

# CCSD Technology Plan

2018-2021

## Vision

We believe that the following factors are shaping the use of technology in our school:

- Teaching is moving away from a teacher-centric to a more student-centric model with technology giving students the ability to customize their own educational experiences.
- Teachers will need to use multiple teaching and learning technologies to ensure that students are proficient with the technology skills to be college and career ready.
- Technology allows teachers to develop curriculum that is more project based that includes an authentic audience beyond the classroom where students are engaged with the community and world leaders as well as students beyond our district.
- We would like to see a shift in focus within our organization from one of standardization and compliance to one of innovation and experimentation; a shift from a focus on presence (attendance) to one based on the products that demonstrate individual growth based on student learning goals; and a shift from passive learning to one where students are actively driving their own learning.
- We will utilize technology to challenge students to be innovative, creative problem solvers who work well together to create products that demonstrate their learning to a global audience.
- The regional CSforAll initiative will act as a model for supporting computer science education at all grade levels. The following three statements will anchor our CSforAll initiative:
  - To be a highly effective school community, our students need to have opportunities to develop the work, career and social skills that stem from computer science instruction.
  - Computer science instruction and exploration is a platform to create student-centered learning opportunities.
  - Computer science instruction and exploration helps foster digital citizenship within a connected global society.

## Goals

Our vision shapes our goals which are as follows:

- All learners will have engaging and empowering learning experiences both inside and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally connected society.
- Educators will be supported by technology that connects them to data, content, resources, expertise, and learning experiences that enable and inspire more effective teaching for all learners.
- Students and teachers will have access to an infrastructure that enables them to leverage the content and global connections available on the internet.

- Teachers will utilize technology to collect data that inform instructional decisions on a frequent basis (daily is optimal).

### Accomplishing these goals

The district will accomplish the above goals by taking specific actions in the following categories:

#### **Learning engagement and empowerment**

- Students and teachers will be empowered through access to mobile devices and a robust network infrastructure that will continue to support a 1:1 and BYOD environment. Teachers will have access to instructional resources that will support individualized student learning goals.
- Student choice will be encouraged through PBL experiences and be given more opportunities to display their work to a public audience.
- The district will utilize the Paxton Patterson modules in 8th grade as a model for a blended learning environment.
- Self-reflection will allow students to be metacognitive and will give them an opportunity to digitally archive their best work.

#### **Assessment**

- Teachers will have access and training on a variety of formative assessment tools that will encourage data-driven instruction. Student self-reflection will empower students to become leaders of their own learning.
- The district will use the SAMR model as a basis for evaluating our technology integration initiatives and encourage our teachers to use technology to transform their teaching.
- Students will archive quality work on a personal web page that will facilitate self-reflection of their growth from year to year.

#### **Teaching**

- Professional development opportunities during early release days and summer curriculum work will support teacher training in how to utilize technology to enhance district and teacher learning objectives.
- Utilize G-Suite as our LMS to support 24-7 access to content.

#### **Infrastructure**

- Smart Schools Bond Act money will enable the district to implement a robust wireless network to support the increasing number of mobile devices the district is purchasing for student use.
- Additional tools will be added to the current technology classroom to continue to support CAD, 3-D printing, advanced manufacturing and engineering.
- Additional technology-intensive, flexible learning spaces, including maker's spaces, will support hands-on learning.
- SSBA money will ensure adequate backup power to enable our security and critical infrastructure to remain online in the event of a power outage.

#### **Communication**

- Teacher and student access to websites, blogs, and Google Classroom will continue to increase communication between parents and the school. Formative assessment tools can also support parent involvement by connecting parents to student data. Learning platforms like Google Classroom will allow learning to move beyond the school walls, allowing teacher/student communication after school, on weekends, and during school breaks.
- Digital citizenship curriculum will help students become global citizens.

## Curriculum and Instruction

As a Google Apps for Education school, we are enabling teachers and students to have access to learning tools anytime, anywhere. As we upgrade our school infrastructure with a more robust Wifi that can accommodate more mobile devices we will continue to move toward a 1:1 learning environment. Giving students access to the technology tools will not only allow them to further develop success skills, but enable them to engage with individuals outside of our school district. The district has been focusing on a PBL model that integrates technology to help expand the student audience so that learning is more authentic and engaging. In addition, we are utilizing tools like eDoctrina to help teachers gain valuable formative assessment data that can change their teaching so that they are able to address student gaps in understanding in a more timely manner.

### English Language Learners

A variety of technology tools will be utilized to support English language learners. including digital translators and text to speech tools. In addition, lessons will be shared with students and families in Google Classroom to allow asynchronous learning and review of class content.

### Special Education Students

The use of technology can greatly enhance the learning opportunities for students with IEP's and 504's. The district is dedicated to providing special education teacher the professional development time and training to learn about technology that can help their students be more successful. The district technology coordinator and tech integration coach will provide PD for all teachers so that they understand the tools students with disabilities might use, including text to speech, speech to text, open readers, or other widely used technology.

