**PILLAR TWO: 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.

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| **Focus 1: Instructional Tools** |
| ***Goal 1.1******Provide technology to foster creative options for teachers and students, maintain equity of access among students, and enhance student learning.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 1.1.1 | **Implement a 1:1 Initiative** | * Choose a student device
* Pilot a 1:1 environment
* Plan 1:1 rollout timeline
* Evaluate impact of 1:1 on student achievement
* Add additional devices in all buildings
 | * Have a 1:1 environment in all Middle Schools
* Begin rollout 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.
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| 1.1.2 | **Utilize a district Learning Management System** | * 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 School
* Available to K-6 teachers as an option
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| 1.1.3 | **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 computers with student laptops
* Begin to replace interactive whiteboards and projectors with up-to-date technology
 | * Continue replacing interactive whiteboards and projectors with up-to-date technology
* Make student devices readily available in all K-12 classrooms
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| 1.1.4 | **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
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| ***Goal 1.2******Integrate 21st Century Skills in Curriculum, Instruction, and Assessment.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 1.2.1 | **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 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.
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| 1.2.2 | **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 K-12.
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| 1.2.3 | **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.
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| ***Goal 1.3******Provide professional development opportunities and resources to support the implementation of curriculum.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 1.3.1 | **Increase the number of district staff to provide professional development.** | * 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.
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| 1.3.2 | **Utilize a management system that will allow professional staff to track and personalize their PD.** | * 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.
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| 1.3.3 | **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.
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| ***Goal 1.4*** ***Create flexible learning environments***. |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 1.4.1 | **Increase learning opportunities for students by providing flexible seating in classroom and learning areas.** | * Experiment with flexible learning spaces in some computer labs 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 K-12 libraries.
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| **Focus 2: Infrastructure** |
| ***Goal 2.1Build, support & maximize a dynamic and reliable infrastructure.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 2.1.1 | **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.
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| ***Goal 2.2******Replace, update, and maximize district technology with an eye toward the future.***  |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 2.2.1 | **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.
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| 2.2.2 | **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 timeline to communicate changes.
 | * Work through the timeline.
* 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 timeline and changes to services.
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| 2.2.3 | **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.
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| 2.2.4 | **Update the district logo** | * Conduct a student logo contest.
* Choose a winning logo.
* Reveal the logo to the community.
* Post logo on CB Website.
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| **Focus 3: Technical Support** |
| ***Goal 3.1******Institute a collaborative tech and instructional support network for teachers.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 3.1.1 | **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.
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| 3.1.2 | **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.
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| 3.1.3 | **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, K-12 Technology Committee, and Staff Development.
 | * Evaluate the support model to determine if reorganization is necessary.
 | * Evaluate the support model to determine if reorganization is necessary.
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| **Focus 4: Policies and Procedures** |
| ***Goal 4.1******Data privacy, security policies, and guidelines will be developed and stored in one place for the district to access.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 4.1.1 | **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.
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| 4.1.2 | **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.
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| 4.1.3 | **Update current school board policies** | * Research policies of other districts.
* Meet with School Policy lawyer to create updated 815, 816, and 829 policies.
* Present updated policies to the school board for approval.
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| ***Goal 4.2******The district will continue to use technology systems to provide data-driven decision making that aids student achievement.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 4.2.1 | **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.
 | * Continue to refine our district dashboard.
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| ***Goal 4.3******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** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 4.3.1 | **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.
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| 4.3.2 | **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.
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| **Focus 5: Budget and Resources** |
| ***Goal 5.1******Continue to provide consistent funding in support of technology for use by students and staff*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 5.1.1 | **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 5.2******Explore management tools and lease agreements that will support a greater number of end users without significantly increasing the technology support staff.*** |
| **OUTCOME** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 5.2.1 | **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.
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| ***Goal 5.3******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** | **Steps to Achievement** |
| **Year 1** | **Year 3** | **Year 5** |
| 5.3.1 | **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.
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