DISTRICT TECHNOLOGY PLAN

DISTRICT NAME	Montgomery County Schools
LOCATION	Mount Sterling, KY
PLAN YEAR(S)	2019-2020

Board Approved 5/28/2019

www.montgomery.kyschools.us

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Planning Team

District Staff [Recommended to include CIO/DTC, TIS/DLC, technician, finance officer, superintendent, academic officer, DAC, etc.]	
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Additional District Contributors [Recommended to include board members, SBDM members, program directors, etc.]	
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Previous Plan Evaluation

In this section include a discussion of the "expiring" *(previous year's)* plan using the prompts below. Attempt to limit your narrative to the space provided.

What goals were met?
- Increase the integration of technology in all classrooms.
  - The activities for this goal were implemented. BrightBytes data showed that classrooms were implementing technology. 90% of teachers responding believe that technology use in class can enhance student learning. 80% of teachers felt confident managing a classroom where students are using technology.
- Students demonstrate their level of technology literacy
  - Student responses to technology skills placed them a proficient or advanced on the BrightBytes data survey.
- Maintain and upgrade a state-of-the-art network infrastructure to provide global communications and information literacy for schools and administration with sufficient technical support to extend, further develop and keep the network operational
  - The network has continued to be enhanced utilizing e-rate funding when available. The network is stable and functioning at a high level based on anecdotal data.

Goals that were not met or didn't have the expected outcomes?
- Increase student access to technology.
  - There was a decline in the number of devices available for student use with the end of Chromebooks being assigned to students in grades 5-12. The Chromebooks are now in the classrooms as classroom sets in some disciplines, but not all. However, still 65% of the teachers report being able to obtain computers for their students when they need them.

Areas of improvement?
- Increase the number of devices available for student use.
- Implement a plan for incremental replacement of student and staff devices to ensure the reliability and functionality.

Areas/goals that are no longer relevant?

Needs that emerged after evaluation of the previous plan?
- Increase the number of devices available for student use.
- Ensure devices for student and staff use are up to date and functional for the software needed.
- Increase the use of the four c's in the classroom – communication, collaboration, critical thinking, and creativity.
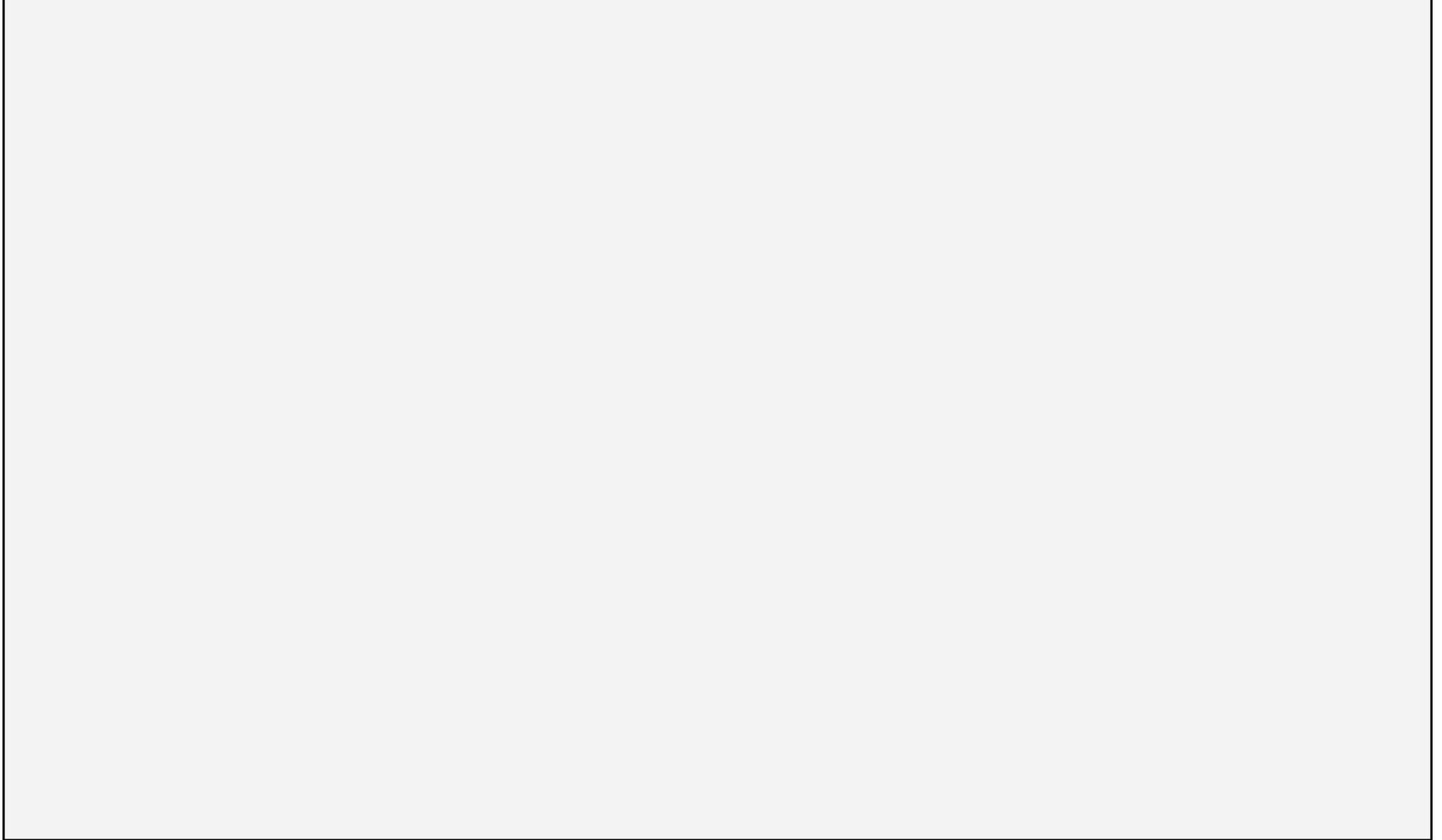
New Plan Preview

