Comprehensive Education Technology Plan

Sunnyvale School District

July 1, 2019 - June 30, 2022

Submitted for Self-Certification on October 17, 2019

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The Plan must include an assessment of the telecommunication services, hardware, software, asset management, and other services that will be needed to improve education services.

The plan must include an evaluation process that enables the school to monitor progress toward the specific goals and make mid-course corrections in response to new developments and opportunities as they arise.

Resource

Appendix

Sunnyvale Education Technology Plan 2019-2022
Executive Summary

The Sunnyvale School District (SSD) has provided student access to technology via a successful 1:1 (student:device) initiative at all school sites. This ratio was accomplished several years ago; however, studies show that access alone does not translate into an effective use of instructional technology. Some reasons for low levels of instructional technology usage include the need for teacher professional development regarding the effective use of instructional technology, time for teachers to learn and manage the technology in the classroom, and resources, such as technical support. (Educational Technology: A Review of the Integration, Resources, and Effectiveness of Technology in K-12 Classrooms. http://jite.informingscience.org/documents/Vol14/JITEv14ResearchP397-416Delgado1829.pdf).

Additionally, a new digital divide has emerged amongst students who produce, collaborate and communicate using technology as opposed to those who utilize devices to passively consume content. Studies have shown that just providing access alone does not address this digital divide; rather, the answer lies in pairing technical training with effective instructional practices. (National Education Technology Plan 2017. https://tech.ed.gov/netp/ learning/). Recognizing this, SSD is ready to focus on measures to increase instructional technology integration in all school sites, as well as address equity and Social and Emotional Learning principals to ensure college and career readiness for its students.

For the 2019-2020 school year, The SSD Board of Education established the following goals:

- Examine all district practices through an equity lens
- Focus on Social Emotional Learning for students and staff
- Identify the root causes of low performance and close the academic achievement gap
- Ensure the meaningful use of instructional technology across grade levels

The Education Technology Plan Steering Committee, comprised of a wide group of stakeholders including principals, teachers, Information Technology staff, and District administrators met monthly during the winter and spring of the 2018-2019 school year to examine the current policies, practices, and usage of education technology throughout the district to develop education technology (Ed Tech) plan goals and a roadmap for instructional technology integration.

The revised SSD Ed Tech plan goals for teaching and learning are:

1. Students will become empowered learners who take an active role in choosing tools to achieve and demonstrate competency in their learning goals.
2. As empowered learners, students will recognize the rights and responsibilities of living in an interconnected digital world, and will be safe, legal and ethical digital citizens.

3. SSD will support a learning environment, including infrastructure, professional development, and device access, conducive for developing empowered learners

At SSD, empowered learners are students with:

- Goal setting opportunities to create learning goals in conjunction with teachers who identify and communicate learning outcomes aligned to standards;
- Choice and collaboration to communicate their learning;
- Organized resources curated by teachers with student access to review and revise;
- Feedback opportunities from/to peers and teachers based on clear skills;
- Portfolios to demonstrate learning, including some specific skills defined to address equity for all students.

The initial Ed Tech plan goals were aligned to district goals and then presented to a large group of stakeholders, including parents, students and community members at two separate meetings for their input and review. At the initial meeting, stakeholders convened in mixed groups to answer the following questions:

- What role does technology play in supporting student learning?
- How can students, parents and staff play a role in protecting data privacy and network security?
- What are ways to provide relevant ed tech professional development that meets the needs of all teachers?
- What are the essential technology skills for students?
- How can technology increase partnering with our parent community?
- What will students do with devices and applications, and how can the district provide ongoing support?

Feedback was gathered and incorporated into the Implementation Plan Activities for review by the larger group of stakeholders at a second meeting where stakeholders convened in like groups. Stakeholder groups echoed students should become active producers rather than consumers, concerns around data privacy, and the need for added instructional technology support for teachers to increase effective instructional use and ensure an equitable learning experience for all students. SSD does an excellent job in communicating with stakeholders and this communication will be ongoing. Minor refinement of goals and further refinement of plan activities took place based on stakeholder feedback.

Finally, the Board of Education was guided through a study session held in August 2019 to review the Technology Plan process, accumulated stakeholder feedback, and provide input on the goals and objectives of the plan prior to plan adoption.

Year 1 Implementation Activity Highlights

To implement plan goals, the district will conduct a survey to collect data from students and staff regarding technology use at all school sites. This information will be used to identify key priorities and establish a baseline to determine the impact of key initiatives and professional

learning over time. Key metrics include the instructional use of technology in the classroom, staff professional development, and tech support needs. Meetings with site representatives and district administrators will take place at each school site to ascertain individual needs.

With a focus on equity for all students, the SSD Steering Committee will meet to further define and document the empowered learner and what students will need and do with appropriate educational technologies, set expectations by grade level, and review/revise policies and practices to ensure alignment with teaching and student learning outcomes. SSD will identify a process to ensure the consistent delivery of digital citizenship instruction at each school site, and to begin fostering a climate of positive student stewardship.

Finding ways to provide additional support for teachers and ongoing communication with all stakeholders will remain a priority. As the District's technology continues to age, current technology has the potential to become obsolete faster as advancements in operating systems (both Chrome and MacOS) are rending older processors/hardware useless at an accelerated pace, so the district will need to proactively refresh student and staff devices.

Lastly, the Steering Committee will need to identify upcoming trends that will require instructional technology to implement, including assessments, curriculum adoptions, and the implementation of the Computer Science Standards K-12.

Year 2 Implementation Activity Highlights

SSD will continue and build upon Year 1 activities with a focus on the instructional use of technology in the classroom, implementing a districtwide technology professional development opportunity, and increased tech support.

Added activities will include expanding data privacy knowledge for students and parents, and ensuring data privacy policies identified in Year 1 and ensuing practices are consistently in place to protect students and staff.

Social and Emotional Learning alignment with digital citizenship will begin.

Year 3 Implementation Activity Highlights

SSD will continue years 1 and 2 activities and introduce any activities not addressed in earlier years.

Additional activities in the areas of Empowered Learners, Digital Citizenship, Data Privacy, Parent/Community Engagement, Monitored Anywhere, Anytime Access can be found in the draft plan.

Professional learning goals for staff are:

1. The district and site leaders will continue to model Google Drive tools and encourage teacher use of Google Classroom with students.

2. The district and site leaders will continue to support professional development learning opportunities, such as Google Teacher Certification and Leading Edge Certification as a way to increase proficiency and support equity for students.
3. The district and site leaders will continue to support teachers with professional development opportunities regarding the effective use of instructional technology. This support should take the form of setting a learning goal of increased proficiency based on the teacher's self-identified level of proficiency and movement along that personal continuum.

Highlights of Implementation Plan Activities for Professional Learning include:

- Implement site based educational technology team/support for learning communities in the classroom
    - Support increased use of appropriate technologies in classrooms with increased site-based tech integration
        - Expand on-site support
        - Increase assistance with tech integration lesson creation and delivery
        - Increase opportunities to visit other classrooms
        - Allow coach to teach and model lessons for teachers
        - Identify best instructional practices using ed tech and share/scale
        - Support consistent training and use of resources
        - Share vetted resources
    - Tap into teacher skills wherever colleagues are to build capacity
        - Provide real time support for colleagues
        - Promote collaborative co-teaching rather than silo teaching
- Continue/expand use of Google Classroom for communication and collaboration (teacher to student and peer to peer)

While SSD infrastructure is current due to ongoing physical refurbishments, technical support could be improved to better support teachers and staff. There is a need for greater instructional technology integration support to improve teacher skills and meaningful use of technology, e.g. to create and model lessons for teachers, and for mentoring by site colleagues.

Ongoing monitoring of the plan's success and needed revisions will be ongoing, no less than annually by the Ed Tech Plan Steering Committee and stakeholder feedback.

Section 1. PLAN BACKGROUND CRITERIA:

The plan should guide the LEA's use of education technology for the next three years.

1a. Provide a brief overview of the LEA, its location and demographics and/or share a link to the LEA's website.

The Sunnyvale School District aims to build on each child's individual strengths and learning styles, providing a well-rounded education that focuses on our students' needs, both academic and social-emotional.

Our mission is to prepare each and every one of our students with a strong foundation of skills and knowledge to succeed in their educational pursuits. To enable each student to achieve, we start with a challenging curriculum and excellent instruction; further, we support students' social-emotional needs, provide differentiated and individualized instruction, and use regular assessments to evaluate and enhance instruction.

In the Sunnyvale School District, we know that all students can learn and achieve, and we believe that it is our responsibility to ensure that they do. To accomplish this, we use the Seven Correlates of Effective Schools to guide our programs and practices. The Seven Correlates of Effective Schools is an outcome-driven educational model based on research conducted by Harvard University. The model identified the characteristics shared by schools in which all students achieve.

Those characteristics cover topics ranging from classroom organization, to frequency of learning assessments, to time allocated for student work, and more. When applied simultaneously, these characteristics (the "correlates") create a comprehensive and highly effective learning system that increases the likelihood of learning success for all students regardless of personal circumstances, socioeconomic differences, or cultural diversity. That means the bar is raised for every student at every school, resulting in greater learning achievement for all.

The Sunnyvale School District team includes approximately 940 highly qualified educators, administrators and support staff whose primary goal is to enable the approximately 6,800 students enrolled in our schools to achieve academic success. Our district has experienced steady enrollment growth over the past few years, and this trend is expected to continue for the foreseeable future.

Our district is comprised of four preschools, eight elementary schools serving students in Kindergarten through fifth grade, and two middle schools serving students in sixth through eighth grade. About two-thirds of the K-8 students who live in the City of Sunnyvale are within the boundaries of the Sunnyvale School District. Sunnyvale is located in the northwestern section of Santa Clara County, the heart of the Santa Clara Valley. This area is home to many of the largest and most progressive electronics firms in the nation and is often referred to as "Silicon Valley."

The Sunnyvale School District is proud to have earned a number of state and national awards for our program, including National Blue Ribbon Schools, which recognizes schools throughout the country that display either dramatic improvement or high levels of performance, and California Distinguished

Schools, which honor exemplary and inspiring public schools that have demonstrated significant gains in narrowing the achievement gap.

California Distinguished Schools	Governor's Reading Award	National Blue Ribbon Schools	Gold Ribbon Schools
Cherry Chase Elementary	Bishop Elementary	Cherry Chase Elementary	Cumberland Elementary
Columbia Middle	Cumberland Elementary	Sunnyvale Middle	San Miguel Elementary
Cumberland Elementary	San Miguel Elementary		Vargas Elementary
Ellis Elementary			Columbia Middle
Fairwood Explorer			Sunnyvale Middle
Lakewood Elementary			
San Miguel Elementary			
Sunnyvale Middle			
Vargas Elementary			

Added information may be found here: https://www.sesd.org/.

