

Dinuba Unified School District

Digital Learning Plan Created in 2021 - 22



The Dinuba Unified School District strives to provide equitable access to services, curriculum, and technology while providing all students the needed digital learning skills for success in college, career, and life. This will be accomplished by strategically teaching digital citizenship and technology skills, while providing opportunities for expanding information literacy, and computational thinking, as well as inquiry based research opportunities to allow students to be better prepared for college and career. This plan will be jointly supported by library services, the Educational Technology department, Curriculum, and the Instructional Technology department.

Dinuba Mission Statement

"Cultivate Excellence" for all students by preparing them for college, career, and life.

Dinuba Vision Statement

"End generational poverty through education."

Dinuba District Tenets

Dinuba Unified School District strongly believes that:

Diversity...provides a variety of perspectives to develop pathways to our future.

Innovation...provides creative educational options to guide every student's learning experiences.

Nurturing...provides a community of support for the social, emotional, and physical well-being of all students and staff.

Unity...provides a common purpose towards which everyone shares in preparing our students to become contributing citizens of a global society.

Building Character...provides a foundation for responsibility, trustworthiness, respect, citizenship, fairness, and caring for all.

Accountability...provides an assurance for successful achievement through the acceptance of personal responsibility by all.

Districtwide Goals and Objectives

GOAL #1: Engage learners toward self-efficacy and collaboration for success in the modern world.

Objective #1.1	Objective #1.2	Objective #1.3
Students engage in self-paced learning opportunities to explore content in multiple formats.	Educators facilitate synchronous and asynchronous collaboration opportunities for aid in student processing of content.	Students are provided with a choice of opportunities to express learning in digital and analog formats.

GOAL #2: Incorporate digital learning skills with inquiry based research for College and Career Readiness.

Objective #2.1	Objective #2.2	Objective #2.3
Learners access information via inquiry based digital and analog research, evaluate sources, and utilize information to synthesize learning in all content areas.	District Teacher Librarian collaborates with staff and students to support research databases and resource promotion and use.	Learners become digitally proficient citizens leading to College and Career Readiness; thereby fulfilling GRADuate outcomes for the College and Career Continuum.

GOAL #3: Develop digital citizens, empowered learners, and computational thinkers to prepare students for the modern world.

Objective #3.1	Objective #3.2	Objective #3.3
<i>Digital Citizenship-</i> All students engage in safe, legal, and ethical utilization of technology, with attention to personal digital identity and wellness, as well as respect for kind collaboration in interconnected spaces.	<i>Technology Skills-</i> Empowered learners access and evaluate digital and analog resources to build knowledge, & utilize technology to communicate, create, and collaborate. Grade level expectations.	<i>Computational Thinking Skills-</i> Learners design solutions to real world problems which can be enhanced through the use of technology.

GOAL #4: Provide equitable access to technology ([1:1](#)), district and library resources, applications and programming.

Objective #4.1	Objective #4.2	Objective #4.3
District commits to reliable hardware equity, connectivity options, device refresh cycle, repair, support.	Equity of resources and tools (on and off site) is available, along with personalized professional development to utilize provided resources and tools.	All students experience equitable access to library and district resources (i.e. subscriptions, training, protocol, promotion and access).

Our Rationale:

[Digital learning skills](#) are a must for all students. However, they expand beyond the 4C skills of communication, collaboration, critical thinking, and creativity into skills of leadership, productivity, and transliteracy: (media literacy, technology/digital literacy, and information literacy). Our collective goal to create students capable of being successful in life, requires integrating technology into all aspects of their education. Our intention expands to offer students various equitably distributed experiences during their respective school years, allowing these multiple experiences to build, and for students to show continued proficiency and mastery. With this comes a responsibility to provide services and training to teachers in order for them to support students.

Goal #1

1.1 Engage students in self-paced learning opportunities to explore content in multiple formats.

Students enter our classrooms with varied strengths, cultural experiences, and needs. As such, it is vital that educators plan instruction to include resources and learning tools that increase access for all students. The neuroscientific research that is the foundation of Universal Design for Learning (CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>) reveals that inclusive learning environments provide students with access to multiple means of representation of content. Formats of content may include but are not limited to physical text, audio files, video presentations, digital simulations, kinesthetic models, and lab activities. In order to increase access to grade level content, encourage self-efficacy, and allow students to explore content at their own pace, educators encourage the use of accessibility tools such as text to speech, translation, closed captioning, etc.