This is a high-level overview or executive summary of the plan as a whole. Attempt to limit your narrative to the space provided below.

[See Technology Planning section of KETS Master Plan for more information]

How did you and the planning team decide on the goals for this plan?

The planning team looked at the BrightBytes data, the previous technology plan, and the current use of technology in the school system to determine the next course of action for this technology plan.

Briefly discuss the major activities slated for implementation and how these activities will advance curriculum and instruction integration, student technology literacy, professional development, & technology infrastructure.

The vision of Montgomery County Schools is to provide our students with the necessary skills to move forward in their next steps whether it be college, technical school or the workforce. Students need to be ready to perform the tasks needed to be successful in their next stage of personal development. In order to provide these opportunities Montgomery County Schools must continue to update the network infrastructure to ensure optimal learning experiences. Upgrade, replace, and surplus staff and student devices. Provide on-going opportunities for the development of best practices for utilizing technology in instruction. Maintain 21st century classrooms that foster the integration of technology in the learning process. Work to remove barriers that prevent all students and staff from having equitable access to technology.

Student Voice

Personalized student learning allows students to develop deeper learning competencies including critical thinking, using knowledge and information to solve complex problems, collaboration, and communication. Capturing student input about their access to opportunities that build these competencies is key to effective technology planning. Please answer the questions in the space provided below.

Do you currently have a method to collect student responses about the digital learning environment? If so, which tool (ex: BrightBytes, Speak Up, survey created by you or the district, other)?

We will continue to use BrightBytes to collect student responses and compare them to previous collections. The data gathered with will provide insight into how both students and teachers view the major components of learning utilizing technology.

If you have a method to collect student voice for this purpose, reference specific data points from the collection that were useful in developing strategies for this new plan.

Collaboration is a key element in digital learning. The data points reflect a disconnect between what teachers are asking students and what students perceive they are being asked. Students report that they have collaboration skills, however teachers struggle to use collaboration in the classroom. This plan will address ways collaboration can be enhanced in the classroom.

KETS Master Plan Areas of Emphasis
Connected to the Future Ready Framework

The Future Ready Framework identifies seven Gears to assist districts in developing a roadmap for student success through personalized student learning and collaborative leadership. The KETS Master Plan has identified 37 Areas of Emphasis connected to the Future Ready Framework and are categorized as either *1) Areas of Acceleration (AA) or 2) Areas of Improvement (AI).* The "areas of acceleration" are considered big wins, successes, and major milestones of the KETS are identified for continuation work. The "areas of improvement" address emerging areas based upon growth or decline metrics, research, needs assessments, and reporting by Kentucky school districts.

