

District Technology Plan

Henry County Public Schools New Castle, Kentucky



<http://www.henry.kyschools.us>

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Acknowledgments

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Executive Summary

Henry County Public Schools strongly believes that individualized and personalized learning is a critical factor in developing college and career ready students. Digital learning serves as a vehicle towards this end.

Our vision is to provide students with a 21st Century, personalized, technology-infused learning experience in which students have multiple opportunities to engage in rich, authentic and collaborative work. We recognize that this type of learning extends beyond the walls of the school and hours of the school day, requires robust network infrastructure and hardware, and demands ongoing professional learning.



With this vision in mind, we have chosen to use BrightBytes' Technology & Learning Framework (<http://www.brightbytes.net/techlearning>) to assist with implementing digital learning in the district. The framework include four areas that are instrumental in moving forward with digital learning:

- Classroom
- Access
- Skills
- Environment

Components of this plan are also aligned with the district's 5-yr Strategic Plan located at <http://www.henry.kyschools.us/Content2/428>.

Planning Process and Methodology

The district began using the BrightBytes survey data during the 2016-2017 school year to form an initial benchmark prior to implementing 1-to-1. Based upon this foundational data, draft goals and action plan items were created using the resources from the BrightBytes' Clarity Dashboard. The plan was then shared with a variety of people within the district for feedback and collaboration on formalizing and monitoring the plan.

Classroom

The Classroom area of the CASE Framework explores how teachers and students are using technology for learning. HCPS has chosen to focus on two specific sub-areas: Use of the 4Cs and Digital Citizenship.

Use of the 4Cs

Achieving 4Cs-aligned classroom practices actually requires careful attention to teacher beliefs and policies/practices. Without a strong foundation in these areas, teachers will not be prepared to implement the 4Cs using technology.

Goal 1: Increase student use of digital tools to implement the 4Cs in the classroom by at least 5% points as reported by teachers on the BrightBytes survey.

Strategy 1.1: Form a data team consisting of at least one person from each school to monitor BrightBytes survey progress.

Strategy 1.2: Train the data team to use the Clarity dashboard.

Strategy 1.3: Use the following seven Clarity data points to monitor teachers' readiness to implement the 4Cs using technology:

- Student-reported frequency of computer use in the classroom
- Teacher-reported frequency of student computer use in the classroom
- "My school encourages technology use for teaching and learning."
- "I easily find new technologies to meet my teaching goals."
- "I feel confident managing a classroom where students are using technology."
- Teachers discuss technology use during department or grade-level team meetings
- Teachers feel rewarded for integrating technology into teaching

Strategy 1.4: Provide 4C resources for teachers and students on the district's 1:1 web site: <https://hcps.li/1to1>.

Digital Citizenship

Goal 2: Provide Digital Citizenship instruction to all students K-12.

Strategy 2.1: Review current identified digital citizenship resources and make necessary updates to the district web site.

Strategy 2.2: Collect digital citizenship instruction logs from teachers responsible for instruction.

Strategy 2.3: Use the following eight Clarity data points to monitor students' exposure to digital citizenship instruction and the opportunity to practice digital citizenship:

- Students are asked to collaborate online with classmates
- Students are asked to receive feedback online from someone other than a teacher
- Student sources of advice about responsible Internet and cellular phone usage
- Students are taught how to act respectfully online
- Students are taught how to cite online information
- Students are taught how to respond to online bullying
- Student-reported frequency of chatting on the Internet
- Student-reported frequency of writing reviews, blogging, or commenting

Access

The Access area of the CASE Framework aims to provide insight into the quality and reliability of technology resources for learning, both at school and at home.

Access at School

Goal 3: Provide 24/7 access to quality technology resources to support learning and education administrative needs.

Strategy 3.1: Provide each school with a list of computers needing replacing.

Strategy 3.2: Continue to secure fiber services to provide high-speed data connection between school buildings.

Strategy 3.3: Implement Objective 1.7 in the district's strategic plan, providing a 1:1 learning environment for all students.

Strategy 3.4: Upgrade the wireless network at HCMS and HCHS to support 1:1.

Strategy 3.5: Plan and budget for wireless upgrade for the rest of the district in subsequent years.

