

DISTRICT TECHNOLOGY PLAN

DISTRICT NAME Boone County Schools

LOCATION Florence, KY

PLAN YEAR(S) 2020 - 2021



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Planning Team

District Staff	
Kyle Berberich - Technology Resource Teacher	Mary Ann Rankin - Director of Technology
Bonita Bolin - Instructional Technology Coordinator	David Staton - Network Administrator
Randy Deaton - Network Manager	
Cathy Himmelmann - Technology Resource Teacher	
Building Staff	
Lenora Broome - Teacher RA Jones Middle School	Mike Hughes - Teacher Boone County High School
Cher Caldwell - Teacher Ryle High School	Pam Jackson - STC Goodridge Elementary School
Angela Dammeyer - STC/Teacher New Haven Elementary School	Jessica Klosinski - STC/Teacher Erpenbeck Elementary School
Danielle Dierig - Teacher Cooper High School	Amanda Leatherman - STC/Teacher Longbranch Elementary School
Craig Dunlap - STC/Teacher Yealey Elementary School	TW Loring - Principal Collins Elementary School
Laura Hicks - Teacher Collins Elementary School	Bridget McQuade - STC/LMS Ryle High School
Tammy Huff - STC Collins Elementary School	Darla Payne - Principal Ockerman Middle School

Previous Plan Evaluation

Curriculum and Instructional Integration Goals

- Increase in use and delivery of content with multiple digital tools such as Canvas, Google Classroom Lexia and Dreambox.
- [Teaching with Technology](#) website updated to include [Distance Learning Tools](#) resources.
- Increased use of [District Programs Dashboard](#) - making access to digital tools more streamlined and user friendly.

Staff Training/Professional Development Goals

- By popular demand, Sphero Academy focusing on Trial and Error, Grit, Persistence, Problem Solving with embedded technology
- Monthly Technology Department meetings for common planning between hardware and software
- Quarterly School Technology Coordinator meetings to share strategies and processes that continue to move technology integration forward
- Google Team Drives created for School Technology Coordinators and all Boone County staff for easy access to resources
- Classified Staff Google trainings

Technology Goals

- Infrastructure updated according to replacement cycle plan
- Erate funding maximized
- Chromebooks refreshed
- Funding established for high school 1:1

New Plan Preview

The Boone County Technology Plan focuses on the mission, vision and goals of the school district.

District Mission: Representing and in partnership with our stakeholders, the Boone County School District recognizes that all children can learn and dedicates itself to providing a challenging educational environment that allows each student to achieve to his or her highest potential as a learner and citizen.

District Vision: Every graduate college, career, and life ready.

District Goals:

- Student Empowerment – All students are involved in leadership skills/career skills development with a focus on hope/well-being/engagement and are engaged in authentic, personalized career exploration experiences.
- World-Class Education – All teachers use Understanding by Design framework and philosophy to plan units of instruction. Within UbD units of instruction, students are engaged in PBL/service learning experiences.
- Resource Optimization – All District departments and divisions engage in process and performance management measures to optimize resources, increasing efficiency and effectiveness. Virtual and blended course offerings, as well as flexible schedules will be in place to meet the diverse needs of students.

The Technology Plan embraces and supports the Strategic Plan with all learners demonstrating 21st century skills and knowledge that will prepare them for success in college, career and life. By providing students and staff with accessible and effective technologies, all stakeholders will have the opportunity to develop job-embedded skills that enhance learning, increase productivity and prepare for the future. Pedagogy is the driver. Technology is the tool. With technology tools, teachers and students will experience innovative learning, content creation, and make real-world connections. In Boone County, we do not just use technology. We use technology to create learning.

Major activities in this plan include:

- Continued 1:1 support for 3 - 12 grades
- Continued implementation of infrastructure replacement cycles
- Continued use of Erate opportunities
- Emphasis on data security: refine district policies, multi factor authentication
- Instructional focus and monitored use of implementation of digital tools
- Gather data and address gaps with student home Internet access

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.



