

Allocation of Devices and Building Capacity K-8 2017-2020

Creating Capacity

As technology use increases, one of the greatest challenges has been to create technology capacity in order to improve access. The two factors that contribute most to providing capacity are physical space and time. Since each of these are finite and well defined, capacity can only be increased by utilizing different tools, such as iPads and Chromebooks, which can help introduce more learning opportunities at the building level. Planning for technology capacity is based on a model where the cost of providing this capacity increases as it is built closer to the student. That is, the most expensive option for creating capacity is a device for each student (1:1), within the classroom (class set), then on the team or floor level (carts), and then school-wide areas such as labs. Both cost and the needs of the classroom are considered when determining the proper path towards increasing capacity.

A recent survey of K-8 teaching staff indicated the need for additional resources closer to the classroom, to be used in small groups, and for differentiated instruction (see response summary on pages 2-3). There was a near-universal desire to have those resources in the classroom and accessible on demand. Although each school currently has access to labs or mobile carts, access to devices can be limited.

Teachers cite the need for additional student access in the form of mobile computing devices, the ability for students to use technology in the classroom, devices which allow for greater flexibility in developing curriculum units while saving valuable teaching time by limiting transitions, and honing of students digital and technical literacy skills.

A survey of Chenery staff in November indicates a preference for multiple class-sized sets of mobile devices in order to improve access to technology.

Chenery Staff Device Preferences

Answer Choices (multiple selections allowed)	Responses
iPads (25-30 devices shared with team or grade level)	51%
Chromebooks (25-30 devices shared with team or grade level)	45%
Laptops (25-30 devices shared with team or grade level)	41%
iPads (3-5 devices for individual classroom use)	36%
Desktops (3-5 devices for individual classroom use)	32%
Laptops (3-5 devices for individual classroom use)	24%
Chromebooks (3-5 devices for individual classroom use)	23%
Desktops (25-30 devices shared with team or grade level)	21%

Even though there are currently seven carts in rotation, and five fixed labs, there is still a significant need for additional devices available on the classroom or team level.

A survey of Burbank, Butler, Winn Brook, and Wellington staff in November indicates a preference for small sets and class-sized sets of mobile devices in order to improve access to technology.

K-4 Staff Device Preferences

Answer Choices (multiple selections allowed)	Responses
iPads (3-5 devices for individual classroom use)	76%
iPads (25-30 devices shared with team or grade level)	41%
Laptops (25-30 devices shared with team or grade level)	20%
Laptops (3-5 devices for individual classroom use)	20%
Desktops (3-5 devices for individual classroom use)	16%
Chromebooks (25-30 devices shared with team or grade level)	12%
Chromebooks (3-5 devices for individual classroom use)	12%
Desktops (25-30 devices shared with team or grade level)	12%

Devices are also used in many areas on the elementary level, including: Special Education, English Language Learners, Reading, Art, and Wellness. While labs continue to be a valuable resource, the district’s burgeoning population is simply too large and strains the ability to satisfy the increasing need for computer based curriculum and learning.

Device Acquisition and Deployment Plan

The district's Technology Plan for calls for:

- Identifying ways to increase access to mobile computing devices at all levels
- Expanding the wireless infrastructure to support increased mobile device use
- Increasing capacity to support online testing

Allocation Rationale

The goal of this plan is to increase capacity in a manner which is as equitable as possible. However, current devices have been purchased by various sources including: the district's operating budget, the FBE, PTOs/PTAs, the town's building committee, and private donations. In many cases, purchases have been made from a combination of funding sources. Given that each school has different funding histories, this plan contributes to the goal of increased capacity, while recognizing previous contributions.

A reasonable multi-year plan specifies device purchases and inventory reallocation based on grade level and specialized needs such as Special Education or ELL, where device assignment would generally be structured as follows:

<u>Grade Level</u>	<u>Device</u>	<u>Allocation Schedule</u>
Grades K-2	iPads	5 iPads per classroom
Grades 3-4	Chromebooks	30 Chromebooks per every 3 classrooms
Grades 5-8	iPads and Chromebooks	1 Chromebook or iPad cart per team
Grades 9-12	iPads	1:1 Program
ELL/SPED	iPads	Based on program need

Note: Wellington will begin to transition their laptops to Chromebooks beginning in 2019-20.