1b. Describe how a variety of stakeholders from within the LEA and the community-at- large participated in the planning process.

This plan covers the period from July 1, 2019 to June 30, 2022. The 2018-2019 school year has been primarily a planning year, during which stakeholders were brought together to provide input into the creation of this plan. Intended as a dynamic roadmap for integrating education technology into Sunnyvale schools, this plan will be reviewed annually, and will include discussions with stakeholders to provide detailed data on the effectiveness of key strategies and activities.

To facilitate the writing of this plan, SSD convened a Steering Committee comprised of:

- Al Bacalso, Information Services Technician
- Theresa Balin, Teacher, Columbia Middle School
- Pam Cheng, Principal, Lakewood Elementary School
- Dana Greenspan, Educational Technology Consultant
- Sharon Lesec, Teacher, Columbia Middle School
- Jeremy Nishihara, Manager of Information Systems and Human Resources
- Camille Sarna, Special Education Instructional Coach
- Nabil Shahin, Principal, Sunnyvale Middle School
- Rob Smiley, Chief Operations Officer
- Jonathan Watts, Technology Integration Specialist

The Steering Committee met monthly and facilitated two large community meetings attended by students, parents, teachers, site administrators, district staff, district administrators, and Board members. The purpose of these meetings was to seek broad stakeholder input and provide feedback.

During the first meeting, more than 50 stakeholders, including many students, met in mixed groups to answer a series of questions and share out responses to the entire group. The questions were:

1. What role does technology play in supporting student learning?
2. How can students, parents and staff play a role in protecting data privacy and network security?
3. What are ways to provide relevant ed tech professional development that meets the needs of all teachers?
4. What are the essential technology skills for students?
5. How can technology increase partnering with our parent community?
6. What will students do with devices and applications, and how can the district provide ongoing support?

A month later, stakeholders returned to review all responses that had been categorized and converted into draft Implementation Activities. During this second meeting, stakeholders met in like groups to prioritize and add new activities that were instrumental in driving action items over the next three years.

The plan was shared with the Board of Education at a planning meeting, and then shared with the community for final review. The plan was submitted for self-certification on October 17, 2019.

1c. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.

This comprehensive Educational Technology Plan is the result of a collaborative process that included meetings of various stakeholders, as well as informal planning discussions, working sessions, and internal communications. Discussions have centered on effective research-based methods and strategies that address the particular challenges faced by educators and students. The Sunnyvale Education Technology Plan places considerable emphasis on the integration of technology in classroom instruction and in self-paced student learning activities as an extremely effective way to improve student achievement, especially for at-risk and special needs populations.

The following summary describes major research findings that support strategies and methods we propose to implement over the next three years.

Prepared Citizens Start as Empowered Students

Strategies for Improving Digital Fluency and Increasing Authentic Learning

Digital fluency goes beyond knowing how to use digital tools; knowing how to connect and leverage a tool for a specific outcome is key. (NMC/COSN HorizonReport, 2017 K-12 Edition). The earlier 2010 Horizon Report found that, “Digital media literacy continues its rise in importance as a key skill in every discipline and profession.” They also stated, “People expect to be able to work, learn, and study whenever and wherever they want to.” Although much of the findings are geared toward higher education, their findings relate well to the K-12 environment. “The role of the academy — and the way we prepare students for their future lives — is changing. In a 2007 report, the American

Association of Colleges and Universities recommended strongly that emerging technologies be employed by students in order for them to gain experience in 'research, experimentation, problem-based learning, and other forms of creative work,' particularly in their chosen fields of study. It is incumbent upon the academy to adapt teaching and learning practices to meet the needs of today's learners; to emphasize critical inquiry and mental flexibility, and provide students with necessary tools for those tasks; to connect learners to broad social issues through civic engagement; and to encourage them to apply their learning to. "Young people with high levels of agency do not respond passively to their circumstances; they tend to seek meaning and act with purpose to achieve the conditions they desire in their own and others' lives." (Ronald F. Ferguson with Sarah F. Phillips, Jacob F. S. Rowley, and Jocelyn W. Friedlander. 2015.)

The CEO Forum School Technology and Readiness Report: Key Building Blocks for Student Achievement in the 21st Century (2001), as reviewed on the CARET site, concludes, "...the effective use to enhance student achievement are based on the four building blocks are alignment, assessment, accountability, and access and analysis. Access and analysis strategies equalize opportunities for all students to use technology to achieve 21st Century skills, based on evaluations of the types of professional development and digital content accessible within a school community."

Enhancing Effectiveness of Teaching and Learning through Technology Integration

Technology is most influential when integrated with curriculum and assessment.

In a review of several studies, the (CEO Forum, 2001) concluded that "technology can have the greatest impact when integrated into the curriculum to achieve clear, measurable educational objectives." The 2016 National Educational Technology Plan states its Teaching with Technology Goal as, "Educators will be supported by technology that connects them to people, data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners." Moving from the "sage on the stage" to the "guide by the side," the role of the teacher shifts, however the role of an effective teachers does not diminish, but remains critical to producing empowered learners (Hannafin, M. J., & Land, S. M. (1997). Sandholtz, J. H., Ringstaff, C., & Dwyer, D. C. (1997).

Findings from Transforming Learning for the 21st Century: An Economic Imperative (Dede, Kote, Nelson, Valez, and Ward, 2005) shared, "A primary challenge for U.S. education is to transform children's learning process in and out of school and to engage student interest in gaining 21st century skills and knowledge, education must align curriculum and learning to a whole new economic model. Linking economic development, educational evolution, workforce development, and strengthened social services is essential to meeting this challenge. The use of successful information technologies in every aspect of education can provide a powerful level for this transformation (Jones, 2003)." They go on to report, "Students' success is largely dependent on the effectiveness of their teachers. Isolated in their classrooms from the rest of society, teachers often have little idea of the skills and knowledge required for, The Partnership for 21st Century Skills has numerous studies on the effectiveness of 21st Century teaching and learning on increased student achievement and engagement at http://www.p21.org/.

Effect of Professional Development on Teacher Use of Technology

Effective professional development should be ongoing, both broad-based and targeted, and provide opportunities for follow-up training and collaboration.

Research clearly indicates that traditional methods of teacher professional development dominated by just-in-case workshops and training seminars fall short in their ability to effect new strategy implementation and therefore impact student learning. In contrast, current research indicates that effective teacher professional development programs include a comprehensive, integrated suite of activities and practices that are grounded in scientific research and have been shown to improve professional practice, which positively impacts student learning and achievement (Hargreaves & Fullan, 2000, Poplin, 2003; Rebora, 2003).

Characteristics of successful professional development programs include access to ongoing training linked directly to classroom practice, provide models and time for practice in the implementation of effective classroom instruction, provide multiple avenues of collaboration, and are embedded within a professional learning community. (Foltos, 2003; Neufeld & Roper, 2003; Rebora, 2003). Successful strategies for fostering technology integration to support student learning include access to instructional resources (that include models, mentors and peers), as well as opportunities for reflection and collaboration (Ertmer, Addison, Lane, Ross & Woods, 1999; Ertmer, 1999).

Studies show that access alone does not translate into an effective use of instructional technology. Some reasons for low levels of instructional technology usage include lack of teacher skills, time for teachers to learn and manage technology, and resources, such as technical support. (Educational Technology: A Review of the Integration, Resources, and Effectiveness of Technology in K-12 Classrooms. http://jite.informingscience.org/documents/Vol14/JITEv14ResearchP397-416Delgado1829.pdf.

Section 2. CURRICULUM COMPONENT CRITERIA:

The Plan must establish clear goals and realistic strategy for using telecommunications and information technology to improve education services.

2a. Describe teachers' current access to instructional technology and current use of digital tools.

Teacher Access and Use:

All classrooms are equipped with a presentation system using an iPad or doc camera used with an Apple TV or short throw projector. Teachers have the iPad and a laptop/desktop for instruction, productivity, communication and collaboration. Devices are typically refreshed every six years or sooner, if a site is being upgraded.

All teachers have access to GSuite and most utilize Google Classroom for creation, distribution and collection of student assignments and for communication with students. Teachers have access to a variety of digital applications (see Section 4) for instructional use. They incorporate and encourage open-ended projects, aligned to teaching goals; many of which allow students to curate media. Teachers use enterprise solutions, such as Go Guardian, to monitoring student online activity and assist with classroom management. New resources are typically piloted by the site's Ed Tech Team, before site wide adoption. Moving forward, new district wide adoptions of instructional materials will include a digital component.

Additionally, teachers use Gmail for communication with parents and colleagues. Power School, the student information system, is used to track assignments, enter grades and generate report cards. Illuminate is used to create and access local assessments and its data is used to inform instruction. Teachers have individual web pages and use Google Classroom to share information with students. Teachers communicate with parents using Gmail, Power School Parent Portal, and/or the classroom websites. Schools use School Messenger for school wide communication and parents may opt in for added communication via District quarterly newsletters.

2b. Describe students' current access to instructional technology and current use of digital tools. Include a description about the LEA policy, practices, and/or replacement policy that ensures equitable technology access for all students.

Student Access and Use:

In 2014, SSD added the goal of 1 student per 1 device (1:1), which has been largely implemented as of 2019. Students use either an iPad or Chromebook, purchased with site funds. iPads with external keyboards are typically found in primary grades. Chromebook usage is more common in upper elementary grades and middle school, although some elementary sites are iPad only. Students are responsible for ensuring devices are charged throughout the day, and back-up devices are available. All classrooms have a presentation system comprised of an iPad/Apple TV or document camera/short throw projector. Most schools have a computer lab with desktop computers used for special projects.

G-Suite is widely used in grades 3-8, and many students have access to Google Classroom to access and post assignments and communicate with teachers. In grades K-2, students access program-based centers with resources such as Razz Kids and iReady. Typing skills are introduced and reinforced in upper elementary. Additionally, students in grades 3-5 create iMovies using iPads, use Google Docs

for word processing and collaboration, research using the Internet, and participate in basic coding activities. All elementary schools participate in Hour of Code. Middle school students are more active creators than younger students, although this varies depending on site initiatives.

While all students are assigned a Gmail account, they are not generally used in primary grades. The Gmail accounts, activated upon teacher request, have in-domain access only and students cannot access email outside the district domain. Moving forward, core content adoptions will have a digital component. Students take the statewide CAASPP summative assessments online, as appropriate by grade level.

