Technology Master Plan

Version 1.0

July 1, 2017 – June 30, 2020

The choice destination for education, where we are exceptional, without exception, for every student.

VERSION HISTORY

The table below provides the master plan's history as it evolves and changes through its life cycle.

Version #	Revision Date	Approved By	Approval Date
1.0		*Board of Education*	

Project Management Plan Approval

The undersigned acknowledge they have reviewed the **Technology Master Plan** and agree with the approach it presents. Changes to this **Technology Master Plan** will be coordinated with and approved by the undersigned or their designated representatives.

Signature: Ann N. Bonitatibus Date: 4/7/17
Print Name: Dr. Ann Bonitatibus
Title: Superintendent

Signature: Date: 4/7/17
Print Name: Mr. Robert Iezza
Title: Deputy Superintendent, Instructional Services

Signature: Date: 4/7/17
Print Name: Dr. Victor Hayek
Title: Assistant Superintendent, Business Services

Table of Contents

1. Strategic Planning Process
2. Introduction and Philosophy
3. District Technology Goals
4. School Site Technology Plans
5. Implementation
    5.1. Annual Timeline
    5.2. Purchasing Process
    5.3. Professional Development
6. District Technology Profile
    6.1. Existing
    6.2. Recommended
    6.3. Technology Services Budget
7. Policies and Practices
    7.1. Board Policies and Administrative Regulations
    7.2. Acceptable Use Policies
    7.3. Backup and Disaster Recovery
    7.4. Security
        7.4.1. Data Breach Response
        7.4.2. Network Access and Devices
        7.4.3. Passwords
        7.4.4. Internet Filtering
        7.4.5. Removable Media
        7.4.6. Physical Security
        7.4.7. Logging and Scanning
        7.4.8. Student Data Privacy

7.5. Student to Device Ratios

7.6. Device Replacement Cycle

7.7. Wireless Communication

8. Cost/Budget Management
9. Customer Service Management
10. Communications Management

Appendix A: References

Appendix B: School Site Technology Plans

Appendix C: Budget Worksheet

Appendix D: Professional Development Reports

Appendix E: Staff and Student Acceptable Use Policies

Appendix F: Data Breach Response Plan

Appendix G: Links to Approved Software and Recommended Software Lists

Appendix H: Existing / Recommended Technology Services Profile

Appendix I: Grade-Level Technology Standards

Appendix J: Technology Menu

1. Strategic Planning Process

Over the last six years, Conejo Valley Unified School District has been engaged in a comprehensive strategic planning process, utilizing significant input from numerous stakeholder groups. District staff facilitated planning opportunities and discussion sessions. This process produced a number of long-term goals and instructional improvements strategies that are reflected in this plan. Additional stakeholder meetings have been held to provide in-person opportunities for feedback, as well as a district-wide LCAP survey of parents, students, and staff.

The Technology Committee has been the primary group to discuss and validate this plan. The Technology Committee consists of representatives from across the stakeholder groups and school sites. Other stakeholder groups were specifically included through targeted meetings where the plan concepts were presented and feedback gathered.

Below is a listing of the Technology Committee Members along with the dates of the stakeholder meetings by group.

Technology Committee Members:

Ashmore, Shauna	Ball, Jennifer	Bartlow, Carey
Bateman, Rich	Begg, Susan	Bhatia, Pavan
Blake, Sue	Boone, Jennifer	Burns, Sarah
Coull, Greg	Culpepper, Terri	Davis, Laurie
Denninger, Marshall	Eby, Josh	Fleischer, Johanna
Frank, Shane	Fullerton, Cindy	Gliniors, Bruce
Golem, Paula	Greenspan, Dana	Hancock, Lani
Hayek, Victor	Hedin, Doug	Herrera, Christina
Iezza, Bob	Kennedy, Allison	Klinger, Lynn
Leiken, Sheri	Lewis, Patty	MacDonald, Kelly
MacDonald, Sean	Marshall, James	Mayling, Cindy
McLaughlin, Mark	Menkin, Elan	Pacheco, Brandy
Phelps, Pat	Ryder, Lisa	Sellers, Dena
Staszewski, Jerome	Stone, Dawn	Suter, Jayna
Triplett, Megan	Valentine, Jeanne	Virgen, Veronica
Vollmer, Donna	Walker, Peggy	Wall, Aileen
Wall, Lori	Weed, Gail	Weingarden, Michael

Meeting Schedule:

Technology Committee: -

November 14, 2016 (3:30 – 5:00 PM)
December 8, 2016 (3:30 – 5:00 PM)
February 23, 2017 (3:30 – 5:00 PM)
March 13, 2017 (3:30 – 5:00 PM)

Secondary Principals - March 2, 2017

Elementary Principals - March 9, 2017

United Association of Conejo Teachers - March 8, 2017

District Advisory Council - March 14, 2017

2. Introduction and Philosophy

The Conejo Valley Unified School District (CVUSD) strives to provide support for its 21st Century learners. The individual or collaborative use of technology devices is one strategy to empower students to maximize their full potential, as well as prepare them for college and career. To be exceptional, without exception, requires that technology be seamlessly integrated throughout the instructional program.

To this end, CVUSD provides a wide range of technology resources for staff and student use in and out of the classroom. While not every student needs a device in their hands throughout the day, students' need the ability to access a device when the need arises. To meet this expectation, the student to device ratio target must reach 1:1. Our current student to device ratio is 1.9:1 including devices that are four years old or newer. Reaching a 1:1 student to device ratio will allow for immediate access to learning resources, collaborative opportunities, and information.

While a Bring Your Own Device (BYOD) program is available at all schools, there are limitations to this type of program which makes a BYOD strategy unrealistic as we look forward to a digital learning environment where all students have sufficient access to digital tools.

The CVUSD Technology Plan introduces a district vision for technology adoption based on the Local Control Accountability Plan (LCAP) goals. This vision will carry through to each school site's technology plan and budget. To further ensure students have access to reliable and current tools, a replacement plan must be implemented which will rotate out old equipment and bring in the latest technology in a timely manner. This plan includes a maximum life cycle for staff and student computing devices, and school site plans are to include a budget for ensuring this life cycle is maintained.

To ensure the best use of resources and educational outcomes, a rubric to evaluate applications from both an educational and technical perspective will be created as part of this plan. It is extremely important to consider the capabilities and workload of our staff when selecting a new application as these resources are limited and we need to ensure reliable access to all technology used throughout the district.

The technology team makes every effort to support the various teaching and business resources used by staff and students. With the implementation of the evaluation rubric and process as well as the replacement plan, the Technology Services department will be able to deliver on the promise of providing exceptional service without exception.

3. District Technology Goals

Goal 1: Enhance student's use of digital tools and immerse them in digital literacy that will prepare them for college and career.

This includes, but is not limited to, providing students with:

- Google Apps for Education and Office 365 accounts for student use on and off campus
- Increasing the device to student ratio across all grade-levels
- Instruction in Digital Citizenship
- SMARTER Balanced Assessment Consortium (SBAC) exam preparation

To accomplish this, classrooms, learning spaces and pedagogical practices will, need to be reimagined through:

- Cutting edge classroom presentation and manipulation technology, such as displays, audio amplification, screen sharing, and interactivity
- Classroom furniture that lends itself to provide more collaborative spaces
- Technology integration professional development and support for all staff

Goal 2: Utilize district-wide web-based electronic learning programs that will support student learning

To this end, a rubric and process is to be created for the introduction of new applications, for student use, in order to:

- Ensure the best functionality, support experience, and create an understanding of what level of support can be provided
- Identify the technical requirements of the software and the strategy to implement and maintain the software
- Verify that student data privacy regulations are adhered to by the vendor
- Expand online learning opportunities

With over 20 million education applications, it is impossible for technology staff to effectively support all of them. For example, supporting 300 applications effectively is far more beneficial for our students than attempting to support thousands of randomly selected software applications. It is recommended that a rubric and selection process be implemented to foster the effective selection of educational software.

This will provide technology staff the opportunity to focus on their main responsibilities, which are device hardware, operating systems, and connectivity. This will lead to increased uptime for devices, which means more opportunities for our students to utilize technology throughout the school day.

Nonetheless, the technology team will continue to work with the professional certificated teachers and TOSA's on maintaining accessibility to technology for our students.

Goal 3: Grade level appropriate computing devices will be available to all students district-wide with defined baseline and target student to device ratios.

To ensure reliability, effectiveness, and access to current resources a device lifecycle has been defined that will be used in current and future planning for technology expenditures.

- Grades TK through 2 will implement approved computing devices to meet a baseline of a 3:1 student to device ratio, and a target of 2:1.
- Grades 3 through 12 will implement approved computing devices to meet a baseline of a 2:1 student to device ratio, and a target of 1:1.
- A replacement cycle for each category of device is to be implemented. The replacement cycle is detailed in the Replacement Cycle section of this Technology Plan.

Goal 4: Increase parent, family, and community engagement through a variety of technology resources

To ensure effective communication with parents, family, and the community at large; including fast dissemination of information in an emergency situation, the CVUSD utilizes:

- Mobile Phone Application
    - Parents and students have easy, fast access to their Q Parent/Student Connect accounts where they can view important student information pertaining to grades, absences, cafeteria balances and more.
    - Easy access to school information, child nutrition – food menus, calendars of events, and top news stories.
- Website
    - Acts as a first touchpoint for important and breaking news
    - News and Announcements section that highlights important updates, information and CVUSD news.
    - Mobile friendly
- Social Media
    - Facebook and Twitter
    - These platforms act as resources where the greater community can learn more about CVUSD and also act as a place where community members can share their comments, questions and concerns with the District
- Board of Education Live Video Streaming
    - By live streaming the meetings, we remove a barrier and allow the community to watch the Board Meetings live or in an easy to view archive video format at the time of their convenience.
- All-Call System
    - Notify staff, parents, and student via telephone, email, and text of important or emergency information.

4. School Site Technology Plans

Each school site is to submit a site technology plan to the Technology Services department. Each plan is to be based on a three-year cycle, with annual updates submitted in years two and three. Plans submitted in 2017 are to begin a new three year cycle, with implementation expected to commence with the 2017-18 school year.

Each school site's technology plan will be evaluated using the following criteria:

- The chosen curricular goals are clear, concise, applicable to the grade-level(s), and in alignment with the district vision for technology implementation, including the Grade-Level Technology Standards in Appendix I?
- The chosen hardware will meet the needs of the identified curricular goals, and all chosen hardware is in alignment with the district vision for technology implementation?

See Appendix B for a listing of school site technology plans.

