2015-2016
SCHOOL DISTRICT OF BREVARD COUNTY
DIGITAL CLASSROOM PLAN

Part I. DIGITAL CLASSROOMS PLAN - OVERVIEW

Brevard Public Schools' 2014-2015 Digital Classroom Plan (DCP) was leveraged to substantially meet the unique needs of our students, schools, and personnel. The addition of nearly 2500 student devices, 91 mobile charging carts and more than 300 Wireless Access Points combined to achieve unprecedented access to digital tools and resources for a great many students and teachers. Without hyperbole or equivocation, the targeted schools' collective approach to teaching and learning changed fundamentally as the newly acquired technology opened instructional pathways that were previously obscured by the constraints of traditional tools and pedagogy. As a primary tenet of our inaugural plan, Brevard sought to identify, develop, support and promote eight Model Digital Learning Campuses. Intentionally, Brevard's 2014-2015 DCP was crafted to be replicable, scalable and sustainable.

In that vein, Brevard Public Schools (BPS) reaffirms its position that technology skills are vital and critically important to our students' K-12 experience. Our aim continues to focus on introducing and developing digital-age skills as part of a guaranteed and viable curriculum for all students. Brevard's instructional leaders remain committed to elevating technology skills to the level of "power standards" based on the criteria established by Dr. Doug Reeves and Dr. Larry Ainsworth in their seminal work focused on helping schools determine the most essential standards to teach. Technology skills endure over time, they can be leveraged across many different academic disciplines and subject areas, and they help prepare students for future success.

To improve the performance of all students, BPS intends to take advantage of the synergy that exists between the Florida Standards and contemporary digital tools. Explicit mentions of technology occur within the context of Florida's English Language Arts Standards, particularly in the strands concerned with writing, speaking and listening. Given the reciprocity of reading and writing skills, the attention being paid to writing in response to text, and the propensity for reading and writing skills to influence all other academic areas, our 2015-2016 plan places a priority on developing those critically important skills with tools available in our digital classrooms.

DISTRICT PROFILE

Brevard County, located on the east coast of Florida, is halfway between Jacksonville and Miami. It is 73 miles long, 26 miles at the widest point. The county has a total area of 1,556.95 square miles, of which 1,015.66 square miles or 65.40% is land and 538.76 square miles or

34.60% is water, primarily the Atlantic Ocean, St. Johns River, and the Banana and Indian River Lagoon Intracoastal Waterways.

Guided by its strategic plan vision, Brevard Public Schools (BPS) strives to serve every student with excellence as the standard. BPS serves 72,345 students making it the 10th largest of 67 school districts in Florida and the 48th largest district in the United States. As the single largest employer in Brevard County, the District employs more than 9,000 people, including more than 5,000 instructional personnel working in district and school facilities across 17 county municipalities. The District has 55 elementary schools, 11 middle schools, 5 combination schools, 11 high schools, 17 special centers, and 9 charter schools. Students enrolled in these schools are from a variety of ethnic backgrounds: 65.22 percent White, 15 percent Black/African American, 10.15 percent Hispanic or Latino, 7 percent two or more races, 2.44 percent Asian, and .31 percent American Indian and Alaskan, and .13 percent Native Hawaiian. There are over 8,800 students enrolled in private schools and another 3,753 reported in home school education programs. Brevard County is home to the John F. Kennedy Space Center and is often referred to as the Space Coast.

According to the 2014 United States Bureau of the Census Quick Facts, Brevard County has a total population of 556,885 with an estimated 26,809 children under age 5 (4.9 percent) and 94,323 children ages 5-19 (17.34 percent) living in isolated pockets of poverty throughout Brevard County. Since 2001, the percent of students qualifying for free or reduced price lunch (FRPL) under the Richard B. Russell National School Lunch Act increased from 29 percent to over 48 percent in 2014-15.

