TECHNOLOGY

VISION

The Central Bucks School District is committed to utilizing educational technology and digital tools that expand access to the curriculum and promote personalized learning. We will prepare students for their future by utilizing a variety of instructional practices and tools that support higher order thinking.


Recent advancements in technology have transformed the way people communicate, access information, create content, and collaborate with others all over the world. This societal shift has also impacted the way teaching and learning takes place in schools. The use of technology in the classroom gives students and teachers the ability to take learning to new heights. These possibilities allow schools to prepare students for 21st Century opportunities.

Our major initiatives are to provide staff and students opportunities for online collaboration, personalization of learning, and classroom mobility. Some key highlights of our department's vision include:

- Utilizing a district Learning Management System
- Implementing a 1:1 initiative
- Providing flexible seating in classroom and learning areas
- Adding ubiquitous Wi-Fi access
- Organizing resources on our district website

The technology vision has been crafted by a variety of stakeholders in the district and community to ensure our students are provided creative options and enhanced learning experiences. In addition to increased access to technology, we are committed to providing students and teachers with the necessary training and support to be successful in using these tools.
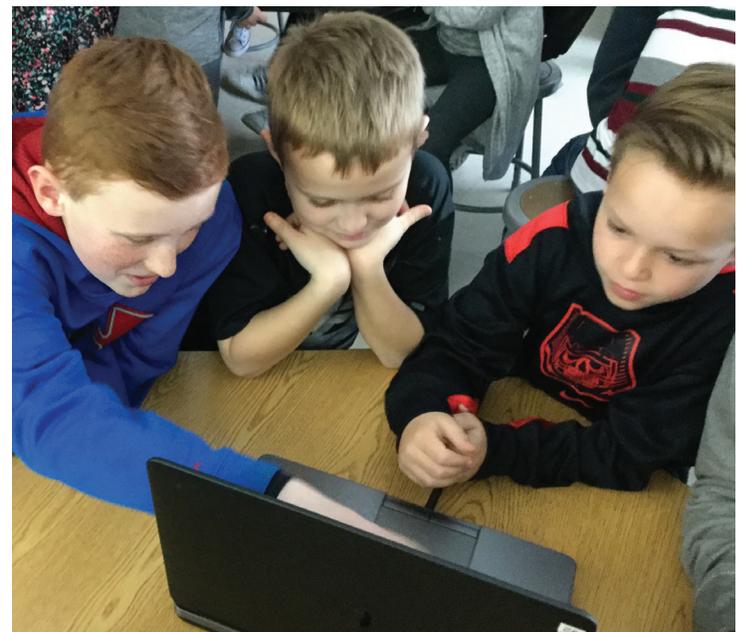
OUTCOMES

FOCUS I: INSTRUCTIONAL TOOLS (IT)

GOAL IT-1
Provide technology to foster creative options for teachers and students, maintain equity of access among students, and enhance student learning.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IT-1.1 Implement a 1:1 (one to one-one device for every one student) initiative.	• Choose a student device. • Pilot a 1:1 environment. • Plan 1:1 roll-out time-line. • Evaluate impact of 1:1 on student achievement. • Add additional devices in all buildings.	• Have a 1:1 environment in all middle schools. • Begin roll-out in the high school setting. • Move middle school laptop carts to elementary and high school classrooms.	• Have a full 1:1 environment in grades 7-12. • Move laptop carts to elementary buildings. • Explore the idea of a 1:1 initiative in our elementary schools.
IT-1.2 Utilize a district learning management system (LMS).	• Choose a district LMS. • Provide optional training for teachers. • Pilot LMS in classrooms. • Evaluate impact of LMS on student achievement. • Create courses for teachers to access. • Available to K-12 teachers as an option.	• Full Implementation at middle school. • Explore online textbook integration and digital content. • Available to K-6, 10-12 teachers as an option.	• Full Implementation at middle and high schools. • Available to K-6 teachers as an option.
IT-1.3 Develop a consistent classroom model of technology hardware.	• Evaluate current device needs in all buildings. • Develop a typical model for elementary and secondary classrooms. • Pilot panel projection in selected classrooms.	• Replace presentation stations with powerful teacher laptops. • Replace student desktop PCs with laptops. • Begin to replace interactive white boards and projectors with up-to-date technology.	• Continue replacing interactive white boards and projectors with up-to-date technology. • Make student devices readily available in all K-12 classrooms.
IT-1.4 Increase access to student devices in each building.	• Replace older devices every 4 years. • Add additional devices to all buildings. • Reallocate existing teacher laptops to provide more access to students. • Explore providing devices for lower-income students to take home.	• Update and replace existing devices as needed. • Purchase additional devices for buildings. • Explore the need for an elementary 1:1 initiative.	• Have a complete 1:1 model in secondary. • Increase number of student devices at elementary.