Use the Areas of Emphasis and Future Ready Framework as a lens to analyze current trends, initiatives, needs and goals of your district. Link the work of this new plan identified by your planning team to the Gears and Areas of Emphasis of the KETS Master Plan on the following pages. There is no expectation to address all 37 Areas of Emphasis of the KETS Master Plan. Any strategy that involves Erate, please include in the Budget & Resources gear. If your district has lease agreements (i.e.; device, fiber, etc.), be prepared to reference the quantity during the final submission process.

Robust Infrastructure & Ecosystem
Future Ready Gear

KETS GUIDING PRINCIPLE – A robust infrastructure is one that delivers the device, network and support needs of staff and students to create personalized learning environments using digital tools and resources.

Areas of Emphasis: Areas of Acceleration (AA) /Areas of Improvement (AI)

AA-1: Continue to provide nation's first, fastest, highest quality, and most reliable internet access to 100% of Kentucky's public schools

AA-2: Continue to ensure equity and standardization for delivery of device, network, data and support creating best in class staff and student digital experiences AND provide a system of shared/brokered/managed services maintaining low infrastructure costs and providing support structures promoting the use of personalized learning environments

AA-3: Continue to create a culture of digital connectedness through all- the-time, everywhere, always on digital opportunity and access with emphasis on dense Wi-Fi throughout schools *(also including home access, Wi-Fi buses, school and classroom Wi-Fi, etc.)*

AA-4: Continue to encourage the use of instructional programs and administrative processes requiring cloud-based services

AI-1: Improve ease of access for student and staff through continued progress toward 1:1 student to computer ratio utilizing increased amounts of mobile devices *(fewer traditional computer labs)*

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA1	Continue to utilize Spectrum for the outlying schools (Camargo, Mapleton, Mount Sterling, Northview)	Technology Team	Completed by Jul 1, 2020	Erate KETS General Fund	$	Schools will be able to connect to the Internet and to the data center at 10GB.
AA2	Replace existing wireless access points and add wireless access points in the three older elementary schools(Camargo Elementary, Mapleton Elementary and Mt. Sterling Elementary) to have a one-to-one ratio of access points to classrooms	Technology Team	Completed by Jul 1, 2021	Erate KETS General Fund	$	Usage increases by 50% and devices connected increases by 20% per day.
AA2	Provide faster connection speed between the data center and the schools by upgrading key network components	Technology Team	Completed by Aug 1, 2020	Erate KETS General Fund	$	Ability to reformat computers increases by 50% to outlying schools(Camargo, Mapleton, Mount Sterling, Northview)

Equity | Achievement | Integrity | Quality | Opportunity | Access

Data Security, Safety & Privacy
Future Ready Gear

KETS GUIDING PRINCIPLE – Security, safety and privacy of student data is a cornerstone of digital learning. Policies and procedures are enacted at the state, district and school levels that work in conjunction for this purpose. Student data are then utilized by data fluent educators for improved decision-making leading to increased learning for students.

Areas of Emphasis: Areas of Acceleration (AA) /*Areas of Improvement (AI)*

AA-1: Continue to support districts in securely accessing and managing key student and administrative data sets through improved user experiences, refined data collection processes, continuously updated policies and practices regarding student data security, and timely access to data sets that improve the depth and efficiency of student learning *(Infinite Campus, Early Warning, MUNIS, eTranscripts, School Report Card)*

AA-2: Continue to identify key aspects of data security regularly to build upon the current systems, procedures and policies to remain a leader in mitigating emerging threats *(acceptable use policies, firewall updates, data privacy studies, digital citizenship, content filtering)*

AA-3: Continue to utilize adoption metrics or trending data for planning purposes that allow EdTech leaders to identify what's working and what's not working based upon data quality and evaluate current systems and solutions to determine effectiveness and future direction *(annual auditors, TELL survey, Technology Activity Report, Digital Readiness, Data Quality Study, Data Quality Campaign, BrightBytes, SpeakUp)*

AA-4: Continue to migrate key administrative and student data sets to secure cloud-based services that allow anywhere, anytime secure access for the improvement of student learning *(Infinite Campus, Early Warning, School Report Card, MUNIS)*

AA-5: Continue supporting teacher efforts in taking ownership of digital citizenship skills and education their student in the same skills to foster a secure digital learning environment

AI-1: Educate and support districts in the importance of personnel with duties related to student/staff data quality, security and privacy as well as bringing data privacy to the "radar screen" of teachers/staff *(The People Side of EdTech)*

AI-2: Kentucky K-12 Data systems are first-class but we need to do much better with district using the data available to them as well as providing visual data analytic tools allowing the data to be better understood and more interesting to the average person who does not have a technology and data background

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA-5	Teachers will continue to work with students to improve their digital citizenship skills to foster a secure digital learning environment. They will be able to utilize the i-SAFE curriculum.	Teachers	July 2019 and ongoing	NA	NA	Student percentages will increase 10% in the area of digital citizenship on the BrightBytes data survey.

