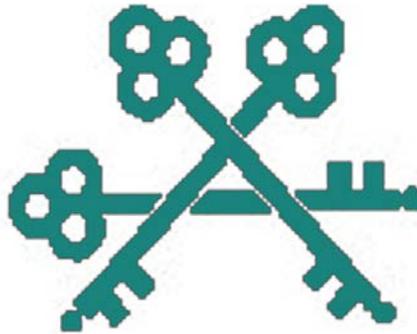


Edgecombe County Public Schools Technology Plan

2014-2016



Edgecombe County Public
SCHOOLS
THE KEYS TO SUCCESS: HOME, SCHOOL, COMMUNITY

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EDGECOMBE COUNTY PUBLIC SCHOOLS
Technology Planning Committee

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Chris Lovett	LAN/WAN Manager
Philip Lampron	21 st Century Instructional Facilitator
Lori Rollins	21 st Century Instructional Facilitator
MaryAnn Powell	Technology Facilitator
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Yanisha Mann	E. S. Principal
Lisa Howell	M. S. Principal
Marc Whichard	H. S. Principal
Jeff Gould	CTE Coordinator
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Shawna Andrews	Middle School Director
Paula Flythe	Elementary Schools Curriculum Director
Janet Morris	Accountability Director
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Heidi West	M. S. Teacher
Keith Parker	H. S. Teacher
Angela Strother	AIG Coordinator
Karen Harrington	EC Director
Laurie Leary	Chief Financial Officer
Dr. Valerie Bridges	Assistant Superintendent for EPS
Karen Dameron	Associate Superintendent for HRMS

**Edgecombe County Public Schools Technology Plan
2012-2014**

Vision Statement

The seamless use of technology into the day-to-day activities of Edgecombe County Schools (ECPS) has long been the vision of the district leadership. While there have been great strides towards this seamless goal, there is still much work at all levels to create and sustain this 21st Century environment. Each ECPS school, office and department has found itself increasingly dependent on access to technology. In order to expand and maintain its technology needs, ECPS has availed itself of funding from local, state and federal sources as well as numerous grants. The purpose of this plan is to set forth a cost-effective foundation of flexible technology, infrastructure and expert staffing to promote substantial gains in student achievement and effective business operations.

The ECPS Technology Plan has been designed to reflect North Carolina's State Board of Education's goal of Future-Ready Schools for the 21st Century. This is accomplished by aligning the goals and objectives of this plan with the NC SBE goals and objectives, the goals and objectives of Department of Public Instruction Career and College: Ready, Set, Go Race to the Top initiative, and the goals, objectives and ideals of the National Education Technology Plan.

Edgecombe County Public Schools Technology Plan
Strategic Priorities
2014 - 2016

Edgecombe County Public Schools (hereafter referred to as ECPS) intends to become a leader in North Carolina in the use of technology as instructional and administrative tools. In order to reach this desired level of infusion, issues such as infrastructure, hardware, software, district processes and procedures will need to be addressed and refined with the current environment.

ECPS has had major successes with addressing the first priority from our 2012-2014 tech plan which was to build a 21st Century technology infrastructure that will be able to be used for the foundation of necessary capacity to serve our students and administrators. ECPS has replaced most of the previously end-of-life networking infrastructure, added wireless infrastructure and the network is performing at a high level. Having a sound 21st Century infrastructure is paramount to ensuring the reliable use of 21st Century instructional tools. We will continue to add functionality and refine our network service offerings. As we continue to progress, it would be beneficial for ECPS to exploit the “Shared Services Model” to our advantage in order to provide more efficient technological services to our students and staff. We heartily welcome the NC Cloud opportunities for application, infrastructure, and connectivity sharing and the attendant savings and reliability that ensue. This model represents the boldest move yet in the business-process evolution of the Department of Public Instruction, and we intend not to miss an opportunity to play a role in this bold endeavor. This tactic should ensure a more robust toolset for our students, staff and administrators while ensuring that that this toolset is maintained and has high availability.

ECPS is currently thoroughly engaged with addressing our second priority which is to universally provide all students and staff with the devices and tools necessary for 21st Century learning. Access to personal teaching and learning devices and resources will become more attainable, in part, due to the potential cost savings, derived by our district’s participation in the shared service model, which can be leveraged for implementation of handhelds, thin clients, and other computing devices. In addition, the district will look at different tactics used to deploy tools and devices to our clients such as hosted thin clients / thin applications, hosted applications, and hosted storage environments to realize more infrastructure and licensing cost savings and parley those savings into instructional support and training.

Once infrastructure and device capabilities exist in a reliable environment, the migration from printed materials to digital learning resources would be of great benefit to the instructional ecosystem of ECPS. In order to change this paradigm to more contemporary instructional resources a significant investment into professional development must be realized with a plan for sustainment of opportunities to account for staff turnover or improvements in methodologies. Our teachers will need to be guided by the vision of universal access to the world of knowledge, project-based and virtual learning opportunities, on-line mentoring, state-provided electronic resources, ECPS-provided Schoology modules, and the NCVPS. We are committed to strengthening our efforts at continuous improvement and guidance to enable our staff to develop and evolve their instructional delivery skills as they become facilitators with their students.

Finally, there must be 21st Century leadership at ECPS to enlighten the instructional vision and constantly seek ways to be nimble enough to improve methodologies as methods or tools dictate. Efforts at creating a more cohesive district aligned for cohesive improvement are well underway this year, and part of that effort involves engaging staff from disparate schools and grade levels in a variety of recurrent professional development in Schoology course creation, data interpretation, common core and essential standards, EVAAS tools, NC Falcon, usage of interactive tools, and on-line resources, to mention a few. Professional Learning Communities are being used to lead discussions relevant to technology-infused instruction and methodologies. In addition, ECPS will continue to employ the use of school and central office staff through the ECPS Technology Advisory Committee. This Committee will assist in informing and advising the district leadership with instructional and administrative technology needs and uses. Leadership is in place to support, mentor, and encourage teachers to model facilitator leadership, to collaborate with staff and students, and to adapt and refine their instructional skills to insure that they are migrating to a new model of teaching that reflects the tenets of a 21st Century education.

