers are incorporating digital learning through whole-group instruction. Google Classroom has extended digital learning to home as well.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access	300MB Shared Connection WiFi in every 5th through 12th grade classroom. WiFi access point in every other room for PreK-4. This provides	

(teacher, student, guest, restricted).	WiFi access in all curriculum classrooms. No guest access. QACPS owned devices have priority over any other wireless connection.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Capital Computer Equipment funded directly from Queen Anne's County & RTTT grants	
FQ 2. What was the amount of e-rate funding	Spent in FY 15 $85,398	
FQ 3. What are your consistent sources of funding?	Capital- 5 year plan was submitted to county government and approved e-rate	
FQ 4. What is the plan to close the gap between needs and funds?	Continued requests to county government	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	Scanners Warranties - $1,280 OLA\Scanning Contract with Performance Matters - $19,691 Contract with 3-Ring $14,550 Professional services $1000 Additional 16 Chromebooks $5,856 Extended warranties for Chromebooks and covers- $4471.50. Initial laptops for high schools - $23,698 Chromebooks for GES & BES - $8,897 Initial Chromebooks with cases for grade 5 - $107,160 Monitor - $687 Chromebooks BES & GES $79,363 Aerohives - $25,603.09 Edivation licenses- $122,591 Read Naturally - $6090 Fast Forward licenses- $3500 Jamestown Readers - $990 Wordly Wise Online licenses $450 Scanner for HR - 1070.50 iPads (4) - 2475.80	
Comments:		

County Name: St. Mary's County
LAC Name: St. Mary's County Public Schools
LAC Contact Information: David Howard, Director of Information Technology
Contributors to the Survey:

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Network Usage	Policy – EDB, JFDF SMCPS.ORG
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	Wireless Access Points, Network Switches, Storage Area Network, Laptops, computers, servers, iPads, and printers	Purchase Orders
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	4:1	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	N/A	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	Piloting at one middle school	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	N/A	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	Elementary Schools: Desktops in most elementary; Mobile Carts with laptops or iPads in others, Interactive White Boards Secondary Schools: Mobile Carts with laptops or iPads, Interactive White Boards and a few desktops computers	

Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	Computers must meet the minimum requirement for Windows 7 or iOS 8.x or higher	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	Yes, web based software for teachers (Teacher Access Center) and students (Home Access Center, Websites) Google Apps Environment and Moodle	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Firewall support has increased	
TQ 4. What software licenses does your district have? Can these programs be accessed outside of school?	Microsoft Office, Geometer's SketchPad, IXL, Discovery, Turnitin, FASTT Math, online databases, Adobe Pro, Pearson SuccessNet, DIBELS, ThinkCentral (HRW), TenMarks, Study Island (site purchase), IRLA Reading, Performance Matters UNIFY system, eSchool+, SMART Notebook and ActiveInspire, Kurzweil – is available off-site Access to most licenses are 24/7.	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	SMCPS offers digital learning courses to all high school and certain middle school students. Courses are offered in blended learning environment during the school day as well as students can participate in approved courses independent from the school. Courses offered include those for Original Credit, Blended Learning, Credit Recovery, Quarter Recovery, Unit Recovery, and Supplemental. As of October 5, 2015 we	

	have 604 students enrolled in 933 courses.	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	Every School has WiFi. SMCPS has a total of 500mb. Not open, all password based. No guest network or restricted. Teacher level for BYOD and Student level for district own devices.	
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	Operating Budget, Local Funds, STEM for All Grant	
FQ 2. What was the amount of e-rate funding	$149,573.89	
FQ 3. What are your consistent sources of funding?	State and Local Funds	
FQ 4. What is the plan to close the gap between needs and funds?	Developing a 5 year Technology Plan this year that reflects a more robust learning environment and a plan to examine 1:1 via BYOD and SMCPS funds.	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	In total we spent $1,584,779.55 spanning 3 fiscal years of the grant.	
Comments:		

County Name: Talbot County Public Schools
LAC Name: Elton Holmes
LAC Contact Information: eholmes@tcps.k12.md.us (410-822-0330 ext. 137)
Contributors to the Survey:
Stephen Wilson, Director of IT swilson@tcps.k12.md.us (410-822-0330x128)

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	Technology plan expired - waiting on guidelines from MSDE. working towards 1:1 Portable and desktop Technology devices for all grade levels, owned by the school system, issued to students and staff will be available for students for instruction and assessment. All classrooms have smart board/projector and MM podium. Increasing STEAM activities at all grade levels. -Wilson	plans for next few years
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	High school 1:1 950 Macbook air laptops and High School and Middle School 50 Desktops For Career and Technology STEM/PLTW Elementary schools 460 ipad tablets have been purchased for student instruction; All Schools, Data Center and CO: 10 Router Firewalls for the WAN and access to an ISP Additional server host for approx 15 Virtual Servers. Server storage capacity increased. 20 Terabytes Recabling of a 1100 student High School. 100 Wireless Access Points and 5 - 48 port POE Switches for a 750 student K12 campus school. -Wilson	

TR 2. What is your current student/device ratio? Please also disaggregated by grade band.	Grades 6-12 - 1:1 - Apple, Macbook airs, MacbookPro's, White Macbooks Grades K-5 1:2 Apple: White Macbooks, Ipads -Wilson	
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	For 10 years, laptops have been issued to students in grades 9-12 and as part of a take home program. After 4 years HS 1:1 laptops are refurbished (internally) and are re-issued to grades 6-8 students for use in school and may be part of a take home program at a later date. Average laptop life has been 8 years. Apple ipad, White Macbook laptops and iMac desktops are available to students in grades K-5 and are stored on carts. -Wilson	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	There is no BYOD program in place for students or staff. System owned devices assures equity . it avoids, complex legal and managed device accessibility issues. Software and OS licensing limitations. Minimizes maintenance, discipline, security, and liability concerns. -Wilson	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	A 1:1 device procured and managed by the school district, using district licensed OS and software, is the best demonstration of equity. Elementary: Students use iPads, laptops, and desktops during the instructional day. Assignments for independent practice outside of the classroom are in paper form. Middle School: While laptops for stay in the school, web-based assignments and homework are downloaded and given to students in paper form.	

	High School: Students have access to technology during the instructional day. High school students are permitted to take their laptops home to complete assignments. Assignments for high school students can be downloaded to the laptop while students are in school. -Wilson	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	One to One Laptop Initiative (one laptop for student) in grades 6 through 12 district-wide iPad carts at each elementary school SmartBoards and podiums in each K-12 classroom The use of eTextbooks and eLearning programs across curricula and grade bands Integrating instruction daily with the district's learning management system (Frog OS) The online administration of assessments with Next Gen assessment items and data analytics across curricula and grade bands Have a dedicated technology facilitator using the SAMR Model to infuse technology. Wilson - Holmes	
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	All student laptops and Desktops use OS 10.7 or higher. All iPads use IOS 8 or higher. All instructional devices support state and local testing requirements. iPads have wired keyboards. Support provided by school based technicians - 1:600 devices. Use the same devices for all aspects of instruction and online testing (10 years ; starting with HSA's)	