Strategy 3.6: Perform a cost analysis of current Microsoft EES agreement versus individual licenses to determine licensing needs in a 1:1 environment.

Strategy 3.7: Continue to budget for network maintenance on wired and wireless equipment.

Access at Home

Goal 4: Monitor and address gaps with student home access to technology.

Strategy 4.1: Use enrollment forms and 1:1 form to gather data on home access to high-speed internet.

Strategy 4.2: Provide teachers with strategies narrowing the gap for students without high-speed internet at home.

Strategy 4.3: Advertise low-cost internet solutions to parents.

Strategy 4.4: Research feasibility of helping to provide internet access to students outside of school.

Skills

The Skills area of the CASE Framework allows teachers and students to self-assess their technology skills and confidence levels when using technology.

Foundational, Online, and Multimedia Skills

Goal 5: Achieve Exemplary status in the Skills area of the BrightBytes survey.

Strategy 5.1: Provide bi-weekly “office hours” for HCMS and HCHS to assist with teacher skills training and professional learning needs.

Environment

The Environment area of the CASE Framework looks at administrative practices and school culture as it relates to technology in education. HCPS has chosen to focus on two sub-areas: Policies, Procedures, and Practices and Professional Learning.

Policies, Procedures, and Practices

Goal 6: Implement and refine district policies and procedures as they relate to education technology and data security.

Strategy 6.1: Adopt and monitor policies and procedures for 1:1 learning. Make revisions as necessary.

Strategy 6.2: Incorporate data security and privacy training in district confidentiality training.

Strategy 6.3: Identify all data systems that may be in use by teachers and schools and ensure they comply with HB 5.

Strategy 6.4: Use the following three Clarity data points to monitor the alignment with policies and learning needs:

- Students believe the following obstacles prevent their use of technology at school
 - Students are allowed to use personal mobile devices in class for academic reasons
 - Teachers report that school filters prevent access to websites needed for classes
-

Professional Learning

Goal 7: Provide teachers with professional learning opportunities on the available technology tools to enhance learning.

Strategy 7.1: See Strategy 5.1.


Strategy 7.2: Collaborate with Curriculum Coaches on school technology integration needs.

Appendix A – 2015-2016 Digital Readiness Survey

2016-2017 data not available until late Fall 2017.

SCHOOL DISTRICT		Henry County
AVERAGE DAILY ATTENDANCE		2,000.5
NUMBER OF SCHOOLS (A1-D1 classified)		6
NUMBER OF CLASSROOMS		120
NUMBER OF CLASSROOM TEACHERS		137

Section 1: Instructional Devices and Ease of Access		Henry County		
Student Devices in Elementary Schools (P - Grade 5)		Total		
Total Number of Instructional Devices for STUDENT Access (this includes ALL devices and access "seats")		1,127		
Student Devices in Secondary Schools (Grade 6 - Grade 12)		Total		
Total Number of Instructional Devices for STUDENT Access (this includes ALL devices and access "seats")		1,074		
Staff Devices in ALL Locations (Classroom Teachers, Administrators, & Other personnel, and District Offices)		Total		
Total Number of Instructional STAFF Devices District Wide		273		
Total number Instructional Devices		Total	PCT (%)	Ratio to 1
Student Devices		2,201	89.0%	0.91
Staff Devices		273	11.0%	
TOTAL		2,474	100.0%	
Personally Owned Devices (BYOD - Bring your own device) :		Yes	No	
1. Has the district permitted (by way of policy) personally owned Devices to be brought to school by students?		<input checked="" type="checkbox"/>		
2. Has the district permitted (by way of policy) personally owned devices to be brought to school by staff (adults)?		<input checked="" type="checkbox"/>		
1:1 Implementations		Yes	No	
1. Has the district purchased devices for a 1:1 implementation?		<input checked="" type="checkbox"/>		
2. If yes, what is the scope of the implementation? (e.g. district wide, school wide, grade level, program based, etc)		Total		
District Wide		0		
School Wide		0		
Grade Level		0		

