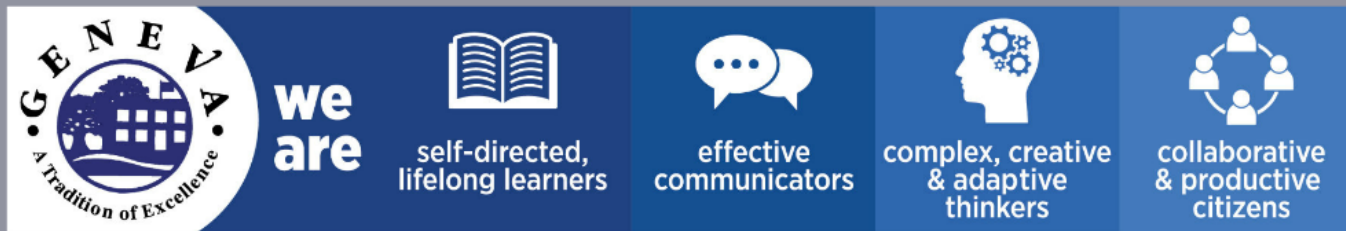


1:1 Growth Projection

It's not about devices, it's about Learning and Teaching.



Roadmap

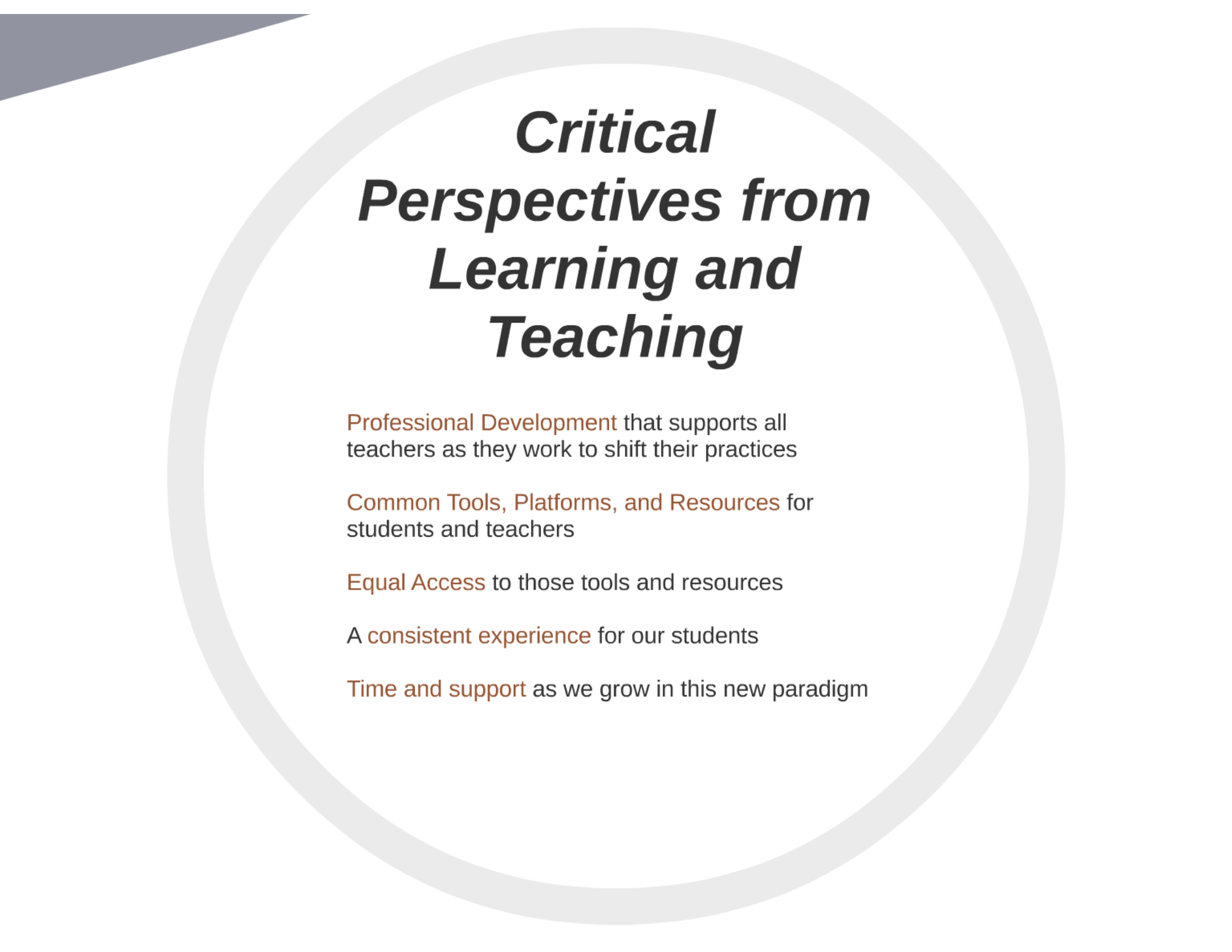
Resource **Planning**

Guide **Professional Development**

Curriculum Development & Support

Set **Expectations**

Clear & Consistent **Communication**



Critical Perspectives from Learning and Teaching

Professional Development that supports all teachers as they work to shift their practices

Common Tools, Platforms, and Resources for students and teachers

Equal Access to those tools and resources

A consistent experience for our students

Time and support as we grow in this new paradigm

Technology: Supporting the Learning Environment

Levels of Technology Integration into the Curriculum

Technology Integration Matrix	Entry	Adoption	Adaptation	Infusion	Transformation
Characteristics of the Learning Environment	Technology is used to deliver content or to enhance content.	Technology is used to enhance content or to enhance the learning process.	Technology is used to enhance content or to enhance the learning process, and the teacher's role is to facilitate the learning process.	Technology is used to enhance content or to enhance the learning process, and the teacher's role is to facilitate the learning process, and the student's role is to enhance the learning process.	Technology is used to enhance content or to enhance the learning process, and the teacher's role is to facilitate the learning process, and the student's role is to enhance the learning process, and the learning process is enhanced.
Active	Active/Ferry	Active/Adoption	Active/Adaptation	Active/Infusion	Active/Transformation
Collaborative	Collaborative/Ferry	Collaborative/Adoption	Collaborative/Adaptation	Collaborative/Infusion	Collaborative/Transformation
Constructive	Constructive/Ferry	Constructive/Adoption	Constructive/Adaptation	Constructive/Infusion	Constructive/Transformation
Authentic	Authentic/Ferry	Authentic/Adoption	Authentic/Adaptation	Authentic/Infusion	Authentic/Transformation

Transformation
The teacher cultivates a rich learning environment, where **blending choice of technology tools** with student-initiated investigations, discussions, compositions, or projects, across any content area, is promoted.

District-Wide **Wireless Networking**

Guest Network for Mobile Devices

Bandwidth to facilitate 21st Century Learning / Online Assessments