## Action Plan

School Year	Activity	Desired Outcomes
2018-2019	Teachers will continue implementing PBL/Technology rich units of study with a focus on	Increased student engagement and an increase in student self-directed

	<p>student choice and engagement. Professional development time will utilize PBL as a vehicle for quality instructional practice.</p> <p>Develop a CSforAll CS curriculum for student skills development in grade K-12.</p> <p>Technology tools will be shared during faculty meetings and district sponsored EdTech Conferences.</p> <p>Paxton Patterson &amp; Plato learning units will be a model for teachers interested in developing a more blended approach to learning.</p> <p>Ongoing training/professional development in computational thinking and lesson integration along with the introduction of an elementary school Hour of Code challenge.</p>	<p>inquiry, as well as an increase the number of learning opportunities outside the classroom.</p> <p>The CSforAll scope and sequence developed by our technology committee will guide the district to ensure that all students have the opportunity to be exposed to CS concepts and ensures that students who demonstrate an interest in CS will possess the skills and have the opportunity to pursue this as a career.</p> <p>Increase student and teacher safety and ethical use of digital tools.</p> <p>The hope is that more teachers will experiment with a blended model of instruction as they see how it can be utilized effectively.</p> <p>Computer science education will be integrated into a variety of disciplines.</p> <p>Create a shared vision of digital citizenship in every classroom.</p>
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	<p>Reinforce the need for every teacher to begin discussing digital citizenship to teachers throughout 2018-19 PD.</p> <p>Teachers and students will be taught about the appropriate, ethical, and responsible use of digital technology tools in line with ISTE standards.</p> <p>Digital Citizenship lessons will be incorporated in grades 6, 7, and 10 with at least 2 multi-day units of study focused on developmentally appropriate lessons based on feedback from building principals, guidance counselors, and teachers. Teachers will be encouraged to utilize current digital citizenship topics as a component of their lessons where appropriate.</p> <p>Develop a sequence of digital citizenship lessons appropriate for grades 4-12.</p> <p>Visit other local school districts who have STEAM rooms to learn from their experiences with dedicated spaces in an elementary environment.</p> <p>Maker spaces will be created in the elementary school library and supplemented in the high school library with materials sufficient to support the CSforAll initiative.</p> <p>Work with 7th and 8th grade students to create digital portfolios that can be used during their Student Showcase and throughout high school.</p>	<p>Create thoughtful, ethical digital citizens.</p> <p>Learn about the most effective designs for maker spaces.</p> <p>Support CSforAll and success skill development.</p> <p>Foster an attitude of self-reflection within the district.</p>
2019-2020	Continue supporting PBL initiative.	Increased student engagement and an increase in student self-directed inquiry, as well as an increase the number of learning opportunities outside the classroom.

	<p>Teacher roll out of CSforAll skills curriculum with dedicated lessons for computer science.</p> <p>Teachers will incorporate computational thinking or computer integration into at least 2 lessons.</p> <p>Expand Hour of Code to twice a year in the elementary school.</p> <p>Technology tools will be shared during faculty meetings and district sponsored EdTech Conferences.</p> <p>All students in grades 4-12 will have at least one dedicated digital citizenship lesson in addition to lessons on digital citizenship topics as they arise.</p> <p>Digital Citizenship lessons will be incorporated in grades 6, 7, and 10 with at least 2 multi-day units of study focused on developmentally appropriate lessons based on feedback from building principals, guidance counselors, and teachers.</p> <p>Maker spaces will continue to be expanded in the district to enable both classrooms and individuals to take advantage of innovative tools to support classroom learning.</p> <p>Work with 7th and 8th grade students to create digital portfolios that can be used during their Student Showcase and throughout high school. Expansion of portfolio creation and cultivation into grades 5, 6, 9 and 10.</p>	<p>The CSforAll scope and sequence will guide the district to ensure that all students have the opportunity to be exposed to CS concepts and are able to pursue CS as a career.</p> <p>Create thoughtful, ethical digital citizens.</p> <p>Support CSforAll and success skill development.</p> <p>Foster an attitude of self-reflection within the district.</p>
2020-2021	<p>Continued support for PBL.</p> <p>Technology tools will be shared during faculty meetings and district sponsored EdTech Conferences.</p>	<p>Increased student engagement and an increase in student self-directed inquiry.</p> <p>Support CSforAll and success skill development.</p>

	<p>Teachers will incorporate computational thinking or computer integration into at least 4 lessons.</p> <p>Digital Citizenship lessons will be incorporated in grades 4-10 with at least 2 multi-day units of study focused on developmentally appropriate lessons based on feedback from building principals, guidance counselors, and teachers. In addition, all other grade levels will create at least two opportunities to discuss digital citizenship topics as a component of their lessons where appropriate.</p> <p>Maker spaces will continue to be expanded in the district to enable both classrooms and individuals to take advantage of innovative tools to support classroom learning.</p> <p>Continued support for digital portfolios.</p>	<p>Create thoughtful, ethical digital citizens.</p> <p>Support CSforAll and success skill development.</p> <p>Support self-reflection within the district.</p>
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