1.2 Facilitate synchronous and asynchronous collaboration opportunities for aid in student processing of content.

As students collaborate with peers regarding what they are learning, the neural pathways in their brain are deepened, further cementing new learning. Information processing is enhanced through connections with others. In the classroom, educators facilitate collaboration using a variety of digital and analog methods. Students may engage in dyad conversations, socratic seminars, digital discussion boards, video discussion platforms, jot thoughts, collaborative files, graffiti walls, or other collaborative structures.

1.3 Provide students with a choice of opportunities to express learning in digital and analog formats.

As we provide students with multiple methods of expressing learning, accessibility and motivation increases, as backed by the neuroscience of Universal Design for Learning (CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>). Educators empower their students toward self-efficacy as they encourage them to explore and select both digital and analog methods of demonstrating the learning, as reflected in International Society for Technology in Education Standard 1: "Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.". Options for demonstrating learning may include but are not limited to digital portfolios, physical models documented via digital photography, websites, multimedia presentations, videos, etc.

Goal #2

2.1 Digital Learning Skills through Inquiry Research

Just as with digital citizenship, Dinuba Unified believes students need opportunities to practice inquiry based research activities in context as part of the Model School Library Standards (MSLS) for information literacy. The MSLS have four overarching standards: students access, evaluate, and use information, along with integrating information literacy skills into all areas of learning (CDE, 2010). The depth and breadth of the standards expands through the grade levels. Inquiry also supports critical thinking and 21st century skills to create a future ready student. Those skills are ever evolving. ISTE standards focus on technology, they are adaptable for global changes and encompass the skills of: being an empowered learner, a digital citizen, a knowledge constructor, an innovative designer, a computational thinker, a creative communicator, and lastly a global collaborator (ISTE, 2016). Inquiry achieves a variety of competencies through information literacy, learning how to learn, curriculum content, literacy competence, and social skills (Kuhlthau, 2010). Grade level appropriate instruction will emphasize ways to avoid committing plagiarism, and the concept, purpose and significance of a copyright.

“Guided Inquiry equips students with abilities and competencies to meet the challenges of an uncertain, changing world” (Kuhlthau, 2010).

2.2 Research Database Use and Access

Although the students of Dinuba Unified are connected to information online does not mean they are competent at searching for information online and utilizing information on databases. Having a fully credentialed teacher librarian is key. The district teacher librarian has been extensively trained in the area of information literacy and is a resource for teachers to effectively bridge the connection between students and databases, search strategies, and technology use (CTC, 2014). The district teacher librarian works with students and teachers as arranged. The librarian also curates links and maintains resource access for students for home and offsite usage. Access to electronic services, such as ebooks or digital databases should be available for home access (Oscheeren, 2015, p. 174-175).

2.3 College and Career Readiness

Dinuba Unified is dedicated to ending generational poverty through education by empowering all students with educational and work-based experiences to ensure that they are college, career & life ready one GRADuate at a time. Building students' college and career awareness develops foundational knowledge and skills to learn about post-secondary and the world of work. Learning about college and career is integrated into K-12 curricular content. The College and Career department works diligently to provide enriching opportunities for students to develop career awareness and exploration. Exploration of college and career requirements and options will support motivation and informed decision making, elementary students practice career exploration with Jobs in Pawland online curriculum. Leadership development and goal setting opportunities start as early as 6th grade through the California Colleges Guidance Initiative (CCGI). Application of learning through experiences will further develop knowledge and skills to prove readiness for enrollment in post-secondary and employment. DUSD is committed to College and Career readiness starting at TK and continuing to post-secondary. Experiences are defined by having students building the culture themselves. All students have the opportunity to visit a community college, a CSU, a UC and a Private University by the time they are freshman. There are four parts to the DUSD graduate outcomes: 1) Graduate with a plan, 2) Be a responsible citizen, 3) Be an academic collaborator, and lastly, 4) Be a digitally proficient citizen. Once in high school, students can choose an academy or

pathway, meet with industry leaders, experience work based learning, and other career and technical education options.

