

Cape Elizabeth Device Summary

Technology is constantly changing and evolving. The educational perspective of technology is in constant flux as well.

COVID-19

COVID-19 brought a real focus on technology. Educators were tasked with providing options that they had fully prepared for. On the other hand, students were able to continue to learn and grow. Even though we know that face to face instruction is a better overall experience for most students, faced with having no contact at all, technology provided a much richer experience than simply sending worksheets home.

Cape Elizabeth has a long history of supplying devices to staff and students. However, the times, culture, and technology has changed.

The Technology Department is committed to continuing to support our staff and students in developing effective learning conditions to prepare students for their future.

MLTI

Maine created the MLTI (Maine Learning Technology Initiative) in 2002. The original focus was on 7th and 8th grade students. In 2019, the Maine Department of Education redeveloped the MLTI plan (dubbed MLTI 2.0). Ideally, MLTI 2.0 is designed to support grades 5-10. The stated MLTI 2.0 long-term goal is to “provide equitable integration of technology for engaging and effective educational experiences”.

MLTI is now a three year program. We are currently in year two of the program.

MLTI Allocation (2023)

- Student 122
- Staff 40

Current Devices

As a result of MLTI, we have MacBooks in the 7th and 8th grades.

iPads are “rolled down” from graduating seniors to Kindergarten.

Grade	Device	Year	Notes
K	iPad Air	2013	*No longer supported with updates.
1st Grade	iPad Air	2013	*No longer supported with updates.
2nd Grade	iPad (5th Gen)	2017	
3rd Grade	iPad (5th Gen)	2017	
4th Grade	iPad (5th Gen)	2017	
5th Grade	iPad (7th Gen) iPad (8th Gen)	2019 2020	
6th Grade	iPad (7th Gen) iPad (8th Gen)	2019 2020	
7th Grade	MacBook Air (M1, 2020)	2020	
8th Grade	MacBook Air (M1, 2020)	2021	
9th Grade	iPad (8th Gen)	2020	
10th Grade	iPad (7th Gen)	2019	
11th Grade	iPad (6th Gen)	2018	
12th Grade	iPad (6th Gen)	2018	

Further Detail can be found on the [Device Overview page](#).

Costs

There is a substantial difference in cost amongst devices. For example, through the MLTI grant, the following devices are available at the following prices:

Device	Cost
Macbook Air	\$983.50
iPad	\$459

Chromebook	\$329.66
Windows Laptop	\$646

These are all minimal specifications. In some cases, it is advantageous to add storage. All devices, specifications, and prices can be found on the [State of Maine Device MLTI Approved Devices](#) webpage.

Current Committed Costs

Our current commitments for leasing is as follows:

- Lease 5: (9th Grade iPads) - 9073-4430
 - 2023 is the 2nd year (\$19,898.33)
 - 2024 will be 3rd year (\$19,898.33)
- [Lease 6](#) (2021 MLTI 2.0 (253 Macbook Airs & 37 iPads)
 - 2023 is year 2 (\$66,349.25)
 - 2024 year 3 (\$66,349.25)
 - MLTI paid first year, Cape pays year 2 & 3
 - 7th and 8th Grade Macbook Airs

Thus, we are committed to \$86,247.58 for the 2023 school year and the 2024 school year.

	2022-2023	2023-2024	
Lease 5	- \$19,898.33	- \$19,898.33	
Lease 6	- \$66,349.25	- \$66,349.25	
Total Committed	\$86,247.58	\$86,247.58	

Real World Usage

All devices have a long list of “possible” uses. However, what really matters is the actual use by students, staff, and other users. This can be the hardest and most emotional to address. The intent to do something is strong (not just with technology, but definitely true for technology).

Our observations as to how devices are really being used:

Pond Cove:

- Accessing digital resources (DreamBox, etc)

Middle School:

- Movie creation

- Accessing digital resources (IXL, High School
- Writing (papers, essays, etc)
- Accessing digital resources

Faculty devices

Historically, teachers had Macbooks and iPads. Some teachers have both, but have reported varied use of the iPad.

