



District Technology Plan



2019-2023

350 Keller Parkway
Keller, Texas 76248

p. 817-744-1000

www.kellerisd.net

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Introduction

District Information

Keller Independent School District
350 Keller Parkway
Keller, Texas 76248
Phone: 817-744-1000

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County: Tarrant
District Number: 220907
ESC Region XI

Contact Information

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Technology Advisory Committee Members

Joe Griffin	CTO
Vaughan Hamblen	Director of Technology – Data Analytics
Rhonda Dominguez	Director of Technology – Systems Integration
Deborah Cartwright	Director –Data Compliance & Records Management
Aaron Rister	Director – Educational Technology
Lindsay Anderson	Area Superintendent
Sara Koprowski	Executive Director – C&I
Dustin Blank	Assistant Superintendent – Student Services
Michelle Somerhalder	Principal – TCHS
David Wright	Assistant Director – Fine Arts
Kevin Kinley	Director – Safety & Security
Rick Westfall	Superintendent
Bryce Nieman	Communications
Nicole Lyons	Communications
Erica Wood	Assistant Principal – ELC-N
Lisa Simmons	Keller High School
Clarissa Marchalk	Keller High School
Audrey Wilson-Youngblood	Technology Department
David Janeski	Fossil Ridge High School
Wayne Barnhouse	Fossil Ridge High School
Rebecca Orona	Fossil Ridge High School
Leslie Tewell	Keller-Harvel ES
Kathleen Eckert	Hillwood Middle School
Kerri Harris	Hillwood Middle School
Terri Levy	Heritage Elementary School
Elaine Plybon	Director – Personalized Learning Opportunities
Marlen Bozone	Fossil Hill Middle school
Gaye Lynn Kuhn	Chisholm Trail Intermediate
Caroline Carr	Parkwood Hill Intermediate
Lisa Sturges	Keller-Harvel Elementary School
Ashley Woods	Freedom Elementary School
Diana Colby	Technology Department
Janice Freeman	North Riverside Elementary School
Kristy Hill	Eagle Ridge Elementary School
Courtney George	Independence Elementary School
Suzanne Ross	Park Glen Elementary School
Sarra Smith	Technology Department
Khanh Moutafis	PTA
Eric Yancy	Parent/Genius Team Member Parent
Kevin Dougherty	Vendor – zSpace
Julie Dodson	Fine Arts Booster
Kristen Scalf	KISD Education Foundation
Elizabeth Young	KISD Education Foundation
Zach Cantu	Keller High School Student
Kayli Torres	Fossil Ridge High School Student
Cecilia Rodriguez	Fossil Ridge High School Student

Plan Introduction

Keller ISD Technology Mission Statement

Empowering others to achieve more through innovative solutions.

Years Plan Covers

This three-year plan will cover the 2019-2023 school years

This plan also includes a Proposed Technology Bond in 2019-2023

Executive Summary

Keller ISD has spent the past twenty years in a rapid growth mode more than tripling district student enrollment during this time. Currently, Keller ISD is the largest school district in Northeast Tarrant County encompassing over 40 square miles and nine municipalities. Technological innovation supporting our students and staff has been a mainstay of the culture of Keller ISD for the past twenty-five years. In 1995, Keller ISD was one of the first school districts in Texas to equip teachers with laptop computers for planning and accessing a digital gradebook. With overwhelming community support, Keller ISD had been successful with several bond initiatives during this time to install a district owned fiber wide area network to connect all facilities as well as providing classroom technologies to enhance instruction. Technology in the Keller ISD is used inside and outside of the classroom to empower all stakeholders to solve problems and transform their learning and working environment for success.