“We need to provide life-transforming opportunities for our students, preparing them for the challenges of the 21st century, providing in every possible way equal chances to succeed both in school and beyond” (Curran & Dee, 2019, p. 84).

Goal #3

3.1 Digital Citizenship:

Social emotional skills and digital citizenship are closely intertwined. Being kind, fair, and responsible when using technology is not an inherent trait. Students deserve multiple opportunities to learn about being a kind digital citizen and must practice the proper behaviors frequently. Being a good overall citizen should be taught in context over all subjects. Dinuba USD has identified Common Sense Media as a high quality curriculum relevant to the task of digital citizenship instruction. Common Sense Media focuses on teaching dispositions versus skills. The five dispositions are embodied in all areas of life: 1) slow down and self-reflect, 2) explore perspectives, 3) seek facts and evidence, 4) envision options and possible impacts, and 5) take action (James et. al., 2019, p. 11). These five dispositions are taught through the following six digital topics spanning grades K-12: 1) media balance and well-being, 2) privacy and security, 3) digital footprint and identity, 4) relationships and communication, 5) cyberbullying, digital drama, and hate speech, and 5) news and media literacy. Moreover, Common Sense Media admits that there is no one proper way to teach digital citizenship and thus the curriculum is “flexible and adaptable” (James et. al., 2019, p. 37). Lastly, Common Sense media does an excellent job to include families and support parents in their digital literacy journey.

“Digital citizenship isn’t just a lesson plan; digital citizenship is something we can and need to embed into everything we do at school, at home, and at work” (Curran, 2019, p.vii).

3.2 Technology Skills (including touch keyboarding):

Dinuba USD has found that students experienced varied technology experiences during their formative years contingent upon the teachers they were assigned to. Some of these varied technology experiences resulted in some students with limited skills while others exhibited advanced skills contingent on the varied technology integration skills of their particular teacher. While we understand teachers need training opportunities and coaching to increase their technology effectiveness, we also notice and recognize that our students need similar technology rich activities in all of their classes to encourage and enhance their skills. The Skills Progress allows teachers to utilize the mastery of prior and current year skills allowing them to develop appropriate content-based lessons that all students can accomplish with their existing skill mastery. It is believed that this progression will allow a deeper integration of technology and will limit the need to teach existing technology skills needed to complete the assignment. Students will equally be able to access the grade-level content with limited technological barriers allowing teachers to assess the learned content (in lieu of assessing their ability to use technology).

One of the many technological skills listed in the grade level expectations includes keyboarding, which aligns with common core ELA standards. Being able to proficiently use a keyboard to compose and complete assignments is akin to a life skill. Early research determined late elementary to junior high as the ideal time for instruction due to hand size and development (Hopkins, 2012). Current research has

changed this belief, and suggests keyboarding awareness should begin at kindergarten and build through elementary school (At what age are kids developmentally ready for typing?, 2018). Given the current virtual learning circumstances, all students are using technology in some fashion, making keyboarding skills a requirement. Further research has shown that students learn keyboarding more proficiently through strategic online keyboarding programs rather than when given free choice to learn on their own (Donica, Giroux, & Kim, 2019). In addition, teacher facilitated instruction of computer based keyboarding programs elicited the highest results in speed and accuracy (Neipert, 2018). Even students with disabilities performed better than with traditional textbook keyboarding instruction.

“It is not a question of whether students need keyboarding skills, access and ability to use computers efficiently, or technology integrated into their curriculum, but rather how to do it best”
(Neipert, 2018).

If students have memorized the keys, muscle memory allows them to no longer rely upon short term memory typically needed to think about where the keys are located. This allows students to focus on the content rather than spending all their time hunting and pecking (Humphry, 2019). Muscle memory allows students to not focus on the “how” of typing and instead focus on the “what” or content they are creating. Additionally, a recent analysis of a writing assessment showed that students who wrote more regularly (digitally) received higher scores (Tate, 2019).