5. Implementation

Annual Timeline

Each year, the Measure I Endowment implementation timeline will be communicated to District departments and school site staff. The specific dates will vary based on annually updated information. The spring 2017 timeline, which includes the expected timeline components, is:

Task	Person Responsible	Timeline
Communicate the annual timeline to school sites	Deputy Superintendent, Instructional Services or Designee	December, 2016
Communicate the per pupil allotment and total budget available to each site	Assistant Superintendent, Business Services or Designee	January, 2017
Product Menu will be distributed	Technology Services	March 3, 2017
Site technology plans, budgets, and orders due	Site principal or designee	March 31, 2017
Evaluation of site plans	Technology Services	March - April, 2017
Hardware and software orders placed	Technology Services	April - May, 2017
Orders delivered	Technology Services and School Site Personnel	May-June, 2017
Installation and deployment	Technology Services and Facilities	May-August, 2017

Technology Purchasing Process

A menu of technology devices, software, and installation services is updated and provided to

district staff on an annual basis. When technology needs to be purchased the following steps will be followed:

1. Devices, software, and services will be selected from the menu.
    a. If audio/visual installation services are required, the site will work with the site technician to complete the new project request form.
    b. If the required devices, software, and services are not included on the menu, the site will communicate the specific need(s) to the Director, Technology Services.
2. A quotation will be requested via a technology order form and sent to the Director, Technology Services.
3. The quotation will be provided to the site to validate the actual costs including tax and shipping.
4. The site will provide the Director, Technology Services with a final approval to process the annual Measure I order. The site will submit a Technology Purchase Request for all non-Measure I orders.
5. Services will be scheduled to meet the sites needs and to best coincide with the delivery of equipment.
6. Equipment will be delivered directly to the school site, or to the warehouse when required, due to delivery restrictions or other site based delivery limitations.
7. All equipment and software will be officially received and inventory data entered into the ESCAPE system to verify delivery and begin tracking the asset.
8. When installation is completed, both the Maintenance and Operations and Technology Services departments will verify the installation meets the district requirements prior to payment of the invoice.
9. See Appendix J for Technology menu

Professional Development

Professional development in technology for certificated staff that is offered within the district is typically provided by the Curriculum, Instruction, and Assessment department in Instructional Services; while professional development for classified staff is typically provided by Technology Services. Outside professional development, such as attendance at conferences, travel, etc. may be provided by individual departments and school sites. Each year options for professional development are planned based on staff need. A summary of provided workshops from the previous year and attendance at those workshops will be made available annually in Appendix D.

6. Technology Profile

Existing Profile

The current technology systems that are used to ensure technology system uptime and functionality include: network infrastructure, servers and software, security, redundant power and cooling, data protection, and support personnel. A listing of these details is included in

Appendix H, Table 1.

Recommended Profile

Although CVUSD has upgraded some of the infrastructure and network hardware over the last few years, these systems need to be constantly evaluated and upgraded to meet new needs and performance expectations. A listing of recommended minimum system requirements is included in Appendix H, Table 2.

Technology Services Budget

The Technology Services budget primarily consist of general fund dollars. As many of the infrastructure components costs cannot be covered within a single budget year's funding, financing options are necessary to extend the costs over multiple years. Each component has a different lifecycle which ranges from five to ten years. A multi-year budget has been created to account for at least one replacement cycle for each component. See Appendix C.

7. Policies and Practices

Board Policies and Administrative Regulations

The following BP and AR policies are available on the District website, and are updated regularly by the Superintendent's designee, then sent to the School Board for review, comment, and adoption:

- 0440 District Technology Plan (BP only)
- 1113 District and School Websites
- 4040 Employee Use of Technology
- 5125.1 Release of Directory Information
- 6163.4 Student Use of Technology

Acceptable Use Policies

Excellence in education requires that technology be seamlessly integrated throughout the instructional program. CVUSD believes the integration of technology into classroom instruction greatly benefits both students and educators in maximizing student learning and preparing for the future in the digital age. CVUSD provides a wide range of technological resources to its staff for the purpose of advancing the educational mission of the District. CVUSD recognizes that:

- Technology can enhance employee performance by improving access to and exchange of information, offering effective tools to assist in providing a quality instructional program, and facilitating operations.
- The individual or collaborative use of classroom student devices is one strategy to empower students to maximize their full potential, as well as prepare them for college

and career.

To best support effective implementation of technology, all staff and students are expected to sign and adhere to the CVUSD Acceptable Use Policy (AUP). The staff and student AUPs detail acceptable behavior and prohibited activities, with the understanding that district-owned devices are to be used for educational, instructional, or District business purposes.

See Appendix E for the staff and student Acceptable Use Policies.

Backup and Disaster Recovery

Due to business requirements as well as state and federal regulations, the district maintains a backup and recovery system to ensure data files are accessible for a specific period of time. All digital documents stored on district file servers and email stored on the local Exchange servers are retrievable for 180 days following the successful backup of a file. Documents and email stored in the Office 365 cloud environment is being archived indefinitely. Email stored in Google Apps for Education is archived indefinitely while documents are retrievable for 30 days. A cloud based storage option is being considered for long term storage and disaster recovery objectives.

A disaster recovery plan is being designed to ensure not only data resiliency but system access in the event the district data center is forced off-line. Multiple components are needed to realize this goal. A secondary data center location will be identified where the proper environmental conditions exist or can be created such as redundant power and cooling systems. Redundant servers and storage system will be installed to support all the computing and storage needs of the district. Redundant network and security systems will be deployed to keep data synchronized across the two data centers and automate the transition process to backup systems during a failure. Finally, redundant network infrastructure will be implemented to ensure ongoing connectivity to district facilities, the Ventura County Office of Education, and the Internet.

Security

Data Breach Response

As the number of devices increases, so does the number of data breaches worldwide. Academic institutions are at risk because of the kinds of sensitive information they maintain. Data breaches can occur anywhere that information resides, including computer systems, portable media, paper records, etc. CVUSD has taken many steps to reduce the risk of a breach of student data. It is important to understand that no protection is foolproof, and therefore CVUSD must be prepared to respond to a breach in the event that one should occur.

The *Data Incident Response Plan* outlines the District's actions following a data breach or other type of data related incident in order to ensure timeliness of response, compliance with applicable laws and regulations and ensure consistency in all aspects of the District's response. The full response plan is included in Appendix F.

Network Access and Devices

The district maintains two distinct network connection options: physical, and wireless. The physical network is designed to provide high speed access to district-owned systems and content, as well as web-based resources. Only district-owned devices are permitted to connect to the physical network. This is to ensure the security of data and limit potential system attacks by unknown and unmanaged computers. The wireless network provides mobile access for both district-owned and personal devices. District-owned devices have access to the same resources via wireless that they do when using the physical network. Personal devices may connect to the wireless guest or BYOD networks only, which will provide access to web based resources and restricts access to internal District systems.

Passwords

The combination of a username and password are required to access all district data systems. To ensure the privacy of this information passwords must meet minimum length and complexity requirements along with being reset at least 2 times per year. Within District systems, automated procedures are in place to ensure compliance with these expectations.

Internet Filtering

As required by the Children's Internet Protection Act and to ensure students are protected from potentially harmful content, the Conejo Valley Unified School District uses a filtering system to track and monitor all computer and Internet use on the District's network. The system is designed to prevent access to educationally inappropriate sites. CVUSD educators can request that a specific site be blocked or unblocked by contacting the Technology Services Help Desk. It is important to understand that no filtering system is perfect. Due to the nature of the Internet and evolving technology, even with supervision, the District cannot guarantee that students will not reach an inappropriate site. It is the student's responsibility to report any inappropriate site to the teacher.

Removable Media

To ensure the security of sensitive data, no data that contains personally identifiable information will be saved to removable media unless encrypted utilizing an encryption method approved by the Technology Services department. Any removable media that contains such encrypted data will be centrally tracked in order to verify the location at all times.

Physical Security

All technology containing sensitive data including centralized systems used to authenticate user logins must be secured from non-authorized physical access. These systems are currently housed within secure data centers on District premises or in cloud-based facilities.

To ensure that system access is not granted to non-authorized individuals, no computer is to be left logged in when the user is away from their computer. Users are not permitted to share their

login credentials or allow another user to access digital resources under their login.

Logging and Scanning

To ensure the privacy of confidential data and assist in tracking possible data breaches, most computer and network functions are logged including: logins, data access, network access, Internet access, and changes to computer configurations. Throughout the day district owned devices are scanned for vulnerabilities and viruses. Personal device usage is logged and evaluated when connected to the district-owned wireless network to support early identification of potential threats to network safety and security.

Student Data Privacy

The tremendous growth of mobile apps and cloud-based web services offers amazing potential to enhance learning and prepare students for their future in the digital world. Protecting students' privacy and personal information must be a top priority as these powerful tools are used in CVUSD schools. To this end, all software and applications used in the classroom must be researched and vetted prior to implementation to ensure legal and ethical compliance in the handling of student information.

Student to Device Ratios

To ensure that all students have access to digital resources and a collaborative process, the device ratios below are defined.

- Grades TK through 2 will implement approved computing devices to meet a baseline of a 3:1 student to device ratio, and a target of 2:1.
- Grades 3 through 12 will implement approved computing devices to meet a baseline of a 2:1 student to device ratio, and a target of 1:1.

In addition, extra devices equal to one for every 50 devices will be purchased to ensure an equipment failure does not negatively affect a student's ability to participate in a collaborative process or access digital resources.

Replacement Cycle

In order to ensure student and staff have access to current and reliable technology, a replacement cycle is required. The replacement cycle must ensure equipment is rotated out prior to becoming unreliable and obsolete from a functional and supportability standpoint. With these concepts in mind there are three different levels of equipment and two use cases that need to be considered.

Desktop computers are built with the most reliable and hardened components and remain stationary while in use. Due to these facts, the lifespan of the equipment can exceed the useful

life of the hardware. Therefore, the replacement cycle is five years.

Laptop computers are designed with components that tend to be more fragile than desktop computers and due to their portability are prone to accidental and repetitive use failure. However, to be sensitive to replacement costs, the maximum life cycle is five years, with a suggested 4 year replacement cycle. This is a maximum standard only with the best practice being to replace the device every four years.

Chromebooks, Winbooks, and iPads are built with lower performance components and tend to be more fragile than desktop computers or laptops. The maximum life cycle of any of these devices that are housed within the classroom environment is 4 years. However, if the devices are issued to students and transported between home and school on a daily basis, the expected life cycle is reduced to 3 years due to the additional wear and tear of transporting the device.

Wireless Communication

While physical network connectivity is required in some situations, there is a shift to mobile devices that utilize wireless connectivity only for access to digital resources. To create a reliable and functional wireless network, all physical network components necessary to provide wireless connectivity have been upgraded in every school. A wireless access point is installed in every classroom to provide the capability for every student in a classroom to use a wireless device concurrently. Outdoor teaching and learning areas have been identified that require the installation of additional cabling and outdoor access points.

8. Cost/Budget Management

Funding for technology devices and infrastructure come from multiple sources, including: general fund, Measure I endowment fund, PTA donations, and federal Title 1 funds. All technology purchases made using any funding source are made from an approved list of hardware, software, and services. The Measure I School Bond, passed in November 2014 created an endowment fund that provides approximately $2 Million a year. These funds are distributed to school sites based on a current rate of $109 per student and will be modified in the future to maintain the allocation given declining enrollment. The Measure I School Bond also provided funding for infrastructure upgrades including cabling, network switches, and wireless access points. All school sites have received upgrades to provide a reliable connection to wireless devices. However, the cabling infrastructure at four of the elementary schools and all of the secondary schools needs to be upgraded to allow for new wired technology. The Technology Services budget is used to address annual costs associated with core services, infrastructure, connectivity, and support. All technology infrastructure has a lifecycle that must be accounted for in the budgetary process.