	All schools have caching servers -Wilson	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	Students have access to Learning management System and all resources from any location. 1:1 laptop users are filtered through the district's filter regardless of location. A Virtual Desktop Infrastructure (VDI) is a strategy we do not plan to deploy, Each teacher and secondary student have a laptop with applications and the ability to download/upload content from our websites. Students without internet at home have a fully functional computer and can complete assignments. TR 6. VDI is not financially feasible , instructionally useful nor technically scalable. -Wilson	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	Beyond the initial device costs, TCPS has the following related costs: infrastructure costs, Application/web Servers, Storage (private cloud), network devices, leased fiber, service and support contracts and server -related licenses, filtering, virus scanning, detection and eradication. Expansion of bandwidth Annual Expenses Salaries/Benefits 14 staff $950,000 Contractual services 317,000 Leased fiber 252,000 Contractual Repairs 75,000 Equipment; Devices Peripherals 545,000 Infrastructure servers, routers 110,000 Total $2,248,465.00 $485.00 per student 4% of Total Revenue -Wilson	
TQ 4. What software licenses does your district	Instructional, productivity, project development, administrative, Mobile	

have? Can these programs be accessed outside of school?	Device Management (MDM),classroom mgt (LANschool) Learning Mgt system (LMS), etextbooks, online databases. Most applications can be used in the absence of the internet, MS office, Adobe suite. TCPS students have access to at least 70 installable or online applications and approved primary resources. Assignments can be downloaded from LMS and used at home if home internet is not available. -Wilson	
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	During the instructional day: Math Techbook (Alg1, Geometry, Alg 2) Computer Assisted Instruction: Plato secondary), Compass Learning (elementary) FrogLearn OS (LMS) allows for hybrid instruction, content diversification, 24/7 access to resources, self-paced learning, online assessments, gamification (incentivized instruction) Khan Academy, Proquest SIRS, secondary, Explorer learning, Technology is incorporated into every classroom. Teachers have software to record video and post lectures, assignments, resources online, and prepare student centered (self-paced) lessons online. -Holmes & Wilson	
TQ 6. What is the current level of bandwidth in schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	WAN Bandwidth 1-10 Gbps, Sailor (ISP) Internet bandwidth 170 Mbps School Wireless access 100% 802.11N or AP Filtered for student and staff access only. No guest access unless pre-arranged -Wilson	
Comments:		
Funding Questions		
FQ 1. What funding did you	All sources $2,200,000* Local, Local	

receive in the last FY for technology, and what were all of the sources?	Capital, Perkins, Aging schools, RTTT, Title 1, Sped, E-rate. -Wilson	
FQ 2. What was the amount of e-rate funding	$136,000 -Wilson	
FQ 3. What are your consistent sources of funding?	Local, Local Capital, Perkins**, Sped*, E-rate *Assisted technology ** Career/Technology ex. Project lead the way -Wilson	
FQ 4. What is the plan to close the gap between needs and funds?	1) Have the state impose/support mandatory funding levels to: a. Insure secure and robust network access, b. Provide equitable device access, to meet instructional and assessment mandates. c. Provision for all technologies that support productivity and efficiencies necessary for administrative, support services applications (food service, transportation, HR, finance, Operations of Plant, environmental management, surveillance, data/premise security, data collection and submission.) d. Meet all the IT criteria tested by Office of Legislative Audits 2) Grants See comments below -Wilson	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	$180,000 spent on Instruction, 85% of RTTT spent on ipads and peripherals TCPS provided in-kind software, peripherals. MDM expenses -Wilson,	
Comments: Funding of this 30 year old category has not kept up with demand. Technology funding levels need to be re-examined. School system resources; human capital, computer devices, large bandwidth networks, high capacity servers, online services and peripherals are expected to be available to staff and students year round and replaced every 5-7 years. Stimulus funding, RTT and other grants have been		

very helpful meeting our current challenges. however this will not be sustainable through local funding alone. Funding should be at about 6.2 % of revenue according to CIO magazine (Nov 2, 2007). or $800.00 /per student ; Similar to the average MD LEA transportation per pupil expenditure (MSDE factbook 2014)

CIO magazine (Nov 2, 2007)

http://www.cio.com/article/2437731/budget/information-technology-budgets--which-industry-spends-the-most-.html

MSDE factbook 2014 (page 45)

http://marylandpublicschools.org/MSDE/divisions/bus_svcs/docs/Fact_Book_2013-2014.pdf

Wilson

County Name: Wicomico
LAC Name: Gary Doss
LAC Contact Information: gdoss@wcboe.org

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 1. What are the district policies and plans for technology use in schools? Please include information around what plans are being implemented.	• Currently, Wicomico County has several initiatives we are planning. Our largest initiative is a 1:1 beginning in 9th grade. To prepare our students for this we are moving toward digital text over hard text. Examples of this include the use of Discovery Streaming's Tech Book by middle school students for the content areas of Science, Social Studies and Mathematics. In the elementary grades, we continue to use iPads as regular instructional tools and also rely on digital text such as found in Book Flix and True Flix. In Wicomico County, we keep current with the latest, technology trends and are always willing to embrace the newest, research-based practice, revolving around the effective of instructional technology.	
TR 2. What technology has been purchased in the past two years? Please explain the purpose for each type of device or tool.	• Wicomico uses Windows-based desktops and laptops as the primary staff and student device, plus limited use of iPads for Elementary Education. Our current fleet is 11,000 PCs for Staff and students, and 1500 iPads. We refresh approximately 20% of our PC/Laptop Fleet yearly through general funds. We procured approximately 20 laptop carts through RaceToTheTop grants for student use and PARCC testing and instructional use when no testing is in progress. The majority of the iPad fleet was procured via Title-I grants. Incremental purchases of interactive technologies have been purchased, also with general funds. We opened a new Middle School this year and implemented a standard classroom configuration of: a teacher laptop station, interactive device (eBeam), document camera, wireless access, and laptop carts to be shared in a 1 device:2 student ratio. We expanded wirelines capacity to cover classrooms identified as testing areas for PARCC, where additional coverage and capacity were necessary. Wireless funding was provided from general funds, some RTTT, and some via eRate.	• See below Table TR2

Technology Requirements		
Question	Response	Supporting/ Linked Documents
TR 2. What is your current student/device ratio? Please also disaggregate by grade band.	• Note, in general, student PCs and laptops are shared resources in a building, and are not grade-specific.	• See below Table TR2B
TR 3. What are your current policies and programs around 1 to 1 technology? What is the current and proposed future level of implementation?	• We currently do not have a 1 to 1 initiative but have an active committee looking into ways to implement one. We currently do not have funding to support the purchase and/or leasing of the hardware and the added infrastructure and human resources to initiative and then sustain it. • Wicomico has been exploring 1-1 ideas for the past 12 months. At this point, the discussions have focused on various cost models. The Instructional Teams have had conceptual discussions around implementation, professional development and scenarios for blended learning. • Infrastructure expansion is also a consideration. We have to assume there will be a requirement for 100% wireless coverage and 1005 capacity to support additional mobile devices connections. This added infrastructure will also require additional resources to support the environment. • We believe it will be a significance investment, regardless of the procurement method. Like many LEAs, Wicomico would need funding support from multiple sources as a catalyst to making 1-1 successful. These funding streams can be Federal/State/Local funds, philanthropy, and business partnerships. • If Wicomico were to purchase devices for a 4-year term of use (each 9^{th} grader gets a laptop for use in 9^{th} – 12^{th} grade), we anticipated approximately $800,000 per year, sustained, and repeated with each incoming 9^{th} grade class across our four high schools locations. Another view of the investment is approximately $2000 TCO (total cost of ownership) per laptop, plus applications, utilities, technical	