3.3 Computational Thinking Skills:

Dinuba Unified supports students expanding problem solving skills and having a basic understanding of how computer systems work. In order to be successful in the technologically advanced world, students must be able to design solutions to real problems in society. We need to prepare our students to be flexible and adapt to jobs that don't yet exist. Computer related occupations are growing more than many other occupations (BLS.gov, 2021). Working with the California Computer Science Standards (CCSS) adopted in 2018, computational thinking will be reinforced in vertical alignment with K-12 standards already being used in classrooms. Computational thinking skills are not an extra requirement, but rather one to be embedded within what is already being taught. A general understanding of how computers work and foundational knowledge is key to opening up future opportunities for our students. When computer science education is provided equitably, it allows all students to be competitive and participate in a technology rich world (CDE.ca.gov, 2020).

“Computational thinkers are the creators, designers, and developers of the technology tools and systems that are now contributing to major advances in almost every field of human understanding and endeavor.” (Iste.org, 2011)

Goal #4

4.1 Equity of Devices and Connectivity

Dinuba Unified recognizes that equity of device access and internet connectivity play a major role in student success. Some even argue it is a civil right (Lieberman, 2020). Our students, no matter their demographics or socioeconomic status, deserve equal access to school devices and internet connectivity. During the COVID-19 pandemic the district quickly moved into a 1:1 device situation compared to previously only allowing device access at school for most students, and limited 1:1 access for 9-12 students belonging to a particular pathway. Digital access is defined as “full electronic participation in society”

(Ribble, 2015, p. 24-25). We must ensure our students have equal opportunities for using technology in and out of the classroom. "...Damage and loss is part of doing business.

Research shows that rural districts have more difficulty implementing 1:1 programs due to several factors, such as reliable internet access, the ability to refresh devices, and providing ample professional development to teachers (Powers, J. et. al., 2020). Though the move to student 1:1 was necessitated by the pandemic, it is not likely to be discontinued from this point on. Additionally it is understood teacher pedagogy for technology instruction needs to be adequately supported in order for the technology to be properly utilized to support 21st Century learners. A large push for digital equity includes the need for reliable internet connectivity through mobile hotspots, local LTE, and low cost broadband (Schaffer, Regina, et al, 2019, p. 58). Starting in the 2020-21 school year, our district has provided a variety of connectivity options, such as Xfinity low cost internet, Verizon and TMobile hotspots and is working toward a local or county LTE solution for remote areas such as Delft and London. Even with paid service there exists gaps in reliability that have not gone unnoticed, especially in a state such as California where a large percentage of low income, and Latinx students lack a reliable internet connection, prompting Assembly bill 4 to provide connectivity at certain mandated levels (Bill text, 2020). Reliable connectivity and functional devices are a first priority in the quest toward equitable access (Allison, S., & Flapan, J., 2020). One must also acknowledge that access to all of the technology in the world can not improve a lack of pedagogy focused on use of technology skills.

4.2 Equity of Professional Development

In the book *Closing the Gap*, digital equity is discussed as the devices plus connectivity plus instruction. Having access to the devices is part of the equation, while transforming the education process through instruction is the other vital feature (Schaffer, R. et. al., 2019, p. 15-20). A key dynamic in balancing equity for students is to ensure the way in which they are utilizing technology is creative and innovative while utilizing 21st century skills, such as using the SAMR method in conjunction with ISTE standards (Schaffer, R. et. al., 2019, p. 28). The "how" students utilize their technology tools counts just as much as the technology device (Smith, T., & Amouzou, W., 2018). Incorporating student voice and choice increases engagement and creativity. With these demands come the need for teacher professional development. Increasing teachers' ability to successfully utilize technology as a tool to improve students' learning requires time for collaboration and training. Innovation does not happen overnight and needs to be a district wide focus with emphasis on "ongoing and embedded support" (Schaffer, R. et. al., 2019, p. 44).

Having a focused district framework for incorporating technology use is vital for common language as teachers design lessons for one to one instruction. Kolb discusses SAMR, TPACK, and TIM as prior frameworks, and then expands on those frameworks to explain the Triple E Framework (engagement, enhancement, and extension) that is intricately woven into the The International Society for Technology in Education (ISTE) standards (Kolb, 2017, p.30-36). Additionally, the ISTE standards are carefully developed to support 21st century learners. Developing training for teachers around utilizing a common tool creates coherence across grade levels and added equity for students.