I.1 District Team Profile

Title/Role	Name:	Email:	Phone:
Assessment Contact	Neyda Francis	Francis.Neyda@brevardschools.org	(321)633-1000 x368
Curriculum & Instruction Contact	Cyndi Van Meter	VanMeter.Cyndi@brevardschools.org	(321)633-1000 x300
Finance Contact	Judy Preston	Preston.Judy@brevardschools.org	(321)633-1000 x600
Educational Technology Contact	Matt Frey	Frey.Matthew@brevardschools.org	(321)633-1000 x730
Information Technology Contact	Gino Butto	Butto.Gino@brevardschools.org	(321)633-1000 x701

I.2 Planning Process

In addition to the core district team, a representative group of district stakeholders (teachers, media specialists, technology associates and building-level administrators) contributed significantly to the initial plan. Together, we analyzed data, reviewed contemporary literature and reflected on our personal experiences as well as the experiences of the peer groups each of us represented. The resulting objectives are not only consistent with the inclinations of a diverse and thoughtful committee, but are also aligned with Brevard's overarching Strategic Plan (2013-2018), the State Educational

Technology Directors Association (SETDA) recommendations, the Florida Standards Initiative, the International Society for Technology in Education (ISTE) Standards, and the National Educational Technology Plan.

Data collected from three different instruments did much to inform our planning effort. The Speak Up National Research Project provides participating schools, districts and nonprofit organizations with a suite of online surveys and reports to collect authentic feedback from students, educators and parents. The Florida Innovates Technology Resource Inventory solicits responses from K-12 principals and technology coordinators about how technology is used in schools and includes questions about technology planning, infrastructure, and available equipment. The BPS Strategic Plan, which embodies our idea of the future, our values and mission, and our commitment to accountability, articulates Brevard's pursuit of excellence in education by focusing on each student achieving academic success. The Strategic Plan outlines a five-year vision to support students from kindergarten through twelfth grade. Progress is measured by tracking various outcome indicators.

Annually, for the past eight years, Brevard has encouraged students, parents, teachers, and administrators to participate in the National Speak Up Research Project. Our local stakeholder groups combine to contribute approximately 9,000 survey responses per year. BPS analyzes this feedback and incorporates the results into various planning efforts. A number of significant response patterns have emerged:

- **BPS Teachers** selected "not enough computers for students to use at school" as the number one technology-related obstacle they face.

- When asked which tools or strategies they think hold the greatest potential for increasing student achievement, **BPS Teachers** selected "computer for every student to use at school" as the top answer among 28 options.

- **BPS Parents** indicate their top two technology concerns of are "not enough computers for students to use" and "technology use is very teacher-dependent with a lot of variance between classes".

- **BPS Elementary Students** report that "computers are not available or easy to get to" when asked what keeps them from using technology in school.

- **BPS Middle School Students** overwhelmingly say they "cannot use their own mobile devices at school."

Data from the 2014-2015 Florida Innovates Technology Resources Survey reveals that Brevard has more than one computer for every three enrolled students. However, very few of these computers, proportionally, are available for students to use in the context of the core classroom curriculum. Before last year's DCP triggered an infusion of mobile devices,

the district's ratio of mobile computers had *decreased* in each of previous three years. Less than 1.4 computers out of every ten met the standard of a modern mobile computer.

Insufficient access to computers in classrooms is still arguably the greatest limiting factor (among non-Model Digital Classroom Campuses) inhibiting students' acquisition of 21st Century Skills. Strategic Plan Indicator 1.4.4, for example, calls for 90% of students in grades 3-12 to use technology tools regularly in ELA, Math, Science, and Social Studies courses. During the 2014-2015 school year, less than 40% of Brevard's elementary and secondary students reported using technology regularly in any course except science. This is especially disconcerting given the requirements of the new standards for writing, speaking and listening—standards that require students to "use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others."

I.3 Technology Integration Matrix (TIM)

Brevard Public Schools views the Technology Integration Matrix (TIM) as a valuable resource capable of influencing successful technology integration practices among teachers. As intended by the developers, our district will purposefully leverage the TIM as a framework for defining and evaluating technology integration within the classroom.

Of the tools included in the TIM tools suite, Brevard intends to deliberately employ the Technology Uses and Perceptions Survey (TUPS), the Technology Integration Matrix Observation Tool (TIM-O), and the TIM Administrative Center.

All schools vying to receive DCP-supported technology bundles are being asked to administer the TUPS to at least 75% of their faculty. The twelve selected schools, as a condition of their acceptance, must also agree to administer the TUPS a second time before June 2016. While all schools will have access to the TIM-O, principals and teachers of targeted schools will be expected to use the tool to guide them through the process of evaluating technology integration levels within observed lessons. Data collected from each of the tools will be analyzed to determine areas of need and, subsequently, to inform professional development efforts.