Strategic Priority 1: A Statewide Shared Services Model

Essential Questions for Edgecombe County Public Schools

How will we address the current state of infrastructure to enable the use of a 21st Century Shared Services model?

How will we leverage collaborative purchasing to pay substantially less for technology services and platforms?

How can a Statewide Shared Services Model assist in shifting primary support from infrastructure to instructional needs?

How can a Statewide Shared Services Model enable increased infrastructure and technology efficiency and sustainability?

How can a Statewide Shared Services Model provide higher service reliability?

How can a Statewide Shared Services Model facilitate more strategic budgeting models for our LEA/Charter School?

Current Status and Moving Forward

ECPS has recently infused new network infrastructure that has migrated ECPS from the older technology environment that had multiple configurations, minimal security and was not reliable to a much more robust stable networking environment. This recent upgrade included leveraging funding from E-rate, Race to the Top, as well as local, state and federal funding to procure and install networking cable, electronics, wireless access points, and new DNS / DHCP servers at each site. The current environment does allow for enough capacity for current demands but will most likely need to be expanded particularly in the campus wireless areas as WIFI IP enable devices continue to become for prevalent. This will allow the safe and secure propagation of 21st wireless infrastructure that will allow for scaling as needs demand.

One overarching issue with technology deployments is the issue of funding. ECPS must be very strategic with regards to all purchases and must take a hard look at what is currently being purchased and supported. A matrix of applications and systems procured and any redundancy must be developed and maintained to determine what systems or applications are no longer in use and could be retired or funding redirected. This is a critical business process that should continue to evolve as needs demand. With this process, procurement is always an important factor in assessing implementations. As a part of a sustained funding model, the E-rate funding mechanism must be leveraged by ECPS to its fullest potential.

A Shared Services model will allow for cost savings and more robust reliability by reducing redundant processes and consolidating systems, applications, and infrastructure. ECPS will participate in Shared Services being offered by the state in application, enterprise, and network services. We look forward to leveraging the robust digital content and instructional resources that will be implemented using this shared services model through the NCDPI Home Base Solution. We are currently using the state offering for content filtering and Enterprise Firewall services. We may also work with private companies to obtain software, platforms, or infrastructure as a service.

In April of 2011, the ECPS technology department completed its first large-scale cloud service implementation by transitioning from a self-hosted e-mail application to Google Apps for Education. This enabled the district to re-deploy the de-commissioned e-mail hosting server for other purposes. We plan to further this cloud hosted email opportunity by providing hosted email accounts to our student population. This will allow for more collaboration for instructional use by our students. The district had already transitioned to a hosted web site four years ago.

Some application areas that we are currently considering include moving from a site-based AS400 server for financials and HRMS to a hosted solution, adopting the state's new learning management systems as they become viable, and deployment of hosted virtual desktops.

Some enterprise services that would be beneficial to ECPS might include off-site storage, directory services, data centers, and virtual servers. Purchasing virtual server space from MCNC would allow ECPS to reduce its physical servers and the concomitant support needed for each of them. This will allow us to provide higher service reliability because hosted virtual servers will be located in true data centers with reliable and consistent power, adequate cooling, distributed data backups, and secure environments.

Once we have the proper infrastructure to leverage content from outside sources reliably, these cloud-based services have budgetary planning benefits as well. The act of budgeting for services, whether application, network or infrastructure, can be more consistent due to service level agreements and more predictable than budgeting for equipment. This will however lead to a paradigm shift for Edgecombe County Public Schools as we start to think of some technology services in terms of annualized Operational expenditures verses the traditional terms of Capitalized expenditures.

Alignment to Other Plans and Initiatives:**Strategic Priority 1: A Statewide Shared Services Model**

Edgecombe County Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

By participating in the Shared Services model offerings, Edgecombe County Public Schools will better prepare for the transition to on-line assessments, digital textbooks, and access to personal teaching devices.

Career and College Ready, Set, Go!

Implement Reading 3D using hand held technology that allows teachers to check each child's reading growth. Put more technology into the hands of students and teachers to increase individualized learning options.

Race to the Top Local and State Scopes of Work

Objective (A)(2) 1.1: Incorporate the state infrastructure blueprint into technology plans.

Objective (A)(2) 2.1: Implement the infrastructure blueprint.

Objective (A)(2) 3.1: Provide and support student, teacher, administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.

Other LEA initiatives/plans**Home Base Implementation**

ECPS will utilize the components of Home Base to increase teaching and learning.....

Other LEA initiatives/plans**Other LEA initiatives/plans**

1. Statewide Shared Services Model

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Method(s)	DPI Use
Provide equitable and additional access to mobile devices and digital resources	Provide a robust support and sustainability plan for the ECPS 1:1 implementation to deploy at least cart of Google	Continue acquisition of mobile devices for middle and elementary students and staff.	Purchase Order Deployment plan of Mobile Labs	

Chromebooks for each Classroom 3-12.

Purchasing agent, directors, school admins.

Technology Department

Provide equitable and additional access to mobile devices and digital resources

Provide a procurement plan for personal digital learning devices along with vetted digital content targeted for k-2 instruction.

Continue acquisition of personal devices and content for k-2 elementary students and staff.

Purchase Order Deployment plan of Mobile Labs

Technology Department; EPS Directors; Finance

Technology Department Finance

Provide equitable and additional access to mobile devices and digital resources

Provide a procurement plan for robust elementary school teacher devices for each Elementary School teacher.

Continue to evolve the support plan of all ECPS Teacher devices with yearly updates and or edits.

1:1 Support Plan Logs from Ticketing system

Technology Department Finance

Technology Department Finance

Provide equitable and additional access to digital resources

Provide a plan to Continue to expand the teacher and student digital toolboxes to include more cataloged and searchable digital learning materials as well as leverage those provided by NCDPI as part of HOME BASE.

Continue to extend the use, scope and staff training of Google Education products within our classroom. Provide means to create a capacity for Google certified teachers who are subject level experts in each school.