Program Based	0	
Home Access*	Yes	No
1. Do you have a meaningful or intentional way to collect student home access information? (e.g. asked on enrollment form or other survey)		
2. If yes, what percent of students have Internet access at home capable of having a good experience watching a YouTube video?	79.0%	
3. If no, what is your best effort estimation, on what percent of students have Internet access at home capable of having a good experience watching a YouTube video?	%	
<i>* Home Access aggregate percentage calculation is weighted based on each district's ADA.</i>		
Annual Purchases and Surplus	Total	
1. How many total Instructional Devices within the district were purchased/acquired new, from all funding sources, during this annual reporting cycle (7/1 - 6/30)?	682	
2. How many total Instructional Devices within the district were surplusd during this annual reporting cycle (7/1 - 6/30)?	164	

Section 2: Instructional Device Operating Systems (OS) :	Henry County	
How many of the total Instructional Devices use the following OS?	Total	
Windows - Pre Windows 7	0 (0.0%)	
Windows 7	533 (21.5%)	
Windows 8	712 (28.8%)	
Windows 8 RT	52 (2.1%)	
Windows 10	26 (1.1%)	
Mac OS X 10.9 (or earlier)	0 (0.0%)	
Mac OS X 10.10 (or later)	12 (0.5%)	
Chrome OS (Chromebook OS)	584 (23.6%)	
iOS 7.x or earlier	45 (1.8%)	
iOS 8.x or later	247 (10.0%)	
Android 4.3 (Jellybean) or earlier	263 (10.6%)	
Android 5.0 (Jellybean) and newer	0 (0.0%)	
Other Android base OS (i.e. Kindle, etc.)	0 (0.0%)	
Other Desktop OS (e.g. Linux)	0 (0.0%)	
OS (Section 2) Calculated TOTAL	2,474	
How many of your total student devices are able to be used for state required assessment?	842 (34.0%)	

Section 3: Technology Leadership, Service, Support, and Training Resources	Henry County	
1. Total number of days the Ed Tech Leader position is employed during the FY13 school year	232	
2. How does the Ed Tech Leader spend most of their day? (select one that best describes):		
A. Primarily focuses on day to day operations with majority of time devoted to hands on repair,		