I.4 Multi-Tiered System of Supports (MTSS)

Contextualized by the Digital Classroom Plan Framework, district leadership met to engage in the Four Step MTSS Problem Solving Process. Focusing first on Problem Identification, the team analyzed student achievement data, quantifiable technology infrastructure information, and qualitative technology integration evidence. Our resulting needs analysis profile was used to establish various tenets within Brevard's emerging Digital Classroom Plan. English Language Arts, and particularly writing, kept bubbling to the top of our data-infused discussions as an area of academic concern. Subsequently, the team considered possible barriers that may be contributing

to our declining writing scores. Action steps were established to mitigate those barriers in order to maximize student achievement.

A progress monitoring plan is in place designed to keep track of various implementation efforts, including targeted infrastructure and student device upgrades. Additionally, the district leadership team intends to leverage a data analytics and assessment platform to examine student achievement progress throughout the year. To build organizational capacity in the area of data-based problem solving, especially as it relates and can be applied to Digital Classroom Plans, Brevard's MTSS Trainers and the Technology Integration Team will work collaboratively with schools to ensure that the Four Step Problem Solving Process is the cornerstone of campus-based technology plans. In-process measures and outcome indicators will be reviewed at least quarterly; action steps will be adjusted as warranted by the outcomes.

I.5 District Policy

Type of Policy	**Brief Summary of Policy**	**Web Address (optional)**	**Date of Adoption**
Data Confidentiality	The intent of this policy is to assist employees in securing the District's confidential data.	Data Confidentiality http://goo.gl/FtJFWF	10/28/14
District teacher evaluation components relating to technology	BPS teachers are evaluated against 5 distinct dimensions related to professional practices. In our system, Domain 3 has to do with Instructional Delivery. One of the elements within that dimension calls on teachers to "apply varied instructional strategies and resources, including technology as appropriate, to support student learning." To earn a distinguished rating in that element, teachers must provide frequent opportunities for students to use technology for the purpose of creating projects and/or developing new knowledge and skills.	Teacher Evaluation Rubric http://goo.gl/e3UChc	Spring 2015
BYOD (Bring Your Own Device) Policy	Students may use their own devices to access the internet while they are on-site at any District facility, provided such use has been approved by the principal, the student has signed an Acceptable Use	Policy 7540.12 http://goo.gl/6yISbf	4/27/2010

	Agreement, and their connection occurs through our wireless network reserved for that purpose.		
Policy for refresh of devices (student and teachers)	Under development.	N/A	N/A
Acceptable/Responsible Use policy (student, teachers, admin)	Employees and students alike are responsible for their behavior and communication on the network, which includes the internet.	Student AUP http://goo.gl/eLo9lR Employee AUP http://goo.gl/8eoOVP	10/28/2014
Master Inservice Plan (MIP) technology components	Brevard's most frequently used MIP component for Technology Integration Training is titled Technology Applications in the Classroom. It serves as a catch all component that is flexible enough to accommodate the entire spectrum of technology-enhanced teaching methods and strategies. We are working toward replacing this component with several High Quality Master In-service Plan Component Descriptions.	Master In-service Plan http://goo.gl/gvxD45	2015
Social Media Guidelines	We've created a video and an agreement to address social media use among employees. Every employee is required to watch the video and sign the agreement as part of our onboarding process.	Video: https://youtu.be/V27t1pBYPfE Agreement: http://goo.gl/d4FiJt	2012

Part II. DIGITAL CLASSROOMS PLAN –STRATEGY

STEP 1 – Needs Analysis:

- **Highest Student Achievement**

A. **Student Performance Outcomes (Required)**		**Baseline**	**Target**	**Date for Target to be Achieved *(year)***
II.A.1.	ELA Student Achievement	TBD from school year 2014-15	TBD 2016	
II.A.2.	Math Student Achievement	TBD from school year 2014-15	TBD 2016	
II.A.3.	Science Student Achievement – 5th and 8th Grade	Grade 5: 58% Grade 8: 55%	Grade 5: 60% Grade 8: 57%	2016
II.A.4.	Science Student Achievement – Biology	73 %	75 %	2016
II.A.5.	ELA Learning Gains	TBD from school year 2014-15	TBD 2016	
II.A.6.	Math Learning Gains	TBD from school year 2014-15	TBD 2016	
II.A.7.	ELA Learning Gains of the Low 25%	TBD from school year 2014-15	TBD 2016	
II.A.8.	Math Learning Gains of the Low 25%	TBD from school year 2014-15	TBD 2016	
B. **Student Performance Outcomes (Required)**		**Baseline**	**Target**	**Date for Target to be Achieved *(year)***
II.A.9.	Overall, 4-year Graduation Rate	87%	90 %	2016
II.A.10.	Acceleration Success Rate*	97%	98 %	2016

*Average of Acceleration Points Earned by BPS High Schools

Quality Efficient Services

Technology Infrastructure:
Districts shall create a digital learning infrastructure with the appropriate levels of bandwidth, devices, hardware and software.