Application reports; LoFTI

		Tech. dept.; tech. facilitators	
	Tech. dept.; tech. facilitators; Directors		
Facilitate a more strategic budgeting model utilizing blended funding and reducing isolated programmatic spending	Meet regularly with all departments, ECPS Principals and the ECPS Technology Advisory Council through the individual meetings as well as organized formal meetings coordinate identification of needs and funding sources.	Work with directors continually to plan funding for technology. Develop Cost Analysis Data for current and future Technology purchases.	Meeting notes ECPS Technology Costs Analysis Plan
Maximize E-rate in support of instructional programs	ECPS directors, ECPS Principals, tech. dir. ECPS will use E-rate applications to continue to improve network infrastructure as necessary to deliver 21 st Century learning such as DNS / DHCP Servers, Telephony services and equipment, Wireless network equipment and the necessary networking and cable infrastructure that is needed to deploy those base services	Finance, ECPS directors, Principals, tech. dir ECPS will use E-rate applications to continue to improve network infrastructure as necessary to deliver 21 st Century learning such as DNS / DHCP Servers, Telephony services and equipment, Wireless network equipment and the necessary networking and cable infrastructure that is needed to deploy those base services	E-rate applications
	Tech. Dept.	Tech Director	
Provide content filtering in accordance with the Children's Internet Protection Act (CIPA).	Provide a plan to enhance the security of all devices to employ the NCEdCloud content filtering, antivirus/spyware protection	Continue NCEdCloud content filtering solutions and g/w antivirus/spyware protection.	MoU Agreement Content Filter Reporting

	Tech. dept.	Tech. dept.	
Maximize E-rate in support of telecommunications	Provide cell service/phones for buses, nurses, social workers, admins. & other support personnel	Provide cell phones for buses, nurses, social workers, admins. & other support personnel	E-rate applications
	Tech. dept.	Tech. dept.	
Maximize E-rate in support of telecommunications	Update telephone systems in schools as needed	Update telephone systems in schools as needed	E-rate applications
	Tech. Dept.	Tech. Dept.	
Maximize E-rate in support of telecommunications	Continue funding for land-line telephone services	Continue funding for land-line telephone services	E-rate applications
	Tech. dept.	Tech. dept.	
Maximize E-rate in support of telecommunications and instructional programs	Provide LAN/WAN services	Provide LAN/WAN services	E-rate applications;
	Tech. dept., MCNC-NCREN	Tech. dept., MCNC-NCREN	agreement with NCREN
Maximize E-rate in support of Internet Access	Provide web hosting services	Provide web hosting services	E-rate applications
	Tech. dept.	Tech. dept.	
Maximize E-rate in support of instructional programs	Continue to seek Priority 1 and Priority 2 services in support of the instruction of the students of Edgecombe Public Schools	Continue to seek Priority 1, Priority 2 services, and other E-rate services	E-rate applications
Incorporate and implement the state infrastructure blueprint.	ECPS will implement the state's blueprint when available.	ECPS will implement the state's blueprint when available.	RttT eval. data
	Tech. dept.	Tech. dept.	

Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices

Essential Questions

What is universal access to personal teaching and learning devices?

Why do our teachers and students need access to personal teaching and learning devices?

How will we provide ample access to individual teaching and learning devices?

What models can be used for implementing universal access to personal teaching and learning devices in our LEA?

Current Status and Moving Forward

It is a reality of 21st Century life that technology surrounds all ages in virtually all environments. It is also true that technology is becoming smaller, less expensive and highly portable. Students frequently arrive at the school door with more technology devices in their backpacks than they will be exposed to once in the classroom. The students of the 21st Century are digital natives and have had access to computers, e-mail, and countless other examples of technology since they were born. The ease with which they are able to use technology has allowed them to express themselves in a wide variety of ways using sites such as Facebook, YouTube, Twitter, and more. Teachers must learn to stay current with the technology trends that their students use in order to stake a more equitable claim for their attention and their creativity. Of course, one cannot expect teachers to become as familiar with technology as their students overnight . . . it takes time, perseverance, and a great deal of patience. In addition, these teachers will require continuous and rigorous professional development in order to become adept in the use of their laptops and the technology tools they use. In many cases, teachers and students may currently have to “gear down” from this highly collaborative technology infused personal environment once they get to the classrooms of Edgecombe County Public Schools. Universal Access would tear down some of the barriers that currently exist and allow more complete access to these tools and resources.

Universal access to personal teaching and learning devices refers to a computing device available to all members of the school, including administrators, teachers, and students. While this has most often been referred to as "a laptop for every child" or a one-to-one laptop implementation, today's mobile technologies mean that a laptop is only one option as a personal learning device. While a digital learning device can be a powerful learning tool when not connected to the school or home network, the true potential is realized when network/internet connectivity is consistently available.

Much research has been commissioned and completed on the outcomes and effectiveness of one-to-one implementations of personal teaching and learning devices. Results show that in an effective universal access environment:

- Students tend to be more engaged in schools that have implemented one-to-one initiatives (Bebell & Kay).
- In schools that have implemented one-to-one programs, teacher and student use of technology increases dramatically across the curriculum (Bebell & Kay).

- “Students become better researchers, have access to ‘expanded’ classroom, and benefit from systemic and ubiquitous use of technology, as opposed to idiosyncratic and sporadic use of technology” (Bebell & O’Dwyer).
- Students become better collaborators (Bebell & Kay).
- Teaching fundamentally shifts, in particular, teaching strategies, curriculum delivery, and classroom management (Bebell & Kay).
- Student achievement is positively affected, especially in reading and math (Shapely et al).
- “Technology immersion requires a comprehensive approach that transforms the school culture, changes the nature of teaching and learning, and expands the education boundaries of the schools and classrooms.” (Shapely et al).
- Professional development is the keystone to successful implementation (Drayton et al).

Clearly, one-to-one personal teaching and learning device implementations can greatly foster the 21st Century skills necessary for future-ready learners.