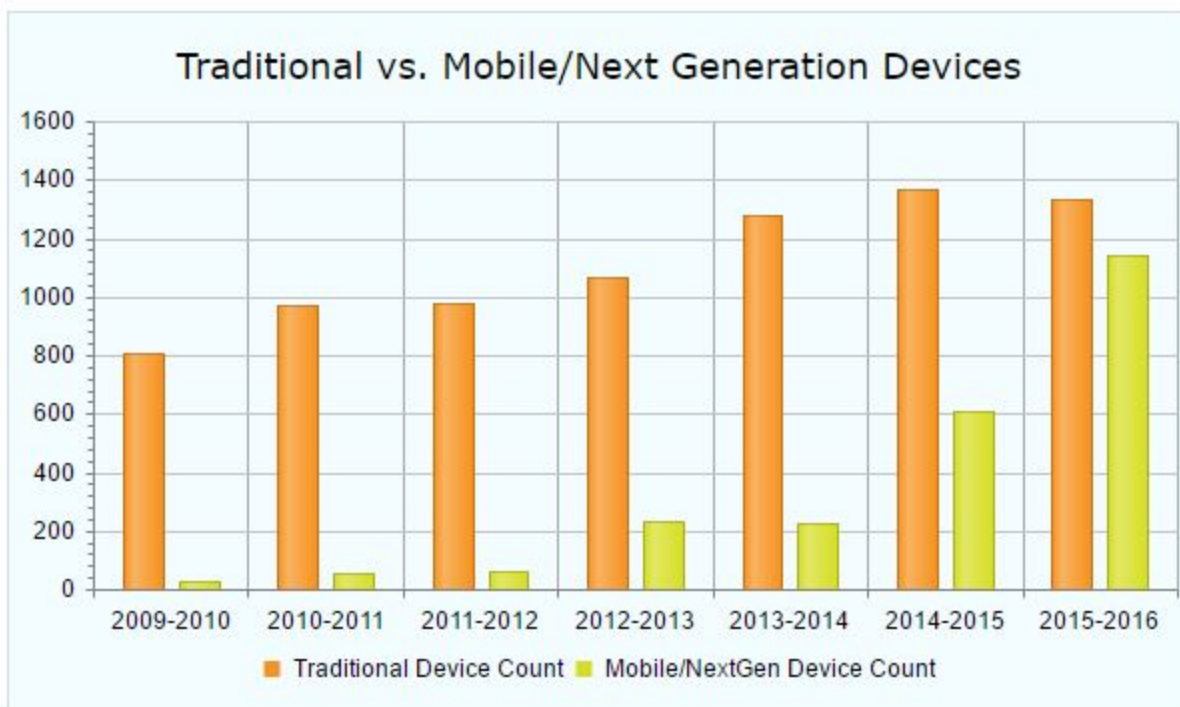
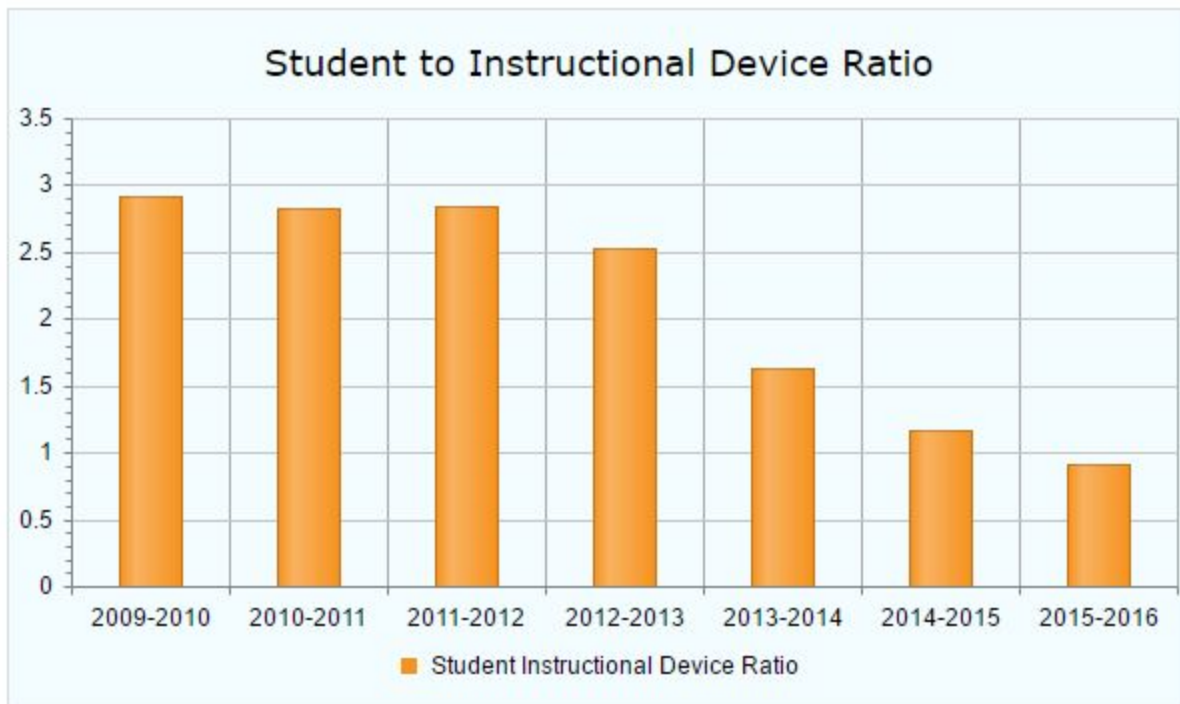
troubleshooting, or solving help desk requests.			
B. Primarily focuses on ensuring the availability of critical technology services. Includes the management of staff as well as managing or brokering services as defined by other leaders.			
C. Primarily focuses on understanding the educational needs and challenges of the district. Influences district level budget conversations. As well as leading efforts to plan, research, procure state and federal program funding, leads and establishes overall direction and vision of using technology for efficiencies and instruction/learning.	<input checked="" type="checkbox"/>		
	Yes	No	
3. Does the Ed Tech Leader report directly to the superintendent?	<input checked="" type="checkbox"/>		
4. Does the Ed Tech Leader have district wide technology budgetary control and influences over other budgets?	<input checked="" type="checkbox"/>		
5. Does the school district have someone tasked with being overall in charge of Data Quality (one person that is generally responsible for data in all data systems)?		<input checked="" type="checkbox"/>	
6. Has the school district implemented "Data Stewards" for valuable data elements in your district?	<input checked="" type="checkbox"/>		
7. What percent of of the Ed Tech Leaders time is spent on activities outside of those that are technology related?	10.0%		
Technology Integration Specialists / Technology Resource Teachers (TIS / TRT) :	Total		
Number of FTE (Full Time Equivalent) TIS/TRT positions in the district?	0.0		
School Technology Coordinator (STC) :	Total		
Number of schools with an STC?	6		
	Yes	No	
Are STC positions paid a stipend?	<input checked="" type="checkbox"/>		
	Amount		
If yes, what is the annual average stipend?	1,093.0		
Technicians:	Total		
Number of FTE in-house district/school technicians that focus on daily operations and maintenance?	2.0		
Number of FTE outsourced district/school technicians that focus on daily operations and maintenance?	0.0		
Student Technology Leadership Program (STLP) :	Yes	No	
Do you have students (ex: STLP, interns) assisting with technology leadership, services, support and training?		<input checked="" type="checkbox"/>	
	Total		
Number of schools with active STLP?	5		
Which best describes your STLP? (check only one)	<input checked="" type="checkbox"/>		
An after school program or club			
Integrated into content/classroom			
Both afterschool and integrated	<input checked="" type="checkbox"/>		
Digital Citizenship	Yes	No	