Common devices for consistent experience, greater support, collaboration, and planning

- Benefits of District provided vs Personal Equipment

Maximize student and teacher **choice & experiences**

- Transferrable skills
- Experience with **Fortune 500 technologies & services**
- Windows-based PCs offer the **most choice** in technology solutions. Capabilities of a Chromebook & **much more**

➔ **Levels of Technology Integration Into the Curriculum**

Technology Integration Matrix

Click on a matrix cell to view videos and sample lesson plans.

	Entry The teacher uses technology to deliver curriculum content to students.	Adoption The teacher directs students in the conventional use of tool-based software. If such software is available, this level is recommended.	Adaptation The teacher encourages adaptation of tool-based software by allowing students to select a tool and modify its use to accomplish the task at hand.	Infusion The teacher consistently provides for the infusion of technology tools with understanding, applying, analyzing, and evaluating learning tasks.	Transformation The teacher cultivates a rich learning environment, where blending choice of technology tools with student-initiated investigations, discussions, compositions, or projects, across any content area, is promoted.
Active	Active: Entry	Active: Adoption	Active: Adaptation	Active: Infusion	Active: Transformation
Collaborative	Collaborative: Entry	Collaborative: Adoption	Collaborative: Adaptation	Collaborative: Infusion	Collaborative: Transformation
Constructive	Constructive: Entry	Constructive: Adoption	Constructive: Adaptation	Constructive: Infusion	Constructive: Transformation
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Getting There

Today's Environment

Elementary

- K - 1: 6 iPads per Classroom
- 2: 7 Laptops per Classroom
- 3: Checking out carts where available
- 4 - 5: Classroom sets (1:1)
 - 5th Grade in Year 2
 - 4th Grade in Year 1 (using combination of devices 2 - 4 years old)

Middle School

- 6: Take home devices (1:1)
- 7 - 8: Computer carts / team centers

High School

- 9 - 12: Laptop carts & labs as available

Pilot Program

- 9 - 10: ~200 students w/ 1:1 device
- 11: Classroom based carts for specified teachers

Proposed Growth & Cycles

Realize "1:1" as a District by 2018-19

Phased, Deliberate, Approach

- 2016-17: Grades 1, 4, 6, 9, 10
- 2017-18: Grades K, 3, 6, 9
- 2018-19: Grades 2, 5, 6, 9
- 2019-20: Grades 1, 4, 6, 9
- ...