4.3 Equity of District and Library Programs and Applications

All students in Dinuba Unified will have equal access to library services and district purchased programs or applications. The certificated district teacher librarian plays a vital role in promoting intellectual freedom while providing equitable access to library services in a variety of ways. In addition to intellectual freedom, "the belief that all learners have equitable access to up-to-date, appropriate resources, technologies, and digital connectivity" is a key tenet of librarianship (Kachel, D. E., 2018). Promoting the use of the library and

literacy is a district wide philosophy, and should include all students and all schools. Standard access information can be distributed via the district library website, the student device homepage, and through the Clever portal. The AASL believes an effective library program includes equitable access to resources (AASL, 2016). Therefore any software program, database, or other student application purchased by the district should be accessible by all students included in that level. Moreover, the district teacher librarian is responsible for developing quality library collections which provide relevant books on diverse and engaging topics to foster a love of reading.

References

Relevant Standards

Model School Library Standards for Students & Library Program Standards

<https://www.cde.ca.gov/be/st/ss/documents/librarystandards.pdf>

CCSS for ELA & Literacy in History/Social Studies, Science, and Technical Subjects

<https://www.cde.ca.gov/re/cc/>

Computer Science Content Standards

<https://www.cde.ca.gov/be/st/ss/computerscicontentstds.asp>

The ELA/ELD Framework for California Public Schools

<https://www.cde.ca.gov/ci/rl/cf/elaeldfrmwrksbeadopted.asp>

The International Society for Technology in Education (ISTE) Standards

<https://www.iste.org/standards/for-educators>

<https://www.iste.org/standards/for-students>

Future Ready Librarian (FRL) Framework

<https://futureready.org/ourwork/future-ready-frameworks/>

The American Association of School Librarians (AASL) Standards Framework

<https://standards.aasl.org/framework/>

<https://standards.aasl.org/>

Next Generation Science Standards

<https://www.nextgenscience.org/>

Technology Skills Resources

[LBUSD K-12 Technology Skills Scope and Sequence](#)

[Recommended Digital Literacy & Technology Skills to Support the California Common Core](#)

Digital Citizenship & Literacy Skills

<https://www.common Sense.org/education/digital-citizenship>

[Example of Exeter Unified's Selected Common Sense Lesson](#)

Rationale Research References

"AASL defines 'effective school library program' for ESSA implementation", American Library Association,

August 2, 2016. <http://www.ala.org/news/press-releases/2016/07/aasl-defines-effective>

-school-library-program-essa-implementation (Accessed March 8, 2021)

- Allison, S., & Flapan, J. (2020, December 28). We can't have equity in computer science education without connectivity. Calmatters.Org. <https://calmatters.org/commentary/my-turn/2020/12/we-cant-have-equity-in-computer-science-education-without-connectivity/>
- At what age are kids developmentally ready for typing? (2018, March 30). Typing.Com. <https://www.typing.com/blog/age-kids-developmentally-reading-typing/>
- Bill text - SB-4 communications: California advanced services fund. (2020, December 7). Legislature.ca.Gov. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB4
- Budinich, B. (2019, October 25). Do keyboarding skills improve student test scores? Typing.Com. <https://www.typing.com/blog/keyboarding-skills-improve-student-test-scores/>
- California Commission on Teacher Credentialing. (2014, July). Teacher Librarian Services Credential. Ctc.ca.gov. https://www.ctc.ca.gov/docs/default-source/leaflets/cl562.pdf?sfvrsn=ab9780c3_2
- California Department of Education. (2010, September). Model School Library Standards. Cde.ca.gov. <https://www.cde.ca.gov/be/st/ss/documents/librarystandards.pdf>
- California Department of Education. C. (2020, November 16). Computer Science Education. Cde.ca.gov. <https://www.cde.ca.gov/be/st/ss/computerscicontentstds.asp>
- Computational Thinking Leadership Toolkit. (2011). Iste.org. https://cdn.iste.org/www-root/2020-10/ISTE_CT_Leadership_Toolkit_booklet.pdf
- Computer and Information Research Scientists. (2021, May 14). Bls.gov. <https://www.bls.gov/ooh/computer-and-information-technology/computer-and-information-research-scientists.htm>
- Curran, M., & Dee, C. (Eds.). (2019). *Digcitkids: Lessons learning side-by-side, to empower others around the world*. Edumatch.
- Donica, D. K., Giroux, P., & Kim, Y. J. (2019). Effectiveness of Two Keyboarding Instructional Approaches on the Keyboarding Speed, Accuracy, and Technique of Elementary Students. *The Open Journal of Occupational Therapy*, 7(4), 1-15. <http://dx.doi.org/10.15453/2168-6408.1599>