Another driving force that supports the critical need for Edgecombe County Public Schools to strive for one-to-one personal teaching and learning device implementations is the increased prevalence of online assessments. North Carolina is a governing member of the Smarter Balanced Assessment Consortium (SBAC). In September 2010, the SBAC was awarded a \$160 million RttT grant to develop student assessments aligned with the Common Core academic standards. The consortia members are able to work together to develop a common, next-generation assessment system that would simply not be economically feasible to build individually, because the SBAC is a consortium of 31 states (as of December, 2010). These state-of-the-art adaptive assessments will be built upon "open source" technology, and will be delivered entirely online. The core components of these summative assessments:

- Are mandatory comprehensive accountability measures that include computer adaptive assessments and performance tasks and will be administered in the last 12 weeks of the school year in grades 3–8 and high school for English Language Arts (ELA) and mathematics;
- Are designed to provide valid, reliable, and fair measures of students’ progress toward and attainment of the knowledge and skills required to be college and career ready;
- Will capitalize on the strengths of computer adaptive testing, i.e., efficient and precise measurement across the full range of achievement and quick turnaround of results;
- Will produce composite content area scores, based on the computer-adaptive items and performance tasks;
- Offer varied item types on assessments, including selected-response, constructed response, and technology-enhanced responses.

As assessment becomes technology-enabled and moves to online administration, so must teaching and learning activities. It is nonsensical to expect a student to do well on online assessments at the end of a course or grading period if that student has not had ongoing technology-integrated, online learning activities throughout the course of study. Simply stated, students should learn in the way they are assessed, and assessed in the way they have learned. Technology must be an integral element of teaching and learning from start to finish.

ECPS continues to increase the amount of highly portable devices for student and teacher use with plans to add more than 4500 devices to its inventory during 2014. Through the passes of our newly adopted Network Use Policy, Students and staff are also allowed to bring their personal computing devices to school. This model will increase access to digital content and effective teaching tools such as those offered through the NCDPI HOME BASE portal and has been manageable with the new network infrastructure is in place at ECPS.

Alignment to Other Plans and Initiatives:

Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices

Edgecombe County Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Career and College Ready, Set, Go!

Increase virtual learning opportunities so every child no matter where they live can reach his or her potential

Put more technology into the hands of students and teachers to increase individualized learning options

Develop more Science Technology Engineering and Mathematics (STEM) initiatives

Race to the Top Local and State Scopes of Work

Objective (A)(2) 1.1: Incorporate the state infrastructure blueprint into technology plans.

Objective (A)(2) 2.1: Implement the infrastructure blueprint.

Objective (A)(2) 3.1: Provide and support student, teacher, administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.

Objective (C)(3) 1.2: Utilize LEA/Charter and school technology funds to enhance school and LEA/Charter technology infrastructure to facilitate online real-time assessments at each school.

Objective D(5) 1.1: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives.

Other LEA initiatives/plans

ECPS Four-Year Strategic Plan—Goal 1: ECPS will produce globally competitive students.

Other LEA initiatives/plans

Home Base Implementation

ECPS will utilize the components of Home Base to increase teaching and learning.....

Other LEA initiatives/plans

Priority 2: Universal Access to Personal Teaching and Learning Devices

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Method(s)	DPI Use
Increase overall access to personal learning devices	Develop a Technology Funding Sustainment Plan that will explore the business cases of different procurement methodologies for devices for ECPS staff and Students. This will include leveraging the digital content and resources available through free or reduced cost shared services models such as the NCDPI HOME BASE	Continue to evolve / update the plan as new funding opportunities develop or costing changes.	Technology Funding Plan Meeting Notes	
Communicate your plan to all stakeholders.	Present to DLT, BoE. Continue Conversations with TAC members at the schools and BOE to continue to evolve the Plan as needs within the community arise. Post link to working plan on district web site Assist. superintendent for EPS; EPS dirs.	Continue to Communicate with Stakeholders to account for implementation and potential revisions in the plan. Assist. superintendent for EPS; EPS dirs.	Agendas; Notes from TAC meetings; BoE minutes; web page	

Increase overall access to personal learning devices.

Provide a plan of evaluating digital content and apps for a personal learning device to be used for k-2.

Provide a sustained digital content delivery system for our k-2 digital personal learning devices.

Purchase orders;
STNA

School admins., tech. dept., EPS
dirs.

School admins., tech. dept., EPS
dirs.



Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Essential Questions

What are digital teaching and learning resources? What are digital textbooks?

Why do teachers and students need access to digital teaching and learning devices?

What are the benefits of digital textbooks?

What are open educational resources and how can they be used?

How can access to these resources be increased in our LEA?

Current Status and Moving Forward

Providing a digital teaching or learning device is only the beginning of today's educational journey. While productivity suites, like Microsoft Office, Apple iWork, or open source OpenOffice, are key tools to use for preparing reports, creating presentations, or developing spreadsheets, providing these tools alone limits technology's power and potential. The true power of technology in the hands of ECPS teachers and learners is unlocked by the adequate access and proper use of digital resources.

The digital resources of years past relied upon CD-ROMs or applications and data loaded locally on internal hard drives. Today's digital teaching and learning resources are delivered by the Internet, either via the web or as an educational application on portable media devices, interactive tablets, and smart phones. Digital resources are provided in a variety of online formats: encyclopedias, catalogs of multimedia assets, periodicals, collaborative tools, etc.

North Carolina's digital online teaching and learning resource repository, NC WiseOwl, provides free online resources available to CCS students and staff. The NC WiseOwl program ensures that all students have access to quality research tools, periodicals, and curriculum support materials regardless of the economic status of their local school districts. All of the reference sources on WiseOwl are available for student and parent use at home, as well as at school. Because the WiseOwl offerings are procured and managed at the state level for the benefit of LEAs and schools, economy of scale drives the price models lower, and saves both the state and CCS critical funds. Likewise, the University of North Carolina's LearnNC is a repository of learning resources and professional development opportunities.

Digital resources have a distinct advantage over print resources in that they have the capability to be continuously updated. Many textbooks are already outdated by the time they have been written, reviewed, published and distributed. Up-to-date information is particularly important in addressing the global literacy required in North Carolina's new essential standards.