Lease options are being evaluated which would provide an ongoing refresh of equipment along with a defined annual payment. A lease solution will ensure the required refresh cycles are met

and remove outdated equipment from our schools.

Detailed budget information is available in Appendix C.

9. Customer Service Management

The Technology Services department is dedicated to ensuring exceptional customer service and reliable access to technology resources. These goals will be reached through the proper assignment of technical support resources, the implementation of minimum hardware specifications and life cycles, implementation of a rubric to determine software application purchases, a helpdesk system, and automation efforts.

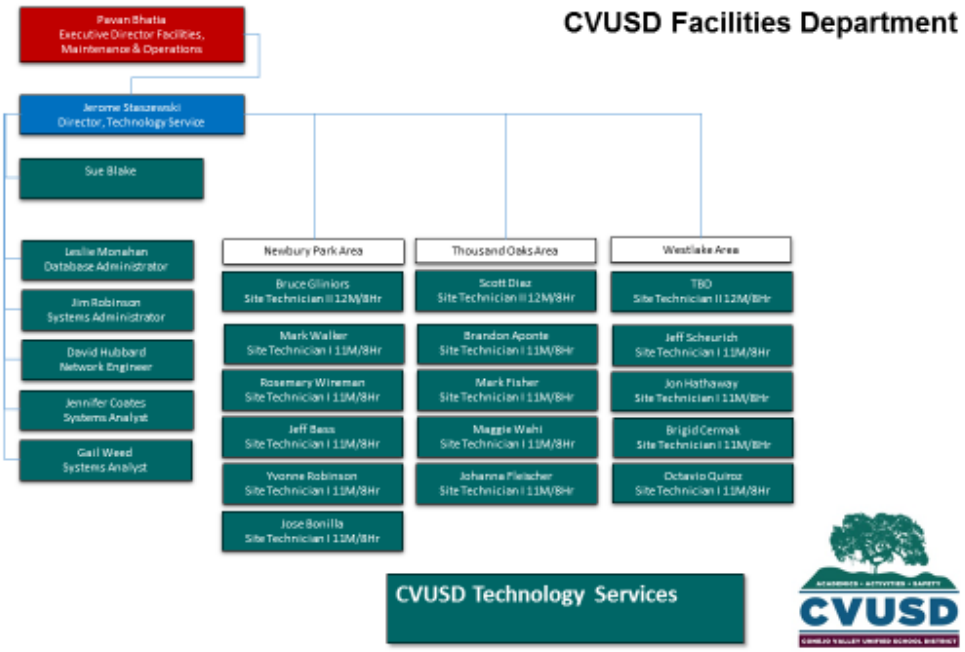
Technicians' assignments are made based on the school type. Comprehensive high schools and middle schools are assigned a single technician for each school. Elementary schools are assigned one technician for every two schools. All other schools and facilities are supported on a rotational bases by the site technicians assigned to the middle and elementary schools. This model allows for direct site support, along with the ability to support other school and non-school facilities, and team-based projects on an as-needed basis.

When a technician is unable to resolve a problem, they have access to their peers, as well as a group of centralized experts in the areas of the student information system, systems administration, and network engineering.

Minimum requirements for hardware and the use of a rubric to determine software purchases allow for not only better pricing, due to economies of scale, but quicker support since the product will be familiar and redundant equipment can be stocked. A lifecycle replacement policy ensures that systems are current and can effectively run state-of-the-art applications and resources.

The help desk system is used to monitor defined service level agreements and provide additional support where necessary. Reporting also provides insight into training needs for both technical and non-technical staff along with identifying systemic problems that need to be addressed. The currently defined SLA's are four hours for initial response and three business days for resolution. With the assignment model we have in place, we will target a reduction in ticket resolution time to two business days.

Technology staff are assigned continuous improvement projects which help identify areas that can be improved through changes in practice or system automation. These projects have saved countless hours already in the area of application deployments and upgrades, account lifecycle management, and new device preparation and deployment.



10. **Communications Management**

The Technology Services department will work with the Coordinator of Communications, Community Engagement and Marketing to create an ongoing communications structure to facilitate communication with applicable stakeholder groups, such as the CVUSD Technology Committee, site leadership teams, District Office leadership, labor union organizations, and parent and community leadership committees.

Appendix A: References

- American Association of School Librarians (AASL). (2013). Action Brief "Implementing the Common Core State Standards – The role of the school librarian.
- American Association of School Librarians (AASL). (2007) Standards for the 21st-Century Learner. Retrieved from: http://www.ala.org/aasl/sites/ala.org.aasl/files/content/guidelinesandstandards/learningstandards/AASL_Learning_Standards_2007.pdf
- Arts Education Partnership (AEP). Arts Ed Search. Retrieved from: http://www.artsedsearch.org/
- Association of California School Administrators (ACSA). 2011; Revised 2013. Technology Leadership Group Position Paper. California eLearning Framework CCSESA. Retrieved from: http://alturl.com/yucus
- AZk12 Center. Northern Arizona University. Arizona Technology Integration Matrix (TIM). Retrieved from: https://docs.google.com/file/d/0B3RphNkFHPvrUUttbm1wWFdJYTg/edit
- Bellanca, J., and Ron Brandt, Ed. (2010) 21st Century Skills: Rethinking How Students Learn.
- California Assoc. for the Gifted. 2013. "Differentiating the Common Core State Standards for Gifted Students."
- California Department of Education. 2013. Career Technical Education Standards for California Public Schools. Model Curriculum Standards. http://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp
- California State Board of Education. LCFF State Priorities and Related Data Elements. WestEd 2014 http://lcff.wested.org/wp-content/uploads/2014/09/required-data-for-8-areas-july-2014-update.pdf
- Cosmah, M., & Saine, P. (2013). Targeting digital technologies in common core standards: A framework for professional development. New England Reading Association Journal, 48(2), 81-88.
- Cox, Diane. "Evidence-Based Interventions Using Home-School Collaboration." School Psychology Quarterly 20, no. 4 (2005): 473–497.
- Crosnoe, Robert. "Family-School Connections and the Transitions of Low-Income Youths and English Language Learners from Middle School to High School." Developmental Psychology 45, no. 4 (2009): 1061–1076.
- Guskey, T. R., & Yoon, K. S. (2009). What works in professional development? Phi Delta Kappan, 90(7), 495.
- Honigsfeld, A., & Dove, M. G. (2012). Collaborative practices to support all students. Principal Leadership, 12(6), 40-44.
- Magaña, Sonny, and Robert J. Marzano. (2014) Enhancing the Art & Science of Teaching with Technology. Bloomington, IN: Marzano Research Laboratory.
- Marzano, Robert J., David C. Yanoski, Jan K. Hoegh, Julia A. Simms. (2013) Using Common Core Standards to Enhance Classroom Instruction & Assessment. Bloomington, IN: Marzano Research.
- Mattos, M., Austin Buffum, Chris Weber. (2008) Pyramid response to intervention. RTI, Professional Learning Communities, and How to Respond When Kids Don't Learn. Bloomington, IN: Solution Tree.
- National Association of State Boards of Education (NASBE). 2012. Born in Another Time: Ensuring Educational Technology meets the Needs of Students Today—and Tomorrow. Retrieved from: http://www.nasbe.org/wp-content/uploads/Born-in-Another-Time-NASBE-full-report. Pdf

- Partnership for 21st Century Skills (P21). 2013. “Framework for 21st Century Learning.” http://www.p21.org/
- Sprick, R. (2009). CHAMPS: A Proactive & Positive Approach to Classroom Management, 2nd ed. Eugene, OR: Pacific Northwest Publishing

Appendix B: School Site Technology Plans

Appendix C

Category	Sub-Category	Replacement Cycle	Cost	17-18	18-19	19-20	20-21	21-22	22-23
Equipment	**DC Network Infrastructure**	6 Years	$200,000	$200,000					
	DC Infrastructure (AC,Xfer, Gen)	10 Years	$100,000		$100,000				
	DC UPS Battery	8 Years	$20,000						$20,000
	DC UPS Replacement	8 Years	$50,000		$50,000				
	Firewall / VPN	6 Years	$300,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000
	Wireless Access Points	5 Years	$810,000			$810,000			
	KVM	5 Years	$5,000				$5,000		
	Servers	5 Years	$255,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000
	SAN	5 Years	$255,000	$51,000	$51,000	$51,000	$51,000	$51,000	$51,000
	Backup / Archive	5 Years	$240,000	$48,000	$48,000	$48,000	$48,000	$48,000	$48,000
	Computers	5 Years	$75,000				$75,000		
	Test Devices	Annual	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
	Surge Protectors	5 Years	$90,000					$90,000	
	UPS	5 Years	$13,000					$13,000	
Software									
	Anti Virus	5 Years	$100,000	$100,000					$100,000
	Network Monitoring	Annual	$3,500	$3,500	$3,500	$3,500	$3,500	$3,500	$3,500
	IDAutomation	Annual	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
	OnBase	Annual	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
	Microsoft EES TS	Annual	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000	$25,000
	AirWatch	3 Years (3000 Dev)	$45,000	$27,000					
	PDQ Deploy	Annual	$1,350	$1,350	$1,350	$1,350	$1,350	$1,350	$1,350
	Office 365 Level 3 Licensing	Annual	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
	Wrike Project Mgmt	Annual	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
Contracts	**Generator Service**	Annual	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000
	SPAM Filter	Annual	$11,000	$11,000	$11,000	$11,000	$11,000	$11,000	$11,000
	Juniper	Annual	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
	F5 Load Balancer	Annual	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400	$5,400
	Sunesys WAN	Annual	$147,000	$147,000	$147,000	$147,000	$147,000	$147,000	$147,000
	Time Warner WAN	Annual	$28,385	$28,385	$28,385	$28,385	$28,385	$28,385	$28,385
	Internet Access	Annual	$42,750	$42,750	$42,750	$42,750	$42,750	$42,750	$42,750
	Lightspeed	5 Years	$97,375				$97,375		
	Helpdesk	Annual	$2,400	$2,400	$2,400	$2,400	$2,400	$2,400	$2,400
	Vbrick	Annual	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500
	Aerohive Wireless	5 Years (2000 AP's)	$175,000		$175,000				
	Jive	Annual	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
	VMWare	Annual	$21,200			$21,200			$21,200
	Consulting/Support Services	Annual	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000	$75,000
Professional	**Training & Conference Cost**	Annual	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000
Other Costs	**Operational Cost**	Annual	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000	$60,000
	Sub-Total		$3,404,860	$1,090,285	$1,088,285	$1,594,485	$940,660	$866,285	$904,485
	Budget			$987,000	$987,000	$987,000	$987,000	$987,000	$987,000
	Difference			**$103,285**	**$101,285**	**$607,485**	**$46,340**	**$120,715**	**$82,515**

Appendix D: Professional Development Reports

Appendix E: Staff and Student Acceptable Use Policies

Using Technology in School

AUP for CVUSD Staff

INTRODUCTION

Conejo Unified School District, hereinafter referred to as CVUSD or District, has a strong commitment to providing a quality education for its students, including access to and experience with technology. CVUSD believes the integration of technology into classroom instruction greatly benefits both students and educators in maximizing student learning and preparing for the future in the information age. CVUSD recognizes that technology can enhance employee performance by improving access to and exchange of information, offering effective tools to assist in providing a quality instructional program, and facilitating operations. CVUSD provides a wide range of technological resources to its staff for the purpose of advancing the educational mission of the District.