Technology Requirements		
Question	Response	Supporting/ Linked Documents
	support, professional development, infrastructure, and break/fix for the 4 years of use.	
TR 4. What are your current policies around BYOD programs and what is the current level of implementation?	• We do allow cell phones to be used for instructional purposes in our secondary schools and added use for high school student specifically. This initiative is in pilot form. • Currently, Wicomico County does not have a BYOD program for student-owned laptops or tablets. • Wicomico County provides BYOD services to teachers and their personal devices. The devices connect to our guest wireless network and are subject to web filtering and other acceptable use terms when connected. We are also in the 2nd year pilot of student-owned mobile devices, namely mobile phones, in the classroom at the discretion of the teacher, and designated areas of a school. Student-owned devices can only connect via the carrier's 3G/4G cellular service. No student-owned devices are permitted on the Wicomico County Public Schools wireless network. Student use of mobile devices in the classroom follow the acceptable use terms, and code of conduct when.	
TR 5. What equity plans do you have in place to support students who cannot provide their own technology?	• Where possible we provide laptop carts and training for teachers in how to use multiple forms of technology for an instructional purpose. • We encourage students to take part in the Comcast Advantage Program which does give them access at a much reduced cost. • We provide after school access to technology at all levels of instruction • Computers are a shared resources in schools. Teachers make every effort to avail technology to students for all to use during instruction. Due to the device ratio in some locations, students may work together in teams, or "double-up" for certain lessons. In a flipped classroom environment, a team of students may share computers amongst the team. In secondary locations where student-owned	

Technology Requirements		
Question	Response	Supporting/ Linked Documents
	mobile devices (cell phones) are used, students who don't have such devices generally have a Wicomico-provide laptop or desktop PC for the lessons. In these cases, the cell phone compliments the Wicomico fleet. • For technology access at home or outside the school, Wicomico is partnering with external business organizations like Comcast for their Internet Essentials program of low-cost internet access and low-cost computers for home use. This is a stop-gap measure, and by no means the alternative to a formal 1-1 initiative.	
TR 6. How are you incorporating technology into the classroom every day? Please provide specific examples of current technology integration in schools and classrooms.	• Wicomico uses Windows-based desktops and laptops as the primary device, plus limited use of iPads for Elementary Education. We refresh approximately 20% of our PC/Laptop Fleet yearly. We procured approximately 20 laptop carts through RaceToTheTop grants. We continue to expand the use of interactive • RELA teachers are using SMARTboards, DOC cameras, Promethean Bds in the classroom on a daily basis. Many show video clips (biography of an author, transdisciplinary, practice for PARCC assessment) and use websites (Powtoon, prezi, padlet) to enhance instruction. • The Science Department uses the Discovery Education techbook in middle school. Teachers use a wide variety of other resources including simulations from PhET & Gizmos; videos from a variety of sources; online real-world data sources (i.e. teachoceanscience.net); Vernier probeware for data collection; Excel for data manipulation/analysis; MS Word/PPT for data presentation • The Math Department uses graphing calculators (grades 8-HS) Gizmos (online simulations) grades 6-HS) Discovery Techbook (grades 6-8, Algebra 1, Geometry, Algebra 2) Math 180 (online intervention) (grades 6-8) Geomter's Sketchpad—(at school)—occasionally Compass Learning (Title 1) Apps on the IPAD Interactive Lessons through SMART Exchange	

Technology Requirements		
Question	Response	Supporting/ Linked Documents
Comments:		
Technical Questions		
TQ 1. Please list and explain the current technical requirements in use in your district for devices, operating systems, and technical support for devices. Do these differ for online testing, and if so, how?	• See below Table TQ1	
TQ 2. To what extent do you use a virtual desktop? Do students and staff have a method to access work outside of the school?	• Wicomico uses limited remote desktop services for staff, using Microsoft Remote Desktop (RDP) for secure access. We have no virtual desktop services for students. • This month (October), Wicomico enabled Microsoft OneDrive cloud storage for all students in grades 3-12, and Microsoft Outlook for students, grades 9-12. The goal is to allow students to store files, submit homework assignments, and build a portfolio during their time in our school system. Student email will be used to communicate to teachers, and for use in the college application process.	
TQ 3. What ongoing cost requirements do you have in comparison to upfront costs paid this past year?	• Technology costs fluctuate. When possible, Wicomico purchases multi-year agreements for cost effectiveness and control. With the significant acquisitions from RTTT funds over the past 2-3 years, we anticipate a surge/bubble effect of replacement costs and expenses when the equipment becomes obsolete in the 2018-2020 timeframe.	

Technology Requirements		
Question	Response	Supporting/ Linked Documents
	• We track devices in an asset management systems and monitor age and estimated replacement dates. If MSDE requires specific line-item details, those items can be provided separately.	
TQ 4. What software licences does your district have? Can these programs be accessed outside of school?	• Wicomico County utilizes cloud technology whenever possible. Most of our applications are available to students at home.	• Please see below Table TQ4
TQ 5. To what extent does digital learning take place in your district, either during the school day or from home (eg flipped classroom model). Is technology incorporated into the everyday classroom?	• Wicomico uses Windows-based desktops and laptops as the primary device, plus limited use of iPads for Elementary Education. We refresh approximately 20% of our PC/Laptop Fleet yearly. We procured approximately 20 laptop carts through RaceToTheTop grants. We continue to expand the use of interactive • Technology is used by RELA staff daily. Many RELA teachers have participated in online and/or hybrid professional development opportunities. • Technology use varies by teacher according to resource availability and teacher comfort-level. Some teachers have experimented with flipped classrooms; others use computers in instruction nearly daily. Others use tech much less frequently. The Discovery Techbook at Middle School has led to a dramatic increase in technology usage. • Discovery Techbook-Digital Instructional Resource (at school /home)—one to two days per week Flipped Classroom Pilot-one algebra 1 teacher (at school/home)-two to three times per week Math 180 (at school/home)--daily TiSmartview/Graphing Calculators (at school only)—daily Geomter's Sketchpad—(at school)—occasionally • Connect Ed through McGrawHill • Teacher Toolkit through Curriculum Associates	
TQ 6. What is the current level of bandwidth in	• Number of schools having Wi-Fi = 25 (100%) • Level of Openness ○ Teacher Access = 100% availability in coverage areas, some	• Please see below

Technology Requirements		
Question	Response	Supporting/ Linked Documents
schools? Please detail how many schools have Wifi and the level of openness and access (teacher, student, guest, restricted).	filtering ○ Student Access =100% availability in coverage areas, significant filtering ○ Guest – Restricted to "Guest Login" and applicable student filtering ○ Restricted – limited to Technology Staff for testing. VPN services available for staff using VPN Portal. • With the exception of two locations (Westside Primary and Willards) all schools have 1 gigabit access back to central office and they all share 600mbps of bandwidth out to the internet. All schools have wireless access in designated testing areas and most common areas (Media, Café, Gym, Offices). • Teacher – Access through AD credentials on WCBOE devices and personal devices using guest network • Student – Access on WCBOE devices using AD credentials • Guest – Access on restricted network	Table TQ-6
Comments:		
Funding Questions		
FQ 1. What funding did you receive in the last FY for technology, and what were all of the sources?	• STEM grant and Monsanto grant have been used to purchase Vernier equipment.	• See below Table FQ1
FQ 2. What was the amount of e-rate funding	• eRate for 2014 was $224,544.95	
FQ 3. What are your consistent sources of funding?	• State funds, county funds, eRate.	