Environment

Note that we have projectors and Apple TV's in most classrooms. This allows for iPads and MacBooks to wirelessly connect to the projectors.

Options

The following has been collected from Staff, student, and community input as well as technology staff experience.

Option Mac (High School)

Purchase MacBooks for the rising ninth graders.

Cost: no additional cost this year as the state payment would cover the first year of the lease. However, there would be a two year commitment (2023-2024, and 2024-2025) of \$262.25 per device per year (each MacBook costs \$983.50 minus the \$459 from the state, leaving a balance of \$524.50 which is paid over two years, thus \$262.25).

Additional Device Cost	2023-2024	2024-2025
Students (122)	\$31,994.50	\$31,994.50
Staff (40)	\$10,490.00	\$10,490
Total Cost	\$42,484.50	\$42,484.50

With Previous Committed costs this would bring the totals to:

	2022-2023	2023-2024	2024-2025
Lease 5	\$19,898.33	\$19,898.33	0
Lease 6	\$66,349.25	\$66,349.25	0
Macbooks 2023		\$42,484.50	\$42,484.50
Macbooks 2024			\$42,484.50
Total Committed	\$86,247.58	\$128,732.08	\$85,034.88

Advantage:

This would provide students with a consistent experience from 7th grade to 12th grade. The current use of technology seems to focus more on writing and processing. MacBooks have a full size keyboard. Macbooks also have a 13.3" screen (larger than the iPad or Chromebook).

Traditionally, Macbooks retain their use and value the best over time. MacBooks should be fully functional for five years. Most students will be using full computers after high school.

Disadvantage:

There is an economic cost associated with switching from iPads to Macs. This would also result in a mixed environment over the next four years. Traditionally, iPads are repurposed from the graduating seniors back to Pond Cove.

Option iPad (High School)

Purchase iPads for rising ninth graders.

Cost: effectively none. The payment from the State would cover the cost.

Additional Device Cost	2023-2024	2024-2025
Students (122)	\$0	\$0
Staff (40)	\$0	\$0
Total Cost	\$0	\$0

Advantage:

This is our current setup. All of the structures are in place and ready to go. There would be no mixed classes. There would be no additional financial commitment. iPads are portable. They have a camera and software that allows for content creation.

This also allows us to take advantage of our current infrastructure of having Apple TV's in every classroom.

Disadvantage:

The iPad is still not a laptop. Typing on an iPad is less productive than an attached keyboard. The iPad has a smaller screen. Multiple screens are limited to two visible at a time.

Option Chromebook (High School)

Purchase Chromebooks for the incoming ninth graders.

Cost: effectively none. The payment from the State would cover the cost.

Additional Device Cost	2023-2024	2024-2025
Students (122)	\$0	\$0
Staff (40)	\$0	\$0
Total Cost	\$0	\$0

Advantage:

Students would have a laptop with an attached keyboard. Chromebooks are very education focused. There are fewer distractions with a Chromebook as they can be managed and controlled more completely. Management for Chromebooks is built-in to our Google Admin Tools

Disadvantage:

Chromebooks have more limitations than a MacBook. Chromebooks have a lower build quality and will be supported for five years. After the five years, no additional security support is provided. Chromebooks have an 11.6" screen, thus between an iPad and Macbook.

Other Considerations

Staff devices. Do we supply a laptop and an iPad to all teachers? Do we supply both to teachers who instruct students who use iPads?

There is, of course, the possibility of switching students to Chromebooks and leaving staff with Macbooks.

Devices for elementary school are not really figured into the above. Ideally, devices for elementary would be refreshed at a consistent pace as well.

We currently have 87 staff members who have been issued a Macbook model from Early 2015. These are due for replacement.

We currently have roughly 256 Macbooks assigned to staff.

We are a Google Domain System. This means that we utilize Google tools and resources.