CVUSD periodically updates technology standards according to Board Policies. Staff members who agree to abide by these defined standards will have access to District technology resources. Board Policy 4040 establishes ethical standards for the use of technology and technological resources in our schools. Board policies apply to all staff, whether or not they come into direct contact with students, and cover all technology used. The CVUSD Employee Technology Acceptable Use Policy provides direction regarding the appropriate and inappropriate use of technology. It does not attempt to articulate all required or prohibited behavior by users. The successful use of technology requires that all users conduct themselves in a responsible manner consistent with CVUSD's Mission and Goals. Although CVUSD will make a concerted effort to protect staff from adverse consequences resulting from the use of technology resources, all users must exercise individual vigilance and responsibility to avoid inappropriate and/or illegal activities. Users are ultimately responsible for their actions in accessing and using District computers and/or mobile devices and the computer network.

CHILDREN'S INTERNET PROTECTION ACT (CIPA)

Pursuant to California legislation and Federal E-Rate regulations, CVUSD uses appropriate filtering technology to limit access to the Internet in an attempt to prevent online access to materials that are obscene, contain child pornography, or are harmful to minors. CVUSD policy and filtering technology allows employees to bypass certain filters to access job related information. Employees bypassing the filters must be diligent in preventing students from accessing inappropriate material. CVUSD curriculum and the Student Acceptable Use Policy provides for the education of students about internet safety, including appropriate online behavior, interacting with other individuals on social networking sites, cyber-bullying awareness and response, protecting online privacy and avoiding online predators.

USE OF CVUSD NETWORK AND HARDWARE

CVUSD employees must:

- Follow District protocols when using technological resources.
- Refrain from downloading software onto CVUSD computers without administrative privileges.
- Refrain from downloading electronic files without approved virus protection.

- Refrain from interfering with network operation through the propagation of viruses, downloading unusually large files without approval, or attaching non-District equipment to the network without approval.
- Refrain from examining, changing, or using another person's username, password, files, or records without explicit authorization.
- CVUSD accepts no liability relative to information stored and/or retrieved on District-owned technology resources, or for employee-owned technology resources used on District property.

RESPECTING CONFIDENTIALITY AND PRIVACY

CVUSD is committed to meeting the provisions established in the Family Educational Rights and Privacy Act (FERPA), which protects the rights of students regarding education records, and the Health Insurance Portability and Accountability Act (HIPAA), which protects the rights of students and employees regarding protected health information. When technology resources are used to transmit confidential information about students, employees, and/or District business, all appropriate safeguards must be used.

RESPECTING COPYRIGHT AND FAIR USE LAWS

CVUSD employees must respect copyright and fair use laws and distinguish between the lawful and unlawful uses of material available on the Internet. This includes the following topics:

- The concept and purpose of both copyright and fair use.
- Distinguishing lawful from unlawful downloading and peer-to-peer file sharing.
- Avoiding plagiarism.

UNACCEPTABLE BEHAVIORS

Unacceptable behaviors include but are not limited to:

- The creation and transmission of offensive, obscene, or indecent material.
- The creation of defamatory material.
- Plagiarism.
- Infringement of copyright, including software, published texts, and student work.
- Using District technology resources for political and/or religious proselytizing.
- Using District technology resources for the transmission of commercial and/or advertising material.
- The creation and transmission of material which is disparaging, harassing, and/or abusive based on race, ethnicity, national origin, sex, gender, sexual orientation, age, disability, religion, and/or political beliefs.

SOCIAL NETWORKING SITES

In general, information that employees post on their personal social networking sites, i.e., Facebook, Twitter, blogs, webpages, etc. are considered constitutionally protected free speech. At the same time, this information may be seen by students, parents, CVUSD employees and members of the public. Employees are strongly urged to consider these potential audiences in evaluating the appropriateness of the information they post, especially when they make reference to their employment. Information that employees post on their personal sites that leads to disruption of the District work or educational environment may be subject to District scrutiny and employee disciplinary policies and procedures. Employees are strongly cautioned against communicating with students using social networking sites except those supported by the District for instructional purposed (Google, Moodle, Edmodo, etc.).

NO EXPECTATION OF PRIVACY

CVUSD employees have no expectation of privacy when using District provided hardware, software, networks, e-mail, voice mail or Internet access. To insure proper use, CVUSD may monitor District systems without advance notice or consent, and may copy, store, or delete any electronic communication or files and disclose them to others as it deems necessary. However, CVUSD does not routinely monitor electronic communications.

PERSONAL USE

CVUSD provides technology use and access for the purpose of educating students and conducting the business of the District. CVUSD recognizes, however, that some personal use is inevitable, and that occasional personal use is permitted so long as it does not interfere with the education of students or District business, and is not otherwise prohibited by CVUSD policy or procedures.

CVUSD employees are expected to review, understand, and abide by the policies described in this document and procedures provided by the Technology Services Department. District employees may obtain additional information and clarification on the topics contained in this document by accessing the CVUSD Website, Personnel Services page, and clicking on the link to Acceptable Use Policy – Conejo Valley Unified School District Employees. The employee's signature indicates they have read the terms and conditions carefully and understand their significance. All employees must review and sign CVUSD's Employee Technology Acceptable Use Policy as a condition of using District technology resources. Signed Employee Technology Acceptable Use Policies are kept on file at the District Personnel Office. Any employee who violates any provision of this Acceptable Use Policy may have their use of District technological resources restricted, and/or may be subject to disciplinary action, up to and including termination.

Employee Name: _____

Employee Signature: _____
(printed)

Date: _____

Using Technology in School
Acceptable Use Policy (AUP) for Students

The Conejo Valley Unified School District (CVUSD) has implemented the usage of the Measure I technology endowment fund to provide additional support for its 21st Century learners. Excellence in education requires that technology is seamlessly integrated throughout the instructional program. The individual or collaborative use of classroom student devices is one strategy to empower students to maximize their full potential, as well as prepare them for college and career.

To this end, CVUSD provides a wide range of technology resources for student use within the classroom. Student devices are to be used solely for educational purposes. This policy outlines appropriate use and prohibited activities. Each student is expected to follow the rules and conditions listed in this document, as well as any directions or guidelines given by CVUSD teachers, substitutes, administrators, and staff.

CVUSD uses a filtering system to track and monitor all computer and Internet use on the District's network. The system is designed to prevent access to educationally inappropriate sites. CVUSD educators can request that a specific site be blocked or unblocked by contacting the Technology Services Help Desk.

It is important to understand that no filtering system is perfect. Due to the nature of the Internet and evolving technology, even with supervision, the District cannot guarantee that students will not reach an inappropriate site. It is the student's responsibility to report any inappropriate site to the teacher.

Below are examples, but not an exhaustive list, of online conduct that may constitute a violation of federal and/or state criminal laws relating to cybercrimes:

- **Criminal Acts:** These include, but are not limited to, "hacking" or attempting to access computer systems without authorization, threatening/harassing email, cyberstalking, various explicit content, vandalism, unauthorized tampering with computer systems, using misleading domain names, using another person's identity and/or identity fraud.
- **Libel Laws:** Publicly defaming people through publishing material on the Internet, email, etc.
- **Copyright Violations:** Copying, selling, or distributing copyrighted material without the express written permission of the author or publisher (users should assume that all materials available on the Internet are protected by copyright); engaging in plagiarism (using other's words or ideas as your own).

General Guidelines

The following guidelines are provided to parents and students as a guideline of expectations only.
Students will:

- Follow all directions given by site and district staff members.
- Use all technology devices, peripherals, and resources in a responsible manner so as not to damage school and district equipment.
- Never remove a device from its protective cover.
- Carry the device with two hands or like a book and make sure the lid or case cover is closed when transporting.
- Limit device exposure to direct sunlight.
- Never leave a device unattended, both in and out of the classroom.
- Keep the device away from water and other liquids, such as sprinklers, rain, puddles, and beverages.
- Not adhere stickers, ink, or other decorative items to school devices.
- Not allow others access to district-owned devices and equipment.

Student Behavior Guidelines and Digital Citizenship

Students are expected to exercise responsible academic behavior and Digital Citizenship when using the CVUSD network and technology equipment.

- General Use:
  - Report any problems with a school device, network, or other system to the teacher.
  - Stay on task and follow directions of CVUSD site and district staff.
  - Device sound is to be muted at all times during instruction, unless otherwise directed by a teacher.
  - During instructional time, all devices are to be used only for academic purposes. Students are not to access movies, games, or non-academic websites during class time unless granted permission by a teacher.
  - Do not attempt to bypass security settings or Internet filters, or interfere with the operation of the network by installing illegal software including file sharing, shareware, or freeware on school computers.
  - It is important to log off the device at the end of every session so another user cannot use passwords that are not their own.
- Digital Citizenship:
  - Students are expected to follow all copyright laws. If there is a question regarding copyright, please consult with the teacher.
  - Academic honesty is expected per CVUSD Board Policy and CVUSD Administrative Regulation 5131.9. Students are to complete their own work, referencing sources as required.
  - Students are responsible for their CVUSD account, and are not to access another individual's account. Students are not to impersonate, spoof, or otherwise pretend to be someone else online. This includes, but is not limited to, sending out email, creating accounts, or posting messages or other online content (e.g. text, images, audio, or video) in someone else's name.
  - Students are responsible for using appropriate language, both in class and online. This includes sending hateful or harassing email, making discriminatory remarks about others, and engaging in bullying, harassment, or other anti-social behaviors.
  - Students are not to access another student's device without expressed permission.
  - Anything done on social networking websites should not negatively impact the school learning environment and/or fellow students, teachers, and administrators.
  - Students will not search, retrieve, save, circulate, or display hate-based, offensive, or sexually explicit material. Do not search, retrieve, save, or circulate images or information about weapons using any CVUSD computer resources unless authorized by school administrator/teacher as part of a school assignment.
  - It is both unsafe and not recommended to post any personal information about oneself or others online, including but not limited to name, address, phone number, or school.
  - Do not post photos of others with their first and last names on any online site, including but not limited to blogs, wikis, and discussions forums.

Classroom and Take-Home Devices: Logging In, Connecting to the Network, and Basic Troubleshooting

In cases where a student is required to login to a device or system, each student is expected to utilize his/her individual, district-provided username and password to access equipment owned and maintained by CVUSD. Should a student forget his/her username or password, the student should ask one of his/her teachers to retrieve it.

District-owned devices are pre-configured to automatically connect to the appropriate CVUSD Ethernet or WiFi network. Should devices not automatically connect to the configured network, students are to speak with the teacher regarding obtaining a temporary replacement device and/or further instructions.

CVUSD makes every reasonable effort to ensure classroom technology stays in proper working order. Nonetheless, the nature of modern technology lends itself to occasional down time. In the interest of best supporting classroom instruction, the following basic troubleshooting tips are provided.