Additionally, the traditional textbook model is fixed with little or no room for differentiation to meet the individual needs of students. Appropriately selected and deployed digital resources make differentiation a reality. Simply stated, digital textbooks and resources allow both teachers and learners to "re-mix" content in ways that provide differentiation for all students and promote a cross-curricular approach to instruction and learning.

Hindering the adoption of digital resources in the past has been the cost of such resources. While there are myriad free resources available, the ones rich in content and grounded in educational research are usually available on a subscription basis. The NC Education Cloud may be able to use economies of scale to help reduce the costs of digital subscriptions. ECPS should strategically look to leverage the NC Education Cloud as well as local, state and federal funding sources to investigate purchases of district-wide licenses for rich instructional content. Currently some schools pay for site licenses for school-specific programs, but a strategic approach to district implementations could provide a cohesive toolset and potentially provide cost savings and the economies of scale and the economies of effort would be realized. ECPS will continue to look to the evolution of these services such as the implementation of the NCDPI HOME BASE as a resource multiplier for services that will might struggle to implement or procure on our own.

ECPS students have taken advantage of the opportunities offered by the North Carolina Virtual Public School (NCVPS). These online classes have expanded offerings for students, enabling them to enroll in courses not offered in their home schools. While these classes were initially offered at no cost to ECPS, the district now participates in aggregate funding with other LEAs.

As ECPS embarks on the journey of more digital content, it will be essential for continuing conversations between schools and district office personnel to be frequent and rich with ideas of how to best utilize these resources. As the ECPS Technology Advisory Committee informs the various ECPS stakeholders about the digital resources and needs a set of best practices should rapidly develop to be captured for others to benefit from. This ongoing conversation / collaboration will be an essential element in ensuring that digital content and 21st Century methodologies are being used to the fullest extent in ECPS.

Alignment to Other Plans and Initiatives:

Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Edgecombe County Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Career and College Ready, Set, Go!

Race to the Top Local and State Scopes of Work

Objective (A)(2) 3.1: Provide and support student, teacher, administrator access to Learner Management System, Learning Object Repository, and web collaboration tools

Objective (B)(3) 1.1: Ensure teachers and staff understand the new Standard Course of Study, including the Common Core and Essential Standards, and related assessments.

Other LEA initiatives/plans

ECPS Four-Year Strategic Plan

Other LEA initiatives/plans

Home Base Implementation

ECPS will utilize the components of Home Base to increase teaching and learning.....

Other LEA initiatives/plans

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Yearly Evaluation		Evaluation Methods(s)	DPI Use
	Year 1 July 1, 2014 – June 30, 2015	Year 2 July 1, 2015 – June 30, 2016		
Shift from traditional print and paper-based resources to affordable, current online resources	Develop a strategic plan for enhancing core subjects with on-line resources while researching the best content strategies of	Develop Plan for enhancing core subjects with digital content while researching a move to digital resources in lieu of textbooks.	Budget savings, purchase orders	

procuring digital content in lieu of textbooks.

EPS; school admins.; teacher representatives

EPS; school admins.; teacher representatives

Develop an evaluation of free and procured content and delivery systems including HomeBase resources as well as paid for implementations of similar products.

Develop an evaluation plan that is immediately focused on already available digital resources though HOME BASE and the procured resources that are offered.

Refine our evaluation and re-evaluation of content and application usage and procurement.

Application Evaluation Plan
NCDPI HOME BASE Use Logs

EPS Directors, Tech Director, Tech. facilitators

EPS Directors, Tech Director, Tech. facilitators

Develop a transition / implementation plan for use of the non- required HomeBase Applications that have been evaluated and adopted by ECPS for use by our staff and students.

Use the Evaluation Plan to Develop an implantation plan that would implement the Products using a priority and timeline that would make the best use of ECPS Procurement dollars and staff capacity.

Refine our evaluation and implementation plan as products evolve and are transitioned / retired.

Application Evaluation Plan
HOMEBASE Implementation Plan

EPS Directors, Tech Director, Tech. facilitators

EPS Directors, Tech Director, Tech. facilitators

NCDPI HOME BASE Use Logs

Utilize procured resources such as NC WiseOwl, Home Base and other open education resources

Develop a Staff PD implementation plan that is immediately focused on already freely available digital resources such as (but not limited to) NCWISEOWL and HOME BASE.

ECPS will take advantage of digital resources provided by the NCDPI HOME BASE as it continues to evolve into classroom use.

Professional Development Plan

NCDPI HOME BASE Use Logs

EPS Directors, Tech Director,
Tech. facilitators

Use digital content aligned specifically to Common Core and NC Essential Standards

Continued use of SAS Curriculum Pathways in grades 8-12 (ECPS Strategic plan, goal 1, obj. 2.)

Principals; curriculum directors

SAS usage logs and or Content Filter logs

Principals; curriculum directors

Use digital content aligned specifically NC Essential Standards to comply with new CIPA guidelines for teaching students about appropriate on-line behaviors.

Adopt and deliver CIPA required student curriculum to all staff and students.

Continue to deliver CyberSmart curriculum to staff and students.

LoFTI; PD evals.
Gaggle Usage Logs

EPS dirs.; tech. facilitators

EPS dirs.; tech. facilitators

Every student's achievement is measured with an assessment system that informs instruction and evaluates knowledge, skills, and performance, thus eliminating the achievement gap.

- Implementation/continuation of formative assessments
- Continued use of ClassScape / HOME BASE SchoolNet in development of common assessments
- Reading 3D, (K-3 at all elementary schools and K-5 at 3 schools)

- Implementation/continuation of formative assessments
- Continued use of ClassScape / HOME BASE SchoolNet in development of common assessments
- Reading 3D, (K-5 at all elementary schools)

ClassScape and NC NCDPI HOME BASE reports
Network monitoring reports
Reading 3D Reports

EPS directors; EPS coaches

EPS directors; EPS coaches

Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development

Essential Questions

What skills are needed to transition to digital teaching and learning resources?

How can these skills be delivered and sustained to our LEA teachers and administrators?