2c. Describe goals and an implementation plan, with annual activities, for using technology to improve teaching and learning. Describe how these goals align to the LEA's curricular goals that are supported by other plans. Describe how the LEA's budget/Local Control and Accountability Plan (LCAP) supports these goals, and whether future funding proposals or partnerships may be needed for successful implementation.

Technology, when used appropriately, can be an effective tool to extend learning in and outside the classroom and to provide authentic real world experiences. Technology can bring learning to life and give students experiences they wouldn't otherwise have as they converse with professionals and students from other schools. As students prepare to enter a work force comprised of jobs that may not currently exist, they will need to create, communicate, collaborate, think critically and problem solve. Media information and digital literacy skills are essential, as is the ability to be safe and ethical online producers. Allowing for personalized learning, appropriate education technology affords students an opportunity to demonstrate their understanding in a variety of ways. Intentional use can create a voice for students who might otherwise be reticent to openly share, and technology can level the playing field, especially when supporting students with special needs.

Protecting data privacy is important, especially when providing students access to curated resources. The district's priority to protect student data privacy was echoed by parents attending the stakeholders' meeting. The district is joining the CA Student Data Privacy Alliance and has begun the process of inventorying resources to categorize and compile a list of compliant resources.

After extensive discussion, SSD stakeholders created goals based on the International Society for Technology in Education (ISTE) Standards for Students which mirror district initiatives. These goals are meant to be the beginning of the implementation of the ISTE Standards for students, however they should not require or limit sites should they choose to develop the remaining ISTE standards: Knowledge Constructors, Innovative Designers, Computational Thinkers, Creative Communicators, and/or Global Collaborators.

While today's students use technology daily, they rate themselves as only 47% proficient in knowing how to use the Internet and its tools effectively (Speak Up 2018 Survey Results. https://tomorrow.org/speakup/index.html). To raise student media information literacy, the role of the teacher remains pivotal as students become empowered learners. Teachers understand the learning goals, standards and sequence and can assist students in setting explicit goals to meet these learning outcomes. The teacher will continue to be the most "important learner to motivate and guide students." (Eastin, Delaine. (2019, February 7). "*Begin with the Endless in Mind*." Symposium conducted at Administrative Leadership Day, CSLA Conference, City of Industry.)

The education technology goals defined below align to the district's overarching 2019-2020 goals:

- Examine all district practices through an equity lens;
- Focus on Social Emotional Learning for students and staff;
- Identify the root causes of low performance and close the academic achievement gap; and
- Ensure the meaningful use of instructional technology across grade levels.

GOALS:

SSD stakeholders have identified the following education technology goals for teaching and learning:

1. Students will become empowered learners who take an active role, including in choosing tools, to achieve and demonstrate competency in their learning goals.
2. As empowered learners, students will recognize the rights and responsibilities of living in an interconnected digital world, and will be safe, legal and ethical digital citizens.
3. SSD will support a learning environment, including infrastructure, professional development, and device access, conducive for developing empowered learners.

At SSD, empowered learners are students with:

- Goal setting opportunities to create learning goals in conjunction with teachers who identify and communicate learning outcomes aligned to standards;
- Choice and collaboration to communicate learning;
- Organized resources curated by teachers with student access to review and winnow;
- Feedback opportunities from/to peers and teachers based on clear skills;
- Portfolios to demonstrate learning, including some specific skills defined to address equity for all students.

Year 1 Implementation Activity Highlights: To implement plan goals, the district will conduct a survey to collect data from students and staff regarding technology use at all school sites. This information will be used to identify key priorities and establish a baseline to determine the impact of key initiatives and professional learning over time. Key metrics include the instructional use of technology in the classroom, staff professional development, and tech support needs. Meetings with site representatives and district administrators will take place at each school site to ascertain individual needs. With a focus on equity for all students, the SSD Steering Committee will meet to further define and document the empowered learner and what students will need and do with appropriate educational technologies, set expectations by grade level, and review/revise policies and practices to ensure alignment with teaching and student learning outcomes. SSD will identify a process to ensure the consistent delivery of digital citizenship instruction at each school site, and to begin fostering a climate of positive student stewardship. Finding ways to provide additional support for teachers and ongoing communication with all stakeholders will remain a priority. As the District's technology continues to age, current technology has the potential to become obsolete faster as advancements in operating systems (both Chrome and MacOS) are rending older processors/hardware useless at an accelerated pace, so the district will need to proactively refresh student and staff devices. Lastly, the Steering Committee will need to identify upcoming trends that will require instructional technology to implement, including assessments, curriculum adoptions, and the implementation of the Computer Science Standards K-12.

Year 2 Implementation Activity Highlights: SSD will continue and build upon Year 1 activities with a focus on the instructional use of technology in the classroom, implementing a districtwide technology professional development opportunity, and increased tech support. Added activities will include expanding data privacy knowledge for students and parents, and ensuring data privacy policies identified in Year 1 and ensuing practices are consistently in place to protect students and staff. Social and Emotional Learning alignment with digital citizenship will begin.

Year 3 Implementation Activity Highlights: SSD will continue years 1 and 2 activities and introduce any activities not addressed in earlier years.

Implementation Plan with Annual Activities: (* indicates starting year)

Empowered Learners *Activity (Frequency, Person(s) Responsible)* *(* indicates starting year)*
Cultivate the empowered learner ● Meet with each site at the beginning of each year to identify needs ○ (*Annually each fall, Mgr. IT & HR, Principals; * Year 1*) ● Form working group to articulate what the empowered learner looks like ○ (*Annually, Ed Tech Plan Steering Committee; * Year 1*) ● Define student outcomes at grade 8 (writing, presentation, etc.) and set skill expectations by grade ○ Review skills by grade levels ■ Establish working group to define skills ■ Ensure skills taught at elementary schools align with middle school ■ Align with A-G and high school skills ○ Identify what students do with devices and apps ○ Establish process to transfer students' digital creations when they leave Sunnyvale ○ (*Annually, Ed Tech Plan Steering Committee;* Year 1*) ● Monitor progress for all students ○ Define metrics to measure effectiveness of instructional technology resources and apps ■ Include metrics for how tech is used ○ Define vertical alignment by 2 years ○ Use regularly scheduled collaborative time to analyze data and discuss strategies ○ *(Ongoing, Teachers and Principals;* Year 1)* ● Encourage students to become producers, not just passive users or consumers ○ Leverage creativity and innovation ○ Explore real world learning opportunities to offer coding and robotics classes, leveraging local expertise ○ *(Ongoing, Teachers and Principals;* Year 1)* ● Expand student collaboration opportunities ○ Increase chances to work cooperatively and socially ○ Allow students to use tools that will not hinder collaboration

- Continue/expand use of Google Classroom for communication and collaboration (teacher to student and peer to peer)
  - To build teacher capacity, principals will
    - Model and encourage use of Google Drive to communicate with teachers
    - Continue to support Google Certification PD opportunities
- *(Ongoing, Teachers and Principals;* Year 1)*
- Explore increased educational technology use in special education classes
  - Explore resources to expand student voice and support students with special needs
  - *(Ongoing, Teachers and Principals; * Year 1)*
- Foster information literacy and critical thinking skills
  - Ensure students are able to filter through and identify reliable sources
  - *(Ongoing, Teachers and Principals; * Year 1)*
- Work with pilot group of teachers/students to create student learning goal
  - *(Ongoing, Teachers and Principals* Year 3)*

Implement site based educational technology team/support for learning communities in the classroom

- Define instructional coach role that supports teachers with use of technology with onsite instructional tech integration
  - Design team that looks at coaching differently
  - (*Fall or prior to additional FTE support, Mgr. IT & HR, Tech Integration Specialist, Working Committee;* Year 1*)
- Increase assistance with tech integrated lesson creation and delivery
  - Teach and model lessons for teachers
  - *(Ongoing, Manager IS & HR, Tech Integration Specialist;* Year 1)*
- Promote collaborative co-teaching rather than silo teaching
  - Increase opportunities to visit other classrooms
  - *(Ongoing, Manager IS & HR, Tech Integration Specialist;* Year 1)*
- Support consistent training and use of resources
  - Identify best instructional practices using ed tech to share/scale
  - Share vetted resources
  - Tap into teacher skills wherever colleagues are to build capacity
  - *(Ongoing, Manager IS & HR, Tech Integration Specialist;* Year 1)*
- Expand on-site support
  - Offer real time support for colleagues
  - Improve basic troubleshooting response
  - *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Focus on equity for all students

- Conduct Survey
    - Obtain baseline, and then ongoing, data from students, parents and staff
    - Identify home access and what is needed
    - *(Fall or Spring Year 1, Manager IS & HR;* Year 1)*
- Implement curriculum with accessibility options to support all students
    - Maintain equity for schools
    - Establish minimum baseline for tech integration at each site
    - Explore opportunities for students who lack home access
    - *(Ongoing, Manager IS & HR, Principals, Teachers;* Year 1)*
- Expand learning opportunities for students with appropriate and effective use of technology
    - Expand personalized and blended learning opportunities for students
    - *(Ongoing, Manager IS & HR, Principals, Teachers;* Year 1)*
- Provide access with all different types of formats: Desktops, Chromebooks, iPads, so students are literate/nimble in many types of devices.
    - *(Ongoing, Manager IS & HR, Principals, Teachers;* Year 1)*

Increase collaboration and communication between Instructional and Technology Services

- Ensure IT is aware of new instructional technologies before devices/resources are procured in order to deploy/support teaching and learning
    - *(Ongoing, Manager IS & HR, Asst. Supt. Curriculum, Instruction & Assessment, Principals;* Year 1)*
- Ensure timely deployment of equipment and/or software
    - *(Ongoing, Manager IS & HR, IT Staff;* Year 1)*

Review goal progress and assess the effectiveness of this plan through the lens of teachers, students, parents and staff.

- Identify and use survey tool
    - (*Fall Year 1, Mgr. IT & HR, Ed Tech Plan Steering Committee;* Year 1*)
- Share findings with stakeholders
    - *(Following survey conclusion, Manager IS & HR, Principals;* Year 1)*

Review applicable policies and practices for update as needed to support achievement of goals

- *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Provide ongoing communication with all stakeholders (staff, parents, students) along the way

- *(Ongoing, Manager IS & HR, Principals;* Year 1)*

Digital Citizenship

Activity (Frequency, Person(s) Responsible)

(indicates starting year)*

Identify person(s) responsible for ensuring delivery of consistent, annual instruction

- Establish annual window for initial instruction every school year
    - *(Fall Year 1, Manager IS & HR, Principals)*
- Find creative ways, such as teacher peer stickers, to promote delivery of digital citizenship instruction.
    - *(Ongoing, Manager IS & HR, Digital Citizenship Administrator;* Year 1)*

Increase student awareness and responsibility through instruction on Safety and Ethics.