The 2019-2023 Technology Plan is based on work of the District Visioning Committee, District Long Range Facility Planning Committee, Texas Long Range Plan for Technology and the District Technology Advisory

Committee. The collaborative work of these committees created a new funding strategy for the procurement of technology to ensure that the goals outlined in this plan are sustainable. Classroom technologies, including student and teacher devices, will now be funded by short-term technology bonds with voter approval rather than from the District's operating budget as has been the practice for the past twenty years. In addition to new funding strategies, the focus of the technology department is deeply rooted in the District's Core Values.

We Value...

- *Relationships as the foundation for how we teach, learn, work, and play together in a safe, engaging, and caring way;*
- *Care for our teachers because the impact of their work prepares students for their future;*
- *Passionate teaching dedicated to content and craft that inspires others;*
- *Exploration and the pursuit of one's passion that leads to personal growth;*
- *Communication and collaboration that strengthens our unity;*
- *Respect for the diversity of our school community through a culture of understanding and personalized learning opportunities.*

This plan identifies six strategic goals that represent the technology trends and priorities in education. The focus areas touch all aspects and people within the Keller ISD.

TECHNOLOGY GOALS



Personalized, Flexible, Empowered Learning



Equitable Access



Digital Citizenship



Safety and Security



Collaborative Leadership



Reliable Infrastructure

Long Range Planning Committee Needs Assessment

PRIORITY 1:

Current Services Expiring

- Continued maintenance and support of Cyber Security platform

Improved Communication Systems

- Upgrade current phone and communication systems for unified emergency and classroom connectivity

Increased reliability of KISD Network

- Uninterruptible Power Source - seamless kick over of failed systems/zones which could be electrical
- Outage or hardware failures
- Mesh Fiber network – allows redundancy between campuses

Replacement Cycle

- Strategy for device procurement and replacement with new technologies
- Strategy for replacement and procurement with classroom display solutions

PRIORITY 2:

Eliminate Silos of Support

- Central hub for resource management
- Professional learning and coaching
- Coordination of digital learning

Resource Management

- Change Management Interoperability of System
- Unified system of resource management

Deployment for Compliance

- Scope and sequence/curriculum
- Professional learning for students and staff
- Community outreach for parents

PRIORITY 3:

Flexible Learning

- Provide extended access of resources to student community
- Extend physical access for collaboration and creativity

PRIORITY 4:

Adoption

- Virtual Reality
- Augmented Reality
- Artificial Intelligence
- Internet of Things

Technology Projects slated for 2019 Bond

Bond	2019-2023
Teacher and Student Devices	16,177,404
Fine Arts Equipment and Teacher Devices	2,561,284
Classroom Projectors/Displays	2,605,090
Wireless Infrastructure	10,702,000
Cabling Infrastructure/Replacement	3,200,000
New District Phone System	686,818
UPS Batteries	700,000
Subtotal	36,632,596

Goal 1 –Personalized, Flexible, Empowered Learning

Provide meaningful, relevant opportunities for all learners to engage in collaboration, communication, creativity, and critical thinking while increasing digital literacy.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 1.1 The district will strive to ensure that all learners achieve academic success through the integration and application of technology in all curricular areas.

Strategies

- 1.1.1 Provide all learners on-demand access to an appropriate device(s) that allows them to access digital curriculum and demonstrate their learning in creative, diverse ways.
- 1.1.2 Develop a staffing model using campus Library/Media specialist as facilitators to support educators in the design and implementation of digital skills in the learning environment
- 1.1.3 Provide tools and resources to meet the needs of all learners and learning styles
- 1.1.4 Provide all students and parents access to a Learning Management System to accommodate anytime, anywhere learning that provides relevant course materials, interactive opportunities and support.
- 1.1.5 Use various diagnostic tools for formative evaluation to monitor progress toward the mastery of instructional objectives.

Strategies

- 1.2.1 Break down technology standards/skills grouped by grade-level and develop “place mats” using the Understanding by Design (UBD model).
- 1.2.2 Convert existing curriculum documents into a digital format.
- 1.2.3 Develop strategies to monitor and document progress of integration of technology into curricula and instruction.
- 1.2.4 Develop protocol to monitor and assess student mastery of the Technology Applications TEKS.
- 1.2.5 Research and develop innovative courses that focus on emerging “real-world” technologies such as Gaming, Artificial Intelligence, and Cyber Security.

