Appendix D

AMADOR ELEMENTARY SCHOOL

Dublin Unified School District

Big question: What problem are we trying to solve? How can we infuse the use of technology to support learning? More specifically, how can we use technology to help students effectively interact with new knowledge? Research shows utilizing a variety of strategies in the classroom is more impactful for student learning. We need students to demonstrate the same flexibility in applying technology in order to apply deeper thinking skills and problem solving strategies. We are ready to support staff and students in taking the next step toward full technology integration. Our vision is that the use of technology be just as supportive to learning for a student as all other academic tools.

Twenty-first century learning engages students through technology in these key ways:

• *Students learn actively, engaging in and completing projects about which they have cause to care.*

• *Students work together, in pairs and groups, meeting challenges that call on their creativity.*

• *Students interact and communicate with others — peers, educators, and experts within or outside school — and they build the feedback they receive into their work.*

• *Students access information in virtually limitless ways.*

• *Schools embrace technology as a powerful force in students' lives, and open new doors to accessibility.*

• *Adults in schools are open to seeing relevant uses within the classroom for the technology tools that students are using outside school.*

Vermont Technology Plan Template 2014

District Support for Technology Integration

According to a survey of 997 schools conducted by Project RED, an advocacy organization supported by educational technology companies, effective technology integration programs are characterized by nine implementation practices: [25]

- Technology is integrated into every intervention class period;
- Principals engage in change management and provide time for teacher professional learning and collaboration at least monthly;
- Students use technology daily for online collaboration, including games or simulations and social media;
- Students use technology in core curriculum subjects at least once a week;
- Students complete online formative assessments at least once a week;
- Schools engage in virtual field trips at least once a month;
- Students use search engines on a daily basis; and
- Principals receive training in teacher buy-in, best practices, and the use of technology to transform learning.

Hanover Research Report, November 2014

Vision of Instructional Implications:

Teacher **Lesson Design** will be approached in a **Project Based Learning** format. Project-based learning is a dynamic approach to teaching in which students explore real-world problems and challenges. With this type of active and engaged learning, students are inspired to obtain a deeper knowledge of the subjects they're studying. Teachers know that they must cover the 4'C's of teaching Best Practices: **Creativity, Collaboration, Critical Thinking, and Communication,** to support student learning. In this Project-Based Learning format teachers and students "Define Problems" that need to be solved. Students are involved in "Project Planning" to discover solutions for said problems. Students work to find "Project Based Solutions" where they analyze, synthesize, and interpret data. This **Instructional Best Practice** of Project-Based Learning supports all learners in their proficiency of the Common Core English Language Arts, Math and Next Generation Science standards. **Critical Thinking Skills** are used and **Technology** is incorporated as a tool to support learning in this **Project Based Learning** environment.

Technology Tool Integration:

Objective:

By June 30, 2018, 100% of teaching staff will actively use online tools, such as Google Apps for Education, Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc. will successfully integrate these applications throughout the curriculum in a blended model.

Year 1 Benchmark:

By June 30, 2016, 80% of teaching staff will actively use online application tools, such as

Google Apps for Education, Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc. and will successfully integrate these applications throughout the curriculum.

Year 2 Benchmark:
By June 30, 2017, 90% of teaching staff will actively use online application tools, such as Google Apps for Education, Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc. and will successfully integrate these applications throughout the curriculum.

Year 3 Benchmark:
By June 30, 2018, 100% of teaching staff will actively use online application tools, such as Google Apps for Education, Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc. and will successfully integrate these applications throughout the curriculum.

Implementation Professional Development Plan Fall 2015 / 2016:

Month	Theme	Description	Resources
August (Summer PD)	Google Classroom	Set up your Google Classroom for the new school year.	TBD by Ed Tech Team in 2015/2016
August	Google Forms	Back to School- Create forms to gather information from your students and parents.	TBD by Ed Tech Team in 2015/2016
September	Google Slides	Collaborative Slides- Build presentations as a class to share information and get to know one another.	TBD by Ed Tech Team in 2015/2016
October	Google Forms	Create Formative Assessments using Forms.	TBD by Ed Tech Team in 2015/2016
November	Hyper Docs	Create a Hyper Doc to differentiate instruction.	TBD by Ed Tech Team in 2015/2016