- Form working committee to develop scope and sequence to match curriculum pacing
    - *(Fall Year 1; Manager IS & HR, Digital Citizenship Administrator;* Year 1)*
- Explore other types of curriculum to support digital citizenship based on apps used in classrooms
    - *(Ongoing, Digital Citizenship Administrator;* Year 1)*
- Offer companion parent education component
    - *(Ongoing, Digital Citizenship Administrator, Principals;* Year 2)*
- Establish proactive culture for students to be good stewards
    - *(Ongoing, Digital Citizenship Administrator, Principals, Teachers;* Year 1)*
- Deliver instruction to students with topics including:
    - Need for students to share passwords with their parents for all accounts, especially non-school accounts
    - How to use devices properly and physical safety around devices.
    - Proper online social behavior, from trust perspective and from politeness perspective
    - When to ask for or seek adult support when going online
    - How to respond should inappropriate contact appear while using technology
    - *(Ongoing, Digital Citizenship Administrator, Principals, Teachers;* Year 1)*
- Provide opportunities for parent participation in education
    - *(Ongoing, Digital Citizenship Administrator, Principals;* Year 2)*
- Leverage existing resources, such as one pager about social media/digital use students are using

(Ongoing, Digital Citizenship Administrator, Teachers; Year 1)*

Align to Social Emotional Learning (SEL)

- Form working committee for alignment task
    - *(Ongoing, Digital Citizenship Administrator, Working Committee;* Year 2)*
- Communicate to staff for implementation
    - *(Ongoing, Digital Citizenship Administrator, Principals;* Year 2)*

Review applicable policies and practices for update as needed to support achievement of goals

- *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Provide ongoing communication with all stakeholders (staff, parents, students) along the way

- *(Ongoing, Manager IS & HR, Principals;* Year 1)*

Data Privacy

Activity (Frequency, Person(s) Responsible)

(indicates starting year)*
Review/revise existing data privacy policies and protocols ● Form working committee to review and revise policies and protocols ○ *(Year 1, Manager IS & HR)* ● Formulate some school policies about how students, and parents should use tech in a way that retains student privacy. ○ Share with staff ○ *(Fall, Manager IS & HR, Working Committee;* Year 1)* ○ Share with parents in following years ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 2)* ● Ensure policies and practices are in place to protect students. ○ *(Ongoing, Manager IS & HR, Working Committee, Principals; Manager IS & HR, Working Committee;* Year 1)* ● Ensure consistent practices around district, and identify person(s) responsible ○ Share with staff ○ *(Fall, Manager IS & HR, Working Committee;* Year 1)* ○ Share with parents in following years ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 2)* ● Review and clarify roles and who has access to what data (e.g., logging in to student accounts as teachers, administrators, etc.) (year 1) ○ *(Fall Year 1, Manager IS & HR, Working Committee;* Year 1)*
Actively participate in Student Data Privacy Consortium (SDPC) by inventorying digital resources used, sign CA Student Data Privacy Agreement (SDPC) for new and renewing resources, and inform staff how to search for vetted resources ● Choose technology, services, software that value data privacy ○ *(Ongoing, Manager IS & HR;* Year 1)* ● Share findings of vetted apps ○ *(Fall Year 2, Manager IS & HR, Working Committee;* Year 2)* ● Raise data privacy awareness so teachers think about privacy as they bring in new apps ○ *(Ongoing from Year 1, Manager IS & HR;* Year 1)*
Educate staff on data privacy and best practices ● Provide videos and programs for teachers to understand what security and privacy means ○ *(Each fall, Manager IS & HR, Technology Integration Specialist, Principals;* Year 1)* ● Provide instruction in all aspects of data privacy: ○ Raise awareness of personal practices that impact data security and train how to improve ○ Instruct staff how to protect themselves such as phishing, checking authenticity of email, logging out of shared devices, etc. ○ Educate staff where data goes and who has access ■ *(Each fall, Manager IS & HR, Technology Integration Specialist, Principals;* Year 1)*

- Provide training on best classroom practices for posting names, pictures, etc.
- Provide training on appropriate websites for instructional use
  - *(Ongoing, Manager IS & HR, Technology Integration Specialist, Principals;* Year 1)*

- Review and revise protocols on informing parents and sharing student information for consistent practices across sites
  - *(Each fall, Manager IS & HR, Technology Integration Specialist, Principals;* Year 1)*

Educate students on data privacy and best practices:

- Provide students with a clear understanding of data privacy
  - *(Each fall, Technology Integration Specialist, Teachers;* Year 1)*
- Teach students not to share personal information on technology
- Instruct students how to protect themselves such as phishing, checking authenticity of email, logging out of shared devices, etc.
  - *(Fall1 year 1, Technology Integration Specialist, Teachers;* Year 1)*
- Educate students so they can make the right choice when adding items or access to content when they return home
- Provide videos and programs for students to understand what security and privacy means; and
- Teach students where data goes and who has access
  - *(Ongoing, Technology Integration Specialist, Teachers;* Year 1)*

Give parents clear parameters and information about data privacy

- Inform parents about signing of privacy agreements
- Inform parents that they should have their student's password and account information
- Educate parents aware of what their students should or shouldn't be doing
- Educate parents where data goes and who has access
  - *(Fall Year 2 then ongoing, Manager IS & HR, Principals;* Year 2)*

Review applicable policies and practices for update as needed to support achievement of goals

- *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Provide ongoing communication with all stakeholders (staff, parents, students) along the way

- *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Parent/Community Engagement

Activity (Frequency, Person(s) Responsible)
(indicates starting year)*

Engage community in meaningful partnership

- Leverage existing tools to continue to provide excellent communication
  - Send relevant communication while avoiding overload
  - *(Ongoing, Manager IS & HR, Principals;* Year 1)*
- Ensure parents know about resources
  - Provide parent communication around what students can use their @sesd.org account for.

        - Give examples of what is and what is not allowed (for school work? Sending to relatives?)
    - Read and sign Google Apps agreement
    - *(Ongoing, Manager IS & HR, Principals;* Year 1)*
- Educate parents on data privacy and digital citizenship
    - Inform parents and teachers how and why schools block content before a student is affected.
    - Advise parents and teachers how and why student accounts are monitored and viewed
        - Using enterprise resources
        - Staff does not use student usernames and passwords
    - Assist parents and teachers to see potential for access to inappropriate content for children
    - *(Ongoing, Manager IS & HR, Principals, Teachers;* Year 2)*
- Leverage community expertise to support student interests in coding, robotics, other technologies
    - *(Ongoing, Manager IS & HR, Principal;* Year 1s)*
- Conduct identified survey to obtain data from parents, students and staff
    - *(Ongoing, Manager IS & HR, Principals;* Year 1)*

Provide ongoing communication with all stakeholders (staff, parents, students) along the way

- *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Monitored Anywhere, Anytime Access

Activity (Frequency, Person(s) Responsible)

(indicates starting year)*

Continue to expand monitored access in and outside the classroom

- Meet with sites to identify areas where improved/new coverage is needed
    - *(Each fall then ongoing, Manager IS & HR, Principals;* Year 1)*
- Replace existing access points with products improving traffic flow (IT)
    - *(Ongoing, Manager IS & HR, IT Department;* Year 1)*

Review, refine and share protocols with stakeholders

- Clarify unauthorized search protocols with site administrators
    - *(Ongoing, Manager IS & HR, IT Department;* Year 1)*
- Communicate expanded access responsibilities and expectations to students
    - Address smart wearables (including watches)
    - *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Ensure equipment and applications meet teaching and learning needs.

- Review district policies for alignment and possible update
    - *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*
- Communicate refreshment schedule
    - *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*
- Ensure updates are timely
    - *(Ongoing, Manager IS & HR, IT Department;* Year 1)*

Review/update Acceptable Use Policy (AUP) to ensure expanded (untethered) access is addressed ● Define untethered learning as it unfolds in SSD ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 1)* ● Write for students and parents to understand ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 1)* ● Have AUPs available for future reference ○ *(Ongoing, Manager IS & HR, Principals, Teacher;* Year 1s)*
Provide ongoing communication with all stakeholders (staff, parents, students) along the way ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

2d. Describe goals and an implementation plan, with annual activities, for how and when students will acquire the technology skills and information literacy skills needed for college and career readiness.

Today's students may have careers that do not currently exist. Along with literacy and numeracy, technology and media information literacy plays a more critical role in ensuring students will be college and career ready. Additionally, as students become empowered learners and take an active role in guiding their learning, the need for strong information literacy and continually improving technology skills is key in ensuring future success.

To aide students to become empowered learners, Goal 2c #2 was created to promote safe, legal and ethical digital citizens:

> As empowered learners, students will recognize the rights and responsibilities of living in an interconnected digital world, and will be safe, legal and ethical digital citizens.

Rather than teach the technology and information literacy skills as stand-alone lessons, the goal is to integrate the topics with daily curriculum, whenever possible. Ongoing instruction in all grades is key to ensuring students are technologically and information literate when they leave SSD schools.

Year 1 Implementation Activity Highlights: To support this goal, an individual will be identified to coordinate the digital citizenship program and to support teachers and students with identified lessons and activities. A working group will also be formed to review and revise the scope and sequence of technology skills by grades. Student instruction to students will include, but are not limited to:

- How to use access and analyze online information;
- How to identify bias and validity of websites; and
- How to locate quality and accurate information.

Ongoing parent education will be a key component.

Year 2 Implementation Activity Highlights: SSD will continue and build upon year 1 activities, as the technical skills and digital citizenship programs expand.

Year 3 Implementation Activity Highlights: SSD will continue years 1 and 2 activities and introduce any activities not addressed in earlier years.