How do teachers, administrators, and staff work with colleagues to guide our LEA toward more effective uses of 21st Century tools for teaching, learning, and managing instruction?

How are teachers, administrators, and staff prepared to understand, implement, and assess the span of skills and processes that students need to succeed in the 21st Century?

How are teachers, administrators, and staff prepared to apply 21st Century assessment systems to inform instruction and measure 21st Century knowledge, skills, performance, and dispositions?

Current Status and Moving Forward

There is compelling research that indicates that the quality of teachers has an impact on student learning and achievement. In a longitudinal analysis of student achievement in the Tennessee school system, Wright, Horn, and Sanders (1997) found that the more effective teachers had the most significant impact on student achievement as determined by standardized tests.

Furthermore, the states that continue to have the highest student test scores in mathematics and reading are states that have made the most substantial investment in creating and retaining a highly qualified teacher workforce (Darling-Hammond, 1999). Clearly, a shift toward technology-enabled instruction using ubiquitous technology and digital resources requires retooling many ECPS teachers with new approaches to instruction.

As more technology becomes part of the K12 environment, the need for knowledgeable teachers to use these tools appropriately and effectively becomes paramount. Technology professional development no longer means learning technology “skills” in isolation. A more integrated approach must be used in order for teachers to better understand the application of technology skills in the delivery of instruction.

As experts in information and instructional technology, the media coordinators and instructional technology facilitators in schools must provide the first level of professional development in integrating these skills into all curricular areas. Because the individuals in these roles cannot be in every classroom on a campus at once, classroom teachers, through both planned and just-in-time professional development opportunities, must be trained to support the integration of information and technology standards into their own instruction. ECPS media coordinators and instructional technology facilitators can provide a substantial part of this critical professional development role.

ECPS is committed to insuring that all staff has the training they need to use the resources available to them as they morph into the age of digital instruction. ECPS has recently engaged

the Friday Institute to help guide our Professional Development with regards to digital learning. We are well on the way of training an initial cohort of lead teachers to assist in training our staff in the TPACK model of technology integrated learning. As school wide capacities are built, we believe that as a district we will move forward to more relevant and engaging teaching and learning models. We will sustain this paradigm shift by incorporating the relevant professional development into our new teacher orientation for new staff. We will use a hybrid of approaches to deliver this staff development as we continue to move our staff development model to a more asynchronous online modality.

To complement our move to online professional development, The Instructional Improvement System (NCDPI HOME BASE) provided through RttT funding, will house a comprehensive professional development program. ECPS staff must help teachers select modules that best align with their individual growth plans and facilitate continued learning and growth.

Alignment to Other Plans and Initiatives:

Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development

Edgecombe County Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Career and College Ready, Set, Go!

Race to the Top Local and State Scopes of Work

Objective (A)(2) 3.1: Provide and support student, teacher, administrator access to Learner Management System, Learning Object Repository, and web collaboration tools.

Objective (A)(2) EVAL 1.1: Participate in the evaluation of the RttT initiatives and use the resulting evaluation data and conclusions to improve effectiveness.

Objective (B)(3) 1.1: Ensure teachers and staff understand the new Standard Course of Study, including the Common Core and Essential Standards, and related assessments.

Objective (C)(2) 1.1: Complete a unified strategic plan for the LEA/Charter that utilizes data to determine priority goals and activities, and set targets for performance.

Objective (C)(3) 1.1: Create a transition plan for schools and LEAs to begin using the online NCDPI HOME BASE for the 2012-2013 school year.

Objective (C)(3) 1.3: Designate current staff to help educators utilize EVAAS and assessment data for instructional and program decision-making.

Objective (C)(3) 1.4: Work as partners with DPI staff to incorporate the NCDPI HOME BASE into the daily operational aspects of school.

Objective D(5) 1.1: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives.

Objective D(5) 1.2: Measure, evaluate and improve professional development and support.

Other LEA initiatives/plans

ECPS Four-Year Strategic Plan—Goal 2: ECPS will be led by 21st Century professionals.

Other LEA initiatives/plans

Home Base Implementation

ECPS will utilize the components of Home Base to increase teaching and learning.....

Other LEA initiatives/plans

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Method(s)	DPI Use
Implement a plan for embedded technology-enabled professional development for teachers and administrators.	Develop a district professional Development plan. Superintendent; assoc. and assist. superintendents; directors; school leaders	Update district professional development plan. Superintendent; assoc. and assist. superintendents; directors; school leaders	Professional Development Plan	
Complete a unified strategic plan which utilizes data to determine priority goals and activities and set targets for performance	July 2014: Strategic plan will be revisited with current data driving decision making and priority setting Board of Education, Superintendent, C.O. Cabinet, Directors, Principals, District Coaches (DST Transformation Staff)	July 2015: Strategic plan will be revisited with current data driving decision making and priority setting BoE, superintendent, C.O. cabinet, directors, principals, district coaches (DST transformation staff)	Strategic Plan for ECPS. Progress reports presented to the BoE biannually	
Prepare staff for online assessment delivery.	Training in use of on-line assessment systems; Use of Wireless Generation’s Reading 3D program EPS dirs. DPI staff; testing	Continue to train staff to use On-Line Assessment systems as well as the Wireless Generation’s Reading 3D program EPS dirs. DPI staff; testing	Professional development plans/outlines/agendas with proof of completion such as sign-in sheets	

facilitators; tech. facilitators

facilitators; tech. facilitators

Prepare students for online assessment delivery.

Refine an implementation plan that includes a timeline for delivery.

Refine the implementation plan.

Deployed implementation with signoff from directors and Testing Facilitators.

EPS dirs.; testing facilitators

EPS dirs.; testing facilitators

Provide support for teacher and administrator progress and evaluation according to standards.

Attend RttT Institutes and then hold regular training sessions in use of teacher and administrator instruments

Continue to attend regular scheduled RttT Institutes and then hold regular training sessions in use of teacher and administrator instruments

Professional development plans/outlines/agendas with proof of completion such as sign-in sheets

EPS dirs., HRMS staff

Create a sustainability training plan for schools and staff to effectively use the online NCDPI HOME BASE.