- If the device will NOT power on:
  - Ensure device has been charged or is plugged into a power outlet.
- If the student is unable to login to the device:
  - Ensure the CAPS lock is not turned on.
  - Check the student's username and password combination to ensure that the appropriate one is being used.
  - Each student's teacher may print a copy of student passwords for Windows-based devices, Google Apps, and Q Student Connect via the Q Reports screen.
- Peripherals not functioning properly:
  - Is the peripheral plugged into the device?
  - Unplug the peripheral from the device, wait 10 seconds, plug the peripheral back into the device.
  - Plug the peripheral into a different port on the device (if available).
- Reboot the device.
- When all else fails please inform the teacher.

Classroom Technology Devices

Guidelines for Device Distribution and Return

Each CVUSD classroom teacher will, at his/her discretion, implement and communicate the device distribution and retrieval rules and expectations for the classroom.

Students will:

- Exercise care when removing and returning devices to the designated classroom storage cupboard.
- Exercise care when unplugging a device from its power cord.
- When returning a device, utilize the device's designated cupboard device slot and plug in the device's individual power cord.
- Return the device at the end of a class session or at the discretion of site and district staff members. If a student refuses to return a device, it may be reported stolen to the Thousand Oaks Police Department.
- Do not modify the hardware, security measures, or software loaded on the device.

Parent and Student Liability for Classroom Devices:

Students are expected to treat school and classroom devices with the appropriate care and respect. As applicable, the CVUSD student behavior policies will be enforced regarding any damage to school or classroom devices. Damage includes, but is not limited to, broken screens, cracked casing, inoperability, water damage, etc.

Student Take-Home Devices

Guidelines for Device Distribution and Return

Each CVUSD school site will, at its discretion, determine specific procedures and policies for distributing 1:1 student take-home devices. The following guidelines are provided to schools, parents, and students as a guideline of expectations. Students will:

- Pick up and return the devices at the location designated by the school.
- Exercise care when picking up/returning a device.
- Return the device by the specified deadline.

Parent and Student Liability for Take-Home Devices:

Take-home devices are for student use only. Students are expected to treat school and classroom devices with the appropriate care and respect. As applicable, the CVUSD student behavior policies will be enforced regarding any damage to school technology devices. Damage includes, but is not limited to broken screens, cracked casing, inoperability, water damage, etc.

If the CVUSD-owned device is damaged, lost, stolen or fails to be returned to CVUSD, it may result in the device reported stolen to the Thousand Oaks Police Department.

Bring Your Own Device (BYOD)

One option available is BYOD. Students may bring their privately owned portable technology devices such as laptops, tablets, smart phones, etc. to school for academic use.

Bringing privately owned devices to school is completely optional. Although research shows that personal computing devices are very effective at engaging students in the learning process, a student's learning experience will not be adversely affected by not bringing a device to school.

This policy outlines appropriate use and prohibited activities for BYOD devices.

BYOD Guidelines

Each CVUSD classroom teacher will, at his/her discretion, implement and communicate the BYOD rules and expectations for the classroom. For example, some teachers may request that students refrain from smart phone use during class. The following guidelines are provided to parents and students as a guideline of expectations and opportunities only:

- Students may bring devices that fit into the following categories: laptops, netbooks, tablets/iPads, and smartphones.
- Devices are to be used only during specified times during the instructional period. These times are designated by the child's teacher, school administrator, or other district and site staff members.
- There should be no expectation of printing student documents directly from a student BYOD.

Proper Care of BYOD

Student use of technology in the classroom is considered a privilege at CVUSD. Students are expected to exercise responsible behavior when handling technology, including personally-owned devices and the devices of others. This behavior includes, but is not limited to the following.

- Any devices brought to school should be brought in a protective case or sleeve to limit the potential for damage to the device.
- Devices should be carried with two hands or like a book at all times.
- Limit device exposure to direct sunlight.
- Never leave a device unattended, both in and out of the classroom.
- Keep the device away from water and other liquids, such as sprinklers, rain, puddles, and beverages.
- Any devices, for which anti-virus software is available, must have an up-to-date version of the anti-virus software running. Although this is not an exhaustive list of free anti-virus software, the following is provided for parent and student convenience.
    - Windows-based devices:
        - Avast: https://www.avast.com/en-us/index
        - Microsoft Security Essentials: http://windows.microsoft.com/en-us/windows/security-essentials-download

BYOD: Logging In, Connecting to the Network, and Basic Troubleshooting

Each student is expected to use his/her own username and password to access the CVUSD WiFi network via any student or family-owned devices. CVUSD makes every reasonable effort to ensure that the WiFi network (at available schools) remains in proper working order and is available to students for connection via BYOD. However, the nature of modern technology lends itself to occasional down time.

In the interest of best supporting classroom instruction, see the basic troubleshooting tips that are listed in Classroom and Take-Home Devices section.

CVUSD Liability for Parent and Student-Owned (BYOD)

Student and family technology brought to school remains the sole property of the student and therefore will not receive direct technical support from CVUSD technology staff. As such, any technical support for the device must be provided by the student and family.

CVUSD makes every reasonable effort to maintain a safe learning environment for all students. CVUSD assumes no responsibility for damage, loss, or theft of devices a student brings to school. As with any other student property, devices brought to school from home are the responsibility of the student. It is recommended that families stress the important responsibilities students have when bringing their devices to school.

Conejo Valley Unified School District

Appendix F

Data Breach Response Plan

Contents

1.0 Policy Statement 1
2.0 Background 1
3.0 What is a Data Breach? 2
4.0 Purpose 2
5.0 Scope and Definitions 2
5.1 Scope 2
5.2 Definitions 3
6.0 Data Incident Response Team 3
7.0 Response Plan 4
7.1 Preliminary Analysis 4
7.2 Confirmed Incidents 4
7.3 Flowchart of Activities 5

DRAFT

1.0 Policy Statement

The *CVUSD Data Incident Response Plan* outlines the District's actions following a data breach or other type of data related incident in order to ensure timeliness of response, compliance with applicable laws and regulations and ensure consistency in all aspects of the District's response.

2.0 Background

CVUSD believes that learning best results from the continuous dynamic interaction among students, educators, parents, and the community at large. Increasing student use of technology within the classroom is not to diminish the vital role of the teacher. Rather, CVUSD seeks to enhance the student experience through the use of technology and transform the teacher into an activator of learning. To this end, CVUSD provides a wide range of technology resources for student use within the classroom.

However, as the number of devices increases, so does the number of data breaches worldwide. This is as a result of hackers attempting to capture confidential and/or protected information. Academic institutions are at risk because of the kinds of sensitive information they maintain. Data breaches can occur anywhere that information resides, including computer systems, portable media, paper records, etc.

CVUSD has taken many steps to reduce the risk of a breach of student data. It is important to understand that no protection is foolproof, and even with monitoring, supervision, and procedural training for faculty and staff; the District cannot guarantee that a data breach will not occur. Therefore, CVUSD must be prepared to respond to a breach in the event that one should occur.

3.0 What is a Data Breach?

A breach of a security system means "unauthorized acquisition of computerized data that compromises the security, confidentiality, or integrity of personal information maintained by the agency" (Cal. Civ. Code §1789.29(e)). This includes any instance in which there is an unauthorized release or access of Personally Identifiable Information (PII) or other information not suitable for public release. This definition applies regardless of whether the data is stored on local District server, or with a contractor, such as a cloud service provider. Data breaches can take many forms, including:

- Hackers gaining access to data through a malicious attack;
- Lost, stolen, or temporary misplaced equipment (e.g., laptops, mobile phones, portable thumb drives, etc.);
- Policy and/or system failure (e.g., a policy that doesn't require multiple overlapping security measures—if backup security measures are absent, failure of a single protective system can leave data vulnerable); and
- Employee negligence (e.g., leaving a password list in a publicly accessible location, inadvertently distributing a confidential document, technical staff misconfiguring a security service or device, etc.).

All breaches can be equally dangerous regardless of the cause, as they can leave PII and other sensitive data vulnerable to exploitation.

4.0 Purpose

The CVUSD is committed to protecting the privacy of its community, which includes safeguarding the sensitive and protected data that is owned and maintained by the District. To this end, CVUSD has taken many steps to reduce the risk of a breach of student data. In the event that sensitive and/or protected information owned by the District is exposed as a result of a breach, CVUSD must take steps to:

- Prevent further exposure
- Investigate the incident internally, and support law enforcement if applicable
- Fulfill any legal obligations
- Notify the departments and individuals affected
- Respond to media inquiries
- Document any responsive actions taken
- Conduct a post-incident review of these actions

Accomplishing the above tasks will involve individuals from multiple departments and requires a plan be in place to address a breach before it occurs. The purpose of this plan is to outline the District's response to a data breach.

5.0 Scope and Definitions

5.1 Scope

This Incident Response Plan addresses information compromises from multiple types of incidents, including:

DRAFT

- Computing devices compromised by malware
- Computing devices compromised by unauthorized access: any devices, including both end-user workstations and servers, accessed without permission, either by compromised credentials or other attempts to access a device without authorization
- Lost or stolen computing devices

The scope includes all devices, such as computers, servers, portable media, external hard drives, and mobile devices that contain confidential data.

5.2 Definitions

- **Breach of security:** The unauthorized acquisition or use of sensitive or protected data that creates a substantial risk of identity theft, fraud or harm to the reputation or business interests of an individual or institution.
- **Confidential data:** Refers to any information that is protected by Federal, state, or local laws and regulations, or other sensitive personal and institutional data where the loss of such data could harm an individual's right to privacy.
- **Personally Identifiable Information (PII):** information that can be used to distinguish or trace an individual's identity either directly or indirectly through linkages with other information. This includes name, student ID number, date of birth, home address, phone number, parent contact information, grade level, enrollment status, participation in extra-curricular activities, health records, transcripts, etc.
- **Compromised computer:** Some ways a compromised computer can be identified include: the computer user suspects that his/her system is exhibiting suspicious behavior or has suspicious files stored on the device; network or system logs indicate unusual network behavior coming from or going to the device; or individuals at the District or outside of the District report cyber-attacks or unusual network behavior emanating from the device.

6.0 Data Incident Response Team

The Director of Technology Services, or designee, is charged with the identification of all data security incidents involving electronic data where the loss, theft, unauthorized access, or other exposure of confidential data is suspected. When an incident involving Personally Identifiable Information (PII) is confirmed, the Director of Technology Services will alert the Executive Director of Facilities, Maintenance, and Operations and convene the Data Incident Response Team. The Coordinator of Communications, Community Engagement, and Marketing will coordinate communication regarding the incident to the media and community at large.