Technology Requirements		
Question	Response	Supporting/ Linked Documents
FQ 4. What is the plan to close the gap between needs and funds?	• Creating community awareness of the need and developing a funding plan that is adequately distributed to all stakeholders will be KEY to addressing the funding gap	
FQ 5. Out of the funding received through Race to the Top, how much was spent on technology? Please provide details about the technology purchased as well as costs.	• See below Table FQ5	
Comments:		

Table TR 2 : Tools

Technology	Use
Windows-based laptops and desktops	Instruction, mobility, various applications and tools for all content areas.
Interactive Technology	Presentations, Student Engagement, complimenting content
Document Cameras	Projecting images from documents, other manipulatives, and devices (example – projecting an image on a cell phone screen)
Wireless Access Points	Provides secure mobile and pervasive computing throughout a school facility.
Network Switches	For ethernet-based connectivity. Typically found in lab environments, and on teacher docking stations for laptops.
File Servers	Local, school-level storage for staff and students
Cloud Storage	Extended storage on a hosted site (Microsoft OneDrive) for staff and students

Table TR2B-

Note, in general, student PCs and laptops are shared resources in a building, and are not grade-specific.

Location	Laptops	Desktops	iPads/iPod/ Nook Tablets
Beaver Run	232	86	93
Bennett Middle	699	147	49
Chipman	164	82	49
Choices			
Delmar	399	96	273
East Salisbury/WELC	369	112	115
Fruitland Primary	198	89	54
Fruitland Intermediate	193	139	19
Glen Avenue	170	135	82
James M. Bennett	611	285	37
Mardela Middle and High	192	352	25
North Salisbury	173	154	75
Northwestern	159	45	59
Parkside	276	634	49
Pemberton	301	71	59
Pinehurst	287	148	87
Pittsville Elem. & Middle	356	70	31
Prince Street	399	120	247
Salisbury Middle/Trans/Food Svc	320	561	105
West Salisbury/Choices	174	175	84
Westside Primary	106	54	43
Westside Intermediate	266	58	9
Wicomico Middle	324	287	36
Wicomico High	298	522	48
Willards	175	92	41

Table TQ1

Service	Requirements / Specifications
Student Laptop	Windows-7 operating system; Dell 3000 series laptop
Student/Lab Desktop PC	Windows-7 operating system; Dell 3310 desktop PC
Desktop Applications	Microsoft Office Pro Plus 2013
Browsers	Microsoft InternetExplorer; Mozilla Firefox
PARCC	TestNAV 8x
Student/Staff Storage	Local file server; Microsoft OneDrive (grades 3-12)
Student/Staff Email	Microsoft Exchange Outlook, OWA
Wireless Access	Xirrus
Network Access	Juniper Switches, Firewall
Online Testing	Student Laptops test in pre-identified classrooms with sufficient wireless coverage and capacity. Some use of instructional laptops to support PARCC peak periods.
Instructional Apps	Numerous applications, online subscriptions, assessment tools.
Technical Support	1 School technician per 400 devices 3 central office infrastructure administrators 2 help desk technicians

Table TQ4

Vendor	Application	Hosted / Available Outside School
CompassLearning	Odyssey - Hosted	Yes
Discovery Education	Discovery Streaming	No
Discovery Education	Science TechBook - Middle School	Yes
CampusPress, Inc, LLC	EduBlogs Campus Gold Package	Yes
Flinn Scientific	ChemVentory	No
Curriculum Associates	Ready CommonCore Teacher Toolbox	Yes
DesignSimulations	Interactive Physics App	No
ExploreLearning - Gizmos	Math/Science Common Core	No
Flocabulary	Flocabulary	No
Houghton-Harcourt-Mifflin	Expresate - Spanish Online Resource	Yes
Human Kinetics	FitnessGram	No
MakeMusic!	SmartMusic Teacher and Student; SchoolPractice Room	Yes
MoodleRooms	MoodleRooms	Yes
N2Y - News2You	ULS – UniqueLearningSystem Symbolix	Yes
Renaissance Learning	Accelerated Reader	Yes
Scholastic	BookFlix	Yes
Scholastic	TrueFlix	Yes
Scholastic	SRI - Scholastic Reading	No
Scholastic	SMI - Scholastic Math	No
Scholastic	Math-180	Yes
Scholastic	Math-180	Yes
Smart Technology	Smart Notebook Annual Maintenance	Yes
SMS Technology	Corel Draw Software Maintenance	No
Soundzabound Music Library	Soundzabound Annual Maintenance	No
Starfall Communications	Starfall	Yes
Sunburst Digital	Type to Learn	Yes
Suntex	First in Math	Yes
Tangient	Wikispaces	Yes
TeachingBooks	Disctrict License	Yes
Tech4Learning	Pixie	Yes
Tech4Learning	Share/Frames	Yes
TCI - Teacher Curric Inst.	GovernmentAlive! Annual Maint	Yes
Edmentum	Various Titles and Subscriptions	Yes
IXL	ELA/Math Compliment	Yes
Vocabulary.Com	Vocabulary Software	Yes
Raz Kids	Reading A-Z for non-ELL classrooms	Yes
Learning A-Z	Reading A-Z for non-ELL classrooms	Yes

Table TQ6

Location	Number of Data Switches* (48 Port)	Wireless Access Points	PARCC Designated Classrooms	Bandwidth to CO
01 - Beaver Run	6	15	8	1gbps - fiber (MetroE)
02 - Delmar Elementary	10	26	24	1gbps - fiber (MetroE)
03 - East Salisbury	10	26	5	2gbps - fiber
04 - Fruitland Primary	7	16	6	1gbps - fiber (MetroE)
05 - Fruitland Intermediate	7	25	17	1gbps - fiber (MetroE)
06 - Glen Ave	8	13	4	1gbps - fiber
07 - North Salisbury	16	39	29	1gbps - fiber (MetroE)
08 - Northwestern	5	14	5	1gbps - fiber
09 - Pemberton	12	40	31	1gbps - fiber (MetroE)
10 - Pinehurst	10	25	7	1gbps - fiber
13 - Prince Street	15	22	16	1gbps - fiber
14 - Chipman	5	15	5	1gbps - fiber
16 - West Salisbury	8	23	5	1gbps - fiber (MetroE)
17 - Westside Primary	3	12	5	100mbps - half-duplex wireless
18 - Westside Intermediate	10	33	28	1gbps - fiber (MetroE)
19 - Willards	9	16	5	100mbps - half-duplex wireless
23 - WELC	2	7	5	1gbps - fiber
40 - Bennett Middle	38	85	N/A	1gbps - fiber
41 - James M Bennett	46	54	20	1gbps - fiber
42 - Mardela	15	30	20	1gbps - fiber
43 - Parkside	35	64	35	1gbps - fiber
44 - Pittsville	18	43	3	1gbps - fiber
45 - Wi Middle	22	47	37	1gbps - fiber
46 - Wi-Hi	25	45	30	1gbps - fiber
49 - Salisbury Middle	27	42	8	2gbps - fiber
65 - Northgate	20	6	0	1gbps - fiber (MetroE)
99 - Central Office/Facilities	19	25	0	1gbps - fiber
	408	808	358	

