

Cambrian School District Student Device Program Options

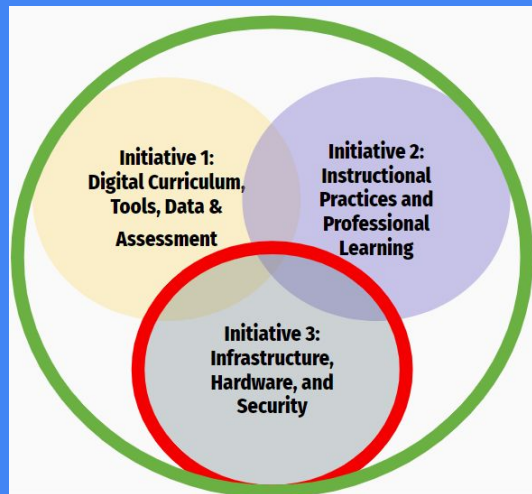
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January 21, 2021



Agenda



Current Plan:

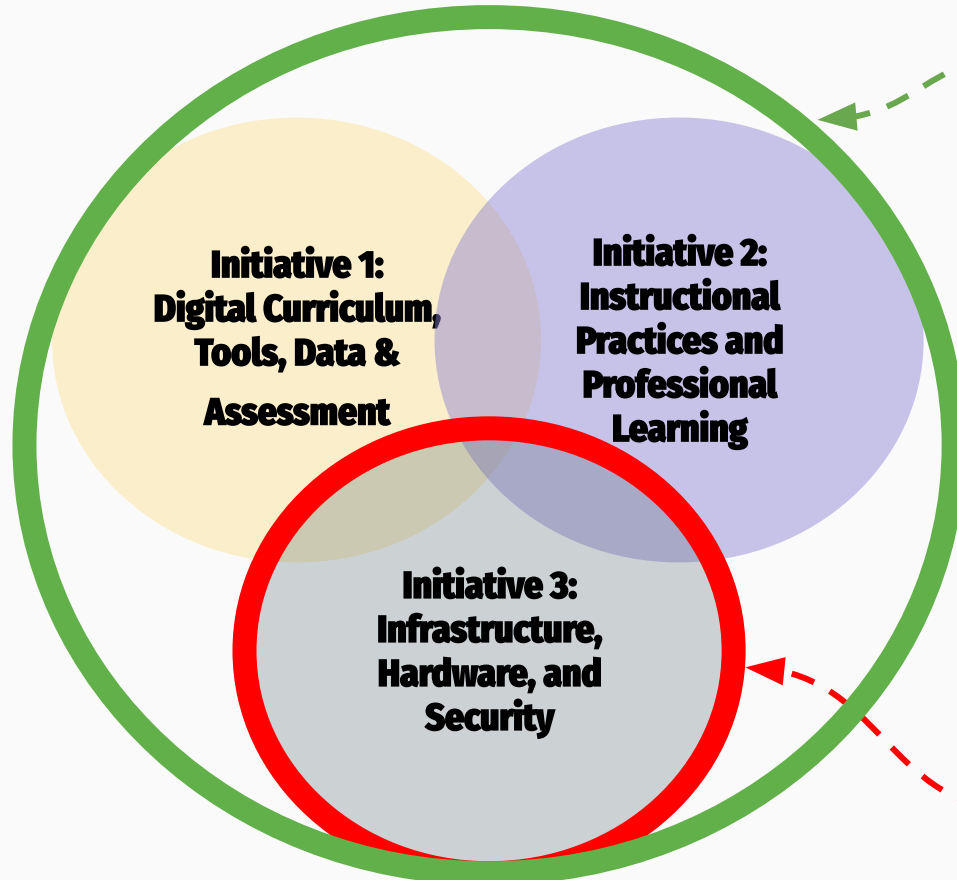
1:1 Chromebooks Gr 6-8
2:1 Chromebooks Gr 2-5
3:1 iPads Gr PK-1

Student Device Program Options

- **Why Consider 1:1 or Take Home?**
- **3 Options for 1:1 Student:Device Ratio**
 1. 1:1 Grades 6-8 (*Current Plan*)
 2. 1:1 Grades 2-8
 3. 1:1 Grades PK-8
- **Staff Recommendation**
- **Five Year Summary Cost**
- **Appendices**



CSD Technology Plan 2019-24: Current Roadmap



CSD Technology Plan divided into 3 initiatives.