The Data Incident Response Team includes representatives from several departments and is situation-specific. The team will be compromised of representatives from Technology Services and Risk Management in addition to the following:

If the incident involves...	Departments and Representatives
Vendor-Hosted Digital Textbook Resources and Instructional Systems	• Coordinator, Instructional Technology and Assessment • Hosting Vendor
Vendor-Hosted Collaboration and Document Creation/Storage Systems	• Department heads based on the information that is accessed • Coordinator, Instructional Technology and Assessment

DRAFT

	• Hosting Vendor
EADMS Student Assessment System	• Coordinator, Instructional Technology and Assessment • Adrylan (Hosting Vendor)
Ellevation: EL Data Management	• Coordinator, Instructional Technology and Assessment • Ellevation (Hosting Vendor)
Employee Negligence	• Assistant Superintendent of Personnel Services or Designee • Director of Elementary Education • Director of Secondary Education
Escape: Financial and Human Resources System	• Assistant Superintendent of Personnel Services or Designee • Director of Fiscal Services • Ventura County Office of Education (Hosting Vendor)
OnBase Document Management System	• Department heads based on the information that is accessed
Locally Hosted Instructional Systems	• Director of Elementary Education • Director of Secondary Education • Digital Forensics Consultant
Q Student Information System	• Director of Elementary Education • Director of Secondary Education • Ventura County Office of Education (Hosting Vendor)
SIRAS: Special Education Information System	• Director of Special Education or Designee • Ventura County Office of Education (Hosting Vendor)
TalentED K-12 Strategic Talent Management	• Assistant Superintendent of Personnel Services or Designee • PeopleAdmin (Hosting Vendor)

The Director of Technology Services will oversee the investigation of the incident, or in the case of an externally hosted resource, will maintain open communication with the sponsoring department and vendor. The Technology Services department will document all breaches and subsequent responsive actions taken. All related documentation will be stored on a secure server.

7.0 Response Plan

7.1 Preliminary Analysis

For suspected data breaches, the Director of Technology Services will:

- **Coordinate a preliminary investigation:** gather details about the incident, including when the incident was first discovered and how any involved employees responded. Examine the initial information and confirm that a breach has occurred.
- **Determine if PII was involved:** identify the type of information disclosed and estimate the method of disclosure (internal/external disclosure, malicious attack or accidental).
- **Document:** document steps taken in the investigation, including timestamps. Track results, process used, and digital location of results if applicable.

7.2 Confirmed Incidents

If an incident involving PII is confirmed, the Director of Technology Services will:

DRAFT

- **Notify Executive Cabinet:** provide details about the incident and status updates
- **Convene the Data Incident Response Team**
- **Compile Information for Communications:** the Coordinator of Communications, Community Engagement, and Marketing will use the provided information to facilitate communication with the media and community at large.
- **Consult Legal Counsel:** if applicable
- **Coordinate Notification of Affected Individuals:** communication with effected individuals will be completed in conjunction with the Data Incident Response Team. Under AB 1177, CVUSD is required to notify any individuals, or parents of individuals under age 18, whose personally identifiable information may have been compromised as a result of this incident.
- **Coordinate Notification of Government Agencies:** if a data breach contains more than 500 elements of PII, the District is required to notify the State Attorney General's office.

7.3 Flowchart of Activities

DRAFT

Appendix G: Links to Approved Software and Recommended Software Lists

iPad/IOS Apps

https://docs.google.com/spreadsheets/d/17l9uP1BQhjjR8rPsAILlBKvDeH90FeOUgAob5oTwP3c/edit?usp=sharing

Chromebook/Chrome Web Store Apps

https://docs.google.com/spreadsheets/d/1ACCu6hwwp6yZ338GcDV89EDCj7PEJIGo-VyLPD7szYc/edit#gid=0

Website or Web-based Software

https://docs.google.com/spreadsheets/d/19TBaDwtKsLOyqNMe_G3kLAq1GcE66Z0vSrBsmHFZJCc/edit#gid=0

Appendix H: Technology Profile

Existing Infrastructure Profile

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
Network Connectivity	Wired Network Connectivity Backbone	3Gbps Internet connection from the district data center	
		10Gbps Wide Area Network (WAN) connection from the district data center to the Ventura County Office of Education facility at Camarillo Airport.	
		10Gbps Metropolitan Area Network (MAN) circuits from the district data center to the comprehensive high schools, middle schools, and Maintenance and Operations facilities.	
		1Gbps MAN circuits from the district data center to all elementary schools, Conejo Valley High School, and Adult Education facilities.	
		10Gbps backbone at: Aspen, Westlake Hills, Ladera, Banyan, Maple, Earths, Lang, Walnut, Weathersfield, M&O	
		1Gbps backbone at: everywhere else, District Office	
	Wireless network connectivity in all inside classroom/educational facilities.	Aerohive 802.11 AC(1) wireless network at all campuses except Glenwood and Conejo Elementary.	Indoor WAPs: AP230
			Outdoor WAPs: AP1130
		Juniper 802.11 N wireless network at Glenwood and Conejo Elementary.	Indoor WAPs: WLA532-US
Data Center	Core Switch	Fiber connections	2x Juniper EX4550-32F
		Copper connections	2x Juniper EX4200-48T
	Top of rack switch	Miscellaneous servers and management ports	1x Juniper EX3300-24P
	District office switch	Extend routed District office network to data center	1x Juniper EX3300-24P
	Firewall		2x Juniper SRX3400
	Internet Content Filter	Policy Server	2x Lightspeed 1600R3-EM
		Load Balanced Web Filter	2x Lightspeed 1GB Bridge
		Proxy Servers	2x Lightspeed 1900R2
		Load Balancer	1x Interface Masters 5.5.5
		Backup Filter	1x Lightspeed 1600R3
	ISCSI Switch		2x Juniper EX4550-32F
	Outside Switch	DMZ-UnTrust	2x Juniper EX4550-32F

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
	BYOD Switches	Public Network	2x Juniper EX4300-24T
	Racks and rack system		8X APC AR3100
	AC system		4x Inrow ACRD100 Cooling
			4x Heatcraft FCB8SM
			1x Portable building A/C
	UPS information		1x APC PDU/PMR
			1x APC Symmetra PX
	Generator and failover switch		1x Kohler 150REZG
	F5		Big-IP 4000
	Wireless Controllers		4x Juniper WLC2800
	VPN	On-Site VPN Support	2x Pulse Secure Mag-2600
		Off-Site VPN Support	1x Juniper SRX240H
	KVM and Serial KVM	Serial KVM	1x WTI RSM-16
	Development Network	Router	1x Juniper EX3300-24P
		Switches	4x Juniper EX2200-C-12P-2G
		KVM	1x BlackBox LES1532A
		Wireless AP	1x Aerohive AP230
	Network	Network core at all comprehensive MS and HS	Juniper 4550/4500
		Network core with routing license at all other sites	Juniper 3300-24T
		Power switch for each MDF/IDF	Juniper 3300 (24 or 48 port) or 2200 (12 port)
		Additional switches (as needed)	Juniper 3300 (24 or 48 port)
		Any location in which computer count exceeds Ethernet port count	Juniper 2200 (12 port) switch
	Servers	HP Blade Servers within two enclosures	Model C7000, 15 Blades
		Processor information	28 sockets, 280 cores (13 blades have 2 CPU's each, 2 blades have 1 CPU each, each CPU has 10 cores)
		Memory information	3,662GB RAM (10 blades have 196GB (1,960GB) each, 3 blades have 524GB

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
			(1,572GB) each, 2 blades have 65GB(130GB) each)
		Network connectivity information	Virtualized NIC configuration with 40Gb throughput
	HP 3PAR SAN	Two redundant controllers	
		SAS 900GB Hard Drives	144 disks x 819GB usable each
		Total Storage	Usable storage: 118TB Available storage: 9TB Usage at 92% capacity, projected to hit 100% mid-2017
Software Platforms	Educational Software	Successmaker	
		Waterford	
		Scholastic	
		Alexandria	
		Ellevation	
		ThinkCentral	
		Connect-ED	
		Accelerated Reader	
		Type to Learn	
	Business Software	Q	
		Alexandria	
		ASB Works	
		Blackboard Connect	
		OnBase	
		SIRAS	
	Productivity Software	Google Apps for Education	
		Office 365	
		Microsoft Office 2010, 2013, 2016	
	Operating Systems	Windows 7, 8, 10	
		Microsoft Active Directory 2012 R2	

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
	Management Systems	Systems Center Information	
		Configuration Manager	
		Operations Manager	
		SNMPc Information	
		Junos SPACE	
		Network Director	
		Security Director	
		AirWatch	
		Aeorhive Hive Manager	
		RingMaster	
		PRTG Bandwidth Usage Reporting	
		Sophos Enterprise Console	
		Account Management Systems	
		Identity Automation	
		SQL and Powershell Scripting	
		Computer Peripheral Inventory	

Recommended Infrastructure Profile

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
Network Connectivity	Wired Network Connectivity Backbone	4-10Gbps Internet connection from the district data center and backup data center	
		10Gbps Wide Area Network (WAN) connection from the district data center to the Ventura County Office of Education facility at Camarillo Airport.	
		10Gbps Wide Area Network (WAN) connecdtion from the backup data center to a secondary Internet point of presence	
		40Gbps Metropolitan Area Network (MAN) ring encompassing all district facilities.	
		10Gbps backbone at all locations	
	Wireless network connectivity in all inside classroom/educational facilities.	802.11 AC(2) wireless network at all campuses	
Data Center	Core Switch	Fiber connections	2x Next Generation
		Copper connections	2x Next Generation
	Top of rack switch	Miscellaneous servers and management ports	1x Next Generation
	District office switch	Extend routed District office network to data center	1x sNext Generation
	Firewall		2x Next Generation
	Internet Content Filter	Policy Server	2x Next Generation
		Load Balanced Web Filter	2x Next Generation
		Proxy Servers	2x Next Generation
		Load Balancer	1x Next Generation
		Backup Filter	1x Next Generation
	ISCSI Switch		2x Next Generation
	Outside Switch	DMZ-UnTrust	2x Next Generation
	Racks and rack system		8X APC AR3100

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
	AC system		4x Next Generation
			4x Next Generation
			1x Portable building A/C
	UPS information		1x APC PDU/PMR
			1x APC Symmetra PX
	Generator and failover switch		1x Kohler 150REZG
	F5		Next Generation
	VPN	On-Site VPN Support	2x Next Generation
		Off-Site VPN Support	1x Next Generation
	KVM and Serial KVM	Serial KVM	1x Next Generation
	Development Network	Router	1x Next Generation
		Switches	4x Next Generation
		KVM	1x Next Generation
		Wireless AP	1x Next Generation
	Network	Network core at all comprehensive MS and HS	Next Generation
		Network core with routing license at all other sites	Next Generation
		Power switch for each MDF/IDF	Next Generation
		Additional switches (as needed)	Next Generation
		Any location in which computer count exceeds Ethernet port count	Next Generation
	Servers	Blade Servers within two enclosures	Next Generation
		Processor information	Next Generation
		Memory information	Next Generation
		Network connectivity information	Next Generation
	HP 3PAR SAN	Two redundant controllers	
		SAS 900GB Hard Drives	Next Generation
		Total Storage	Next Generation
Software Platforms	Educational Software	Successmaker	
		Waterford	
		Scholastic	
		Alexandria	
		Ellevation	

Category	Subcategory	Specifications/Locations/Purpose	Hardware Model(s)
		ThinkCentral	
		Connect-ED	
		Accelerated Reader	
		Type to Learn	
	Business Software	Q	
		Alexandria	
		ASB Works	
		Blackboard Connect	
		OnBase	
		SIRAS	
	Productivity Software	Google Apps for Education	
		Office 365	
		Microsoft Office 2010, 2013, 2016	
	Operating Systems	Windows 8, 10	
		Microsoft Active Directory 2012 R2	
	Management Systems	Systems Center Information	
		Configuration Manager	
		Operations Manager	
		SNMPc Information	
		Junos SPACE	
		Network Director	
		Security Director	
		AirWatch	
		Aeorhive Hive Manager	
		RingMaster	
		PRTG Bandwidth Usage Reporting	
		Sophos Enterprise Console	
		Account Management Systems	
		Identity Automation	
		SQL and Powershell Scripting	
		Computer Peripheral Inventory	