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.*)



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*)

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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	Refresh wireless access points at Gray, Erpenbeck, Yealey, Mann, Boone, Florence, Conner High, Goodridge, Stephens and ATC	Tech Dept	July 1, 2020 - May 1, 2021	Erate and General Fund	\$523,600.00	Infrastructure will continue to support instructional practices
AA-2	Rewire Ryle, Conner Middle, Erpenbeck, Gray, North Pointe to 6a cabling	Tech Dept Finance	July 1, 2020 - June 30, 2021	General Fund	\$1,170,188.92	Infrastructure will continue to support instructional practices
AA-1	Year 5 implementation of existing fiber contract. Each Boone County building will have a 1GB connection to the Board of Education	Tech Dept	July 1, 2020 - June 30, 2021	Erate and General Fund	\$198,953.04	Infrastructure will continue to support instructional practices
AA-1	Post Erate 470 and award new Fiber contract to begin July 1, 2021.	Director of Technology	October 1, 2020 - March 1, 2021	n/a	n/a	New Fiber contract will continue to support instructional practices
AA-4	Lightspeed Relay implementation	Tech Dept	July 1, 2020 - December 2020	KDE Funded	KDE Funded	Increased monitoring and reporting on instructional tool use and bandwidth traffic
AA-2	Refresh 3rd, 6th and 9th grade Chromebooks	Tech Dept Finance Principal	July 1, 2020 - August 15, 2020	Various Sec 7	\$1,704,294.00	Continued support and access to digital instructional tools and resources
AA-3	Year 1 of 5 year agreement of phone system service	Tech Dept Finance	July 1, 2020 - June 30, 2021	General Fund	\$130,200	Phone system will continue to support instructional and safety practices.



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-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*)



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*)

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	Continue to review the Data Security and Breach Best Practice Guide and submit security efforts to the school board	Director of Technology	July 1, 2020 - August 1, 2020	n/a	n/a	Board meeting minutes will document the submission. Updates to the district strategies will reflect successes and improvement items.
AA-2	Review of Acceptable Use Procedures	District Technology Committee	July 1, 2020 - April 1, 2021	n/a	n/a	Committee meeting notes and board approval of inclusion in the district Code of Conduct
AA-2	Review user rights to digital tools and hardware including but not limited to: Workstation Admin Rights Network Rights Infinite Campus Group Policy	Tech Dept	July 1, 2020 - June 30, 2021	n/a	n/a	Reports from various systems will indicate that rights are accurate based upon job responsibilities
AA-4	Data synchronization between systems is functioning as expected	Tech Dept	July 1, 2020 - June 30, 2021	n/a	n/a	Regular data samples will indicate that data is accurate and students will have access to instructional tools depending upon the data sync
AI-1	Provide greater opportunities for staff and students to demonstrate safe, legal and responsible use of information and digital tools	Tech Dept Principal	July 1, 2020 - June 30, 2021	n/a	n/a	Increased inclusion of digital citizenship instruction in classrooms and staff meetings
AA-2	Multi Factor Authentication Implementation	Tech Dept	July 1, 2020 - June 30, 2021	n/a	n/a	Access to vital systems will have increased security



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

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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	Take full advantage of all Erate funding opportunities	Director of Technology	Meet timelines as dictated by the Universal Service Administrative Company (USAC)	n/a	n/a	Eligible services and district infrastructure will remain current and the district will receive a 60% discount
AA-3	Continue to match KETS Offers of Assistance and submit required reports: Technology Activity Report Digital Readiness Survey District Technology Plan	Director of Technology Director of Finance	July 1, 2020 - June 30, 2021	n/a	n/a	Schools will continue to maintain/update hardware and purchase district approved digital tools
AI-4	Investigate ways to better monitor digital tool use - including new Lightspeed Relay provided by KDE	Director of Technology Instructional Technology Coordinator TRTs Learning Support Services	July 1, 2020 - June 30, 2021	n/a	n/a	Monitoring strategies will drive conversations and decisions on whether the district continues or eliminates support for digital tools
AA-2	Continue 1:1 support for 3rd - 12th grade Chromebooks	Tech Dept Instructional Technology Coordinator	July 1, 2020 - June 30, 2021	n/a	n/a	Continued support and access to digital instructional tools and resources
AA-1	Continue to use state contracts and co-op purchasing opportunities	Director of Technology	July 1, 2020 - June 30, 2021	n/a	n/a	Best possible pricing will be secured for district purchases