Implementation Plan with Annual Activities (* indicates starting year)

Technology and Information Literacy Skills *Activity (Frequency, Person(s) Responsible)* *(* indicates starting year)*
Build student technology skills ● Form working group to review/revise scope and sequence of technology skills by grade level ○ *(Fall year 1, Manager IS & HR, Working Committee;* Year 1)* ● Introduce and reinforce typing skills for students in grades 2-6 ○ *(Ongoing, Tech Integration Specialist, Teachers;* Year 1)* ● Support increased use of appropriate technologies in classrooms with increased site based tech integration and real time troubleshooting for teachers ○ *(Ongoing, Manager IS & HR, Principals;* Year 1)*
Increase student awareness and responsibility through instruction on information literacy and critical thinking skills ● Offer companion parent education component ○ *(Annually Years 2-3, Manager IS & HR, Principals;* Year 2)* ● Explore other types of curriculum to support media information literacy based on apps used in classrooms ○ *(Fall, Manager IS & HR, Working Committee;* Year 1)* ● Form working group to develop (Review/revise) scope and sequence to match curriculum pacing ○ *(Fall year 1, Manager IS & HR, Working Committee;* Year 1)*
Identify curriculum and deliver instruction to students, including ○ How to use access and analyze online information ○ How to identify bias and validity of websites ○ How to locate quality and accurate information ○ Why search results vary from user to user and what drives search results ○ When to ask for or seek adult support when going online ○ How to respond should inappropriate contact appear while using technology ○ *(Year 1, Manager IS & HR, Working Committee;* Year 1)* ● Provide opportunities for parent participation in education ○ *(Annually 2-3, Manager IS & HR, Principals;* Year 2)*
Identify person(s) responsible for ensuring delivery of consistent, annual instruction ● *(Fall year 1, Manager IS & HR, Working Committee;* Year 1)* ● Find creative ways, such as teacher peer stickers, to promote delivery of information literacy instruction. ○ *(Ongoing, Tech Integration Specialist, Principals;* Year 1)*
Provide ongoing communication with all stakeholders (staff, parents, students) along the way ○ *(Ongoing, Manager IS & HR, Working Committee;* Year 1)*

Section 3. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA:

The Plan must have a professional development strategy to ensure that staff understands how to use these new technologies to improve education services.

3a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.

In absence of formal data, teachers anecdotally report a wide range of technology proficiency and integration skills, from beginner to advanced. Those teachers with more advanced skills tend to be active in site-based technology teams who mentor and support colleagues, as well as pilot new digital resources before widespread site use. Teachers with advanced proficiency are also inclined to integrate appropriate educational technologies regularly in daily instruction, and often serve on district technology committees. Expectations for use of instructional technology vary from site to site, often based on site program focus.

Current opportunities for professional growth are promoted and paid with site funds. Formal certification programs, such as Google Certified Educator and Leading Edge Certification, can be taken outside the contractual day, and teachers can earn compensation through Step and Column increases based on program hours upon completion. Site administrators encourage certification to scale proficiency and use and to expand equity for students.

The district has one FTE Tech Integration Specialist who facilitates formal and informal trainings and supports/mentors teachers by providing/modeling high quality technology integrated lessons. Teachers who participated in the plan's stakeholders meetings indicated the need for additional staff support as their number one priority. In addition to needing data privacy protocols to follow, they felt they need greater opportunities to see colleagues in action, either by having colleagues model lessons with instructional technologies effectively integrated or by receiving sample lessons to deliver. These participants were enthusiastic to support the plan's goals and to advance skills in order to do so.

Administrators possess moderate to advanced technology skills and regularly model expectations to staff through the use of tools, such as those found in Google Drive. Classified staff possess and may exceed the necessary skills to perform job functions. Both administrators and classified staff need ongoing training as new teaching technologies or job responsibilities are introduced.

3b. Goals and an implementation plan, with annual activities, for providing professional development opportunities based on an LEA needs assessment.

GOALS:

1. Principals will continue to model Google Drive tools and encourage teacher use of Google Classroom with students.
2. Principals will continue to support professional development learning opportunities, such as Google Teacher Certification and Leading Edge Certification as a way to increase proficiency and support equity for students.
3. Working with principals, a pilot group of teachers will set a learning goal of increased proficiency based on the teacher's self-identified level of proficiency and movement along that personal continuum.

Implementation Plan: Annual Activities

Staff Professional Development *Activity (Frequency, Person(s) Responsible)* *(* indicates starting year)*
Implement site based educational technology team/support for learning communities in the classroom ● Support increased use of appropriate technologies in classrooms with increased site based tech integration ○ Expand on-site support ○ Increase assistance with tech integration lesson creation and delivery ○ Increase opportunities to visit other classrooms ○ Allow coach(es) to teach and model lessons for teachers ○ Identify best instructional practices using ed tech and share/scale ○ Support consistent training and use of resources ○ Share vetted resources ○ *(Ongoing, Manager IS & HR, Technology Integration Specialist, Working Committee;* Year 1)* ● Tap into teacher skills wherever colleagues are to build capacity ○ *(Ongoing, Technology Integration Specialist, Principals;* Year 1)* ● Provide real time support for colleagues ○ *(Ongoing, Technology Integration Specialist, Principals;* Year 1)* ● Promote collaborative co-teaching rather than silo teaching ○ *(Ongoing, Principals;* Year 1)*
Continue/expand use of Google Classroom for communication and collaboration (teacher to student and peer to peer) ● Principals will model and encourage the use of Google Drive to communicate with teachers ○ *(Ongoing, Principals;* Year 1)* ● Principals will continue to support Google Certification PD opportunities ○ *(Ongoing, Principals;* Year 1)* ● Establish and share process to transfer students' digital creations when they leave Sunnyvale ○ *(Spring, Manager IS & HR, Working Committee;* Year 1)*
PD for teachers should include, but are not limited to: ● Appropriate use of tech data and what is seen ● Best practices for sharing names, pictures, etc. ● Best practices for sharing with parents and how/where that is done ● Teacher websites ● Use of tools with follow-up lesson integration ● Digital citizenship and best adult practices ● *(Ongoing, Manager IS & HR, Working Committee, Principals;* Year 1)*

Educate staff on data privacy and best practices

- Provide videos and programs for teachers to understand what security and privacy means
- Raise awareness of personal practices that impact data security and train how to improve
- Provide training on best classroom practices for posting names, pictures, etc.
- Provide training on appropriate websites for instructional use
- Review and revise protocols on informing parents and sharing student information for consistent practices across sites
    - *(Ongoing, Manager IS & HR;* Year 1)*
- Instruct staff how to protect themselves such as phishing, checking authenticity of email, logging out of shared devices, etc.
    - *(Annually, Manager IS & HR;* Year 1)*
- Educate staff where data goes and who has access
    - *(Fall, Manager IS & HR;* Year 1)*
- Develop and share protocol of how student artifacts are stored, shared, and maintained/deleted when students leave SSD
    - *(Ongoing, Manager IS & HR, Working Group;* Year 1)*

Communicate and instruct stakeholders in data privacy policies and protocols

- Form a committee to review/revise scope and sequence of technology skills by grade level
    - *(Fall Year 1, Manager IS & HR;* Year 1)*
- Form a committee to review/revise existing data privacy policies and protocols
    - *(Fall Year 1, Manager IS & HR;* Year 1)*
- Share and train in school policies about how students and staff should use tech in a way that retains student privacy
    - *(Annually, Manager IS & HR, Working Group;* Year 1)*
- Share and train in school policies about how parents should use tech in a way that retains student privacy
    - *(Annually, Manager IS & HR, Principals;* Years 2 and 3)*
- Share and train in consistent practices around district, and identify person(s) responsible
    - *(Annually, Manager IT;* Year 1)*
- Share and clarify roles and who has access to what data (e.g., logging in to student accounts as teachers, administrators, etc.)
    - *(Annually, Manager IS & HR, IT Department;* Year 1)*
- Share use of SDPC site and how staff may access vetted resources
    - *(Spring Year 1, Manager IS & HR)*

Identify person(s) responsible for ensuring delivery of consistent, annual instruction

- Train staff and provide classroom materials
    - *(Annually, Manager IS & HR* Year 1)*

Pilot group of teachers will set a personal learning goal of increased tech proficiency and/or integration in instructional materials

- Self-identify level of proficiency and work with administrator to create learning goal
- Move along self-identified continuum to increase proficiency or integration
- Self-assess progress of meeting goal
- *(Annually Fall/Spring , Manager IS & HR, Principals* Year 3)*

Section 4. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, SOFTWARE, and ASSET MANAGEMENT COMPONENT CRITERIA:

The Plan must include an assessment of the telecommunication services, hardware, software, asset management, and other services that will be needed to improve education services.

4a. Describe the existing hardware, Internet access, electronic learning resources, technical support, and asset management already in the LEA that will be used to support the Curriculum and Professional Development Components of the plan.

Existing Hardware

SSD hosts VOIP telephony for all staff. All staff has network storage and filtered Internet access.

Every teacher has a work station with a laptop or desktop equipped with Office 2016 (Word, Excel, and PowerPoint), PowerSchool (SIS and gradebook), Illuminate (data assessment), GoGuardian (mobile device management), Panorama (PowerSchool/Illuminate bridge), Clever (rostering), GSuite (Docs, Sheets, Slides, Forms, Sites, Drawings), Gmail, Google Classroom (creating, distributing, and grading assignments) and Chrome. Chrome Malwarebytes, Securly and Cisco Umbrella are used to protect against malware and to filter content. Teachers have access to specific instructional applications for teaching core content, and may add resources once beta-tested for effectiveness by a team of site colleagues. Mac devices run OSX 10.12.

The SSD district office has six conference rooms for meetings and trainings. These rooms are equipped with Apple TVs for presentation and videoconferencing. There is a disaster recovery server at Columbia Middle School.

Multi-purpose rooms at all school sites are equipped with presentation and sound systems.

The Santa Clara County Office of Education provides financial oversight and hosts QSS for financial services.

All classrooms have 1:1 student to computer ratio with either an iPad or Chromebook per student. Students are responsible for charging their device, and currently do not take devices home. All classrooms have access to multimedia tools via a presentation system (iPad or short throw projector used with an Apple TV or short throw projector). Some sites have computer labs with desktop devices for an entire class. There are three Chromebook testing centers and the district office keeps iPad and Chromebook loaner device for students. Students have access to consistent instructional content, although additional digital resources may be site specific.

Existing Internet Access

Each SSD school is connected via a Wide Area Network (WAN) that provides high speed connection to ensure access to SSD resources, as well as filtered Internet access, thereby maintaining Children's Internet Protection Act (CIPA) compliance. Content filtering is provided using Chrome Malwarebytes, Securly and Cisco Umbrella to ensure all computers are protected from malware and inappropriate websites and to provide a Level 3 firewall. Local area networks (LAN) are located at each site to ensure classroom connectivity through at least 100Mbs Ethernet. Internet access is

provided via ATT.

Older classrooms have 4-6 drops with at least 2 drops dedicated to the projector or hard-wired TV. Refurbished rooms have 8-10 drops, half of which are dedicated for student use. There is a wi-fi access point (WAP) in each room to support 24-30 student devices. The district is currently updating WAPs across all sites to improve Internet traffic flow.