Budget & Resources
Future Ready Gear

KETS GUIDING PRINCIPLE – The Master Plan, as well as district and school technology plans, are aligned to the vision of 21st century skills for students and staff. Revenue streams are aligned to account for the recurring and nonrecurring total cost of ownership to support the 21st century learning environment in a manner that reflects good stewardship of tax dollars to include devices, infrastructure, support, data and human services.

Areas of Emphasis: Areas of Acceleration (AA) /*Areas of Improvement (AI)*

AA-1: Continue to maximize local and state education technology expenditures through a system of shared/brokered/managed services

AA-2: Continue use of long-term planning strategies that allow for continuity of initiatives and systems *(ex. Accounting for cost of ownership over the lifespan of equipment so monies are allocated for repairs/upgrades)*

AA-3: Continue to leverage all available state and federal funding opportunities to address required basic cost of living increases, previous budget cuts of basic services, projected growth by districts *(e.g. Internet consumption)* while maximizing education technology programs and initiatives *(Technology Need, E-rate)*

AI-1: Make districts aware of position/roles requiring technology-related duties in support of technology and instruction *(The People side of K-12 EdTech)*

AI-2: Make districts aware of how to reduce expenditures on printing/print services *(both in consolidated contract pricing as well as shifting from paper to digital experiences)*

AI-3: Evaluate the need and explore new contracts that drive costs down for statewide summative online assessment, learning management systems, printing services and interim based assessments

AI-4: See an increased percentage of districts examining which education technology investments are or are not being maximized

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA-3	The district will continue to utilize erate funding to maintain a healthy infrastructure to promote student learning.	Technology Team	July 2019 – June 2020	Erate KETS General Fund		The network will be able to provide access to online resources as noted through anecdotal data.
AI-3	The district will continue to utilize the state contracts to ensure the most efficient use of district monies.	Technology Team	July 2019 – June 2020	Erate KETS General Fund		Examination of the technology budget.

Partnerships
Future Ready Gear

KETS GUIDING PRINCIPLE – Connecting students and educators to the local and global community is a key factor to student success. The Master Plan will continue to provide opportunities for trusted relationships to build those connections as well as increase communication and transparency with shareholders, including families, districts, vendors, regional education collaboratives, postsecondary institutions and business/industry, in support of student learning and preparation beyond K-12.

Areas of Emphasis: Areas of Acceleration (AA) /Areas of Improvement (AI)

AA-1: Continue to build trusted relationships with shareholders (families, districts, partners) that will reduce risk as well as increase transparency and communication *(districts, vendors, higher-education, regional cooperatives)*

AA-2: Continue to utilize avenues of communication with shareholders allowing pertinent information and dialog to further student learning efforts *(Webcasts, BrightBytes, Technology Activity Report, KETS Service Desk, Office of Education Accountability studies, independent studies, etc.)*

AA-3: Continue to utilize tools engaging postsecondary institutions, community members, districts and families in student learning and life after K-12 *(eTranscripts, School Report Card and Dashboard tool, Infinite Campus parent and student portal, KDE Open House, Digital Readiness Survey)*

AI-1: Partner with postsecondary pre-service teacher and principal programs to provide support in candidate preparation

AI-2: Encourage postsecondary institutions to host STLP events and /or more fully maximize the opportunity to showcase the university and its programs while students are on campus

AI-3: Build relationships with charter schools to determine policies and procedures related to architecture/design, systems security and privacy, services and reporting requirements

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA-2	The district will continue to utilize BrightBytes to provide data from both students and teachers	Technology Staff	July 2019 – June 2020	KETS	$	Collections will be made each November and resulting data will be used to monitor progress in key areas.