Appendix I: Grade Level Technology Standards

Instructional Technology Standards
K-12 Scope and Sequence

		Grade-Level									
		K	1	2	3	4	5	6	7	8	HS
I. Basic Technology Operations and Concepts											
a.	Start and shut down a device successfully	M	M	M	M	M	M	M	M	M	M
b.	Be able to click, drag, and drop	M	M	M	M	M	M	M	M	M	M
c.	Identify the cursor	M	M	M	M	M	M	M	M	M	M
d.	Identify and use keyboard letter and number keys, spacebar, caps lock, shift key, period, and backspace key	I	M	M	M	M	M	M	M	M	M
e.	Open and exit out of a computer program or app	I	M	M	M	M	M	M	M	M	M
f.	Use correct terminology for parts of a computer and other technology devices (e.g. mouse, cursor, monitor, etc.)	I	M	M	M	M	M	M	M	M	M
g.	Login to a computer or device independently	I	R	M	M	M	M	M	M	M	M
h.	Demonstrate basic keyboarding skills	I	R	M	M	M	M	M	M	M	M
i	Identify the parts of the device	I	R	M	M	M	M	M	M	M	M
j.	Identify and use keyboard delete and escape keys	I	R	R	M	M	M	M	M	M	M
k.	Open, view, save, and close a document		I	R	R	M	M	M	M	M	M
l.	Make folders and save documents in folders			I	R	M	M	M	M	M	M
m.	Access and use printers			I	R	R	M	M	M	M	M
n.	Use correct terminology for the Web (e.g. hyperlink, webpage, navigation, etc.)			I	R	R	M	M	M	M	M
o.	Demonstrate proficient keyboarding skills				I	R	M	M	M	M	M
p.	Identify and use a variety of storage media, including USB drives, shared school servers, and online storage (Google Drive, Office 365, etc.)				I	R	R	R	R	M	M
q.	Identify successful troubleshooting strategies for minor hardware and software issues/problems (e.g. frozen screen)							I	R	M	M
r.	Independently operate peripheral equipment (e.g. scanner, digital camera)							I	R	M	M
s.	Identify and assess the capabilities and limitations of emerging technologies									I	M

I = Introduce R = Reinforce M = Master

Instructional Technology Standards
K-12 Scope and Sequence

		Grade-Level									
		K	1	2	3	4	5	6	7	8	HS
II. Creativity and Innovation; Media Fluency											
a.	Type student name	M	M	M	M	M	M	M	M	M	M
b.	Select and use drawing/ painting tools to illustrate a story	I	M	M	M	M	M	M	M	M	M
c.	Type a sentence		I	M	M	M	M	M	M	M	M
d.	Insert graphics into a document		I	M	M	M	M	M	M	M	M
e.	Create, add text and a graphic, and save a single page multimedia project		I	R	M	M	M	M	M	M	M
f.	Save and print documents			I	M	M	M	M	M	M	M
g.	Move, size, edit, and save images			I	M	M	M	M	M	M	M
h.	Use cut, copy and paste features			I	R	M	M	M	M	M	M
i.	Use application tools to check and edit work			I	R	M	M	M	M	M	M
j.	Evaluate a multimedia presentation by applying specific evaluation criteria				I	R	M	M	M	M	M
k.	Create a multimedia presentation incorporating sound and pictures				I	R	M	M	M	M	M
l.	Create simple documents by using electronic media and employing organizational features and toolbars for formatting (e.g . word art, bullets, numbered lists, entry and pull-down menus, thesaurus, spell checks, etc.)				I	R	M	M	M	M	M
m.	Create a multimedia presentation incorporating advanced multimedia features (importing sound, pictures, video, creating a master, modifying color schemes, etc.)				I	R	R	M	M	M	M
n.	Use a variety of media to present information for specific purposes (e.g., reports, research papers, presentations, newsletters, Web sites, podcasts, blogs), citing sources.							I	R	R	M

I = Introduce R = Reinforce M = Master

Instructional Technology Standards
K-12 Scope and Sequence

		Grade-Level									
		K	1	2	3	4	5	6	7	8	HS
III. Communication & Collaboration; Informational Fluency; Research											
a.	Open a Web browser	M	M	M	M	M	M	M	M	M	M
b.	Click on hyperlinks to navigate a web page	I	M	M	M	M	M	M	M	M	M
c.	Identify and use browser toolbar buttons	I	M	M	M	M	M	M	M	M	M
d.	Navigate a web page using arrow buttons to move backward and forward and scroll bar to move up and down		I	M	M	M	M	M	M	M	M
e.	Locate and access information by performing simple keyword searches in online sources			I	M	M	M	M	M	M	M
f.	Use a Web subject directory to find information (e.g. Kiddle.co)			I	M	M	M	M	M	M	M
g.	Go to a website by typing in a URL in the browser address window			I	R	M	M	M	M	M	M
h.	Save a graphic from a Web page				I	M	M	M	M	M	M
i.	Cut, copy, and paste text from a web page				I	M	M	M	M	M	M
j.	Organize information by creating and using electronic bookmarks					I	M	M	M	M	M
k.	Identify the structure of a website including homepage and hyperlinks					I	R	M	M	M	M
l.	Navigate among multiple browser windows					I	R	M	M	M	M
m.	Use effective search strategies for locating and retrieving electronic information							I	R	R	M
n.	Use appropriate academic language in online learning environments (e.g., post, thread, intranet, discussion forum, drop box, account, and password).							I	R	R	M
o.	Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.							I	R	R	M
p.	Use a variety of district approved Web 2.0 tools (e.g., e- mail discussion groups, blogs, etc.) to collaborate and communicate with peers, experts, and other audiences using appropriate academic language.							I	R	R	M
q.	Write correct in-text citations and reference lists for text and images gathered from electronic sources.								I	R	M

I = Introduce R = Reinforce M = Master

Instructional Technology Standards
K-12 Scope and Sequence

		Grade-Level									
		K	1	2	3	4	5	6	7	8	HS
IV. Digital Citizenship											
a.	Treat technology with respect	M	M	M	M	M	M	M	M	M	M
b.	Understand and follow grade-level expectations of the Acceptable Use Policy	M	M	M	M	M	M	M	M	M	M
c.	Understand Cyber Safety Concepts	M	M	M	M	M	M	M	M	M	M
d.	Understand Information Ethics Concepts: Plagiarism and Copyright	M	M	M	M	M	M	M	M	M	M
e.	Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information							I	R	M	M
f.	Explain the potential risks associated with the use of networked digital environments (e.g., internet, mobile phones, wireless, LANs) and sharing personal information.							I	R	R	M
V. Critical Thinking, Problem Solving, and Decision Making											
a.	Understand that technology assists with answering questions and solving information problems	M	M	M	M	M	M	M	M	M	M
b.	Identify and explain terms and concepts related to spreadsheets (i.e. cell, column, row, values, labels, chart graph)				I	R	R	M	M	M	M
c.	Create a bibliography					I	R	R	R	R	M
d.	Apply specific criteria to evaluate if teacher-selected websites are current, accurate, and relevant					I	R	R	R	M	M
e.	Understand the structure and purpose of a variety of electronic information sources (e.g. Internet, databases, etc.) to identify the best source to solve an information problem						I	R	R	R	M
f.	Demonstrate an understanding of the spreadsheet as a tool to record, organize and graph information.							I	R	R	M
g.	Use various applications to make predictions, solve problems, and draw conclusions.							I	R	R	M
h.	Enter/edit data in spreadsheets and perform calculations using formulas										M
i.	Use mathematical symbols e.g. + add, - minus, *multiply, /divide, ^ exponents										M

I = Introduce R = Reinforce M = Master

Conejo Valley Unified School District
Kindergarten Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Start and shut down a device successfully • Be able to click, drag, and drop • Identify the cursor • Identify and use keyboard letter and number keys, spacebar, caps lock, shift key, period, and backspace key • Open and exit out of a computer program or app • Use correct terminology for parts of a computer and other technology devices • Demonstrate basic keyboarding skills • Identify the parts of a device	Technology Word Wall – pictures / word cards to learn terminology Daily Guided Classroom Practice • modeling • think alouds Keyboarding Practice Websites • Dance Mat Typing • Typing Pals • Type to Learn
II. Creativity and Innovation; Media Fluency	• Type their name • Select and use drawing/painting tools to illustrate a story	**Apps and Software** • Little Bird Tales • Educreations • Book Creator • Microsoft Paint/Tux Paint • Microsoft Word • Microsoft PowerPoint **Word Processing** • Allow students to use Microsoft Word to type name, weekly spelling/high-frequency words, and/or simple sentences • Students create drawings in Microsoft Paint or Tux Paint in response to a story **Presentations** • Create a digital class book via Book Creator or similar app • Storyboard for Three Billy Goats Gruff or Little Red Hen
III. Communication, Collaboration, and Informational Fluency	• Open a web browser • Click on hyperlinks to navigate a web page • Identify and use browser toolbar buttons • Students will utilize the internet with a parent or teacher to communicate with a familiar adult.	• Kiddle.co (kid friendly search engine) • Technology Word Wall • Record students sharing knowledge about a topic or book and share via Educreations or other approved website/app
IV. Digital Citizenship	• Treat technology with respect • Understand cyber safety concepts • Understand information ethics concepts: Plagiarism and Copyright	• Classroom procedures and expectations • Common Sense Media Digital Citizenship Lessons
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems	**Search Tools** • www.factmonster.com • kiddle.co • Model brainstorming using software or apps to represent information gathered.

Conejo Valley Unified School District
1st Grade Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Identify and use keyboard letter and number keys, spacebar, caps lock, shift key, period, and backspace key • Open and exit out of a computer program or app • Use correct terminology for parts of a computer and other technology devices • Demonstrate basic keyboarding skills • Identify the parts of a device • Identify and use keyboard delete and escape keys • Open, view, save, and close a document	Technology Word Wall – pictures / word cards to learn terminology • Brain Pop Jr. - https://jr.brainpop.com/artsandtechnology/technology/ Daily Guided Classroom Practice • modeling • think alouds Keyboarding Practice Websites • Dance Mat Typing • http://kidstyping.weebly.com/ • http://www.abcya.com/typing_rocket_junior.htm • http://www.tvokids.com/games/keyboardclimber2 • Typing Pals • Type to Learn • Mouse Skills Practice - http://www.abcya.com/take_a_trip.htm Create a document using Microsoft Word • Students can practice typing their name. Once they have finished have them save, close and reopen file.
II. Creativity and Innovation; Media Fluency	• Select and use drawing/painting tools to illustrate a story • Type a sentence • Insert graphics into a document • Create, add text, and a graphic, and save a single page multimedia project	**Apps and Software** • Little Story Creator • Educreations • Book Creator • Microsoft Paint/Tux Paint • Microsoft Word • Microsoft PowerPoint **Word Processing** • Allow students to use Microsoft Word to type name, weekly spelling/high-frequency words, and/or simple sentences • Students create drawings in Microsoft Paint or Tux Paint in response to a story **Presentations** • Create a digital class book via Book Creator or similar app • Storyboard for core lit book or current reading selection
III. Communication, Collaboration, and Informational Fluency	• Click on hyperlinks to navigate a web page • Identify and use browser toolbar buttons • Navigate a Web page using arrow buttons to move backward and forward and scroll bar to move up and down	• Kiddle.co (kid friendly search engine) • Technology Word Wall • Record students sharing knowledge about a topic or book and share via Educreations or other approved website/app

IV. Digital Citizenship	• Treat technology with respect • Understand and follow grade-level expectations of the Acceptable Use Policy • Understand cyber safety concepts • Understand information ethics concepts: Plagiarism and Copyright	• Classroom procedures and expectations • Common Sense Media Digital Citizenship Lessons • Brain Pop Jr. - https://jr.brainpop.com/artsandtechnology/technology/internetsafety/
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems	**Search Tools** • www.factmonster.com • kiddle.co • Model brainstorming using software or apps to represent information gathered.