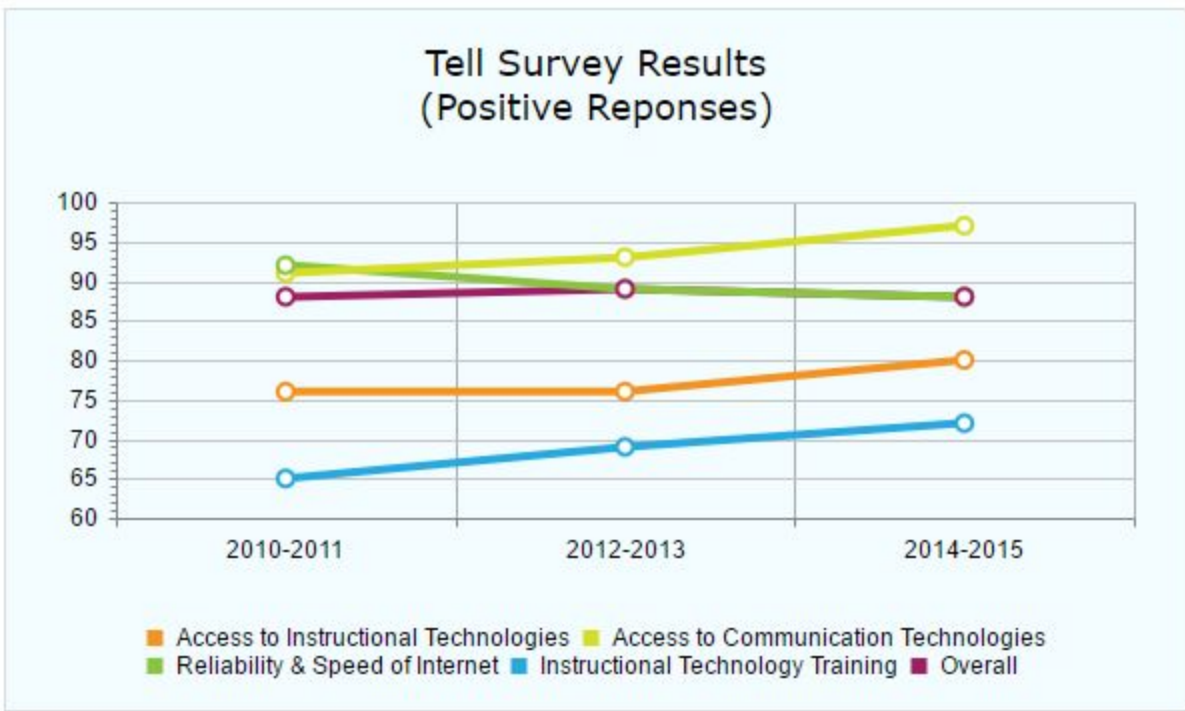
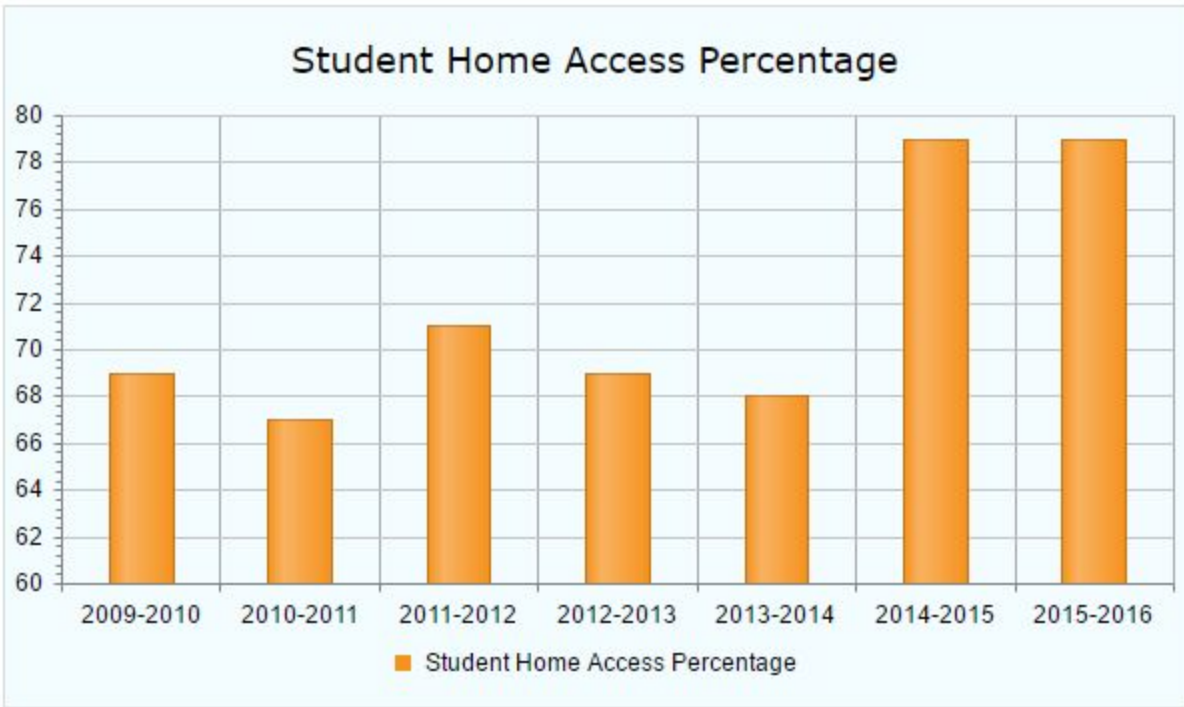
Is there a purposeful implementation of student learning of the 9 elements of Digital Citizenship (via Professional learning/ PD, Digital Driver's License, Common Sense Media resources, etc.)	1		
Select the elements of Digital Citizenship being implemented with students:			
Digital Access	<input checked="" type="checkbox"/>		
Digital Commerce	<input checked="" type="checkbox"/>		
Digital Communication	<input checked="" type="checkbox"/>		
Digital Literacy	<input checked="" type="checkbox"/>		
Digital Etiquette	<input checked="" type="checkbox"/>		
Digital Law	<input checked="" type="checkbox"/>		
Digital Rights & Responsibilities	<input checked="" type="checkbox"/>		
Digital Health & Wellness	<input checked="" type="checkbox"/>		
Digital Security	<input checked="" type="checkbox"/>		
Is there a purposeful implementation of teacher/adult learning of the 9 elements of Digital Citizenship (via Professional learning/ PD, Digital Driver's License, Common Sense Media resources, etc.)		<input checked="" type="checkbox"/>	
	Yes	No	
Do you have a district wide or school-wide approach to the Learning Management System (LMS)?		<input checked="" type="checkbox"/>	
If yes, what are you currently using? (Check all that apply)	<input checked="" type="checkbox"/>		
Moodle			
Edmodo			
Blackboard			
Canvas			
Converge			
Schoology			
Edgenuity			
Infinite Campus (LMS components beyond standard student information system)			
The Holler			
Google Classroom			
Other			
If Other, please share			
	Yes	No	
Do your schools offer on-line or blended courses for student credit?	<input checked="" type="checkbox"/>		
Is Credit given based on seat time, performance or both?	<input checked="" type="checkbox"/>		
Seat Time			
Performance			
Both	<input checked="" type="checkbox"/>		
	Yes	No	
Are you offering "all online" or virtual courses to students (distance education courses for course credit)?	<input checked="" type="checkbox"/>		