* All data as of 10/19/2015

* Does not include Data center

Table FQ1

FQ 1.
FY15 Tech in Special Revenue Fund

State Grant #	Amount
11575902	125,030.47
14446901	12,931.14
14457001	1,584.00
14473701	20,568.25
14498601	3,820.92
14536601	2,080.85
15424801	9,175.49
15424802	4,224.00
15437201	92,360.35
15444201	64.99
15445901	10.41
15453101	29,473.21
15461101	2,629.90
15463201	827.58
15486101	12,390.60
15486201	1,032.00
15488701	1,194.00
15492701	11,250.00
15499501	10,802.15
15505501	109,935.00
15512601	167,578.74
15528501	30,827.21
15541101	38,579.70
15542501	1,032.00
15544203	5,758.00
16419501	44,169.42
Non-Msde Local	18,973.83
Total	$ 758,304.21

Table FQ5

FY15 RTTT Tech in Special Revenue Fund

State Grant #	Amount
11575902	125,030.47
15505501	109,935.00
15461101	2,629.90
15463201	827.58
16419501	44,169.42
Total	$ 282,592.37

Attachment 2- Digital Learning Exemplars as Reported by the LEAs

Talbot

Beginning this year (2015–2016), Talbot County Public Schools will provide laptops to every student in grades 6–12. Proficiencies in the IT department have allowed the system to extend the life expectancy of its laptops to seven years. The IT staff is dedicated to maintaining its cache of laptops—troubleshooting and repairing as needed. Talbot County's students and teachers use a learning management system called FROG, which not only allows teachers to create and distribute assignments and quizzes and students to submit their work, but it also allows students to master content in a gaming environment.

A new group, 2V2T (the Vertical Vanguard Technology Team) has been established representing every school in Talbot County. Comprised of technology-savvy teachers, 2V2T will determine the professional development needs of staff and provide the training. In addition, 2V2T will work to identify promising practices that will insure teachers have the skills to reach our digital natives—our students.

Garrett

After being the recipient of two back-to-back Maryland Digital Learning Innovation grants, supplemented by local and federal (RTTT Project 29) funding, Garrett County Schools have made significant progress in establishing the necessary infrastructure to support digital learning schools. This fall we will have a device-to-student ratio of 1:1.6, all schools will have 100 percent high-density wireless coverage, and nearly all classrooms will be equipped with interactive whiteboards. Ninety-one percent of our schools have been determined to have adequate broadband for online assessment and digital learning*. Recent RTTT funding has also provided up-to-date computing devices for all teachers to use for tracking student progress and informing their instruction. Three years ago, Garrett County could only report a device-to-student ratio of 1:5, with zero percent of our schools reporting adequate broadband coverage.

Garrett County's first Digital Learning Innovation project established a cloud-based video conference framework that is capable of connecting students and teachers in our schools virtually with the world. Garrett County's second project created a sixth-grade research project named "Innovative Research 6" (IR6), in which all Garrett County sixth-grade students work collaboratively in teams to create researched-based solutions to real-world problems and communicate their solutions to fellow students. Top teams for both the district's middle schools presented their solution to a "Shark Tank" composed of high school students who had similar experiences in creating research-based solutions and entrepreneurship through their participation in award-winning FIRST Robotics programs. Both projects have had significant impact to Garrett County schools, including providing digital devices to support both innovation projects as well as providing sufficient devices for online assessments. The IR6 project also established the beginnings of a "makerspace" in our middle school libraries for students to prototype their solutions.

*According to Educationsuperhighway Criteria (100k/student)

Howard County Public Schools

The Howard County Public School System has launched HCPSS Connect, our new online one-stop platform that will provide easy access to a variety of academic information and classroom instructional tools and offer parents timely, personalized communication relating to their student. One platform found in HCPSS Connect is the Synergy Student Information System, which replaces Aspen as the source for official student records and grades. Another platform, the Canvas Learning System, extends the classroom online for teachers and students to enable more personalized learning while providing a peek into the classroom for parents—all in one easy place.

With HCPSS Connect, we can provide our families, students, and teachers with an improved and consistent user experience, a common digital platform for all schools and grades, and improved communication and collaboration. HCPSS's robust Internet network, coupled with school system-provided devices and student-owned devices, is allowing students more access to these instructional resources. Teachers will continue to receive professional learning to help transform and adapt their instruction for the new learning management system.

HCPSS Connect takes the school system one step closer to fulfilling the system's strategic plan, Vision 2018, through expanded access to learning through blended instruction, a one-stop portal to streamline communications with parents, optimized operational efficiency and effectiveness, and enhanced technology and digital content for assessing student performance.

Recent Baltimore Sun Article from Thursday, August 20, 2015

Montgomery

During the summer of 2014, Montgomery County Public Schools began a multi-year 21st Century Classroom Initiative. As part of this initiative during the 2014–2015 school year, MCPS rolled out more than 40,000 Chromebooks to grade 3, 5, 6, and high school classrooms. In addition, we began the use of Google Apps for Education to provide anywhere, anytime access to learning resources, thereby extending learning beyond the school day. This summer, we began year 2 of our rollout and will be providing Chromebooks to all grade 4 classrooms and select middle school classrooms.

Coupled with this initiative, MCPS is implementing a new teaching and learning portal that houses digital content, an interactive digital planner for teachers, and a robust assessment platform with item banks from MSDE as well as our MCPS assessments and teacher-created classroom checks for understanding.

Over the past year, we have created 23 hybrid high school courses to be used to support students during the summer. We are working to expand our hybrid course offerings to support students who are unable to attend school due to illness. With increased access to technology and

interactive digital resources, MCPS students are engaged in dynamic learning experiences within and beyond the school day. We look forward to an exciting year of new adventures as we continue to expand and enhance our digital learning efforts in MCPS.

St. Mary's

St. Mary's County Public Schools (SMCPS) offers ongoing professional development (PD) opportunities to improve teaching and learning in face-to-face or blended learning environments. Both school and system PD reflects the need to understand the expectations of the Maryland College and Career Readiness standards (MCCRS). This involves the integration of technology into each course in an effort to develop collaboration, creativity, problem solving, and critical thinking among teachers and students. As Maryland moved to the new Teacher-Principal-Evaluation, SMCPS was able to modify its current Teacher Performance Assessment System (TPAS) and Leadership Performance Assessment System (LPAS) to reflect the state changes. We added a domain to TPAS and LPAS incorporating evidence of student learning. Both TPAS and LPAS are electronic systems that provide staff the opportunity to upload evidence of student learning as well as promoting collaborative discussions with administration. TPAS and LPAS support our commitment to students, staff, and stakeholders.

