

Instructional Technology Purchases

Board of Education
March 2020



What problem are we trying to solve?

- As part of our continuous improvement and curricular processes, we are realizing a push in education to support student learning through more digital resources. In order to differentiate instruction for our students, we need to use online platforms that require additional student devices.



Why are we trying to solve this problem?

- By 2030, emerging technologies, such as Artificial Intelligence and Virtual Reality, are going to transform the workplace.
- For students to be successful in the future, we need to give them opportunities to complete project-based work using new technologies.
- Students need to master the variety of ways they can use technology to accomplish complex tasks or search for answers.

-eSchool News Aug. 7, 2018



Who is our target audience?

19-20 School Year	20-21 School Year	21-22 School Year	22-23 School Year
5th-8th grade students	9th-12th grade students	3rd-4th grade students	K-2nd grade students
9th-12th grade teachers			



What is currently being done to address this problem?

Devices

- For the 19-20 school year, we purchased Chromebooks for our 5th - 8th grade students and laptops for our 9th-12th grade teachers.
 - The cost was \$157,000.



What is currently being done to address this problem?

Digital Resources - Core Curriculum

Math	Science	English Language Arts	Social Studies
K-5: Into Math 6-12: Go Math, Desmos	K-5: Inspire Science 6-8: iScience	5-8: Currently reviewing resources 9-12: My Perspectives	5-8: Currently reviewing resources



What is currently being done to address this problem?

Digital Resources - Supplemental for grades K-4

Math	Science	English Language Arts	Social Studies
Study Island, Education City, Tumble Books, Brain Pop			
MathSeeds Prodigy Reflex	Mystery Science	Reading Eggs Starfall Reading A-Z	



What is currently being done to address this problem?

Digital Resources - Supplemental for grades 5-6

Math	Science	English Language Arts	Social Studies
Schoology, Brain Pop			
IXL	Mystery Science Study.com	Quill Newsela Reading Counts	Newsela Study.com



What is currently being done to address this problem?

Digital Resources - Supplemental for grades 7-8

Math	Science	English Language Arts	Social Studies
Schoology, Google Classroom, Albert, Kami, Brain Pop			
		Quill	



What is currently being done to address this problem?

Digital Resources - Supplemental for grades 9-12

Math	Science	English Language Arts	Social Studies
Schoology, Google Classroom, Mastery Manager, Albert, Khan Academy			



What is our proposed solution?

To provide a Chromebook to every high school student for use at school and at home.

- We have two options to consider for obtaining the devices.



What is our proposed solution?

Option 1

	2020-2021	2021-2022	2022-2023	2023-2024
New Devices	Grades 5, 9, 12	Grades 3, 4, 5, 9	Grades 5, 9	Grades 5, 9
Leased Devices	Grades 10, 11	Grades 11, 12	Grade 12	
Repurposed Devices	Grades 3, 4	Grades K, 1, 2		
Proposed costs	\$157,000	\$172,182	\$81,878	\$65,270



What is our proposed solution?

Option 2

	2020-2021	2021-2022	2022-2023	2023-2024
New Devices	Grades 5, 9, 10, 11, 12	Grades 3, 4, 5, 9, 11, 12	Grades 5, 9, 12	Grades 5, 9
Repurposed Devices	Grades 3, 4	Grades 1, 2	Grades K, 1	Grade K
Proposed Cost	\$175,867	\$130,462	\$62,862	\$65,270



How is this proposed solution aligned to the Strategic Plan?

- This proposed solution aligns to Curriculum.
 - 100% of students will be engaged in and successfully complete a PreK-12 standards aligned curriculum.

This solution supports Curriculum because we will be able to use student devices to implement core curricular resources and to differentiate for our struggling and exceeding students.



What is the implementation timeline?

- Devices

	2020-2021	2021-2022	2022-2023	2023-2024
New Devices	Grades 5, 9, 12	Grades 3, 4, 5, 9	Grades 5, 9	Grades 5, 9
Leased Devices	Grades 10, 11	Grades 11, 12	Grade 12	
Repurposed Devices	Grades 3, 4	Grades K, 1, 2		

- Professional Development

- SAMR Training: Repeat for new grade levels and staff each year
 - High School Summer offering: Session 1 on May 27th and 28th
 - Repeat on August Institute Day for summer non-attendees
 - Tentative - October Institute Day: Session 2







What is the SAMR Model?

Redefining the Classroom with **GOOGLE** Apps

@Edtechpeck



Substitute

-  Collect student data by using forms instead of paper and pencil
-  Create a slide show instead of a poster
-  Make a digital illustration
-  Collect and organize data

Augment

-  Use comment features to critique writing samples
-  Create a presentation with multimedia elements
-  Use Google Forms to create a quiz.
-  Create charts to illustrate data

Modify

-  Use multimedia to serve as backdrop for new design
-  Create a hyper doc syllabus complete with links to outside sources
-  Collect and link student recordings and data for use in e-portfolios

Redefine

-  Use Forms to create a choose your path student adventure
-  Create a e-book with the use of Google Slides
-  Create a comic strip, mind map, or other illustration to summarize story



How will we measure progress?

- Usage
 - IT will measure usage of devices and programs.
- High School Implementation Expectations
 - Use of Google Classroom as a Learning Management System
 - Online assessment administration in order to track student data on curriculum-based assessments



How will we repair broken devices?

- Repairs
 - Currently all repairs are done in-house
 - Technology charges parents 50% of the repair
 - Typically parent pay between \$12-\$15 for a broken screen
- Prevention
 - District has a policy on technology usage
 - Grades 5-8 have procedures in place and these will be modified to meet the 9-12th grades
 - Preventative measures are taken by tech and the teachers to teach students appropriate usage (videos, behavior programs, etc.)
 - District offers sleeves and protective cases for parents to purchase at a discount price.



What are our insurance options?

- District funded

- 4 year with case included \$58,686
 - Covers accidental damage, liquid submersion, fire/flood, vandalism, natural disasters, power surge, mechanical failure or manufacturer defect
- 4 year cost for the district is \$64,505
 - Covers accidental damage, liquid submersion, fire/flood, vandalism, natural disasters, power surge, mechanical failure or manufacturer defect

- Parent Funded

- \$19 a year
 - Covers accidental damage, liquid submersion, fire/flood, vandalism, natural disasters, power surge due to lightning
- \$27 a year
 - Covers accidental damage, liquid submersion, theft/burglary, fire/flood, vandalism, natural disasters, power surge



Is our infrastructure ready to expand?

- If the district gets the internet/wan upgrade, the current networking infrastructure will be updated in the summer 2021. This would be covered by erate discount at 70%.
- The current plan is to upgrade our Firewall, Switches, and continue to keep our wireless access points up to date based on the current e-rate refresh schedules.
- Tech feels that the infrastructure is ready for a fall roll out at the HS.



Do we have enough technology staff?

- Currently the technology department is comfortable with their staffing and their ability to support the devices in the district.
- We surveyed other districts to find out their staffing patterns
 - Technician to device ratio ranged from 500:1 to 1500:1
 - All use the library help desk as a hub for devices



Thank You