Digital Curriculum, Instruction & Assessment
Future Ready Gear

KETS GUIDING PRINCIPLE – A digital learning experience is fostered by a teacher or coach with the use of rich digital instructional materials that are vetted to the rigor of Kentucky Academic Standards. A robust digital environment provides students with the opportunity to assess their own learning/progress.

Areas of Emphasis: Areas of Acceleration (AA) /Areas of Improvement (AI)

AA-1: Continue to provide access to instruction digital content which further aligns to the Kentucky Digital Learning Guidelines

AA-2: Continue providing opportunities for students to demonstrate learning connected to and through technology *(empowering students through technology with STLP, IT Academy, etc.)*

AA-3: Continue to finalize and partner with Career and Technical Education (CTE) to promote Kentucky approved K-12 Computer Science Standards and Technology/Digital Literacy Content Standards *(based on International Society for Technology in Education standards)* for ALL students

AA-4: Continue providing access to online assessment tools that allow teachers and administrators to assess student learning, provide timely feedback to students and make curriculum decisions *(online formative assessment tools, interim based assessments, and summative assessments)*

AA-5: Continue to provide districts/classrooms access to digital instructional materials through an equitable of robust digital experience

AI-1: Identify digital content and tools (curriculum, instruction and assessment) designed to have the highest impact and value (e.g. is the technology making or not making an instructional and learning difference?), including frequency of use by teachers and students

AI-2: Create a closer connection with Career and Technical Education to expand information technology and computer science career pathway offerings specifically related to computer programming/coding and increase exams available through IT Academy

AI-3: Play a vital role in implementation of summative online assessment and school report card and dashboard tool of the new assessment and accountability system

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA-1	The district will be implementing the Computer Science Standards for the 2019-2020 school year	Classroom teachers	Junly 2019 – June 2020	District Funds	$	Classroom lesson plans will reflect the inclusion of the Computer Science Standards
AA-2	The district will continue to support STLP in each school.	Technology Staff	July 2019 – June 2020	KETS	$	The Technology Activity Report will show funding for STLP in each school.
AA-4	The district will continue to provide MAP assessments for Grades K-10.	Curriculum	July 2019 – June 2020	General Funds	$	Timely reports from MAP testing will be utilized to make curricular decisions and adjustments to instruction.

Equity | Achievement | Integrity | Quality | Opportunity | Access

Personalized Professional Learning
Future Ready Gear

KETS GUIDING PRINCIPLE – Digital learning expands the access to quality strategies and experiences for educators beyond the traditional methods of professional development. A culture of digital collaboration, workflow and relationships allows educators to build skill sets and instructional best practices with colleagues globally. This approach of increased access and flexibility for professional learning ultimately leads to greater success for students.

Areas of Emphasis: Areas of Acceleration (AA) /Areas of Improvement (AI)

AA-1: Continue building a culture of digital collaboration and connected digital relationships that allow administrators to support and encourage the use of digital tools by staff for professional learning.

AI-1: Provide district with guidance and support to determine crucial learning needs of teachers resulting in more professional learning opportunities related to digital learning tools

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AA-1	The district will continue to utilize curriculum coaches to provide job embedded instruction for teachers in the integration of technology.	Curriculum coaches	July 2019 – June 2020	General Funds Title I Title II Title V	$	Professional development data points on BrightBytes data collection will show an increase.

Equity | Achievement | Integrity | Quality | Opportunity | Access

Use of Space & Time
Future Ready Gear

KETS GUIDING PRINCIPLE – The personalized learning environment for students requires reimagining the use of school space and time. Virtual instruction, cloud-based learning tools, digital instructional material, digital collaboration, digital workflows and digital relationships, etc., assist in providing the vehicle for anywhere, anytime learning.

Areas of Emphasis: Areas of Acceleration (AA) /Areas of Improvement (AI)

AA-1: Continue to provide guidance, support and resources for districts in the development and application of high quality online/virtual coursework as well as implementation of learning management systems

AI-1: Educate and support districts in the implementation and facilitation of digital learning tools and portable technologies that foster anywhere, anytime access for staff and students

KETS AA or AI	Strategy	Person(s) Involved	Anticipated Timeframe	Anticipated Funding Source	Anticipated Funding Amount	How will you know this is successful? (including metrics)
AI-1	The district will continue to utilize mobile devices to provide students with increased opportunities for anywhere, anytime access.	Technology Team School administrators	July 2019 – June 2020	KETS General Funds School Funds	$	BrightBytes data will show an 10% increase of access for students.