GOAL IT-2
Integrate 21st century skills in curriculum, instruction, and assessment.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IT-2.1 Define 21st century skills and outline student competencies.	• Adapt the 2016 ISTE Technology Standards to become our K-6 CB Technology Standards. • Educate teachers, students, and parents on ISTE language. • Create an elementary "Technology Toolkit" that outlines skill competencies for each grade-level. • Explore options for secondary technology and STEM courses.	• Implement technology standards for grades K-12 and connect them to existing CBSD curriculum. • Create a secondary "Technology Toolkit" that outlines skill competencies for each grade level. • Implement secondary technology and STEM courses.	• Revisit K-12 skills on the "Technology Toolkit" and make necessary revisions. • Evaluate the effectiveness of secondary technology and STEM courses.
IT-2.2 Implement K-12 digital citizenship curriculum.	• Utilize free resources from Common Sense Media to educate elementary students. • Develop digital citizenship lessons in all grade levels.	• Showcase digital citizenship topics with parents and teachers. • Begin to incorporate digital citizenship lessons in all grade levels.	• Have CB technology and digital citizenship lessons incorporated for grades K-12.
IT-2.3 Investigate personalized learning to provide opportunities for differentiation and allow formative assessment to drive instruction.	• Research personalized learning. • Create a definition of personalized learning in Central Bucks. • Define what personalized learning could look like in Central Bucks.	• Pilot personalized learning models with teachers in elementary and secondary. • Train faculty on research and work to shift mindset and culture. • Evaluate current curriculum to identify personalized learning areas.	• Evaluate and implement personalized learning models with all teachers. • Highlight collaborative, relevant, and applied learning inside and outside of CBSD.

GOAL IT - 3
Provide professional development opportunities and resources to support the implementation of curriculum.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IT - 3.1 **Increase the number of district staff to provide professional development (PD).**	• Continue the K-12 technology committee positions to support teaching and learning. • Determine the need for additional full-time staff development positions.	• Evaluate the need for additional building-based support. • Evaluate the need for additional district-wide support.	• Re-evaluate the need for additional support.
IT - 3.2 **Utilize a management system that will allow professional staff to track and personalize their professional development.**	• Explore and investigate vendors that allow for PD tracking. • Implement the new tracking system. • Provide a variety of staff development opportunities to evaluate how the new system works.	• Re-evaluate and monitor the use of this system.	• Continue to monitor the use of this system.
IT - 3.3 **Increase the availability of job-embedded professional development.**	• Provide differentiated staff development opportunities through online and face-to-face workshops facilitated by school leaders.	• Provide release time for teachers to work with building coaches, as needed.	• Create content-specific instructional coaches at the secondary level to support best practices while integrating technology into lessons.

GOAL IT - 4
Create flexible learning environments.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IT - 4.1 **Increase learning opportunities for students by providing flexible seating in learning areas.**	• Experiment with flexible learning spaces in some computer labs in grades K-12. • Experiment with flexible learning spaces in some classrooms.	• Develop a flexible computer lab model to be used in all buildings. • Develop a flexible classroom model to be used in elementary and secondary rooms.	• Explore flexible learning environments in grades K-12 libraries.