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.*)

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, AA-2	Continue to participate in region and state meetings: Region CIO, Region Technical, KySTE, STLP, DLC	Tech Dept	July 1, 2020 - June 30, 2021	n/a	n/a	Relationships will be built and sustained
AA-1	Continue to share district events, successes and opportunities via various social media resources and district website	Administrators Teachers Students	July 1, 2020 - June 30, 2021	General Fund	\$20,000	Stakeholders will be informed regarding the events, successes and opportunities in the school district



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-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

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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	Continue to provide access and support for digital tools (ie: AD Management, Helpdesk, UMRA, Amplified IT, PDQ Deploy, etc)	Tech Dept	July 1, 2020 - June 30, 2021	General Fund	\$130,000.00	Consistent access will continue to support instructional practices
AA-4, AA-5	Use of digital tools to guide instructional practices and decisions (ie: Canvas, Dreambox, Academic Edge, etc)	Tech Dept Learning Support Services	July 1, 2020 - June 30, 2021	Various	\$651,784.30	Digital tools will support instructional needs and guide instructional decisions
AA-1	Continue to support and update websites and the Infinite Campus Technology Tab for easy of access to digital instructional tools: District Programs Dashboard District Programs Log In Info Distance Learning Tools Teaching with Technology	Tech Dept	July 1, 2020 - June 30, 2021	n/a	n/a	Students and teachers will have easier access to digital instructional tools both on site and off site (ie NTI days)
AI-1	Investigate ways to better monitor digital tool use with new Lightspeed Relay provided by KDE	Director of Technology Instructional Technology Coordinator TRTs Learning Support Services	July 1, 2020 - June 30, 2021	n/a	n/a	Monitoring strategies will drive conversations and decisions on whether the district continues or eliminates support for digital tools



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	Continued support to determine the best tool to meet the instructional objective	Tech Dept Learning Support Services Instructional Coaches	July 1, 2020 - June 30, 2021	n/a	n/a	Lesson plans, classroom visits, training logs
AA-1	Continue professional development designed to meet individual needs via online courses, face to face meetings, etc.	TRTs Instructional Coaches	July 1, 2020 - June 30, 2021	n/a	n/a	Lesson plans, classroom visits, training logs
AA-1	Continue quarterly School Technology Coordinator meetings	Director of Technology Network Manager Instructional Technology Coordinator	July 1, 2020 - June 30, 2021	n/a	n/a	Meeting notes, training logs
AA-1	Continue professional development designed for classified staff	TRTs	July 1, 2020 - June 30, 2021	n/a	n/a	Training logs, requests for specific content



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

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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	Continue to support Canvas and Google Classroom	Tech Dept Learning Support Services Instructional Coaches	July 1, 2020 - June 30, 2021	General Fund	\$62,400	Increase in the number of online courses developed and increased options for students to demonstrate learning
AA-1	Continue 1:1 support for 3rd - 12th grade Chromebooks	Tech Dept School Technology Coordinator	July 1, 2020 - June 30, 2021	n/a	n/a	Continued support and access to digital instructional tools and resources
AI-1	Investigate ways to ensure all students have home Internet access capable of supporting online digital instruction that includes blended learning, video conferencing, online video streaming, etc.	Director of Technology Assistant Superintendent Learning Support Services Assistant Superintendent Operations	July 1, 2020 - June 30, 2021	n/a	n/a	Increase opportunities and access to digital instructional tools and resources