Existing Electronic Learning Resources

Every teacher has a device equipped with:

- Office 2016 for productivity;
- PowerSchool for attendance and gradebook;
- Illuminate for district benchmark assessments;
- GoGuardian for mobile device management;
- GSuite for productivity, presentation and collaboration;
- Gmail for communication;
- Google Classroom for creating, distributing, and grading assignments; and
- Chrome for Internet access to digital resources and research

All students have access to digital resources aligned to core academic subjects, and all new adoptions will include a digital component. All students are provided with a Gmail account, although teachers decide if and when to make them live which is typically grades 3 and above.

Resources include:

- Program based centers
- Raz-Kids for guided reading
- iReady for differentiated math instruction
- GSuite (typically grades 3-8) for production and collaboration
- Gmail (typically grades 3-8) for internal, in-domain communication only
- Google Classroom for accessing and submitting assignments
- Chrome for Internet access to digital resources and research
- iMovie for creativity
- Typing Club for typing skills
- Hour of Code for coding skills

Existing Technical Support

Technical support is provided by the IT Department within SSD. There are 3 FTE who provide on-site support for teachers and administrators, together with a network engineer and two computer specialists (partial FTE each). There is a full time Tech Integration Specialist who supports teachers with training and instructional technology integration.

Currently, service requests are made through the site office and forwarded to the Information Services Technicians to handle. With the 1:1 environment, there is a large demand on the time of the technicians who do their respond timely to service requests.

Asset Management

Equipment is tracked from procurement through deployment via an inventory process. The Purchase Order is logged, so an asset tag can be created and attached once the item is received. Sites have access to/maintain inventory lists and maintain control of the specific physical location of the asset once it arrives on site and is assigned to a specific classroom. Student devices remain locked in classes outside the school day, and currently do not go home with students.

4b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, technical support, and asset management needed by the LEA's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.

Hardware Needed

Student learning devices are typically refreshed every 4 - 6 years, depending on the device type (currently iPad or Chromebook). Teacher devices follow a similar refresh cycle. Refresh funding is expended at the site level, however there needs to be greater centralized direction as to device types and costs, so principals can better budget from one year to the next. The following graph shows the current age of teaching and learning devices and acts as an indicator of the required refresh during the course of this plan.

In an effort to place instructional technology in the hands of students to meet the District's assessment goals and provide a 21st Century learning environment, the Sunnyvale School District instituted a 1:1 student to device ratio initiative. Since 2013, the District has experienced an increase in the deployment of instructional technology. As noted above, school sites have been delegated the choice regarding what types of devices to purchase. As these devices age out, there is a need for a coherent replacement plan starting during the 2019-2020 school year

Future considerations include a pilot to allow students to take devices home. Program considerations will need to include procurement of additional devices to ensure students have at-school access when they leave devices at home; added wear-and-tear occurring when devices go back and forth from school to home and back; loss,theft or damage by students, and need for an insurance program.

Devices will need ongoing assessment to ensure they continue to meet learning needs as students create more and incorporate new digital curriculum.

Electronic Learning Resources (ELRs) Needed

Moving forward, any new curriculum will contain a digital component. The district will need to continually assess current hardware to ensure they meet new teaching and learning needs.

Stakeholders have expressed concerns around student data privacy, so vetting of new ELRs will need to include a data privacy component. Addressing this concern may require new vendors to sign the CA Student Data Privacy Agreement, or at the very least go through a data privacy review. Teachers have asked for a vetted list of resources to help them and students make the best choices, not only around data privacy, but in selecting tools that provide the best student outcomes.

Networking and Telecommunications Infrastructure Needed

District networking and telecommunications are kept current and monitoring is ongoing . The district recently upgraded its wireless access points (WAPs) at all school sites to provide better Internet access and improve traffic flow throughout the districts. Major upgrades coincide with site improvements which occur typically every ten years or so.

Physical Plant Modifications Needed

Sites are typically upgraded every ten years or so which means the physical plant is continually refreshed. Monitoring is ongoing and addresses the needs of new educational initiatives to ensure they can be successful.

Technical Support Needed

Although effective, the current level of technical support is limited and provides challenges for the department, especially with regard to future expansion of instructional educational technologies. Teachers feel they could benefit from expanded support from increased site-based FTE who could train, mentor and model, as well as provide immediate troubleshooting. Additional FTE will require new funding, and while greatly needed, may not take place due to fiscal constraints.

Annual Activities:

- Review and address switches/routers/hubs, hardware, networking and infrastructure, ELRs, physical plant, and technical support needs annually.
- Monitor broadband usage for effectiveness and adequacy.
- Monitor applications, infrastructure, technical support, and equipment to ensure teaching and learning needs are met.
- Procure and deploy identified equipment and ELRs.
- Train and support end-users.
- Monitor technical staff support levels to ensure site needs are met timely.

Section 5. MONITORING AND EVALUATION COMPONENT CRITERIA:

The plan must include an evaluation process that enables the school to monitor progress toward the specific goals and make mid-course corrections in response to new developments and opportunities as they arise.

5a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.

All SSD students will be direct beneficiaries of the teaching and learning initiatives identified in this education technology plan. Staff will monitor student progress in local benchmark assessments, state mandated testing, and other identified evaluative tools, and will use this data to make adjustments in curriculum and instruction strategies. Student data collection will be ongoing and used for modification of curriculum.

Teachers and site administrators meet regularly to measure student progress and make curricular and assessment modifications. District and school site administration will continue to meet regularly and review planned benchmarks and timelines to ensure the plan is implemented as intended, and make needed revisions and modifications. Principals will monitor site integration of technology and the use of digital content in all curricular areas, and support staff to acquire and utilize higher levels of technology skills in order to facilitate an effective use technology within a rich learning environment.

Regularly scheduled meetings of the Educational Technology Plan Steering Committee will ensure plan compliance, open communication, and provide all stakeholders an opportunity to voice concerns or share successes, as well as a means for plan revision and modification. These meetings will provide a venue to sustain the interdepartmental communication that was furthered in the planning process and so greatly appreciated by staff.

5b. Describe the schedule for evaluating the effect of plan implementation, including a description of the process and frequency of communicating evaluation results to tech plan stakeholders.

Site principals use monthly faculty meetings and regularly scheduled administrative meetings to consult with staff regarding student achievement, plan implementation, data collection, and modifications in curriculum and instruction. Staff discuss the best practices in their integration and effective use of technology, and are asked to share, demonstrate, and model best practice instructional practices for coaching purposes, and to assist teachers who seem to be having difficulty with the implementation of digital content. Information regarding the integration and use of technology and overall progress toward plan goals will be discussed at each of these meetings and shared with Curriculum, Instruction and Assessment, the Technology Integration Specialist, Manager of Information Systems and Human Resources, and the Associate Superintendent on an ongoing monthly basis. Information is shared with the Superintendent on an ongoing basis.

During the monitoring and evaluation process, it is expected that changes to the plan will emerge. Meetings of the Educational Technology Plan Steering Committee will be held no less than quarterly, and can be scheduled on an as-needed basis should the need arise. Site and program administrators

will work closely with the Information Technology Department, Manager of Information Systems and Human Resources and the Technology Integration Specialist, and the Educational Technology Plan Steering Committee to identify necessary changes to the plan and to determine how best to implement those changes. All staff will be notified regarding any major changes in the educational technology plan during regularly scheduled meetings, and have an opportunity for feedback via the blog. Revisions and modifications will be made through the Educational Technology Plan Steering Committee after stakeholders have had an opportunity to provide input.

An annual report will be made to the Board of Education, or at the request of the Superintendent. These meetings are open to the public and will provide an opportunity for the community at- large to access information on this plan. Additionally, the SSD Educational Technology Plan will reside on the SSD website in the near future.

APPENDIX A-1

Sunnyvale School District
Education Technology Plan Stakeholder Meeting, April 11, 2019
Summary of Responses

1. What role does technology play in supporting student learning?

Anywhere, Anytime Access (Untethered Learning)

- If it's taught right and used right, student can use technology at any time.
- Students: Can't lose a Doc when it's in Google Drive. You also don't have to find a time to meet up with your teacher, you can just send it in.

Personalized Learning

- It allows an opportunity to demonstrate their understanding in a variety of ways.
- How can we use technology to be intentional in the classroom; Creating voice for students who may not otherwise be.
- Expands opportunities to do research.
- See tech opening access to education, helping develop student voice. Want to level the playing field, especially with supporting students with special needs.

Authentic, Real World Learning

- Have experiences they wouldn't otherwise have. Webcasts with other schools, professionals.
- Bring learning to life.
- kids engaging with technology and learning, applying to problem. Candria is a student example of using technology to create something for the world. Want to learn from this success and provide chance for more kids to have opportunity.
- Students started coding class in kindergarten at Bishop.
- comes from tech background and like to see students engaging with technology at school--it's a beautiful thing and a must.

Producers, Beyond Consumers

- Key goals at Ellis is making sure that technology produces not consume. Apps are not common on their devices. Apps need should not be solely to consume, (examples: jiji, Netflix, Amazon) BUT to produce (a piece a work, slideshow, writing, videos).
- Home devices are mostly used to consume not produce.
- School devices should be used to primarily used to create and produce.

Collaboration

- Use tech in the classroom, growing in past few years especially with receptive input. Interested in supporting student collaboration online (but also security concerns, where is data going).

Curated Resources

- Being aware of technology that appears educational, but may not be most beneficial.

Articulation

- Wondering what Middle school is doing to support the technology required and needed in high school and beyond.

Assessment/Effectiveness

- What does success look like? What metrics tell us that the technology is helping with student learning?
- How will books textbooks, or general reading be accessed? Students need to know that distinction for passive consumption versus interactive consumption.
- Helped develop Maker Lab, also mom parenting young child and want to know how to make this useful time and how to consider long term effects of using tech. How do we use it in a responsible way?

Tool, Use When Appropriate

- We want to make sure that devices are like a pencil or book, a tool for use when needed not attraction to mess with settings and be used as a toy or novelty.
- Intent of the purpose of the production need to be considered, making sure that it is not a replacement for books, paper, pens, images, that can be done without technology.
- Devices are tool, not a toy. Too much device addiction.
- Research stuff to learn stuff, not just to be addicted to the iPad to read e-books instead of just reading a book on the shelf. Use the device for what it is intended. Kids are addicted to iPads and want to primarily use them for robots and Fortnite.
- concerned about how much tech is used in the classroom. Think kids use tech too much and want to contribute to plan.

Data Privacy

- Considering cost of free access to Google--ways data might be being used. How is district thinking through security and what's to come.