If yes, what are you currently using? (Check all that apply)	<input checked="" type="checkbox"/>
KET	
BAVEL	
JCPS Online	
Edgenuity	<input checked="" type="checkbox"/>
Odysseyware	<input checked="" type="checkbox"/>
Middlebury	
Apex Learning	
Coursera	
edX	
CK-12	
Udacity	
Other	<input checked="" type="checkbox"/>
If Other, please share	Online courseware through colleges

Section 4: Network Connectivity	Henry County		
School Wide Area Network (WAN) Connection to District Hub Site <i>*Note: This may, in some cases, include schools other than those with an A1 classification (e.g. A5, A6, etc.)</i>	# Schools	% of Schools	# Other buildings (Not Schools)
1. Number of schools connected to WAN via the following connection speed (please use advertised download speed coming into building, not actual speed in classroom or work area)			
Up to or less than 10 Mbps	0	0%	0
Up to or less than 100 Mbps	0	0%	0
Up to or less than 1 Gbps	4	67%	4
Greater than a 1 Gbps	1	17%	0
Located at the KEN Hub Site	1	17%	0
TOTAL	6	100%	
2. Number of schools that already have wireless able to generally support BYOD or 1:1 (dense wireless, ready for every student to connect 1 or 2 devices and have a good experience)			
	5	83%	4
3. Number of schools that DO NOT have wireless able to generally support BYOD or 1:1 (dense wireless, ready for every student to connect 1 or 2 devices and have a good experience)			
	1	17%	0
TOTAL	6	100%	8

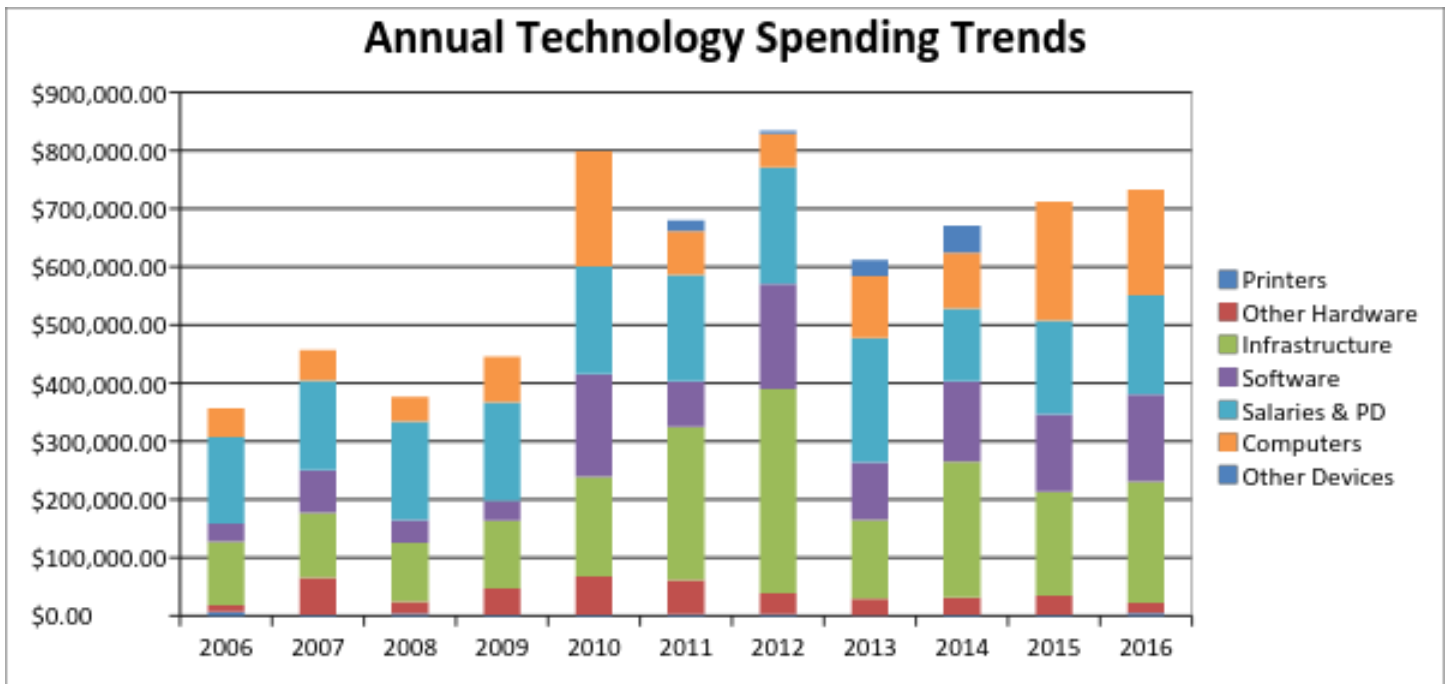
Appendix B – Instructional Device and Home Access Trends