FOCUS II: INFRASTRUCTURE (IS)

GOAL IS - 1
Build, support and maximize a dynamic and reliable infrastructure.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IS - 1.1 **Add ubiquitous Wi-Fi access to students, staff, and community.**	• Hire a consulting agency to assess our current infrastructure. • Provide cabling to instructional and non-instructional areas in all buildings. • Add updated access points to all instructional areas grades K-9. • Add multiple access points to large group areas, including gymnasiums, LGIs, and stadiums. • Add up-to-date switches to wiring closets across the district. • Offer guest Wi-Fi access to the community. • Explore wireless projection options.	• Add updated access points to all instructional areas grades 10-12. • Ensure all Wi-Fi network controllers are cloud-based. • Conduct an in-depth network study. • Implement wireless projection.	• Re-evaluate the network to ensure teaching and learning is maximized for technology integration.

GOAL IS - 2
Replace, update, and maximize district technology with an eye toward the future.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
IS - 2.1 Devise a disaster recovery (DR) plan.	• Research DR plans from other districts. • Experiment with DR techniques to learn about capabilities. • Devise a drafted DR plan for CB.	• Explore funding to implement the DR plan. • Implement initial stages of the DR plan and execute DR practice scenarios.	• Execute the plan to sustain and protect the district network. • Continually reevaluate the DR plan to maintain current with needs and trends.
IS - 2.2 Move district servers to the cloud.	• Begin exploring what district platforms can be moved to the cloud. • Use Microsoft Services to learn about the process. • Move components of SharePoint to the cloud. • Hire a consultant to aide in the process. • Devise a time-line to communicate changes.	• Work through the time-line. • Analyze each service and product to ensure cost-benefits of moving to the cloud. • Continue to work with Microsoft and consultants throughout changes.	• Continue to evaluate time-line and changes to services.
IS - 2.3 Update the district website.	• Work with Schoolwires to redesign the interface and navigation of district website. • Communicate changes to the community. • Provide necessary training to students and staff on updated locations of content.	• Re-evaluate navigation and organization on website content to ensure effectiveness and usability.	• Continue to evaluate.
IS - 2.4 Update the district logo.	• Conduct a student logo contest. • Choose a winning logo. • Reveal the logo to the community. • Post logo on CB Website.	• Ensure logo is carried throughout branding materials.	• Ensure logo is carried throughout branded materials.

FOCUS III: TECHNICAL SUPPORT (TS)

GOAL TS - 1
Institute a collaborative technical and instructional support network for teachers.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
TS - 1.1 Select building leaders who can help support technology and curriculum.	• Work with K-12 technology committee to provide teachers support and tips for technology integration. • Explore the addition of student support squads in some buildings to aide in teacher/student assistance with technology.	• Evaluate the current building needs to determine if additional technology support is necessary. • Add student support squads to each building.	• Evaluate the current building needs to determine if additional technology support is necessary.
TS - 1.2 Provide targeted training and have on-demand support for teachers.	• Evaluate the need for building-based staff developers. • Begin to develop a portal to host online tutorials for troubleshooting.	• Provide buildings with building-based staff developers to aide with on-demand needs of technology integration.	• Evaluate building needs for on-demand support.
TS - 1.3 Delegate support roles to members of Technology and Innovation Department.	• Clearly communicate the ways students and staff can receive support and how to request help. • Define roles of the help desk, building techs, apps team, network team, grades K-12 technology committee, and staff development.	• Evaluate the support model to determine if reorganization is necessary. • Train technical staff on their areas of support to remain current.	• Evaluate the support model to determine if reorganization is necessary.