In order to show improvement in student learning, SMCPS has leveraged the use of a variety of resources to provide students and staff with access to technology. SMCPS provides students opportunities to take courses online to accelerate and recover credit (grades 9–12) as well as use digital content to relearn standards (grades 6–12.) SMCPS wants to empower students to manage their learning. In an effort to promote access to our web-based products as well as the SMCPS Google in Education environment, SMCPS has created a wireless environment in all of its buildings. We have shifted the focus from the stagnant computer labs to computers on wheels (COW). As equipment is replaced in buildings, COWs are taking the technology to the students for immediate integration. Through a Department of Defense grant, SMCPS has also integrated the use of iPads into our classrooms. Students are engaged in learning activities that incorporate a focus on exploration, critical thinking, and collaboration. Our libraries and classrooms are interactive places where students and staff responsibly manage their own learning by working independently and with others, to access, manage, integrate, evaluate, create, and communicate information.

Cecil

Cecil County's Summer School program for this year has changed using Florida Virtual online content and our local certified online teachers. For the initial year of this new model, we chose to focus on students needing credit recovery. To accomplish this task, CCPS did the following:

- Content area experts were hired to teach key recovery concepts to students, while mentors were on-site to provide guidance and support.

- Two mentors were placed at each site—one in math and one in English—a key factor in student success.
- Fifty seat licenses were purchased through Florida Virtual Global School (FLVS GS), which opened summer enrollment into a catalog of courses previewed by content coordinators.

This need-based customization of content adheres seamlessly with the county's philosophical framework as well as Maryland's commitment to providing access for all learners. These seats, which are purchased on a yearly subscription basis, will also be used by Home and Hospital students throughout the year.

For four weeks through the summer, students attended for two hours each day, Monday through Wednesday. Online teachers provided differentiated content on a daily basis in order for the students to successfully complete course requirements. This enabled learners to acquire credit needed for grade advancement. In addition to increasing access points through content, CCPS also afforded students options with respect to location of service. For instance, historically there has only been one location for summer school with mathematics as the sole offering. However, this year, three venues were made available with 14 courses offered in a blended format. Consequently, enrollment doubled and credit recovery increased to 80 percent.
This is a promising start for the new model and has allowed us to put plans in place to improve the program for next summer.

Harford

Harford County Public Schools is focused on leading and learning in a digital world through the creation of active and dynamic learning environments using cutting-edge, on-demand content with seamless access to digital tools that will inspire all learners. Access to digital content occurs through the development of digital curriculum in a Learning Management System, itslearning, with a focus on collaboration through Office 365. Choice of appropriate devices through the pilot of a Bring Your Own Technology initiative as well as district provided tablet devices is enabling students to access content. A highlight of digital HARFORD has been the digital conversion of English 10 through funding from the Digital Innovation Grant which provided a digital textbook, mobile devices, digital curriculum, and extensive professional development.

Worcester

Teach. Learn. Connect.

Worcester County Public Schools launching Teach, Learn, Connect (TLC), a new 1:1 student technology initiative. Technology has the potential to change the way our teachers teach and the way our students learn through customizing and personalizing instruction. All teachers have been issued devices and schools have also received new mobile devices for use in the classroom: iPads for grades K–3 and Chromebooks for grades 4–8. In the fall, laptops will be distributed to all ninth-grade students and every ninth-grade class hereafter for their use in and out of the classroom. Upon graduation, the laptops will belong to the students. Within four years, the goal is for all students to have 1:1 access in their classrooms.

A single sign-on system (TLC powered by Engrade) has been purchased and implemented. It contains a learning management system and an assessment creation tool that will be used to create formative assessments, as well as interoperability with digital assets used by teachers and students. Lead teachers and other school-based staff have been trained to support teachers in the move to digital conversion and blended learning. Professional development to enhance instructional practice with digital tools is ongoing to make the transition to blended learning successful for all teachers and students. A website for teachers has been created to provide ongoing information and "just in time" professional development about the TLC initiative (www.worcestertlc.weebly.com). A website for student and parents is under development and will be completed for the 2015–2016 school year.

Allegany

Allegany County Public Schools (ACPS) has accomplished many technology advancements over the past year with regards to Educator Proficiency and Equitable Access. With the benefit of Race to the Top dollars and local budget commitments, both teachers and students have received collaborative and engaging resources for the classroom. Several of these accomplishments are listed below:

1. Comprehensive Assessment System – ACPS purchased a five year contract for Engrade, a McGraw Hill product providing full PARCC like technology enhanced assessments and performance measurement tools. Prior to this system, district benchmarks were developed and administered in paper pencil format. District benchmarks, primarily for the 2015–2016 school year, ELA, Math and Science will be administered online using Engrade. Paper assessments have been converted to electronic format using the multitude of technology-enhanced tools (drag and drop, multiple select, cloze, equation composition, graphing and plotting, bucket lists). Accommodation tools are also available in an online format. Pre- and post-tests will be administered this year online. It is the intention of ACPS to provide all content areas with these online benchmarks. Along with district benchmarks, teachers are now trained and excited to be using this tool to create their own tests and quizzes mimicking a PARCC like assessment. Performance measurement will be gathered and utilized not only to determine student growth but to inform teacher and principal evaluations.
2. Discovery Streaming and Discovery Tech Books – ACPS has committed to and purchased a five-year contract for Discovery Education Streaming. This video distribution system replaced Safari Montage at ACPS. While Safari served us well, Discovery Education provides a constantly updated version of the content as well as an Active Directory synchronized system of authenticating user accounts for teachers and students. In one year, results of use are astounding. Content connections from grades K–12 have demonstrated unprecedented acceptance of the product as well as demands for more professional learning experiences and technology. Within only a few months of implementation, ACPS committed to Discovery Tech Books for Science (K–8). After educators attended preview sessions of the Discovery Tech Books during pilot testing, an astounding response to provide these tools in the classroom resulted. Again, the replacement of the actual textbook with the Tech book affords for active

updates to content as it becomes available. The pilot program in middle schools quickly moved to elementary schools as teachers not only embraced this platform but have also shown in only a few months overwhelming use in the classroom.

3. Collaborative Learning Environments – With the advent of these extensive online tools, ACPS has not committed to a 1:1 initiative but rather a collaborative-learning atmosphere for our classrooms. Students work in blended-learning groups rotating with material provided and laptops situated in these learning centers (tables) rather than at individual student desks. STEM-based learning with the Sarasota model of Tech Active Classrooms is being introduced using the Fisher and Frey's gradual release of responsibility model of instruction in targeted classrooms. Again, teachers are embracing this method of transformative learning.

Carroll County

Carroll County Public Schools has continued its close partnership with Discovery Education to bring rich and engaging multimedia content to our students and staff via Streaming Plus and the Discovery Education Science and Math Techbooks. These services were made available to our district by the Digital Innovation Grants offered by the state of Maryland. The school year 2014–2015 marked our second year using Discovery Education services, and was the first year of using the Mathematics Techbooks for our middle and high school students. To develop teacher proficiency in the use of the Mathematics Techbook, all of our secondary mathematics teaching staff and content supervisors attended two full days of professional development provided by Discovery Education. Science teachers who completed similar professional development the previous year continued to incorporate their new skills into classroom instruction, resulting in heightened engagement, motivation, and learning by students. Usage statistics for 2014–2015 show that students logged into the Science Techbook 392,000 times, while teachers logged in 61,000 times. This shows that our science students are interacting with the service far more than our teachers. The Science Techbook service has been recently aligned with the NGSS, and curriculum writers are incorporating many of the Discovery Education assets into our new and existing curriculum.