Hopkins, G. (2012, March 5). Keyboarding Skills: When Should They Be Taught? Educationworld.Com.

https://www.educationworld.com/a_curr/curro76.shtml

Humphry, K. (2019, April 8). Five tips for teaching typing and why it's essential. EdSurge.

<https://www.edsurge.com/news/2019-04-08-five-tips-for-teaching-typing-and-why-it-s-essential>

James, C., Weinstein, E., & Mendoza, K. (2019). Teaching digital citizens in today's world: Research and insights behind the Common Sense K-12 Digital Citizenship Curriculum. San Francisco, CA:

Common Sense Media. https://d1e2bohyu2u2wg.cloudfront.net/education/sites/default/files/tlr_component/common_sense_education_digital_citizenship_research_backgrounder.pdf

Kachel, D. E. (2018, 12). School Librarians as Equity Warriors: Advocating for All Students. *Teacher Librarian*,

46, 44. <https://search.proquest.com/magazines/school-librarians-as-equity-warriors-advocating/docview/2161628755/se-2?accountid=193413>

Lieberman, M. (2020). Internet Access Is a Civil Rights Issue: In the world's wealthiest country, why is

broadband access denied to so many and in such high numbers? Mark Lieberman investigates.

Education Week, 40(6), 11.

<https://search.proquest.com/trade-journals/internet-access-is-civil-rights-issue/docview/2446707714/se-2?accountid=193413>

Niepert, E. E. (2018). Traditional versus Software-Based Keyboarding Instruction with Third-Grade Students

(Order No. 10813044). Available from Publicly Available Content Database. (2040880354).

<https://search.proquest.com/dissertations-theses/traditional-versus-software-based-keyboarding/docview/2040880354/se-2?accountid=193413>

Powers, Jillian R. Musgrove, Ann T. Nichols, Bryan H. (2020, March 31). Teachers Bridging the Digital Divide in Rural Schools with 1:1 Computing. *Jhseonline.Com*.

<https://www.jhseonline.com/index.php/ruraled/article/view/576/816>

Ribble, M. (2015). *Digital citizenship in schools : Nine elements all students should know*. ProQuest Ebook

Central <https://ebookcentral.proquest.com>

- Saenz, R. M. (2015). The relationship between technology skills performance and academic achievement among 8th grade students: A canonical analysis (Order No. 3689738). Available from ProQuest Central Student. (1677544390).
<https://search.proquest.com/dissertations-theses/relationship-between-technology-skills/docview/1677544390/se-2?accountid=193413>
- Schaffer, R., Howard, N. R., & Thomas, S. (2019). Closing the gap : Digital equity strategies for the k-12 classroom. ProQuest Ebook Central <https://ebookcentral.proquest.com>
- Scheeren, W. O. (2015). Technology handbook for school librarians. Libraries Unlimited.
- Smith, T., & Amouzou, W. (2018). DIGITAL EQUITY: It's More Than Just Student Access. *Tech & Learning*, 39(3), 22-25,28-29. <https://search.proquest.com/trade-journals/digital-equity-more-than-just-student-access/docview/2169604628/se-2?accountid=193413>
- Tate, T.P., Warschauer, M. Keypresses and Mouse Clicks: Analysis of the First National Computer-Based Writing Assessment. *Tech Know Learn* 24, 523–543 (2019).
<https://o-doi-org.librarycatalog.fresno.edu/10.1007/s10758-019-09412-x>