Appendix C – Annual Technology Spending Trends

Spending up through 2015-2016 school year. 2016-2017 school year available in July 2017.



Appendix D – BrightBytes Survey results

Spring 2017

CASE SM Score						
1091 Proficient						
BENCHMARKS	DATE	OVERALL	CLASSROOM	ACCESS	SKILLS	ENVIRONMENT
All Technology & Learning	As of May 29, 2017	1065	980	1182	1130	1083
Kentucky	As of May 29, 2017	1066	981	1174	1133	1087

Districts	Schools
⊕ Expand All	

SCHOOLS	DATE RANGE	OVERALL	CLASSROOM	ACCESS	SKILLS	ENVIRONMENT
⊕ Campbellsburg Elementary School <small>Henry County</small>	Mar 27, 2017 - May 1, 2017	1084 ↗	1014 ↗	1183 ↗	1140 ↗	1094 ↘
⊕ Eastern Elementary School <small>Henry County</small>	Mar 27, 2017 - May 1, 2017	1084 ↗	1004 ↗	1209 ↗	1130 ↗	1107 ↗
⊕ Henry County High School <small>Henry County</small>	Mar 27, 2017 - May 1, 2017	1122 ↗	1052 ↗	1194 ↗	1189 ↗	1140 ↗
⊕ Henry County Middle School <small>Henry County</small>	Mar 27, 2017 - May 1, 2017	1098 ↗	1023 ↘	1190 ↗	1149 ↘	1124 ↗
⊕ New Castle Elementary School <small>Henry County</small>	Mar 27, 2017 - May 1, 2017	1070 ↗	978 ↗	1134 ↘	1146 ↗	1122 ↗

DISTRICTS	DATE RANGE	OVERALL	CLASSROOM	ACCESS	SKILLS	ENVIRONMENT
Henry County	Jan 1, 2017 to Present	1091 ↗	1013 ↗	1179 ↗	1151 ↗	1119 ↗
	Jul 1, 2016 to Dec 31, 2016	1073	1002	1162	1136	1088

Appendix E – Budget

Item	Funding Source	Amount
Network Maintenance	Local Tech, e-Rate	\$8,200
Network Wiring - New Castle	Local Tech, e-Rate	\$46,000
Voice Services	General Fund, e-Rate	\$16,000
Fiber Services	General Fund, e-Rate	\$35,000
Wireless Upgrade - MS & HS	Local Tech, e-Rate	\$39,200
Chromebook Lease	Capital Outlay, General Fund	\$99,000
Website Renewal	Local Tech	\$5,600
Server Licenses	Local Tech, KETS	\$1,800
Microsoft EES Agreement	Local Tech, KETS	\$13,800
Voice Maintenance	Local Tech	\$12,300
Student Devices	School Funds, KETS	\$70,000
Staff Devices	School Funds, KETS, General Fund	\$20,000
IC Software	General Fund	\$18,000
MUNIS Software	General Fund	\$6,700
Admin Software	General Fund, Local Tech	\$26,800
Instructional Software	General Fund, School Funds, KETS	\$84,000
File Server Upgrades	KETS	\$10,000
Switch Upgrades	KETS	\$7,000
Salaries	General Fund	\$170,900
Misc Technology	School Funds, Local Tech, General Fund	\$4,700
	Total	\$695,000