Train school leaders and school teachers on the use of the NCDPI HOME BASE system and its use in informing instruction, planning, and student learning.

100% of teachers will have access to and use the NCDPI HOME BASE.

Professional development plans/outlines/agendas with proof of completion such as sign-in sheets

EPS dirs., HRMS staff

<p>Provide anytime anywhere access to digital learning resources and professional development to All Instructional Staff</p>	<p>Provide training to ECPS Instructional staff using a modality that will allow for anytime anywhere professional development that is searchable and customizable for each teacher.</p> <p>NCDPI district and school transformation team, NCDPI PD leads ECPS Staff</p>	<p>Provide in-house, real-time and asynchronous training through webinars, hands-on, videoconference, and Learning Management Systems to all staff for basic and intermediate job-related digital teaching and learning skills.</p> <p>NCDPI district and school transformation team, NCDPI PD leads ECPS Staff</p>	<p>Professional development plans/outlines/agendas with proof of completion such as sign-in sheets</p>
<p>Every teacher and administrator will use assessment systems to inform instruction to measure knowledge, skills, performance, and dispositions by the end of 2013</p>	<p>Completion / sustainment of NC Home Base during PLCs to implement and use formative assessments to drive instruction</p> <p>Implement a District Benchmarking system that allows for online delivery of assessments</p> <p>Curriculum Directors, Accountability dir., CTE coordinator, tech. facilitators</p>	<p>Continue to deploy training for new staff members of NC Home Base during PLCs to implement and use formative assessments to drive instruction</p> <p>Implement a District Benchmarking system that allows for online delivery of assessments</p> <p>Curriculum Directors, Accountability dir., CTE coordinator, tech. facilitators</p>	<p>Professional development plans/outlines/agendas with proof of completion such as sign-in sheets</p>

Strategic Priority 5: 21st Century Leadership for All Schools and Districts

Essential Questions

Are your LEA/Charter leaders prepared to lead and create a vision for 21st Century education?

Are mechanisms in place for school leaders to create 21st Century learning cultures?

Are professional growth programs/opportunities available to prepare teachers and administrators to lead 21st Century learning environments?

Current Status/Moving Forward

Over a decade into the 21st Century, many educators still wonder, "What is a 21st Century education?" Or, "What are 21st Century skills?" Although it is clear from reports and resources published by educational groups like the CEO Forum on Education & Technology and the Partnership for 21st Century Skills, that 21st Century classrooms staffed with 21st Century teachers are required to produce 21st Century students, much work is yet to be done to define and realize these classrooms. It is the responsibility of leadership at all levels in Edgecombe County Schools to define, implement, and evaluate 21st Century learning.

Creating 21st Century learning environments is not about investing only in technology but also investing in people and creating a culture appropriate for 21st Century learning. As Michael Fullan (2001) points out, leading in a culture of change does not mean placing new individuals into unchanged environments. Fullan states, "change is a process, not an event."

Currently, the district is planning and implementing professional growth opportunities to prepare teachers and administrators to lead 21st Century learning environments. Teachers/administrators are participating in professional development targeted at digital learning, literacy instruction, guided reading, Daily 5, and Data Use training to name a few. Professional development programs are aligned to district needs assessment and school-level concerns.

Although Edgecombe County Schools has laid the foundation for 21st Century learning by establishing and maintaining technology programs in its schools, there is still more to accomplish. Twenty-first Century skills encompass much more than technology tools; they also include collaboration, communication, creativity and critical thinking. Twenty-first Century learning environments require a complete shift in the way teachers approach the art of teaching and in the way students experience learning

Focused professional development is required to ensure that teachers understand what is required of 21st Century educators. ECPS leadership should:

- Continue to promote the ISTE NETS (International Society for Technology in Education National Educational Technology Standards) for all educators.
- Create avenues for developing the skills of administrators to facilitate teaching, learning, and working in a 21st Century education environment.
- Understand and establish policies and procedures that support 21st Century work and learning environments.
- Develop appropriate accountability tools and assessment measures for 21st Century learning environments.
- Develop performance management processes and tools from hiring to retirement that reward and maximize the productivity and continuous improvement appropriate for 21st Century work environments.
- Establish processes and management techniques (i.e., scheduling, meeting facilitation, and shared decision-making) that allow educators to collaborate and work as a team in a technology-enabled environment.
- Learn the tools for planning and implementing change in a manner that minimizes resistance and increases participation of the education workforce in the move to a 21st Century learning environment.
- Determine and promote techniques and practices for transforming the interpersonal skills necessary to nurture and grow productive and balanced workplace relationships in virtual, high-technology environments.

Through process such as those listed above, ECPS classrooms will reflect the 4Cs identified by the Partnership for 21st Century Skills as being essential in today's learning environment. CCS students will collaborate, communicate, think creatively and think critically as we move towards our district motto of Focused, Connected, Ready!!

Alignment to Other Plans and Initiatives:

Strategic Priority 5: 21st Century Leadership for All Schools and Districts

Edgecombe County Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Career and College Ready, Set, Go!

Implement a Leadership Academy -schools need good leaders who know how to motivate teachers and students and data to make good decision.

Adopt the Common Core national standards: PK-12.

Race to the Top Local and State Scopes of Work

Objective (D)(1) 1.1: Recruit individuals to teach in high-need schools in rural and urban areas utilizing school/university partnerships.

Objective (D)(1) 1.2: Use alternative routes to administrator and teacher certification with fidelity.

Objective (D)(1) 2.1: Address areas of teacher shortage.

Objective (D)(2) 1.1: Utilize the evaluation tool and process as a primary factor in teacher and principal development plans and decisions related to promotion, retention and removal.

Objective (D)(2) 1.2: Provide evaluation results to the State by submitting summary ratings.

Objective (D)(2) 2.1: Integrate student growth data into teacher and principal evaluations.

Objective (D)(3) 1.1: Identify and select highly-qualified candidates to participate in regional leadership academies.

Objective (D)(3) 2.1: Recruit and increase the concentration of highly-effective teachers and leaders in high need schools

Objective (D)(3) 2.2: Forecast hiring needs and use succession planning to identify candidates for school leadership positions.