Objective 1.3 Demonstrate communication, collaboration, critical thinking and creativity through authentic, relevant experiences.

Strategies

- 1.3.1 Provide opportunities for students to showcase a variety of authentic learning experiences through their personal student account
 - 1.3.2 Provide opportunities for students to demonstrate effective communication skills to present and connect to a real-world, global audience beyond the classroom walls at district events.
 - 1.3.3 Students will have opportunities to collaborate both virtually using Canvas and Google Classroom as well as face-to-face.
 - 1.3.4 Provide learning opportunities to educate parents and community members in all areas of digital learning.
 - 1.3.5 Ensure that all learners will use information and communication technologies to collaborate, construct knowledge and provide solutions to real-world problems.
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Goal 2 – Equitable Access

Provide an infrastructure that supports an anywhere, anytime learning environment for all.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 2.1 Provide fair and equal opportunities for all students to take full advantage of their education.

Strategies

- 2.1.1 Through bond funds, all students will have access to devices beginning with the 2020-2021 school year.
- 2.1.2 Classroom technology pilots will be implemented during the 2019-2020 school year to identify appropriate technology for the grade level and curricular area of instruction.
- 2.1.3 Student technology device standards for learning, access, and the device itself will be developed to ensure effective, appropriate use.
- 2.1.4 Create a strategic implementation plan to address the necessary shift in instructional strategies with the use of student devices.
- 2.1.5 Develop a lending procedure when providing technology to students for home use (including hot spots) when necessary.

Goal 3 – Digital Citizenship

Provide guidance and instruction on responsible, safe, respectful and legal use of technology.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 3.1 Ensure that opportunities for development of digital literacy skills are designated in all subject areas

Strategies

- 3.1.1. Establish procedures and expectations to provide timely and relevant instruction for all learners regarding digital citizenship and safety.
- 3.1.2 Incorporate model Digital citizenship lessons developed by District Librarians into grade level and subject level curriculum.

Goal 4 – Safety and Security

Provide an environment free of physical, emotional, and digital harm or risk.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 4.1 Provide physical safety of students, staff and community at all Keller ISD facility using technology resources.

Strategies

- 4.1.1 Extend the Raptor system to vestibule Kiosk to remove risks to front office staff at District facilities.
- 4.1.2 Install ballistic film in front office facilities with extensive glass facades.
- 4.1.3 Explore facial matching technology with security cameras at secondary campuses where large volumes of students enter and exit the facilities at the same time to identify potential threats.
- 4.1.4 Upgrade current Cisco IP telephony to with classroom hand sets that can initiate a campus lockdown if a threat exists.
- 4.1.5 Ensure that all communication, PA and campus digital display are interoperable though existing or vendor developed APIs.

Objective 4.2 Provide technology tools and applications to report, investigate and develop action plans for incidents of bullying (and cyberbullying) and incidents of harm or self-harm.

Strategies

- 4.2.1 Update the District developed Threat Assessment application to include new requirements of Senate Bill 11.
- 4.2.2 Update Suicide Risk Application to include new requirement of Senate Bill 11
- 4.2.3 Align District Intervention applications with the new SIS (Aeries) for use beginning 2020-2021.

Objective 4.3 Expand and implement cybersecurity applications and processes to protect student, staff, and district data.

Strategies

- 4.3.1 Implement 2 factor authentication for all employees and students in grades 5-12 during the 2019-2020 school year.
- 4.3.2 Provide cybersecurity training as mandated by HB3834 to all knowledge workers and test their understanding through phishing emails.
- 4.3.3 Create the position of Cybersecurity Officer to effectively manage the security program to reduce risk and vulnerability of the District's information and transactional systems.
- 4.3.4 Implement resolution to findings from the District's NIST audit and apply for the Trusted Learning Environment Seal.
- 4.3.5 Develop data governance groups to ensure the appropriate individuals are engaged in Data-related decisions.