A. **Infrastructure Needs Analysis (Required)**		**Baseline from 2014**	**Actual from Spring 2015**	**Target**	**Date for Target to be Achieved *(year)***	**Gap to be addressed *(Actual minus Target)***
II.B.1.	Student to Computer Device Ratio	2.25 : 1	2.04 : 1	1.5 : 1	2019	0.54 : 1
II.B.2.	Count of student instructional desktop computers meeting specifications	21,434	21,914	21,914	2016	0 (No Gap)
II.B.3.	Count of student instructional mobile computers (laptops) meeting specifications	5,146	8,760	12,360	2016	3,600
II.B.4.	Count of student web-thin client computers meeting specifications	371	1964	1,964	2016	0 (No Gap)
II.B.5.	Count of student large screen tablets meeting specifications	2,279	2,595	2,595	2016	0 (No Gap)
II.B.6.	Percent of schools meeting recommended bandwidth standard (7.5 Gb)	59.34%	57.14 %	66%	2018	8.86%
II.B.7.	Percent of wireless classrooms (802.11n or higher)	44.12%	47.42%	75%	2019	27.58%

B. Infrastructure Needs Analysis (Required)		**Baseline from 2014**	**Actual from Spring 2015**	**Target**	**Date for Target to be Achieved *(year)***	**Gap to be addressed *(Actual minus Target)***
II.B.8.	District completion and submission of security assessment *	N/A	N/A	N/A	N/A	N/A
II.B.9.	District support of browsers in the last two versions	N/A	Y	Y	2016	N/A

* Brevard Public Schools submitted a complete 2015-2016 Security Assessment to DigitalLearning@fldoe.org on August 31, 2015.

- **Skilled Workforce and Economic Development**

  Professional Development:
  Instructional personnel and staff shall have access to opportunities and training to assist with the integration of technology into classroom teaching.

B. **Professional Development Needs Analysis (Required)**		**Baseline (to be established in 2015)**	**Target**	**Date for Target to be Achieved** ***(year)***
II.C.1	Average teacher technology integration via the TIM (based on peer and/or administrator observations and/or evaluations)	Entry: 50% Adoption: 35% Adaption: 5% Infusion: 5% Transform: 5%	Entry: 25% Adoption: 45% Adaption:10 % Infusion:10 % Transform:10%	2019
II.C.2	Percentage of total evaluated teacher lessons plans at each level of the TIM	Entry: 50% Adoption: 35% Adaption: 5% Infusion: 5% Transform: 5%	Entry: 25% Adoption: 45% Adaption:10 % Infusion:10 % Transform:10%	2019

- **Seamless Articulation and Maximum Access**

  Digital Tools:
  Districts shall continue to implement and support a digital tools system that assists district instructional personnel and staff in the management, assessment and monitoring of student learning and performance.

C. **Digital Tools Needs Analysis (Required)**		**Baseline** **(to be established in 2015)**	**Baseline** **(to be established in 2015)**	**Target**	**Date for Target to be Achieved** ***(year)***
	Student Access and Utilization (S)	**% of student access**	**% of student utilization**	**% of student access**	School Year
II.D.1. (S)	A system that enables access and information about standards/benchmarks and curriculum.	100 %	30 %	100 %	2019
II.D.2. (S)	A system that provides students the ability to access instructional materials and/or resources and lesson plans.	100 %	30 %	100 %	2019
II.D.3. (S)	A system that supports student access to online assessments and personal results.	100 %	30 %	100 %	2019
II.D.4. (S)	A system that houses documents, videos, and information for students to access when they have questions about how to use the system.	100 %	5 %	100 %	2019
II.D.5. (S)	A system that provides secure, role-based access to its features and data.	100 %	30 %	100 %	2019