‘

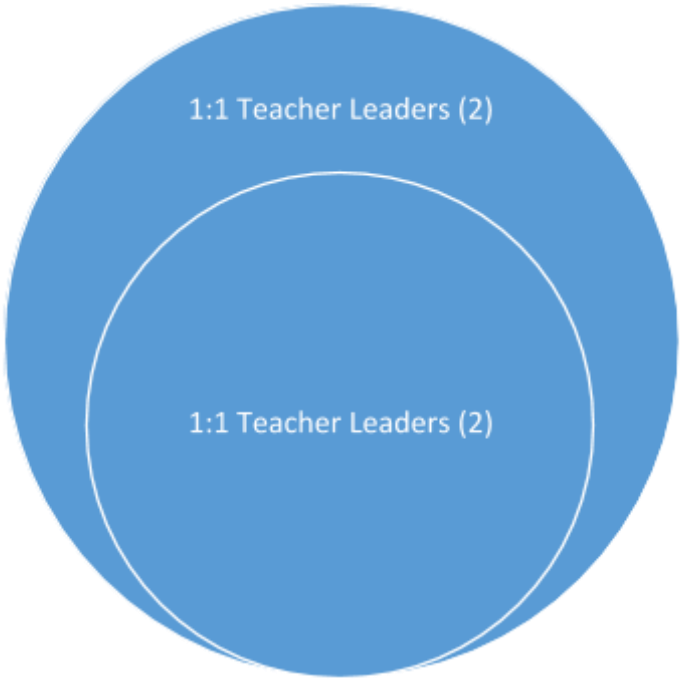
Parents/Student Professional Development Requirements for 1:1 checkout model:

Attend mandatory training in device care/management. Sign agreements for use, checkout, and insurance form	Annually	Educational Services/ Technology Services Teachers	Sign out forms, agendas, AUP's on file
Attend mandatory Digital Citizenship training with follow up targeted workshops offered quarterly	Ongoing	Educational Services/ Technology Services	Homepage established and Google Analytics data reviewed for usage metrics

Professional Development Model:

Backwards map Sample: Three years forward to 2018: CCCS, SBAC, perception with department and school and community. Scenario: Sample grade 4 classroom: students proficient in presentation skills, slideshows, graphics, word processing. In a 1:1 blended learning environment with video chat on Google with district level schools participating in peer-to-peer discussions connected to the Fresno County Office of Educational Technology standards grid by subject in grade 4.

Rollout Model:



1:1 Distributed Leadership Rollout Plan

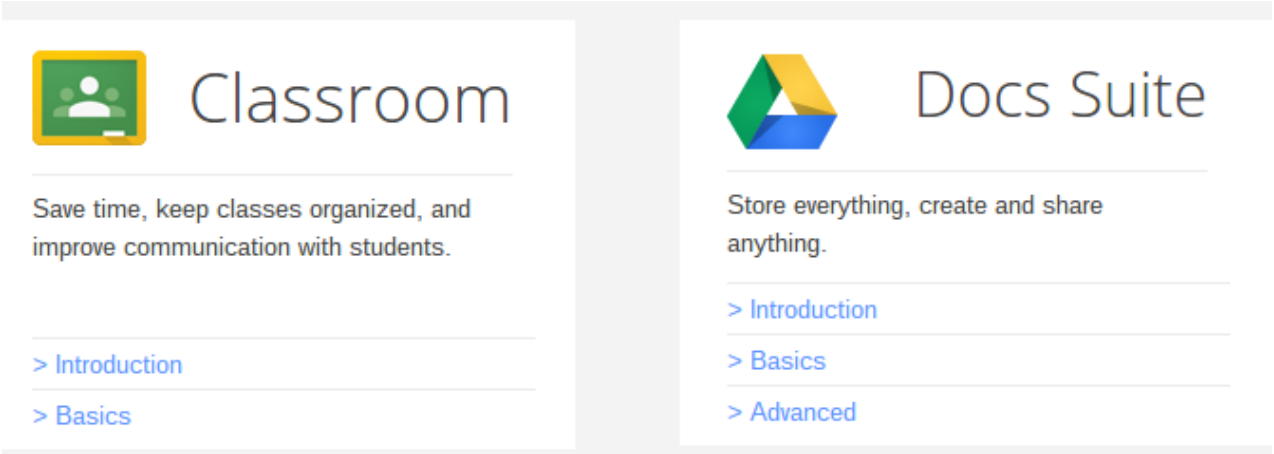
Technology Lead Teacher (two initially) receive a check out model class set of devices – Teacher works with 2 other teachers and sign off when they are ready to receive their check out

model class sets. Evaluation includes curriculum integration and technology skills readiness. This model will continue until all teachers are trained. During the initial rollout of the 1:1 student check out model, teachers will have exposure to research based blended learning strategies led by district technology coaches from the Educational Services department. The initial 1:1 teacher lead team will then modify any rollout documentation based on their discovery of best practices within Dublin Unified School District. This follows the logic of the distributed leadership professional development model. The first grade level to pilot will be fifth grade in September of 2015, followed by fourth grade, and then will stop in third grade using the distributed leadership methodology during the pilot. *Students in grades K-2 will use technology in the classroom and on campus only.*

Delivery: Under the umbrella of PBL (Project Based Learning) models in partnering with Napa Digital Initiative, the roadmap will be as follows:
Instructional Methods are defined utilizing Google Apps for Education (GAFE), Blended Learning Rotation project based monthly tasks led by Ed Tech/Academic coaches, and portfolios creation with frequency and depth by grade level/department.