Goal 5 – Collaborative Leadership

Provide a foundation of leadership, administration and services that support exceptional teaching and learning through the integration of technology.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 5.1 Promote and support the integration of technology into teaching and learning.

Strategies

- 5.1.1 Lead campus staff by modeling consistent and appropriate use of technology in daily professional practices.
- 5.1.2 Establish district wide expectations for the use of a standard learning management system.
- 5.1.3 Develop a standard course framework for learning management system.
- 5.1.4 Create an expectation for all educators to collaborate in planning and developing digital-age learning experience.
- 5.1.5 Define an expectation for educators to use a common platform for communicating the location where all digital resources can be found (SeeSaw, G-Suite and Canvas).

Objective 5.2 District and campus administrators will model and monitor the appropriate use of technology.

Strategies

- 5.2.1 Monitor and provide ongoing feedback on the use of technology in instruction both in the classroom and digital environment.
- 5.2.2 Articulate the implementation of technology use in all campus improvement plans in alignment with the district Improvement plan.
- 5.2.3 Develop an educator evaluation process that assesses the extent to which instructional strategies and curricular delivery integrate current and emerging technologies.
- 5.2.4 Review and update guidelines and regulations related to technology on an annual basis.
- 5.2.5 Incorporate the ISTE standards for Administrators and SBEC Technology Applications Educator Standard into the evaluation process.

Objective 5.3 Provide resources to support the purposeful integration of technology.

Strategies

- 5.3.1 Utilize data driven decisions to identify technological needs of campuses and departments.
- 5.3.2 Provide adequate instructional support of the effective integration of technology into teaching and learning.
- 5.3.3 Allocate the use of Instructional Materials Allotment (IMA) funds to purchase technology and digital instructional materials.
- 5.3.4 Develop a responsible and sustainable technology budget to meet the needs of all learners.
- 5.3.5 Create business continuity plans that ensure critical technology can be recovered in a timely manner including electronic student records, instructional materials, financial and personnel records and communication systems such as email and web pages.

Objective 5.4 All administrators will engage in digital age professional development to ensure they are prepared to support Future Ready Learning.

Strategies

- 5.4.1 Provide professional learning opportunities for all educators that ensures technology proficiency.
- 5.4.2 Develop and implement training on the facilitation and participation in virtual PLCs using Zoom during 2019-2020.

Objective 5.5 Foster a partnership with all educational stakeholders.

Strategies

- 5.5.1 Collaborate with partners from PreK-12, parents, students and community members to share resources and promote improvement.
- 5.5.2 Provide parents secure electronic access to student information

- 5.5.3 Provide parental and community access to school facilities, library resources and non-secured data through technology.
- 5.5.4 Include community input into the planning and support for the integration of technology into teaching and learning.

Goal 6 – Reliable Infrastructure

Provide an infrastructure that supports an anywhere, anytime learning environment for all students and staff.

TIMELINE

2019-2020	2020-2021	2021-2022	2022-2023
Planning	Start		

Objective 6.1 Provide reliable and sustainable access.

Strategies

- 6.1.1 Ensure at least 1GB internet capacity per 1000 students.
- 6.1.2 Provide for WAN redundancy and resiliency by installing a fiber ring to ensure no single point of failure.
- 6.1.3 Increase wireless capacity to 2:1 device to student ratio. infrastructure within campuses including wired and wireless.
- 6.1.4 Ensure all older facilities are updated to current cabling standards.
- 6.1.5 Provide filtered “hot spots” to students and families without internet connectivity.
- 6.1.6 Continue partnership with Region XI Service center to sustain the District's HA ecosystem to ensure business continuity in the event of a disaster.

Objective 6.2 Provide a platform for content delivery and access to technology resources for anywhere, anytime learning environment for all.