D. **Digital Tools Needs Analysis (Required)**		**Baseline** (to be established in 2015)	**Baseline** (to be established in 2015)	**Target**	**Date for Target to be Achieved** *(year)*
	Teachers/Administrators Access and Utilization (T)	**% of Teacher/ Admin access**	**% of Teacher/ Admin Utilization**	**% of Teacher/ Admin access**	
II.D.1. (T)	A system that enables access to information about benchmarks and use it to create aligned curriculum guides.	100 %	50 %	100 %	2016
II.D.2. (T)	A system that provides the ability to create instructional materials and/or resources and lesson plans.	100 %	50 %	100 %	2016
II.D.3. (T)	A system that supports the assessment lifecycle from item creation, to assessment authoring and administration and scoring.	100 %	50 %	100 %	2016
II.D.4. (T)	A system that includes district staff information combined with the ability to create and manage professional development offerings and plans.	100 %	100 %	100 %	2016
II.D.5. (T)	A system that includes comprehensive student information that is used to inform instructional decisions in the classroom for analysis, and for communicating to students and parents about classroom activities and progress.	100 %	80 %	100 %	2016
II.D.6. (T)	A system that leverages the availability of data about students, district staff, benchmarks, courses, assessments and instructional resources to	100 %	80 %	100 %	2016

	provide new ways of viewing and analyzing data.				
II.D.7. (T)	A system that houses documents, videos and information for teachers, students, parents, district administrators and technical support to access when they have questions about how to use or support the system.	100 %	40 %	100 %	2016
II.D.8. (T)	A system that includes or seamlessly shares information about students, district staff, benchmarks, courses, assessments and instructional resources to enable teachers, students, parents and district administrators to use data to inform instruction and operational practices.	100 %	50 %	100 %	2016
II.D.9. (T)	A system that provides secure, role-based access to its features and data for teachers, students, parents, district administrators and technical support.	100 %	40 %	100 %	2016

D. **Digital Tools Needs Analysis (Required)**		**Baseline (to be established in 2015)**	**Baseline (to be established in 2015)**	**Target**	**Date for Target to be Achieved** ***(year)***
	Parent Access and Utilization (P)	**% of parent access**	**% of parent utilization**	**% of parent access**	
II.D.1. (P)	A system that includes comprehensive student information which is used to inform instructional decisions in the classroom, for analysis and for communicating to students and parents about classroom activities and progress.	50 %	30 %	70 %	2016

D. **Digital Tools Needs Analysis (Required)**		**Baseline** **(to be established in 2015)**	**Target**	**Date for Target to be Achieved** ***(year)***
(IM)	**Instructional Materials***	**Baseline %**	**Target %**	**School Year**
II.D.1. (IM)	Percentage of instructional materials purchased and utilized in digital format (purchases for 2015-16)	65 %	80 %	2018
II.D.2. (IM)	Percentage of total instructional materials implemented and utilized that are digital format (includes purchases from prior years)	80 %	90 %	2018
II.D.3. (IM)	Percentage of instructional materials integrated into the district Digital Tools System	80 %	90 %	2018
II.D.4. (IM)	Percentage of the materials in answer 2 above that are accessible and utilized by teachers	100%	100%	2018
II.D.5. (IM)	Percentage of the materials in answer two that are accessible and utilized by students	100%	100%	2018
II.D.6. (IM)	Percentage of parents that have access via an LIIS** to their students instructional materials [ss. 1006.283(2) (b)11, F.S.]	40%	60%	2018

*Most of our major print-based adoptions over the past five years have included companion digital platforms. The digital platforms provide not only a perfunctory e-textbook, but also interactive, multi-media assets and learning objects. Such has been the case, historically, for MESH subjects, although our most recently adopted (2015-2016) HOPE and World Languages instructional materials are primarily digital in nature. Folding these resources into our LIIS has been a significant challenge based on the proprietary requirements that are unique to each publisher's integration workflow. Brevard is leading a movement to compel publishers to adopt a common standard called OneRoster that will make this process more manageable for all school districts.

**Parents have access to a portal (Edline/Blackboard Engage) that features personalized academic reports as well as information about classroom activities, homework assignments, and ancillary links to instructional materials. Parents do not, at present, have direct access to publisher-provided content because such access is limited by licensing agreements and is controlled according to the class schedule/roster data contained in our Student Information System.

- **Quality Efficient Services**

  Online Assessment Readiness:
  Districts shall work to reduce the amount of time used for the administration of computer-based assessments.