Years One-Three Professional Development Tracks:

Years 1-3	Blended Learning: Model-Rotation Delivery K-5, Flipped 6-12	GAFE Basics Online Certified	Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc.
	Blended Learning: Model-Rotation Delivery K-2, Flipped 3-12	GAFE Adv. Educator by tool: Docs, Search, Classroom LMS, YouTube	Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc.
	Blended Learning: Model-Rotation Delivery K-2, Self-Blended 3-12	Portfolio Creation	Online video/digital textbooks portal: Discovery EDU, Pearson Realize, Ed1Stop, etc.



Student/Staff Devices:

Grade Spans	*Approx. Student Enrollment*	*Total Chromebook Devices 2016*	**Total Classrooms**
DKA	26	TBD	1
Grade K	140	TBD	6
Grade 1	104	52	4
Grade 2	104	52	4
Grade 3	104	104	4
Grade 4	92	92	3
Grade 5	84	84	3
Library	N/A	1 cart of 36 (student library searches/homework/projects)	N/A
SDC	45	TBD	3
Specialists	N/A	N/A	N/A
Support Staff	N/A	N/A	N/A
Administrators	N/A	N/A	N/A
Total enrollment 2015	**655**	N/A	N/A
Total	N/A	412	26
Totals	**COWS:**	**Storage/Charging Station:**	
Grade DKA/K/SDC	1	10	
Grade 1	1	4	
Grade 2	1	4	
Grade 3	4	0	
Grade 4	0	3	
Grade 5	0	3	
Science/Art rms	0	1	
Library	1	0	
Total	14	18	

Classroom hardware configuration:

The classroom configuration for students in DKA, Kinder, grades one and two, and SDC/Resource classrooms will be as follows:

- SmartBoard with short throw projector
- One teacher station, one teacher laptop
- One document camera
- One external DVD player
- A classroom set of 14-18 Chromebooks with charging station/storage (grade 1 & 2)
- *Special Education classrooms will receive x amount of touch devices for daily use *(where applicable)*
- One to two shared COWS of Chromebooks per grade level (grade 1 & 2)

The classroom configuration for grade three will be a 1:1 (onsite only for pilot-Fall 2015) model:

- One 80" HDTV
- Teacher station, teacher laptop
- One document camera
- One external DVD player
- A full classroom set of Chromebooks with charging station/storage per classroom

The classroom configuration for grades four and five will be a pure 1:1 student check out model:

- One 80" HDTV
- Teacher station, teacher laptop
- Document camera
- External DVD player

Additional:

- External Ruckus access point will allow for mobility access beyond the classroom.
- Library will have stationary Chromeboxes and/or Lenovo tiny's and a COW of class set Chromebooks.

Appendix D

Approx. Building Technology Budget: (does not include infrastructure technology)

#'s	Cost Factor	Initial Cost	Amortized Years	Unit Costs	Details
Computer Technology					
412	Student Chromebook Computers	119,892.00	3	$291.00	Lenovo + added 36 for Library
1	Long throw projectors	5,000.00	5	$5,000.00	Multi-Purpose Room
14	Carts (14-36 Chromebooks)	18,200.00	4	$1,300.00	
22	Storage/Charging Boxes	16,500.00	8	$750.00	
TBD	Purchase Assistive Technology	TBD	TBD	TBD	TBD
45	DVD player	4,500.00	5	$100.00	USB
50	Ruckus Wireless Access Points	35,750.00	5	$715.00	
1	Outdoor Ruckus Antenna	2,274.00	5	$2,274.00	
34	BW Purchase/lease Printers	7,820.00	5	$230.00	
1	Color Purchase/lease Printers	300.00	3	$300.00	
12	HD TV	36,000.00	7	$3,000.00	80" Vizio
12	HD TV Mounts	450.00		$5,400.00	
1	Fax Equipment	800.00	5	$800.00	
5	Copiers and Scanners		5		Caltronics standardized for DUSD
17	Smartboards	$54,060	5	$3,180.00	
14	Chromebook Carts	$18,200	5	$1,300.00	added 1 cart for Library
2	DVD/VCR (for checkout)	200.00	5	$100.00	
46	Document Camera	24,610.00	7	$535.00	added 44 + 2 extras
2	Scanners Handheld	380.00	5	$190.00	Library
	Approx. Total Computer & Technology for building	$344,936			