Replacement Cycles

- Based on expected usable life
- Grades K - 8: 3 Year
- Grades 9 - 12: 4 Year

Defining 1:1

Elementary	Middle School
K - 1: 6 iPads per Classroom	K - 5: 1:1
2: 7 Laptops per Classroom	6: Take home devices (1:1)
3: Checking out carts where available	7 - 8: Computer carts / team centers
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- Grades 9 - 12: 4 Year

Defining 1:1

Elementary

- K - 1 (1:3)
 - Touch-first experience
 - Station-based learning
- 2 (1:2)
 - Full keyboard
 - Expanded access
- 3 - 5 (1:1)
 - Daily access in school
 - Cart-based devices

Middle School

- 6 - 8 (1:1)
 - Take-home devices
 - Student assigned

High School

- 9 - 12 (1:1)
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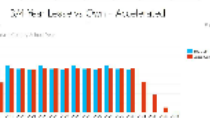
Elementary	Middle School	High School
K - 1 (1:3)	6 - 8 (1:1)	9 - 12 (1:1)
• Touch first experience	• Take-home devices	• Take-home devices
• Station-based learning	• Student assigned	• Student assigned
2 (1:2)		
• Full keyboard		
• Expanded access		
3 - 5 (1:1)		
• Daily access in school		
• Cart-based devices		

Financial Projections

The Details

Assumptions

- Qty based on 10 yr Avg Enrollment
- 2 yr. lease (9-4) @ 4% discount / 2% return fees
- 4 yr. lease (9-12) @ 2% discount / 4% return fees
- Pricing based on current devices/cost
- Review market annually
- Devices in 3-5 may differ from 6-8 and 9-12 as needs and use cases evolve



Considerations

Lease vs Own δ ,

Technology rapidly changes

- Trend is towards cloud-first devices (e.g. Microsoft Stream, Chromebook)
- Current device pricing: \$430 - \$565
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Financial projections only include student devices and applicable warranties / common accessories (e.g. cases)

- Planning underway for infrastructure & network updates, IT support staff, staff devices, etc.

Roadmap

Resource Planning

Guide Professional Development

Curriculum Development & Support

Set Expectations

Clear & Consistent Communication

Microsoft - Microsoft Dynamics
 Microsoft - Microsoft Dynamics
 Microsoft - Microsoft Dynamics
 Microsoft - Microsoft Dynamics
 Microsoft - Microsoft Dynamics
 Microsoft - Microsoft Dynamics

The Details

Assumptions

- Qty based on 10 yr. Avg Enrollment
- 3 yr. lease (K-8) @ 8% discount / 3% return fees
- 4 yr. lease (9-12) @ 2% discount / 4% return fees
- Pricing based on current devices/cost
 - Review market annually
 - Devices in 3-5 may differ from 6-8 and 9-12 as needs and use cases evolve

Grade	2017	2018	2019	2020	2021
K		121			121
1	134			134	
2			222		
3			458		458
4	469			469	
5			487		
6	530	530	530	530	530
7					
8					
9	550	550			
10	549		550		550
11					
12					
Total Qty	2232	1659	1789	1683	1659

CART	540
TAB	430
THHS	565
THMS	565

Grade	2017	2018	2019	2020	2021
0	-	52,219.20	-	-	52,219.20
1	57,469.50	-	-	57,469.50	-
Total PRI	57,469.50	52,219.20	-	57,469.50	52,219.20
2	-	-	119,637.00	-	-
3	-	247,212.00	-	-	247,212.00
4	253,449.00	-	-	253,449.00	-
5	-	-	263,088.00	-	-
Total ELM	253,449.00	247,212.00	382,725.00	253,449.00	247,212.00
6	299,563.00	299,563.00	299,563.00	299,563.00	299,563.00
7	-	-	-	-	-
8	-	-	-	-	-
Total MS	299,563.00	299,563.00	299,563.00	299,563.00	299,563.00
9	310,750.00	310,750.00	310,750.00	310,750.00	310,750.00
10	310,128.50	-	-	-	-
11	-	-	-	-	-
12	-	-	-	-	-
Total HS	620,878.50	310,750.00	310,750.00	310,750.00	310,750.00
Total Cost	\$1,231,360.00	\$909,744.20	\$993,038.00	\$921,231.50	\$909,744.20
Variance		-\$29,163.42	\$54,130.38	-\$17,676.12	-\$29,163.42
"Cost" per Student	\$ 207.02	\$ 152.95	\$ 166.95	\$ 154.88	\$ 152.95