Online assessment (or computer-based testing) will be measured by the computer-based testing certification tool and the number of devices available and used for each assessment window.

D. **Online Assessments Needs Analysis (Required)**		**Baseline** **(to be established in 2015)**	**Target**	**Date for Target to be Achieved** ***(year)***
II.E.1.	Computers/devices available for statewide FSA/EOC computer-based assessments	23,928*	27,528**	2016
II.E.2.	Percent of schools reducing the amount of scheduled time required to complete statewide FSA/EOC computer-based assessments	14% ***	28 % ****	2016

*While we have more than 35,000 student computers on our inventory that meet the specifications for CBT, only 23,928 are distributed in a manner that supports CBT in practical terms. While a typical classroom may have a few hard-wired desktops that meet the specifications, their location and lack of mobility precludes them from being considered for FSA/EOC testing.

**This number reflects the intention of our DCP to bring 3,600 new mobile computers into the fold to support CBT.

***14% of our schools (12 out of 82) collectively received 2500 student computers last year as part of our 2014-2015 Digital Classroom Plan. Those devices, in part, were used to support CBT efforts.

****We intend to follow the same approach in 2015, thereby doubling the number of schools from 12 to 24 (28%)

STEP 2 – Goal Setting:

District Goals

- Highest Student Achievement: All students will meet or exceed expected growth as determined by appropriate measures including, but not limited to, Florida Standards Assessments.
- Seamless Articulation and Maximum Access: All students will have access to digital learning tools as part of a guaranteed and viable curriculum.
- Skilled Workforce and Economic Development: All teachers will have opportunities to develop skills suited for effectively implementing digital learning into the curriculum.
- Quality Efficient Services: BPS will create a digital learning infrastructure with the appropriate levels of bandwidth, devices, hardware and software.

STEP 3 – Strategy Setting:

Goal Addressed	Strategy	Measurement Instrument(s)	Timeline
Highest Student Achievement	Systemically adopt and implement the precepts of Florida's Technology Integration Matrix (TIM)	• Direct Observations • Surveys • Lesson Plans	FY2016 Ongoing
Highest Student Achievement	Increase opportunities for students to use computers to build writing skills	• Strategic Plan Outcome Indicator Report • School-designed instruments may include logs, utilization reports, student work products, lesson/unit plans, etc.	FY2016 Ongoing
Seamless Articulation and Maximum Access	Expand capabilities of an integrated digital tool system	• LMS Utilization Reports	FY2016 Ongoing
Skilled Workforce and Economic Development	Expand and develop training opportunities to assist with the integration of technology into classroom teaching	• High Quality Master In-service Plan Components • PD Records Management System	FY2016 Ongoing
Quality Efficient Services	Create an infrastructure that supports the needs of digital learning and online assessments	• Computer Based Testing Certification Tool • FLDOE Technology Resources Inventory	FY2016 Ongoing

Part III. DIGITAL CLASSROOMS PLAN - ALLOCATION PROPOSAL

As outlined in s. 1011.62(12) (c), Brevard intends to once again exercise the option that allows us to provide funds to schools within our district through a competitive process. This deliberate approach is aimed at developing Model Digital Learning Campuses that will serve as exemplars for other schools in subsequent years. Selecting a cohort of schools will be achieved through an application process that weighs cultural readiness (in the context of digital teaching and learning), technological readiness, pedagogical readiness, and the applicants' ability to articulate a comprehensive plan that is steeped in MTSS problem-solving methodologies.

A) Student Performance Outcomes

Student Performance Outcomes		Baseline	Target
A.1	Increase percentage of students achieving proficiency levels reading and writing on the FSA for grades 3-12	TBD%	TBD%
A.2	Strategic Plan Outcome Indicator 1.4.4: BPS students in grades 4-6 will use technology regularly in ELA courses	38%	51%
A.3	Strategic Plan Outcome Indicator 1.4.4: BPS students in grades 7-12 will use technology regularly in ELA courses	32%	51%

B) Digital Learning and Technology Infrastructure

The wireless infrastructure at each of Brevard's high schools was recently upgraded to a level capable of supporting a variety of 1:1, mobile cart and Bring Your Own Technology (BYOT) initiatives. Most middle schools have received similar enhancements, but our elementary schools (PK-6) are collectively lagging behind the recommended standards. While our elementary campuses have been provided with the requisite 10 GB switched network backbone, they have not received the corresponding Wireless Access Points (WAPs). Accordingly, our competitively awarded DCP distributions will be differentiated based on the elementary schools' collective and specific need for additional WAPs. Schools at every grade configuration, however, have a need for additional student devices and storage/charging capabilities.