Parent Involvement

- Mom is software engineer and want to connect more parents into conversation about school technology.

Ethical Behavior

- Family's interest is to see kids learning and understanding using technology with consideration of privacy and ways to tackle online social bullying.
- Like the 2 goals of empowering and teaching citizenship in K-8.

IT/Teacher Partnership

- How infrastructure can support tech on back end/ backbone of tech.

Considerations

- To consider: Where are the areas we can leverage the technology to further student learning? Looking at research that supports or does not support student learning.

2. How can students, parents and staff play a role in protecting data privacy and network security?

Vetted Resources

- We have to choose technology, services, software that value data privacy.
- Staff members sometimes want to get resources for students and may sign up with information without checking with IT or others before.
- Using Clever to roster has been a way to leverage buying power of district vs. individual sites, and involves IT at leading edge.
- Students--teacher gave us a website that taught us how to be safe when playing on the internet. Some people might think of it more as a game instead of an alerting tool.

Data Access

- It's hard to know - what's being done with the data and documents produced by students?
- Currently - who's vetting these apps?

PD & Digital Citizenship Instruction

- Existing laws about children under 13 gathering data.
- Need to be aware of privacy rights.
- Positive: teachers bring new apps in, but may not be thinking about privacy.
- Student privacy education built into our curriculum teaching students about their data.
- As tech is becoming more of our life, the reality is students will bring tech to class and we need to think about this, tool.
- Need clarity of roles - logging in to student accounts as teachers, administrators, etc.? Parents need clear parameters and information about this.
- Students experience being on technology and in the middle of learning something, inappropriate content interrupts. How do parents and schools block that content before a student is affected. Parents and teachers need to be able to see potential for access to inappropriate content for children.
- Teachers need to teach students not to share personal information on technology.
- Students can bring personal devices that have many items that should not be on them for students, how do we educate students so they can make the right choice when adding items or access to content when they return home.
- Technology moves so fast that it can be hard to monitor. Then suddenly an unsafe video pops up on the screen. Students need to know how to make it known to teachers or other adults to be aware. Digital Citizenship is important to teach.
- On the security level, how do we teach students how to protect themselves such as phishing, checking authenticity of email, etc.
- Staff needs training about how to do this as well.
- Some sites provide instruction about phishing etc., but not all. Helping all sites' teachers to understand how to teach and use a more critical lens on using tech would be helpful.
- We used to have common sense media as guidelines a few years ago, but not as regularly reviewed or enforced in recent years. This doesn't seem to be a consistent part of any plan.
- Need to have videos, evaluation programs for teachers and students to understand what security and privacy means.
- As well as refreshers halfway through the year.
- My teacher gave our ELD class a website with videos about how to use the Internet. After each lesson there is a quiz and if we pass the majority is correct we pass it.

IT Role

- How do we lock down a network at school and at home. Yet when it is locked down, and then access to research is cumbersome.
- There are certain websites students go to...how are they being monitored or fire-walled to prevent going to improper sites?

Policies

- Formulate some school policies about how students should use tech in a way that retains student privacy.
- What policies should be put in place to protect students?

Considerations

- Challenge: even within approved applications, there are opportunities for students to use it inappropriately.
- This is a hard, it seems like it is easy to hack into technology. And constantly sharing personal information is scary.
- The students are going to be ahead of adults in technology. If you walk on an campus and look for available wifi hotspots you will see schools have hot spots available and if a student wants to access something not on sesd.org wifi, they can use a school device to one of those hot spots to access unsafe sites.
- Librarians used to be the people on school sites in charge of these, but without certificated librarians, who does this? There's no dedicated person?
- Consistent practices needed around district.
- Cannot protect students from everything.
- YouTube is an example of how tool can be useful and inappropriate--to ban it would ban both.

3. What are ways to provide relevant ed tech professional development that meets the needs of all teachers?

Mentors/Modeling

- Mentorship with teachers.
- EdTech team for learning communities (coach that supports teachers with use of technology).
- Instructional Technology Coach consulted in classrooms and helped many teachers learn a lot about helping integrate student productive uses of technology. Developing units and lessons together helps a lot. The model we have now helps some teachers--those who are already competent get better, innovate.
- Would be great to see teachers using it in the classroom.

More Staff

- Need personnel for coaching technology and supporting in technology.

Differentiation/Different Skill Levels

- Some research on their own.
- If we're going to think about tech use and professional development. Doing a webinar to help the PD piece would allow more to access without being physically there.
- Grading is easier to score when it is online. Some teacher prefer paper and pen.
- There are gaps in how comfortable teachers are with learning or using technology.
- Teachers need to be able to try things out first, do a formal training, and get support after the formal training.
- Technology PD day with many session offerings and teachers as presenters to support teacher learning (Google Docs training, Google Sites training, etc. at different levels).
- There are also teachers who struggle with more basic skills.
- Breakout sessions for specific apps can help teachers learn at their pace.
- Quick workshops at sites or DO helps.
- There is a HUGE range within teachers regarding their comfort level with technology. This can be a risk such as when teachers just Google everything.
- Some teachers are feeling like they are getting left behind, but some of this is by choice, not engaging in optional workshops.
- Everyone is at wildly different levels, introduction of app is at the lowest hanging fruit level of planning training. Having more time and expertise to address the deeper layers is challenging, less straightforward than teaching reading.
- We have core tech we have identified as a district to use, and we find that teachers have gone out and found a lot of other apps and resources such as TPT. How do we keep from going a mile wide and an inch deep? Maybe we choose app competencies at different grade levels--some foundational pieces to build depth.
- Baseline data of what teachers know, want to know, need to know and build courses based on that.

Equity

- Equity: what is the baseline of what we expect everyone to be able to do?
- Are the same apps used across sites?
- Not all staff members at every school, but consistent across sites.

Time

- Learning from peers is great, but difficult because of teachers' time in the classroom. Very time consuming for classroom teachers.

IT/Teacher Info Flow

- Need streamlined information flow from teachers to IT.

Leveraging Student Expertise

- Using students as a resource to support teachers and other students.
- Often times students already know more; we need to empower the kids, and they can teach us. E.g. calling fifth grade to come and help with green screen app.
- Conner in K got picked to participate in a coding class. Has sister who codes and tried it after school.
- At our site we use student tech team to support teachers the first time they use tech. Empowering student tech team to support teachers across the site is powerful. E.g. students are helping to support screen casting, keyboard short cuts, using Clever badge. Older students recording on a video how to do it.

Ongoing Training/Support

- Need the professional development to follow through and support continuing development of teachers.
- Teachers can be nervous using a new technology, and need support because if they are not successful the first time, they may not try again, unless they are resilient. How can PD be ongoing.
- Need training more than once - follow-up needs to happen so skills don't stagnate.

Integration in other PD/Existing Lessons

- Integrate the technology into all the professional development. Not just as a standalone PD for technology.
- Teachers need time to integrate their current, many already have curricula they have developed how do they incorporate it into technology.
- When the kids produce on technology. More direct feedback is available to share with students.
- Seems like training is at the level of the app and doesn't get to the level of how to effectively integrated for learning.

Vetted Resources

- Teachers set up time with site tech leaders and student tech leaders to be sent for support to try a new technology tool. A more ongoing constant site support would be beneficial. Accessible support to teachers so there is an easy list of tools teachers can go to that have been vetted and not require a teacher to Google search a solution.

- We need support thinking through organization of all the resources. Where to store files? We don't need to reinvent what other sites are doing well, but don't know all that is happening across sites.

Considerations

- Students take advantage of a teacher who may not know as much as student does about technology. Students can switch tabs if they are doing a task on the computer not assigned. Some teachers are able to monitor student work and can stop the access to not assigned technology.

4. What are the essential technology skills for students?

Coding

- Student perspective: coding. Most jobs use technology so if you learn coding earlier you'll be more successful to do advanced programming and making money.
- Want to make sure coding programs are teaching real life application.

Typing

- Kids need to learn how to type at a young age.
- Typing work in 3rd grade happening frequently.
- iPads can be a disadvantage- not able to practice typing (small groups of ipads in class and chromebooks for entire class).
- Chromebooks are important for students in 3rd grade on up so they practice typing.
- Basic typing skills.

Information Literacy

- Finding reliable sources of information.
- Need to ensure students are able to filter through sources to look for reliability.
- How do you actually even use the technology? How to know what you're doing.

Device Nimble/Agnostic

Need access with all different types of formats. Desktops, chromebooks, iPads.

- Kids need to be literate in both Apple and PC/tablets and laptops/chromebooks.

Responsible Use & Internet Safety

- Responsibility with devices - Don't want students to forget that there is a person on the other side of the screen (if someone didn't log out it's important to be respectful and log them out).
- Students need to learn how to use devices properly - physical safety around devices.
- Online social behavior--from trust perspective and from politeness perspective. Most of the other tech skills, they'll pick it up, especially in Silicon Valley.
- Knowing when to ask for or seek adult support when going online.
- Don't do the wrong thing and always try.
- Learn how to use the Internet safely.

Foundational Skills/Scope and Sequence

- At the middle school students are at very different levels of skills so middle school teachers struggle. Try to ensure elementary schools are in line with what they're teaching.
- Need for foundational skills.
- Students will learn tech automatically. Math is key.

Considerations

- Logging in and logging out can take a long time - important to consider this when planning rollout of devices.
- Knowing how to limit tech use.
- Apps that make learning more fun.

5. How can technology increase partnering with our parent community?

Communication

- Text notifications from the district are very helpful.
- Some teachers have webpages, others don't (no real preference for the need for this).
- As a parent my phone is always in my pocket and teachers can share with me instantly, I can monitor assignments that are missing, teacher can meet via the phone on time that is convenient for both of use. Class Dojo is useful. Parent community at Fairwood share lessons and not is all happy with what they are using, but it is important to have some database that documents can be shared with each other.
- How do we manage personal teacher phone numbers - keep them from being on for 24 hours. To maintain privacy, but availability.

- A schoolwide format like Class Dojo all across the school site makes communication easier, rather than multiple different communication platforms (Class Dojo, remind, flicker, etc.). Yet when using third party services privacy is an issue.

Leverage Community Expertise

- Google coding partnership was nice (might be good to have options like this after school or at other times) - may have difficulty with consistency when we get support from companies.

Considerations

- Time to update those communication platforms can be time consuming for teachers, who need to be spending time creating lessons, etc.

6. What will students do with devices and applications, and how can the district provide ongoing support?

Communicate

- Communicate effectively.