3/4 Year Lease vs Own - Accelerated

sort by School Year ▾ asc

Buy Cost, and Lease Cost by School Year



School Year	Buy Cost	New	Financed	Rtrn Fees	Lease Cost
2017	1,231,360.00	367,660.25	0.00	0.00	367,660.25
2018	909,744.20	265,815.25	367,660.25	0.00	633,475.50
2019	993,038.00	292,191.62	633,475.50	0.00	925,667.11
2020	921,231.50	269,452.89	634,140.61	27,618.30	931,211.81
2021	909,744.20	265,815.25	619,579.58	30,399.83	915,794.66
2022	993,038.00	292,191.62	611,401.89	32,898.64	936,492.15
2023	921,231.50	269,452.89	634,140.61	30,744.45	934,337.95
2024	909,744.20	265,815.25	637,778.26	30,399.83	933,993.33
2025	993,038.00	292,191.62	611,401.89	32,898.64	936,492.15
2026	921,231.50	269,452.89	634,140.61	30,744.45	934,337.95

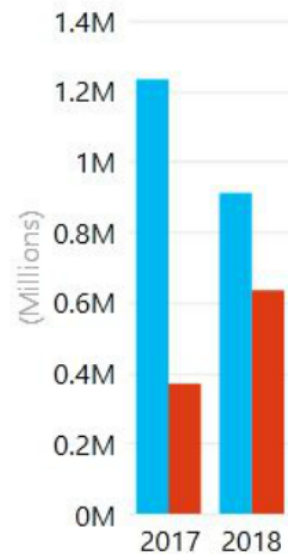
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sort by School Year ▾ asc

Buy Cost, and Lea



School Year	Buy Cost
2017	1,2
2018	9
2019	9
2020	9

and 9-12

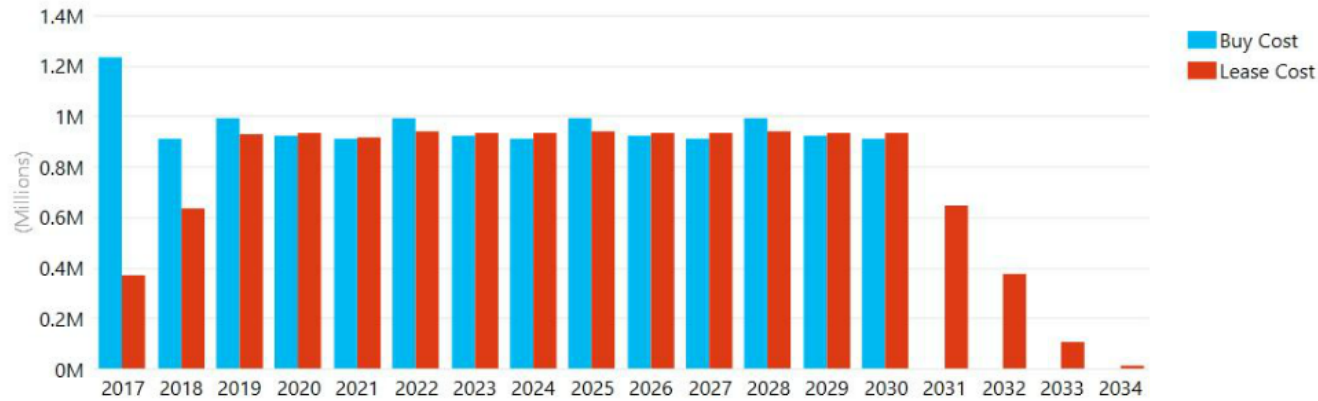
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by School Year ▾ asc

by Cost, and Lease Cost by School Year



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Infrastructure / Network Improvements

Long Range **Planning** (3 year Comprehensive Technology Plan)

Project Priority **Scorecard** - Measure Projects in terms of Value (doing the right things)

Assessment of GHS Network Infrastructure / Identify Needs - **Completed 11/16/2015**

Driving Questions

- What would be needed to **support an increased number of devices?**
 - IP Address Ranges - Capacity for added devices
 - Technical support
- How do we ensure students and teachers have a **reliable and consistent experience?**
 - Bandwidth increases
 - Identifying and resolving network bottlenecks

Roadmap

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Guide **Professional Development**

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Set **Expectations**

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