FOCUS IV: POLICIES & PROCEDURES (PP)

GOAL PP-1
Data privacy, security policies, and guidelines will be developed and stored in one place for the district to access.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
PP-1.1 **Create a district acceptable use policy (AUP).**	• Research AUPs being used by other districts. • Meet with school policy lawyer to create a CB AUP. • Present updated policy to the school board for approval. • Communicate the new policy with the community.	• Continue to evaluate.	• Continue to evaluate.
PP-1.2 **Develop an updated filtering policy.**	• Work with teachers and curriculum bureau to determine sites that need to be unblocked for curriculum access. • Evaluate requested sites to ensure curriculum connection. • Ensure requested sites are compliant with CIPA/COPA.	• Create a catalog of accessible sites for students and staff. • Provide less restrictive filtering policies and restrictions to allow for more digital citizenship of users.	• Continue to evaluate filtering policies.
PP-1.3 **Update current school board policies.**	• Research policies of other districts. • Meet with school policy lawyer to create updated 815 policy • Present updated policies to the school board for approval.	• Meet with school policy lawyer to create updated 816 and 829 policies. • Present updated policies to the school board for approval.	• Continue to evaluate.

GOAL PP-2
The district will continue to use technology systems to provide data-driven decision making that aids student achievement.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
PP-2.1 **Make district data available and more easily accessible to district decision-makers.**	• Explore data-visualization programs and platforms. • Discuss the needs with curriculum bureau and school administrators.	• Select and develop a data dashboard to use in Central Bucks. • Create an inventory system that generates visualization of devices through a tool, such as Power B.I. and SCCM.	• Continue to refine our district dashboard.

GOAL PP-3
Align both school and community resources to ensure students' success, prepare students for the 21st century, and enrich students' experiences both in and out of the classroom.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
PP-3.1 **Organize the district website to include resources for students, staff, and community members.**	• Organize existing online resources and remove unnecessary content. • Organize online content in an approachable, clear navigation.	• Create a Central Bucks digital ecosystem for student, staff, and community.	• Continue to enhance the digital ecosystem.
PP-3.2 **Organize the district intranet page.**	• Reorganize department pages for ease of access by staff. • Train departments on how to share resources on their page. • Communicate changes to district staff.	• Continue to evaluate the organization of online staff resources. • Departments will share resources on their pages.	• Continue to evaluate.

FOCUS V: BUDGET & RESOURCES (BR)

GOAL BR - 1
Continue to provide consistent funding in support of technology for use by students and staff.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
BR - 1.1 **Develop a capital budget plan for technology purchases.**	• Identify and allocate funding to support technology initiatives. • Work with the finance committee of the school board to incorporate the technology capital budget into the school district's general fund budget to ensure a plan for recurring funding. • Develop metrics to help gauge the effectiveness of the technology plan and capital budgets. • Create a hardware refresh cycle that will help plan for device replacements and additions.	• Continue to allocate funding to technology initiatives. • Continue to communicate with the finance committee upcoming plans and foreseen needs regarding upcoming technology purchases.	• Continue to allocate funding to technology initiatives. • Continue to communicate with the finance committee upcoming plans and foreseen needs.

GOAL BR - 2
Explore management tools and lease agreements that will support a greater number of end users without significantly increasing the technology support staff.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
BR - 2.1 **Explore leasing options for device purchases.**	• Evaluate leasing options offered by vendors. • Choose devices for purchases and obtain leasing pricing. • Present pricing and options to finance committee.	• Continue to evaluate.	• Continue to evaluate.

GOAL BR - 3
Provide a separate pool of funding to encourage innovative small-scale projects that can be used as incubators for feedback into the direction of future technology plans and capital budgets.

OUTCOME	By End of Year 1	By End of Year 3	By End of Year 5
BR - 3.1 **Provide innovation grants to teachers.**	• Establish benchmark and expectations for teacher technology usage. • Create a process for teachers to apply for innovation grants that go beyond the benchmarks.	• Allocate funding for innovative projects. • Select teachers to receive grants.	• Continue to offer innovation grants to teachers. • Evaluate the effectiveness and impact of innovative projects to determine if it is necessary to replicate in additional classrooms.