Teachers and content supervisors also took advantage of additional professional development opportunities such as STEM Curriculum Day, Streamathon, and Techbook LIVE at Discovery Ed headquarters. For the past two school years, Carroll County has held numerous offerings of the Den Ambassador program in order to fully support teachers through community and online activities as they learn how to integrate digital media and technology into their instructional practices. This program has a direct impact on students, colleagues, and administrators as the Den Ambassadors share their learning with others. Last summer we sponsored the CCPS Days of Discovery Conference, a two-day event open to all teachers and administrators that offered sessions not only on the Discovery Education services, but also on Web 2.0 tools, digital citizenship, and interactive technologies available in our classrooms.

This summer we offered a conference entitled Engaging Students with BYOD and Instructional Technology that focused on the instructional use of personal mobile devices in the classroom.

The conference proved to be exciting and motivating to the 200 teachers and administrators who attended.
In January 2015, our district rolled out Office 365 and One Drive to all staff and students. Instructional Technology staff has provided hands-on training to over 1,000 staff to orient them to these new tools. In addition, trainings were conducted in the use of OneNote as a vehicle for the development and dissemination of curricula as well as for personal productivity and classroom use.

Queen Anne's (Equitable Access)

Queen Anne's County Public Schools supports student learning by providing equitable access to the following:

· A 1:1 Chromebook initiative was initiated in grades 6–8, as highlighted in a Digital Conversion Video.
· All teachers in the county received a HP Elite Book.
· We moved the laptop carts in the middle schools to elementary and high schools due to Chromebook distribution in middle schools.
· All middle schools are demonstrating blended learning.
· We are moving forward with online testing through the Unify platform.
· Every content supervisor is currently implementing walk-throughs in the schools and providing immediate feedback.
· Forty QAC Employees just participated in "Google Boot Camp," a two-day training on Google Apps and implementing into the classroom.
· We have implemented Discovery Education Streaming in Schools—this will help to engage students with video and online teaching.

Dorchester

Dorchester County Public Schools Digital Learning

DCPS has partnered with Discovery Education (DE) to upgrade to Discovery Education Streaming Plus Digital Media for a multi-year contract. All teachers and students in grades K–12 will have access to CCSS-aligned digital content, model lessons, and digital learning tools such as board builder and quiz builder. A roll-out of Discovery Tech Books in Algebra I and middle school science classes will occur in conjunction with the Streaming Plus upgrade. These resources will allow for students to be more self-directed learners and to work with highly-engaging and rigorous material.

Through our partnership with Discovery Education, selected teachers from each school will be part of the Digital Leadership Corps (DLC). These teachers, who will apply to be part of the DLC, will receive intensive training from Discovery Education professional development consultants. Each training session will be followed by job-embedded coaching by the DE consultant. These teachers will become trainers in their schools to build capacity among the other

staff members. The first cohort of DLC teachers will begin in the fall of 2015 and will be trained over a four-year period.

Calvert

Calvert County Public Schools (CCPS) envisions a school system where learners have access to meaningful, engaging, and individualized learning environments and opportunities 24 hours a day, 7 days a week. As part of the mission to create Future Ready schools, teachers will utilize digital learning tools and resources and serve as facilitators of students' learning. Students will achieve their fullest potential through access to a robust wireless network, use a variety of digital learning mediums and devices, rich instructional experiences driven by their skills and interests, and support for learning that extends beyond the classroom.

Calvert County Public Schools is proud and pleased to be a part of the Future Ready Schools Initiative, which is a joint effort between the Alliance for Excellent Education, the U.S. Department of Education, and many other partner organizations.

As part of the Future Ready effort, Calvert County participated in a comprehensive self-assessment exercise to determine where strengths and needs in digital learning reside within the district, and the district's superintendent of schools signed the Future Ready pledge to work with stakeholders in the process.

During June, a team of six system leaders—including our superintendent, Dr. Daniel Curry—attended a two-day Future Ready Summit where they worked to create a vision, mission, and a plan of implementation for creating schools where students are not only college and career ready, but are also "future ready."

Work has continued this summer and will continue into the 2015–2016 school year and beyond as the Future Ready team continues to implement the vision, mission, goals, and associated strategies in order to guide student success in Calvert County.

Caroline County Public Schools

Caroline County Public Schools has recently created a new position that will speak to the goals outlined in the request. The Academic Technology Integration Coach (ATIC) will facilitate the professional development for instructional technology as well as guide the school system in its plan to fully equip every classroom with all of the proper technologies for that curriculum (CCPS definition of 1:1).

Educator proficiency will be overseen by the ATIC in order to either personally provide targeted training or coordinate training by other departments to ensure staff is fully prepared to effectively integrate all of the academic technology at their disposal.

Equitable access will be addressed not only by the fully equipped classroom but by the addition of learning environments such as Google Apps for Education (Google Classroom).

Baltimore County

Students and Teachers Accessing Tomorrow (S.T.A.T.)
Baltimore County Public Schools Blueprint 2.0 articulates a bold theory of action:
To equip every student with the critical 21st century skills needed to be globally competitive, BCPS must ensure that every school has an equitable, effective digital learning environment.

Students and Teachers Accessing Tomorrow (S.T.A.T.) is BCPS' innovative plan to transform all BCPS classrooms into 21st century learning environments through the implementation of individual devices for all students and teachers as well as access to personalized, interactive digital curriculum. In his 2013 State of the School address, Superintendent Dr. Dance explained, "Putting a digital device in our students' hands not only opens up endless possibilities of instructional advancement…it also levels the playing field—which is the role of public schools and the very idea of America."

Key components of S.T.A.T. include the following:

- Eight Conversions: To ensure all schools have an equitable, effective digital learning environment, eight conversions needed to occur simultaneously. The eight conversions of curriculum, instruction, assessment, organizational development, infrastructure, policy, budget, and communications reflect how all areas of the organization are moving together toward this common goal.
- Curriculum First: While technology is a cornerstone of S.T.A.T., the program is, at its core, about transforming teaching and learning. Therefore, BCPS puts curriculum first with our curriculum and instruction work guided by a Teaching and Learning Framework that integrates BCPS's vision for curriculum, the Danielson framework, and the P21 skills. BCPS has a five-year plan to revise all district curricula to match the new vision for customized and personalized learning. Drawing on best practices of backward design while also taking advantage of the affordances of technology, curriculum revision focuses on alignment to standards, the infusion of P21 skills, and the inclusion of digital options for texts, materials, activities, and assessments. Curriculum guides include a continually evolving library of professional learning resources directly embedded in the course materials.
- BCPS One: BCPS One is a fully-integrated learning management system and grade book. BCPS One is the curriculum platform wherein all curriculum and assessments are developed. It contains a repository with content from such providers as Discovery Education, National Geographic, and BrainPOP. BCPS One is a web-based platform, so students can access lessons and assignments from anywhere they have an Internet connection—even from their smart phone. Through BCPS One, educators are able to communicate classroom-level information with colleagues, leadership, parents, and students.
- Lighthouse Schools: The 2014 MD Digital Learning Innovation Grant was the springboard for the BCPS Lighthouse Schools, 10 schools that are piloting the model for 1:1 interactive and blended instruction. These Lighthouse Schools are the first in the system to receive individual

learning devices for students, implement one-to-one personalized and blended learning, and create an innovative, comprehensive digital-learning culture. Further, these Lighthouse Schools will become model demonstration sites for the scaled rollout of S.T.A.T. In September, these schools equipped every student in grades 1–3 with an HP Revolve 810. This device was selected through a thoughtful process of field testing and feedback from curriculum and instruction staff, teachers, and students.