I. Device Allocation Grades K-2

The first part of the plan's device reallocation takes the iPads from this year's BHS graduating class and divides them equally among K-2 elementary classrooms which do not currently have iPads. The goal is to ensure each classroom has a minimum of five iPads. This process will be evaluated and adjusted based on need each successive year.

Current iPad Inventory K-4

	Grade and Number of Existing Devices						
School	K	1	2	3	4	ELL	SPED
Burbank	18	0	0	0	0	2	0
Butler	9	24	29	0	24	5	10
Wellington	0	0	2	0	0	4	9
Winn Brook	0	0	0	0	0	5	9

Allocation of BHS YOG17 iPads to Grade K-2 Classrooms without iPads

	Grade and Number of Devices to be Added			
School	K	1	2	Total per School
Burbank	NA	15	15	30
Butler	NA	NA	NA	0
Wellington	25	25	25	75
Winn Brook	20	20	20	60
Total				165

Note: Approximately 290 devices available from graduating seniors.

165 to K-2 classrooms

30 to individual K-8 specialists classrooms.

95 to Chenery for inservice replacements

II. Device Allocation Grades 3-8 (2017-18)

The second part of the deployment plan calls for the purchase of Chromebooks and carts for classrooms grades 3-8, with the goal of increasing device capacity.

For the 2017-18 school year, there are several capacity-related factors to consider:

1. Add gr. 5 to the online testing requirement
2. Add gr. 7 to the online testing requirement
3. Determine disposition of YOG 18 iPads (320 units)

Current Chromebook Inventory Gr. 3-8

School	3	4	5-8	ELL	SPED
Burbank	0	30	NA	0	0
Butler	80	0	NA	0	0
Wellington	0	0	NA	0	0
Winn Brook	0	0	NA	0	0
Chenery	NA	NA	30	0	0

Note: Existing Wellington laptops will be upgraded and consolidated into grades 3 and 4.

Chromebook Deployment Gr. 3-8

School	Item	Unit Cost	QTY	Total Cost
Burbank	30 Chromebooks/1 cart	\$7,950	1	\$7,950
Butler	NA	NA	NA	NA
Wellington	NA	NA	NA	NA
Winn Brook	30 Chromebooks/1 cart	\$7,950	2	\$15,900
Chenery	30 Chromebooks/1 cart	\$7,950	5	\$39,750
Total				\$63,600

Notes: All schools retain existing iPad and Chromebook inventory

III. Device Allocation Grades 3-8 (2018-19)

For the 2018-19 school year, there are several capacity-related factors to consider:

4. Add gr. 6 to the online testing requirement
5. Add gr. 3 to the online testing requirement
6. Add gr. 10 to the online testing requirement
7. Replace 120 aging Chenery iPads
8. Determine disposition of YOG 18 iPads (320 units)

Chromebook Deployment Gr. 3-8

School	Item	Unit Cost	QTY	Total Cost
Burbank	30 Chromebooks/1 cart	\$7,950	1	\$7,950
Butler	NA	NA	NA	NA
Wellington	NA	NA	NA	NA
Winn Brook	30 Chromebooks/1 cart	\$7,950	2	\$15,900
Chenery	30 Chromebooks/1 cart	\$7,950	4	\$31,800
Total				\$55,650

IV. Device Allocation Grades 3-8 (2019-20)

For the 2019-20 school year, there are several capacity-related factors to consider:

1. Replace 120 aging Chenery iPads
2. Plan for multi-year replacement of Wellington student laptops
3. Determine disposition of YOG 19 iPads (320 units)

Chromebook Deployment Gr. 3-8

School	Item	Unit Cost	QTY	Total Cost
Burbank	NA	NA	NA	NA
Butler	NA	NA	NA	NA
Wellington	30 Chromebooks/1 cart	\$7,950	2	\$15,900
Winn Brook	NA	NA	NA	NA
Chenery	30 Chromebooks/1 cart	\$7,950	4	\$31,800
Total				\$47,700

V. Budget Summary (2017-2020)

School Year	Amount (device cost plus technology support)
2017-18	\$66,600
2018-19	\$58,650
2019-20	\$50,700
3-Year Total	\$175,950