Infrastructure Implementation					
	Deliverable	Estimated Completion Date	Estimated Cost	School/ District	Outcome from Section A)
B.1.	Deploy ten mobile computer labs* to each of six elementary schools.	12/2015	$486,000.00	To be determined based on competitive process.	A1, A2, A3
B.2.	Deploy ten mobile computer labs* to each of three middle schools.	12/2015	$243,000.00	To be determined based on competitive process.	A1, A2, A3
B.3.	Deploy ten mobile computer labs* to each of three high schools.	12/2015	$243,000.00	To be determined based on competitive process.	A1, A2, A3
B.4.	Deploy between six and ten Wireless Access Points (WAPs) to each of six elementary schools.	12/2015	$54,300.00	To be determined based on competitive process.	A1, A2, A3
B.5.	Deploy one 24-port PoE Cisco Switch to each of twelve selected schools.	12/2015	$27,100.00	To be determined based on competitive process.	A1, A2, A3

**Mobile computer labs include 25-30 student devices and a wheeled charging/storage cart.*

Infrastructure Evaluation and Success Criteria		
Deliverable	Monitoring and Evaluation and Process(es)	Success Criteria
B.1.	Standard Procurement Process (Tracking Requisition Approvals, Purchase Orders, Shipments, Property Controls, etc).	All items are received in verifiably good working order. They are unpacked, configured and deployed as intended by the DCP.
B.2.	Standard Procurement Process (Tracking Requisition Approvals, Purchase Orders, Shipments, Property Controls, etc).	All items are received in verifiably good working order. They are unpacked, configured and deployed as intended by the DCP.
B.3.	Standard Procurement Process (Tracking Requisition Approvals, Purchase Orders, Shipments, Property Controls, etc).	All items are received in verifiably good working order. They are unpacked, configured and deployed as intended by the DCP.
B.4.	Standard Procurement Process (Tracking Requisition Approvals, Purchase Orders, Shipments, Property Controls, etc).	All items are received in verifiably good working order. They are unpacked, configured and deployed as intended by the DCP.
B.5.	Standard Procurement Process (Tracking Requisition Approvals, Purchase Orders, Shipments, Property Controls, etc).	All items are received in verifiably good working order. They are unpacked, configured and deployed as intended by the DCP.

Following a competitive process to select schools targeted for infrastructure and/or student device enhancements, a Local IT Oversight Committee (LITOC) will attest that all identified equipment is appropriate given the schools' current device inventory, infrastructure needs, and the associated goals and objectives of the Digital Classroom Plan (DCP). Moreover, the LITOC will verify that all components have been delivered, configured, and implemented commensurate with the stated purposes of the DCP.

C) Professional Development

Brevard's professional development efforts will include, but not be limited to, developing and facilitating High Quality Master In-service Plan Components that address:

- School leadership "look-fors" on quality digital learning processes in the classroom
- Educator capacity for using available technology
- Instructional lesson planning using digital resources
- Student digital learning practices

These components will include participant implementation agreements related to teachers' utilization and perception of digital tools.

Additionally, our district will contract with one or more recognized experts to deliver a series of workshops related to research-based best practices in the area of digital teaching and learning.

C. **Professional Development Implementation**					
	Deliverable	Estimated Completion Date	Estimated Cost	School/ District	Gap addressed from Sect. II
III.C.1.	80% (96) of targeted teachers (120) will successfully complete PD aligned with MIP	5/2016	$75,000	Schools (12)	II.C.1, II.C.2
III.C.2.	Board-approved Statement of Work Agreement with contracted PD provider(s)	12/2015	$75,000	District	II.C.1, II.C.2

C. **Professional Development Evaluation and Success Criteria**		
Deliverable (from above)	Monitoring and Evaluation and Process(es)	Success Criteria
III.C.1.	PD Records Management System	80% of targeted teachers attend workshop series.
III.C.2.	PD Records Management System	85% of targeted teachers receiving PD respond favorably to follow-up survey.
III.C.3.	Implementation Agreements	90% of targeted teachers satisfy the requirements of the Implementation Agreement.