Measure R School Bond potential funding candidates:

1. Student devices
 - a. iPads, Chromebooks
2. Classroom standard equipment
 - a. Doc camera, Display Screen, Casting Device (e.g. Apple TV), Teacher Laptop, Phone
3. Infrastructure
 - a. Wireless access points, switches, uninterruptible power supplies, servers

Why Consider 1:1?

- **Research:**

- 1:1 does not result in automatic achievement gains.
- Gains tend to be more in math but only with effective teacher PD.
- Research still evolving especially when looking at benefits beyond those measured in state assessments.

- **1:1 vs 2:1:**

- 1:1 removes barrier to learning, making tech fully accessible for all students
- Reduces scheduling logistics and management issues that come with device sharing
- Allows teachers to fully leverage curriculum with a heavy digital footprint
- Better prepares students for online state and local assessments.

- **Cost of Entry is low**

- Recent device grants bootstrap a 1:1 program

Why Consider A Take Home Program?

Requirements to Support Take Home

- Added security, safety monitoring
- Added remote tech support, maintenance
- Supporting home Internet access (e.g Hotspots)
- Added management (e.g. when students leave, graduate, forget devices, etc.)
- Teacher PD and parent training
- Concerns regarding additional screentime

vs.

Benefits

- Equity of access to tech at home
- Expands learning environment beyond classroom
- Greater opportunity for student collaboration
- Increased engagement and participation.
- Replaces prior program where students were supplied 2 textbooks per subject, 1 to keep at home.

Option 1:

1:1 Student:Device Ratio - Grades 6-8 ([Current Board Approved Plan](#) - Jan 27, 2020)

Item	2021-22	2022-23	2023-24	2024-25	2025-26	Notes
iPads (PK-1): 3:1 ratio	\$0	\$0	\$0	\$0	\$0	Current inventory would support 2:1 through 2026
Chromebooks: Gr 2-5 → 2:1 ratio Gr 6-8 → 1:1 ratio	\$35K**	\$0	\$0	\$0	\$337K	** Purchase carts for Chromebooks from 2020-21 grant \$426 total cost of ownership
64 Macbooks for Price Programs	\$2K***	\$0	\$0	\$0	\$0	2020-21: Purchased 64 Macbooks (\$98K) for Price programs ***Carts for the Macbooks
Project Lead the Way	?	?	?	\$30K****	?	2020-21: \$10K Xilinx grant for Project Lead the Way at Price. Not included in total. ****Assume 5 years EOL for 30 PCs. Purchased 2019
Total	\$37K	\$0K	\$0K	\$30K	\$337K	Total 5 Yr Expenditure: \$404K

Option 2: 1:1 Student:Device Ratio - Grades 2-8

Item	2021-22	2022-23	2023-24	2024-25	2025-26	Notes
iPads (PK-1): 3:1 ratio	\$0	\$0	\$0	\$0	\$0	Current inventory would support 2:1 through 2026
Chromebooks: Gr 2-8 → 1:1 ratio	\$35K** + \$120K	\$91K	\$59K	\$13K	\$368K	** Purchase carts for Chromebooks from 2020-21 grant \$426 total cost of ownership
64 Macbooks for Price Programs	\$2K***	\$0	\$0	\$0	\$0	2020-21: Purchased 64 Macbooks (\$98K) for Price programs. ***Carts for the Macbooks
Project Lead the Way	?	?	?	\$30K****	?	2020-21: \$10K Xilinx grant for Project Lead the Way at Price. Not included in total. ****Assume 5 years EOL for 30 PCs. Purchased 2019
Total	\$157K	\$91K	\$59K	\$43K	\$368K	Total 5 Yr Expenditure: \$718K

(Items in Red are deltas from *Current Plan*)

Option 3:

1:1 Student:Device Ratio - Grades PK-8

Item	2021-22	2022-23	2023-24	2024-25	2025-26	Notes
iPads (PK-1): 1:1 ratio	\$96K	\$0	\$41K	\$0	\$254K	\$552 cost of ownership
Chromebooks: Gr 2-8 → 1:1 ratio	\$35K** + \$120K	\$91K	\$59K	\$13K	\$368K	** Purchase carts for Chromebooks from 2020-21 grant \$426 total cost of ownership
64 Macbooks for Price Programs	\$2K***	\$0	\$0	\$0	\$0	2020-21: Purchased 64 Macbooks (\$98K) for Price programs ***Carts for the Macbooks
Project Lead the Way	?	?	?	\$30K****	?	2020-21: \$10K Xilinx grant for Project Lead the Way at Price. Not included in total. ****Assume 5 years EOL for 30 PCs. Purchased 2019
Total	\$253K	\$91K	\$100K	\$43K	\$622K	Total 5 Yr Expenditure: \$1,109K

(Items in Red are deltas from *Current Plan*)

Staff Recommendation

- **Option 2:**
 - 1:1 Grades 2-8
 - 3:1 Grades PK-1
- **Take Home Program:**
Grades 6-8*
*Pending evaluation of pros/cons with Middle School stakeholders.

5 year total expenditures for student devices: \$718K

Why? (Summary)

- **1:1** removes barrier to learning
 - Reduces scheduling logistics and management issues that come with device sharing
 - Allows teachers to fully leverage curriculum with digital components
- **1:1** better prepares students for online state and local assessments.
 - Navigating the user interface, creating writing products, manipulating online tools, accessibility tools such as translation, etc.
- **Take Home Program** extends classroom activities and opportunities for collaboration appropriate for middle school
- **PK-1**
 - Tech use managed mostly through small groups

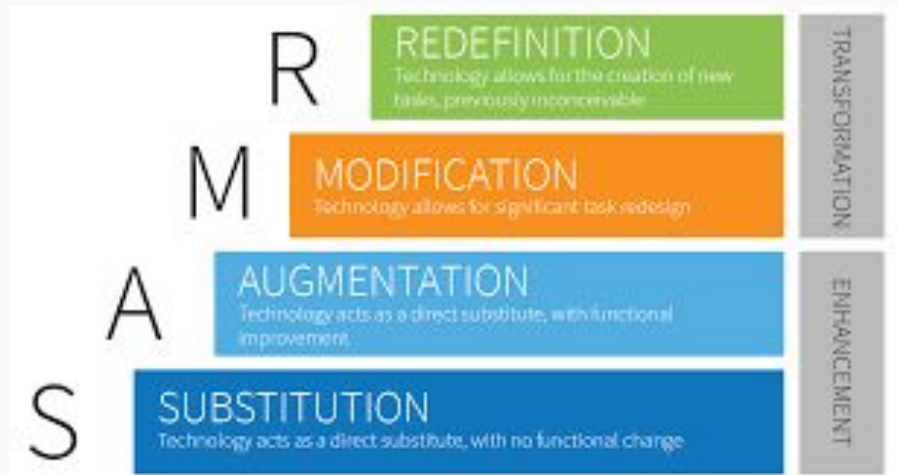
Staff Recommendation

- **Option 2:**
 - 1:1 Grades 2-8
 - 3:1 Grades PK-1
- **Take Home Program:**
Grades 6-8*
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5 year total expenditures for student devices: \$718K

Prerequisites to Implementation

- Teacher PD regarding **effective use of Tech**
- Increase emphasis on **digital citizenship** and **collaboration** for students
- Mechanism for **measuring impact on student achievement**
- **Parent training and communication** essential, esp. in Take Home Program





Five Year Summary Cost for Technology Equipment

Item	2021-22	2022-23	2023-24	2024-25	2025-26	
Classroom Standard Teaching Equipment	\$61K	\$10K	\$18K	\$18K + \$160K***	\$160K*** + \$325K****	***Replace 200 staff laptops over 2 years. Purchased 2018-19. ****Replace teacher and district desktops if needed (currently desktops are donated)
Maintain/Improve Infrastructure	\$6K	\$6K	\$6K	\$22K	\$32K**	**4 servers purchased 2019. EOL 5 years.
Student Devices (Option 2 + Take Home)	\$157K	\$91K	\$59K	\$43K	\$368K	- Chromebooks: 1:1: Gr 2-8 - iPads: 3:1: Gr PK-1 - Take Home for Gr 6-8
Total	\$224K	\$107K	\$83K	\$243K	\$885K	Total 5 Yr Expenditure: \$1,542K

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Thank you!