· Professional Learning: The Office of Organizational Development, in collaboration with the Division of Curriculum Instruction, maintains and implements an ongoing organizational development plan that is driven by student evidence and considers both system needs and individual needs in delivery of professional learning. In 2014, the plan included a three-day intensive professional learning institute for Lighthouse Schools. More than 300 teachers attended the institute, with keynote speakers and breakout sessions focused on creating learner-centered environments, using digital content and tools, and using BCPS One to support instruction. Job-embedded professional learning is provided in every BCPS school through S.T.A.T. teachers, school-based instructional leaders who support the teachers and administrative team by providing a continuum of professional development experiences during the instructional transformation.

Anne Arundel County

In order to ensure that every student meets or exceeds standards as achievement gaps are eliminated, AACPS provides support and opportunities for teachers and students through the use of a variety of technology resources. Teachers have an online e-Curriculum K-12 which is accessed through Blackboard. This allows teachers to have their curriculum in real time with current updates. It also provides a platform for collaborative engagement as teachers can easily communicate, and share feedback on the use of technology with students.

AACPS has 57,500 computer devices which include 15,410 Chromebooks and iPads. These technologies provide students with daily access to resources such as Discovery Education, Online Databases, and AACPS Technology Connections that align to the Common Core State Standards.

Teachers are provided ongoing professional development on the best uses of this technology and the integration of technology through after-school workshops, in-school PD, webinars, targeted Magnet trainings, Blackboard support sites. Additionally, all AACPS schools have the support of a designed, onsite eCoach. The eCoach provides additional onsite instruction and technical assistance and coaching to their schools. Feedback forums are further set up on Blackboard for teachers and central office staff to connect. The Office of Instructional Technology provides training that aligns to the technology initiatives that support AACPS goals and Strategic Plan.

Recognizing the tenets of 21st Century learning, AACPS has adopted customized learning options. This includes online and distance learning course availability. This extends educational opportunities for students that may not be available at their home school. We have increased our presence in distance learning in both the high and middle schools and are beginning to pilot courses in the science and arts areas in addition to our distance learning math and language

courses. At this time, in fact, AACPS is piloting a virtual learning classroom at one of our high schools for online and credit recovery with classroom and teacher support.

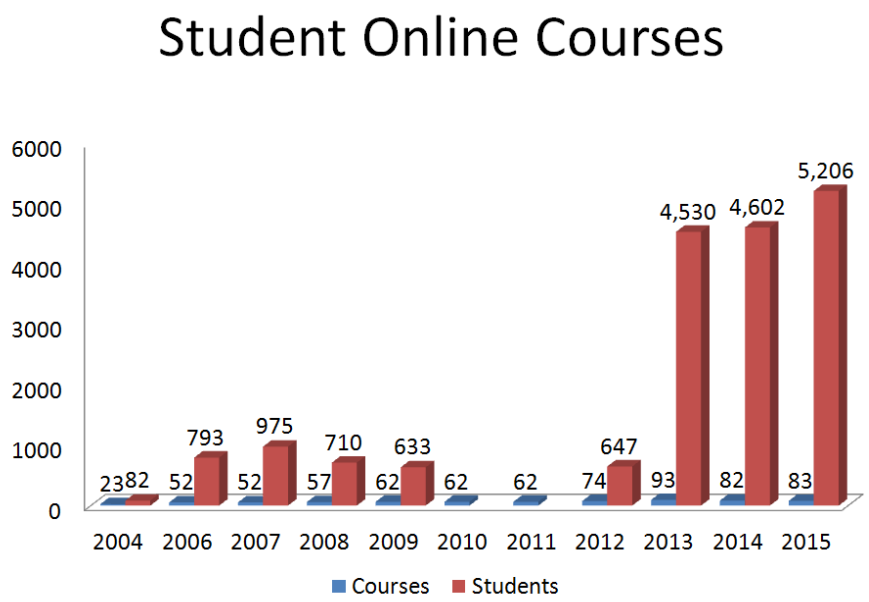
Queen Anne's County

Queen Anne's County is continuing their efforts to strive for all students to have equitable access to technology by the year 2020. The 1:1 device initiative enhances learning and transforms teaching and learning through technology. Beginning this 2015-2016 year, we will provide laptop computers to students in grades 9-12. Students in grades 5-8 have been provided Chromebooks and we continue to provide support from our IT department. The IT department provides tremendous support to over 4,800 devices and most importantly wireless in all schools in the district which allows students more access to instructional resources. We continue to use Discovery Education streaming, Techbooks and Agile Minds in many of our schools.

QAC has begun the use of Google Apps for Education to provide anytime access to learning resources. A select group of teachers, supervisors and support staff attended a 2 day training and many of our teachers have implementing it into their everyday instruction. In addition, QAC is rolling out many of their local assessments to an online platform through Unify, located in Performance Matters. With students having sufficient devices it was time to move forward with the online assessments. QAC provided a 2 day technology training rolling in to the digital conversion to over 800 staff members to support staff to use digital resources and make the transition to blended learning. In addition to the professional development, teachers are also provided a 2 in 1 computer/tablet to make the transition effective in the classroom.

Student Online Course Program

As depicted in the chart below, Maryland has witnessed a dramatic increase in student enrollment and completion of online courses over the past three years.



Although this is encouraging data, online program opportunities need to expand further. In order to accomplish this and remain in compliance with state laws and regulations, MSDE proposes the following:

1. Although online courses must be approved by MSDE, there are three pathways through which online courses may be reviewed to prepare them for final approval:

(1) local school system review;

(2) MSDE review; or

(3) review by an MSDE-approved reviewing program.

MSDE will encourage maximization of each available pathway.

2. MSDE will work with other States to identify online courses that have been approved in those States, and that meet Maryland's needs, so that those courses receive final approval from MSDE and become available to Maryland students.

3. Where course content has been reviewed by a reviewing entity other than MSDE (i.e. local school system or approved reviewing program), submission of review documentation will be required, but MSDE will not duplicate the content review process to determine final approval.

4. All accessibility reviews will occur at MSDE because its staff has the requisite knowledge of technology and web accessibility standards. Accessibility reports will be provided to each vendor indicating "approved" or "conditionally approved" status. If a course is "conditionally approved," MSDE will work with the vendor to develop a timeline for revisions and monitor progress.

5. Each reviewing entity will set its own vendor reviewing fee structure.

6. MSDE will provide a "toolkit" of resources to assist local school systems as they review course content. This "toolkit" will include rubrics, webinars, and other supporting resources to assure that local school systems review content in accordance with MSDE's criteria and guidelines.

7. MSDE will maintain a list of approved online courses that identifies the following:

(a) vendor name:

(b) course name:

(c) content reviewing entity:

(d) accessibility status; and

(e) final approval date.

8. Local school systems will have the opportunity to use any of the courses on MSDE's list of approved online courses, regardless of which entity conducted the content review.