Strategies

- 6.2.1 Provide and maintain a comprehensive, standardized environment within our learning management systems (Google Classroom and Canvas).
- 6.2.2 Continue to enhance the District's single sign-on portal, K-Cloud to ensure easy, reliable access to all district role based applications.
- 6.2.3 Provide Children's Internet Protection Act (CIPA) compliant filtering for all Internet access.
- 6.2.4 Provide a comprehensive resource portal for parents that provides access to their child's data.
- 6.2.5 Provide access and delivery of applications.

Objective 6.3 Provide resources that meet Student Device Standards

Strategies

- 6.3.1 Provide instructional devices based on the Students Device Standards with a refresh rate of 3-5 years.
- 6.3.2 Provide an instructional device for teachers that aligns with the Profile of a Classroom standard with a refresh rate of 3-5 years.

Student Device Standards

A student device supports Future Ready learning by providing access to relevant technologies, tools and resources for individualized instruction, while promoting student-driven learning. A student device allows for opportunities for self-sufficiency, digital responsibility and lifelong learning by providing tools that cultivate choice, communicational, collaboration, creativity and critical thinking.

Requirements for Learning

- ✚ Allows seamless access to instructional materials and digital resources.
- ✚ Provides opportunities to collaborate both in and out of the classroom.
- ✚ Promotes innovative experiences that are challenging, relevant, and meaningful to the students' lives.
- ✚ Creates connections that expose learners to dynamic, real-world content that prepare them to thrive in a global society.

Requirements for Access to Instructional Resources

- ✚ Supports access to a Learning Management System for anytime, anywhere learning.
- ✚ Maintains an up-to-date environment that is compatible with digital resources.
- ✚ Utilizes a filter to ensure an appropriate online experience while providing access to rich educational sites.

Requirements for the Device

- ✚ Ability to access resources for both offline and online use.
- ✚ All-day runtime to allow for uninterrupted use throughout the instructional day.

- ✚ Wireless connectivity support that meets or exceeds current standards.
- ✚ Mobile, durable device that withstands daily use.
- ✚ Meets the requirements of learners based on their developmental and instructional needs. Requirements include a touch screen, built in keyboard, pointing devices and other smart devices,
- ✚ Allows for interconnect ability with display devices and other smart devices.
- ✚ Built in customization features that allow for a personalized experience to meet the diverse needs of an individual learner.
- ✚ Provides a screen size that meets or exceeds minimum state testing requirements.

Classroom Technology Standards

Keller ISD will provide premier facilities and support systems that enhance a positive learning environment and foster student and community pride. This section is designed to provide a set of classroom standards that aligned with the Keller ISD Vision and Mission.

Standard Functionality – Classrooms

- ✚ Access to a student device at all times
- ✚ Staff & Student access to connect to projection device
- ✚ Robust network capability
- ✚ Device sound projection (teacher and student)
- ✚ Access to power for charging
- ✚ Ability to video conference with remote sites
- ✚ Ability to integrate students from remote locations into the classroom
- ✚ Ability to annotate display
- ✚ Ability to display media

Standard Equipment – Classrooms

- ✚ TV display or projector
- ✚ Teacher computing device that connects to projection device wirelessly
- ✚ Applications that allow the teacher to wirelessly manage student devices
- ✚ Teacher access to a networked printer with “follow me” printing capability

Demographics

- ✚ Total Student Enrollment: 35,358
- ✚ Campuses: 42
- ✚ Total Employees: 6,011
- ✚ Classroom Teacher: 2,433

KISD Continuous Improvement

- ✚ Priority #1: Educational Excellence
- ✚ Priority #2: Excellence in Student, Parent and Community Relations
- ✚ Priority #3: Excellence in Operational Processes and Systems
- ✚ Priority #4: Employee Excellence and Organizational Improvement
- ✚ Priority #5: Excellence in Financial Stewardship