D) Digital Tools

As a Florida school district that participated in the Race to the Top initiative, Brevard Public Schools (BPS) has already invested significant time, effort and dollars developing a Local Instructional Improvement System (LIIS). At its core, our LIIS is a collection of powerful Digital Tools, all of which are joined together under a unified Single Sign On umbrella. At each of our stakeholders' collective fingertips, we have tools to analyze a wealth of student data, to aggregate searchable, standards-aligned instructional resources, to create and deliver digital content, and to manage the assessment lifecycle from item creation to assessment administration. Within our LIIS, BPS also has tools designed to communicate grades, assignment information and attendance data to students and their parents. We leverage both the Google Apps for Education Program and the Microsoft Student Advantage Program to make professional-grade productivity and collaboration tools available to all students and teachers. Brevard incorporates streaming video

collections, premium reference libraries, and an array of digital text book materials within the unified Single Sign On environment of our LIIS.

Perhaps the greatest challenge associated with integrating instructional materials into our LIIS has been an industry wide lack of interoperability. Vendors' proprietary platforms (e.g. text book publishers) often require unique integrations that are both time and labor intensive. Our district has joined many others in a concerted effort to compel changes that will make interoperability more achievable.

Brevard's Career and Technical Education (CTE) Program, a source of great pride in our community, provides extraordinary Digital Tool opportunities to many in our district. In 2009, 55% of the 1850 BPS students that sat for industry certification exams passed them. In 2012, the number of industry certification exams administered to Brevard students was 3513; the pass rate was an impressive 76%. Just two years later, our students participated in 4140 industry certification exams. Even with that significant increase in test takers, our students' pass rate continued to climb with 77% passing the most recently administered exams.

As we look forward, especially given the context of Florida Statute 1003.4203 (Digital materials, recognitions, certificates, and technical assistance), BPS intends to expand an already successful program by making the skills and resources associated with Career and Professional Education (CAPE) Digital Tool Certificates accessible to students in all grade levels. A representative focus group has been established and will meet regularly throughout the school year to make decisions and recommendations about the direction(s) we will choose to specifically address this new legislation.

D. **Digital Tools Implementation**					
	Deliverable	Estimated Completion Date	Estimated Cost	School/ District	Gap addressed from Sect. II
III.D. 1.	Single Sign-On Connectors configured for 80% of adopted instructional materials.	10/2015	N/A	District	II.D.2 (S) (T)
III.D. 2.	Automated rostering for 80% of adopted instructional materials.	10/2015	N/A	District	II.D.2 (S) (T)

Brief description of other activities	**Other funding source**
Sustain and enhance all components of Brevard's LIIS.	General Operating Fund
Compel publishers/tool providers to adopt the IMS Global OneRoster Standard for interoperability.	N/A

D. **Digital Tools Evaluation and Success Criteria**		
Deliverable (from above)	Monitoring and Evaluation and Process(es)	Success Criteria
III.D.1.	Standard User Acceptance Testing Procedures	Evidence of Successful Logins and Application Launches (SSO Portal Reporting)
III.D.2.	Standard User Acceptance Testing Procedures	Evidence of Successful File Transfers (Error Logs)

E) Online Assessments

To the extent feasible, BPS converted many instructional spaces into wired computer labs capable of supporting the requirements of computer-based testing (CBT). Now we are turning our attention toward creating mobile digital learning labs that can serve the dual purpose of being ad-hoc CBT environments. In so doing, we continue to bolster the density of our local wireless capabilities by upgrading infrastructure and adding portable student devices that meet or exceed the minimum requirements as specified by the FLDE.

The costs for increasing the capacity of our wireless networks and adding student devices were factored into the Digital Classroom Plan Part B (Digital Learning and Technology Infrastructure). To streamline, we have decided not to include those same amounts in this section. It should be noted, however, that we fervently believe those expenditures will directly impact our ability to successfully navigate the CBT landscape.

Online Assessment Implementation					
	Deliverable	Estimated Completion Date	Estimated Cost	School/ District	Outcome from Section A)
E.1.	Computer-based Testing Readiness Certification	Winter /Spring 2016	N/A	District	A1

Online Assessment Evaluation and Success Criteria		
Deliverable (from above)	Monitoring and Evaluation and Process(es)	Success Criteria
E.1.	Computer-Based Assessment Certification Tool completion rate for schools in the district (Fall 2015/Spring 2016)	100% Participation and 100% Readiness