Conejo Valley Unified School District
2nd Grade Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Demonstrate basic keyboarding skills • Identify parts of a device • Identify and use keyboard delete and escape keys • Open, view, save, and close a document • Access and use printers • Use correct terminology for the Web	Technology Word Wall – pictures / word cards to learn terminology • http://www.abcya.com/computer_vocabulary.htm • https://jr.brainpop.com/artsandtechnology/technology/ Daily Guided Classroom Practice • modeling • think alouds Keyboarding Practice Websites • Dance Mat Typing • Typing Pals • Type to Learn • http://kidstyping.weebly.com/ • http://www.abcya.com/typing_rocket_junior.htm • http://www.tvokids.com/games/keyboardclimber2 Create a document using Microsoft Word or Publisher • Students can practice typing a poem. Once they have finished have them save, close, reopen file, and print.
II. Creativity and Innovation; Media Fluency	• Create, add text, and a graphic, and save a single page multimedia project • Save and print documents • Move, size, edit, and save images • Make folders and save documents in folders • Use cut, copy, paste features • Use application tools to check and edit work	Apps and Software • Little Story Creator • Educreations • Book Creator • Microsoft Paint/Tux Paint • Microsoft Word • Microsoft PowerPoint Poem Creator • http://www.readwritethink.org/files/resources/interactives/acrostic/ **Word Processing** • Allow students to use Microsoft Word to type name, weekly spelling/high-frequency words, and/or simple sentences • Students create drawings in Microsoft Paint/Tux Paint in response to a story • Type a poem and add clip art **Presentations** • PowerPoint – create a slide to show the life cycle of a butterfly or a plant • Word – use the iphone template on the google docs site to tell about your vacation • Pic Collage/Balloon Stickies Apps to tell an all about me story

III. Communication, Collaboration, and Informational Fluency	• Navigate a Web page using arrow buttons to move backward and forward and scroll bar to move up and down • Locate and access information by performing simple keyword searches in online sources • Go to a website by typing in a URL in the browser address window • Use a Web subject directory to find information	• Kiddle.co (kid friendly search engine) • Technology Word Wall • Record students sharing knowledge about a topic or book and share via Educreations or other approved website/app • Welcome to the Web - http://www.w2tw.uk/
IV. Digital Citizenship	• Treat technology with respect • Understand cyber safety concepts • Understand information ethics concepts: Plagiarism and Copyright	• Classroom procedures and expectations • Common Sense Media Digital Citizenship Lessons • Brain Pop Jr. - https://jr.brainpop.com/artsandtechnology/technology/internetsafety/
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems	**Search Tools** • www.factmonster.com • kiddle.co • Model brainstorming using software or apps to represent information gathered.

Conejo Valley Unified School District
3rd Grade Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Identify and use keyboard delete and escape keys • Open, view, save, and close a document • Access and use printers • Use correct terminology for the Web • Demonstrate proficient keyboarding skills	**Technology Word Wall** – pictures / word cards to learn terminology • http://www.abcya.com/computer_vocabulary.htm **Keyboarding Practice Websites** • Dance Mat Typing • Typing Pals • Type to Learn • http://kidstyping.weebly.com/ • http://www.abcya.com/typing_rocket_junior.htm • http://www.tvokids.com/games/keyboardclimber2 Create a document using Microsoft Word or Publisher • Students can practice typing a story. Once they have finished have them save, close, reopen file, and print. Lifecards – Postcards App • Design a travel brochure using this app. Add photos and text to tell about a place or time period.
II. Creativity and Innovation; Media Fluency	• Create, add text, and a graphic, and save a single page multimedia project • Save and print documents • Move, size, edit, and save images • Make folders and save documents in folders • Use cut, copy, paste features • Use application tools to check and edit work • Evaluate a multimedia presentation by applying specific evaluation criteria • Create a multimedia presentation incorporating sound and pictures • Create simple documents by using electronic media and employing organizational features and toolbars for formatting • Create a multimedia presentation incorporating advanced multimedia features	**Apps and Software** • Little Story Creator • Educreations • Book Creator • Microsoft Paint/Tux Paint • Microsoft Word • Microsoft PowerPoint • Write About This • Story Jumper **Poem Creator** • http://www.readwritethink.org/files/resources/interactives/acrostic/ **Word Processing** • Allow students to use Microsoft Word to type name, weekly spelling/high-frequency words, and/or simple sentences • Students create drawings in Microsoft Paint/Tux Paint in response to a story • Type a poem and add clip art **Presentations** • PowerPoint – use powerpoint to evaluate a science/social studies lesson

		• Word – use the Special Events in My Life Time Line on the google docs district web site • Popplet App – create a timeline/character analysis/ using the directions on the google docs district web site • Prezi – create a prezi presentation on a particular topic, story, or assignment
III. Communication, Collaboration, and Informational Fluency	• Locate and access information by performing simple keyword searches in online sources • Go to a website by typing in a URL in the browser address window • Use a Web subject directory to find information • Save a graphic from a Web page • Cut, copy, and paste text from a Web page	• Kiddle.co (kid friendly search engine) – use the Biography Research template on the google docs district web site • Welcome to the Web - http://www.w2tw.uk/ • http://www.sweetsearch.com/ - search engine for students
IV. Digital Citizenship	• Treat technology with respect • Understand cyber safety concepts • Understand information ethics concepts: Plagiarism and Copyright	• Classroom procedures and expectations • Common Sense Media Digital Citizenship Lessons • Brain Pop - https://www.brainpop.com/technology/digitalcitizenship/
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems	**Search Tools** • www.factmonster.com • kiddle.co • Model brainstorming using software or apps to represent information gathered. • http://www.sweetsearch.com/ - search engine for students

Conejo Valley Unified School District
4th Grade Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Open, view, save, and close a document • Make folders and save documents in folders • Access and use printers • Use correct terminology for the Web (e.g. hyperlink, webpage, navigation, etc.) • Demonstrate proficient keyboarding skills • Identify and use a variety of storage media, including USB drives, shared school servers, and online storage (Google Drive, Office 365, etc.)	Daily Guided Classroom Practice • modeling • think alouds Type assignments/reports Keyboarding Practice Websites - • Dance Mat Typing • Typing Pals • Type to Learn
II. Creativity and Innovation; Media Fluency	• Use cut, copy and paste features • Use application tools to check and edit work • Evaluate a multimedia presentation by applying specific evaluation criteria • Create a multimedia presentation incorporating sound and pictures • Create simple documents by using electronic media and employing organizational features and toolbars for formatting (e.g . word art, bullets, numbered lists, entry and pull-down menus, thesaurus, spell checks, etc.) • Create a multimedia presentation incorporating advanced multimedia features (importing sound, pictures, video, creating a master, modifying color schemes, etc.)	**Apps and Software** • Explain Everything • Microsoft PowerPoint • Microsoft Word • Haiku Deck **Word Processing** • Students type essays and constructed response answers to prompts and questions **Presentations** • PowerPoint • Create a digital class book
III. Communication, Collaboration, and Informational Fluency	• Go to a website by typing in a URL in the browser address window • Save a graphic from a Web page • Cut, copy, and paste text from a web page • Organize information by creating and using electronic bookmarks • Identify the structure of a website including homepage and hyperlinks • Navigate among multiple browser windows	•
IV. Digital Citizenship	• Treat technology with respect • Understand and follow grade-level expectations of the Acceptable Use Policy • Understand Cyber Safety Concepts • Understand Information Ethics Concepts: Plagiarism and Copyright	•
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems • Identify and explain terms and concepts related to spreadsheets (i.e. cell, column, row, values, labels, chart graph) • Create a bibliography • Apply specific criteria to evaluate if teacher-selected websites are current, accurate, and relevant	**Search Tools** • www.factmonster.com • www.kiddle.co

Conejo Valley Unified School District
5th Grade Technology Standards

Technology Standard	Teach	Examples/Resources
I. Basic Technology Operations and Concepts	• Access and use printers • Use correct terminology for the Web (e.g. hyperlink, webpage, navigation, etc.) • Demonstrate proficient keyboarding skills • Identify and use a variety of storage media, including USB drives, shared school servers, and online storage (Google Drive, Office 365, etc.)	
II. Creativity and Innovation; Media Fluency	• Evaluate a multimedia presentation by applying specific evaluation criteria • Create a multimedia presentation incorporating sound and pictures • Create simple documents by using electronic media and employing organizational features and toolbars for formatting (e.g . word art, bullets, numbered lists, entry and pull-down menus, thesaurus, spell checks, etc.) • Create a multimedia presentation incorporating advanced multimedia features (importing sound, pictures, video, creating a master, modifying color schemes, etc.)	**Story Creation** • http://storybird.com Create a story using artwork samples provided on site – good activity for reinforcing beginning, middle, and end **Word Processing** • Allow students to use Microsoft Word to type name, weekly spelling/high-frequency words, and/or simple sentences • Students create drawings in Microsoft Paint in response to a story **Presentations** • PowerPoint • Create a digital class book
III. Communication, Collaboration, and Informational Fluency	• Organize information by creating and using electronic bookmarks • Identify the structure of a website including homepage and hyperlinks • Navigate among multiple browser windows	•
IV. Digital Citizenship	• Treat technology with respect • Understand and follow grade-level expectations of the Acceptable Use Policy • Understand Cyber Safety Concepts • Understand Information Ethics Concepts: Plagiarism and Copyright	•
V. Critical Thinking, Problem Solving, and Decision Making	• Understand that technology assists with answering questions and solving information problems • Identify and explain terms and concepts related to spreadsheets (i.e. cell, column, row, values, labels, chart graph) • Create a bibliography • Apply specific criteria to evaluate if teacher-selected websites are current, accurate, and relevant • Understand the structure and purpose of a variety of electronic information sources (e.g. Internet, databases, etc.) to identify the best source to solve an information problem	**Search Tools** • www.factmonster.com • Create a graphic organizer in Microsoft Word to represent information gathered (Possible topics: historical figures, reading series themes, holidays, science unit questions, garden, upcoming field trips, etc.)