Create

- Devices are not a toy - we want to create with technology devices.
- Students love technology and video games, but a better way is to have students make their own video games and not just play games.
- The key importance in the classroom ...is what can students create.
- Tech lab class - had teacher who didn't know all of the pieces so students were made to create their own learning.
- Being creative users, producing things. Not just consuming.
- Safe way for kids to share what they have produced--have an audience, but not everyone.
- iPads/Chromebooks are used for getting things done (typing a report or a presentation). Lacking creativity with technology.

Robotics

- Robotics team through girl scouts - built robot and did competition. Concentration on programming. Columbia has a robotics class currently - wish they could do more with this class (students are put into the class and might not actually be interested in the subject). Competition can be helpful for student learning to get better (and can support team building).

Coding

- Teaching fundamentals of coding at CMS during Wednesday late start in the past.
- Hour of Code being used currently.

3D Printers

- 3D printers - student interest. SMS has 3D printing class where students can design and print items. Creating hands using 3D printer as a class project - students did research before printing something and was done as a class project.

Collaborate

- Students need opportunity to work cooperatively and socially - technology could hinder this.
- Collaborate together--use tools but not take away from the collaboration.

Critical Thinking

- Kids have lost ability to find things in a dictionary - fear that new generation will lose skills like this.
- Computer lab for some grades and carts in classes for others - teaching outdated skills like Microsoft Office - this is still used later in life, but might not be the right choice for kids at this time.
- Research.
- Considering what are valid resources.

Tech as Tool

- Concern around spelling - autocorrect makes it so spelling is not a skill kids develop as much.

Limitations

- Students searched up cool math games on safari. And they were not safe, very addictive, and the principal and parents had to tell them not to use Reading a book is a better choice.
- Online instruction is not the best way to learn.
- Too much screen time can be unhealthy according to doctors. So time on screen in the classroom needs be spent on creating, researching.
- Enhance lessons rather than be central to them. The interaction between the teacher and students is critical and should not be lost to the use of technology.

Field Trips, Virtual & F2F

- Have people come from tech companies and present on what they've built.
- 3D truck visits.
- Virtual reality game truck at Cherry Chase.
- VR field trips.

Equity

- Curriculum with accessibility options to support all students.
- Technology is making things easier and it would be nice to let younger kids know how difficult it was in the past (i.e. state reports in the past took a very long time).
- Students are using more technology today, than in the past, but it is (no more walks to the computer lab, use of technology is transparent.

Responsibility

- See every student in middle school have their own chromebook for all 3 years to increase responsibility - can be difficult if chromebook breaks. Concerns around sending chromebooks home - do parents have internet?

Considerations

- Friday free time for choice within technology.
- Not to forget the SEL piece--use to connect with different people. Teaching face to face social skills, build empathy, take different perspectives, not fall into trap of comparing lives online. What are skills needed for lives?

7. Is there something we didn't talk about that should be included in this plan?

- "Letting kids fly…"
- "I believe that technology can provide the bridge for students accessing technology in new and interesting ways
- "As PTA lead, how PTA and district collaborates. Input from PTA perspective. What are the right tools, technologies. Interested in how we're thinking about privacy for students"
- "Technology is going to be a big part of their lives. What's happening and being used in schools."
- "Interested in exposure. Expose to as much as possible."
- "Passionate about children able to access core curriculum and have most success in general ed classroom."

APPENDIX A-2

Sunnyvale School District
Education Technology Plan Board Study Session, August 22, 2019
Summary of Responses

Discussion Topic #1

What role does technology play in supporting student learning?

Technology is a vehicle not a destination. Tech has capacity to document and archive student progress in multiple platforms. Testing documentation, video clips, scanned items in pivotal formative project pieces (portfolio). Can be reviewed by teachers, students, and parents.

Portfolios can be a tool for students to track and show their own growth.

Student created artifacts showing progress over time is valuable to parents. Concern that teachers will see this as another thing (we want it to be something that supports staff in goals and makes their lives easier not harder). Way to teach kids at their own level and serve all of our students.

Allows better communication through multiple languages and abilities. Critical piece in equity plan for students. Allows teachers to do deep dives into where the student is at. Kids are growing up in the world of technology.

Still has to be a human connection through technology. Do not want to plug students into being individually taught by a computer. When tech crashes it's a huge frustration point. As we add in more devices, we need to build up infrastructure.

Screen time in common sense media - organized at beginning of year as a "getting to know you" activity to see where students are spending their time. Vital to start conversation with them and make them aware of how much they're using it to ensure we have tech balance.

Some parents are anti-technology. How so we balance everything we do with this? Need to teach them how to be ethical since devices are everywhere.

Harder to be empathetic since you feel more anonymous. Self-regulation is a challenge as well - we need to be able to give feedback. Example is with the Nextdoor app - people talk on this app in a way they would never talk to people face to face.

Technology can be a window but it can also be a pathway to equity (opportunity to use devices and explore in ways that they may not have access at home). Google VR field trips - you can go to places your students would never have had the opportunity to go before.

If technology is done right in the classroom it leads to a greater, richer, fuller education. It gives power to the learner.

Writing and communication district focus - Google classroom allows for writing and publishing opportunities. It allows for practice of skills and can help students who have struggle with

wanting to write. Peer review can support students with getting feedback and go through the writing process.

Technology can invite opportunities for more inclusive programs/classrooms. Children can be grouped at similar levels and still be in classroom with their peers. Makes it less visible about what differences are.

Broadens formative feedback options. Can edit in the moment to show feedback individually.

Discussion Topic #2

What are the essential technology skills for students?

Depends on grade/age of the student. Keyboarding skills is a goal. Will students ever not be typing (think this may not happen soon)? But with typing, spelling is less of a concern.

Keyboarding is important - neurological reason. Hand brain connectivity. If you have a neurological deficit, keyboarding is a way to relearn skills.

Presentation skills, word processing skills. Formatting skills. Making a hyperlink. Inserting images. Digital word processing leads to audience and purpose - what is appropriate for different situations?

Google is key to tech (google docs, google spreadsheets, etc.) – but need to be aware of privacy concerns. Learning appropriateness with shared documents.

Curation of information is important - how to search and curate for what is appropriate (based on developmental level and content). Also knowing what is real or not real. Media literacy is important - is it clickbait? Discussions about sponsored content.

Everyone has a bias - this also exists in technology - need to teach this skill.

If you think from frame of audience and purpose, it helps to imagine what the author's purpose is as well.

When to use technology and when not to use technology. Conflicts are not a good time to use technology. Understanding impact of escalated conversations online vs. face-to-face. Parents sometimes don't realize how much their children use technology without their knowledge. There are a lot of issues during heightened emotional states and during peer conflicts.

We don't just hand a kid car keys - we also shouldn't just hand them the technology either. Need to explicitly teach the skills and how to be safe.

Components on how to protect yourself against bullying - gets more intense with age.

Police officers came to Cumberland to talk about digital dossier and how that can come back to you.

Need to infuse growth mindset - what we have now isn't what we'll have in the future. Multiple

platforms and languages. Can I access what's coming in the future?

Who will be responsible for teaching what, when (roadmap for integration to help support teachers). Thinking about what you're already doing so it's not one more thing.

Goal is for everyone to be AV person: knowing how to mirror, store, etc. Look at having something available in elective that are technology based (for students who are interested in coding). Would be good for this to be embedded in elementary so it supports more specific program in middle school.

Badge on file showing that they've mastered a tech skill to share with parents and reinforce skills.

Discussion Topic #3

How can technology increase partnering with our parent community?

Parents are a key component in our success, but how do we engage them?

Use Common Sense Media to look at what students are experiencing – i.e break down of games students are playing. Can also look at movies, books, and video games and get a rating on age appropriateness and other content notices.

Can help educate parents about things going on with their children. "Tik Tok" - learned from kids. Most parents probably don't know about Common Sense Media.

How do we use tech to communicate with parents vs. how do we support our parents with understanding technology - two broad areas that are both important.

Thought Exchange has helped get a gauge on what the community is thinking about a given topic and lines of thinking that are rising up based on comments and rankings.

Parents seem to have high expectations about how they are communicated with. Looking at targeting information to specific needs - concern with making passive partners. This can make it so we enable parents to come to us for all of their information vs. when we should empower them to find the information on their own.

Class Dojo has increased communication at sites where it's being used. Behavior is one component of this program, but it's also a way to communicate with families. It helps to have consistency across the school. Principal and AP have whole school access and can share with entire school community. Way to communicate with everyone in one app - and the easier the better. The ease of use helps empower parents to be more active in communication with their school. Gives a flag that tells you you're communicating with someone who speaks a different language (translates language back and forth).

Parents at Cherry Chase feel overcommunicated. Peachjar sends information that isn't very applicable to the parents (90% of it isn't). Making it school-wide would be better.

How do we archive this information? Need to be able to go back and refer to the conversations.

Informing parents of apps that students are on during the school day is very helpful.

Would like to have one place where people can find out what's happening in the district (Peachjar, school website [not always used], Google calendar). Need to decide the parameters of what you want to look at. Parent education, reclassification, school-wide events, etc. are good to include for the board. These might come up as their missed so we know what to include in a calendar (class websites aren't always used).

Would be helpful to ensure school calendars have all school events.

Discussion Topic #4

What are the key resources and how can the district provide ongoing support to meet the needs of all learners?

Concerns about connectivity - ability to get online in classroom (students and teachers). Bandwidth can be a concern (access points?) especially during online testing.

We met a goal with bandwidth, but is that where we should be?

Important to think about replacing technology as well as purchasing new technology.

When internet goes out it takes everything off the road. The internet went out today.

More assessment windows happening so there can be bandwidth issues.

Articulation is very important - need to know what the students are missing at the high school level. There might also be things our students can do that the high school doesn't know since they're not asking the questions.

Ensuring students have similar skills so they're ready for middle school. Concern with this is that making everyone the same may take away from uniqueness of programs. Baseline skills are important to support. Backwards mapping what presentation looks like in 8th grade to support needs of students (can go on their own way up the mountain at individual sites).

Key resources are parents and kids as technology is changing. Need to be open to resources available that interests students and supports learning. This could lead to more active partnerships in community.

Time, people, capacity. Every year things continue to change.

Testing time is very stressful - teachers working to deescalate stress level (teachers, principals, and parents are all stressed).

Being down laptops or things not working is a huge concern. We need to ensure testing is a special time and offer support. One teacher brought up trouble with getting on testing program

and had to inform parents that they may have underperformed on the test. Helpful to get additional devices, more tech support, and more admin support. Will continue to look at this again in the future.
Other Topics **Questions?**
Happy that the plan includes going to sites to get site perspective on technology. Goal to make producers over consumers - very important! Digital citizenship is also a very big piece.