Objective D(4) 2.1: Provide feedback for preparation, certification and alternative licensure programs

Objective D(4) 2.2 : Establish communication process with regional preparation programs to strengthen programs and increase success of first-year educators.

Objective D(4).2.3: Establish or extend existing partnerships with North Carolina colleges and universities.

Objective D(5) 1.1: Provide access to effective, high-quality, job-embedded, data-informed professional development and support for educators with objectives aligned to the Race to the Top Initiatives.

Objective D(5) 1.2: Measure, evaluate and improve professional development and support.

Objective (E)(2) 1.1: Implement one of the U.S. Department of Education's four models in each of their lowest-achieving schools: turnaround, restart, closure, or transformation.

Objective (E)(2) 1.2: Engage in NC Comprehensive Needs Assessment, Leadership and Instructional Coaching, Professional Development, change plan and implementation map.

Objective (P)(2) 1.1: Provide curriculum support in new standards and use available data to place students in the most appropriate and rigorous science and math courses.

Other LEA initiatives/plans

ECPS Four-Year Strategic Plan—Goal 4: Leadership will guide innovation in ECPS.

Other LEA initiatives/plans

Home Base Implementation

ECPS will utilize the components of Home Base to increase teaching and learning.....

Other LEA initiatives/plans

5: 21st Century Leadership for All Schools and Districts

Suggested Goals/Targets	Year 1		Yearly Evaluation	
	July 1, 2014 – June 30, 2015	July 1, 2015 – June 30, 2016	Evaluation Method(s)	DPI Use
Create and lead a vision for 21st Century education	Incorporate vision into Modified Strategic Plan; PLCs; Leadership academy Superintendent, Asst. superintendent; dirs.; site admins.	Modified Strategic Plan; PLCs; Leadership academy Superintendent, Asst. superintendent; dirs.; site admins.	Professional development plans/outlines/agendas with proof of completion such as sign-in sheets	
Create 21st Century learning cultures	Organize a beginning teacher retreat around 21 st Century teaching and learning with university support. Work with ECU and other universities for	Hold a beginning teacher retreat around 21 st Century teaching and learning university support. Work with ECU and other universities for IHE mentor	Professional development plans/outlines/agendas with proof of completion such as	

	IHE mentor support.	support.	sign-in sheets
	H.R. dept. personnel; IHE staff	H.R. dept. personnel; IHE staff	
Prepare teachers and administrators to lead 21st Century learning environments	Participate in opportunities from partnering entities to identify and select teachers to participate in leadership programs (1 per year)	Participate in opportunities from partnering entities to identify and select teachers to participate in leadership programs. (1 per year)	Professional development plans/outlines/agendas with proof of completion such as sign-in sheets
	Assoc. superintendent (HR), HR dept. personnel	Assoc. superintendent (HR), HR dept. personnel	
Develop strategic partnerships with community and business to promote 21st Century learning.	Establish partnerships with ECU and other nearby IHE to create administrator cohorts and participate in professional development	Continue partnerships with ECU and other nearby IHE to create administrator cohorts and participate in professional development	Professional development plans/outlines/agendas with proof of completion such as sign-in sheets
	HR staff	HR Staff	.

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**Appendix A: Policies and Procedures
Edgecombe County Public Schools Technology Plan
Policy, Procedure, & Guidelines Implementation Chart**

Policies, Procedures, & Guidelines All Policies, procedures and guidelines should be updated to include the fundamentals of 21st Century Education and Information & Technology Skills. Policies should be translated into predominant languages of students and parents. Policies, procedures and guidelines should be displayed along with the STP and other referenced LEA/Charter plans. Make sure links have navigations that are user friendly.	LEA Policy Code or Procedure	LEA Adoption, Implementation or Revision Date
Policies Required		
A. Materials Selection Policy including internet resources (GS §115c-98(b))	3430	May, 2006
B. Disposal of Equipment / Replacement of Obsolete Equipment (GS §115c-518)	7800	July, 2004
C. Hardware and Software Procurement (GS § 115c-522, 115c-522.1)	7610	November 7, 2006
D. Copyright and Plagiarism Policy (PL §94-553, 90 Stat. 2541),	3230-4205	February 11, 2013
E. Acceptable Use Policy (PL §106-554) (including existing 1:1, bring your own device)	3220 3225-4312-7320 4318 6524 7335	February 11, 2013
F. Equipment/Materials Donation Policy (GS §115C-518)	2300	April, 2001
G. Data Privacy Policy (20 U.S.C. § 1232g; 34 CFR Part 99 (FERPA))	4700	July, 2003
H. Inventory Control Policy (GS §115c-539, 115c-102.6A-C(5))	6220-R	August 13, 2001
I. Access to Services Policy (GS §115c-106.2)	4110	October, 1997
J. Online Assessment and Instruction Policy	3220 3225-4312-7320	January 12, 2009
K. Advertising and Commercialism Policy (GS §115c-98) (Procurement and gifts ethics)	7610	November 7, 2006
L. Internet Safety and Ethical Use including Cyberbullying and Harassment (Protecting Children in the 21st Century Act, CIPA, FERPA, GS 115C-407)	3226-4205	February 11, 2013
K. 2337-7322 Web Page Development	2337-7322	February 11, 2013

Procedures		
A. Hardware and Software Deployment	Yes	2000
B. Equipment maintenance and repairs	Yes	2000
C. Outdated Resources and Equipment Replacement	Yes	2002
D. Disaster Recovery of Data and Hardware	5901.1	2005
E. Administration of Online Courses	Yes	2004
F. Administration of Online Assessment	In Progress	In Progress
(Locally identified procedures)		
Guidelines		
A. Policy Translation	Yes	2000
	3220 3225-4312-7320 4318 6524 7335	February 11, 2013
B. Use of Digital Media and Resources		
C. Instructional Use of Videos	3430	October, 2000
D. Development of Online Resources	In Progress / Policy Needed	In Progress / Policy Needed
E. Bring your own device Policy for Students and Teachers	Yes	Procedure in Place