

Technology Planning Committee Report

April 29th, 2019



Technology Planning Committee

- Committee Charge:
 - Provide input and feedback in preparation for recommended 3 year plan that will go before the School Board

Core Committee Members	Committee Members
Martin Almeida – Desktop Technician	Prisilla Brucato – Ideal Teacher
Dr. Emily Crement - Principal	Jennifer Garver – Hodgkins Teacher
Kathryn Heeke – Curriculum Director	Dana Halper - Gurrie Teacher
Joanna Marek - Library Media Specialist	Celine Hill – Seventh Ave. Teacher
Jim McMahon – Technology Specialist	Dr. Julie McGovern – Gurrie Teacher
Trish Murphy – Technology Manager	Leesa McHugh – Hodgkins Teacher
Cathy Nestlinger - Library Media Specialist	Liz Waterston – Spring Ave. Teacher
Barb Hobe- Library Media Specialist	
Tracy Renaghan – Library Media Specialist	
Jennifer Sutsser- Library Media Specialist	

Technology Plan

- The Technology Planning Committee worked throughout the 2018-2019 school year to develop the 3-year Technology Plan 2019-2022.



Plan Vision

Tech Plan Vision

The stakeholders and students of District 105 benefit from the increasing use of technology as an integral component of educational practices of the district. Our stakeholders' vision of technology and its embedded role in society demonstrates a commitment to addressing current and future needs of our community. It is through the joint efforts of educators, students, parents, and community members that we will continually research, plan, and produce a dynamic technology model for our district's needs.

Plan Vision Continued...

It is our shared vision of District 105 to develop a comprehensive system of education that will prepare all our District staff, students, parents, and community members for the future.

- **Goal 1. Academic Success**
 - Use technology resources to enhance student learning and achieve high academic standards.
 - Incorporate challenging, motivating, and engaging educational experiences into established curricular areas.
- **Goal 2. Supportive Culture**
 - Ensure that students use technology in a safe and supportive learning environment.
- **Goal 3. Family and Community Connections**
 - Employ ongoing, accessible instructional technology support for students, staff and the community.
- **Goal 4. Staff and Organization Effectiveness**
 - Model lifelong learning and exhibit leadership by promoting and demonstrating effective use of digital tools/resources.
- **Goal 5. Resource Equity and Efficacy**
 - Ensure that technology resources are up-to-date, functional, effective, convenient and available for classroom and support staff.
 - Ensure the equitable and consistent use throughout the district of technology resources, researched-based instructional activities, and best practices.

Technology Committee

- Since the start of the 2018-2019 school year we held 3 formal meetings of the committee discussing current and future needs for the district involving technology in addition to our frequent informal discussions.

BrightBytes

- District 105 partnered with BrightBytes, an educational research and analytics company, beginning in 2016 to gather information on how our teachers, parents and students use technology. Surveys were conducted in 2016, 2017, 2018, 2019 and we had a great response from all stakeholders.

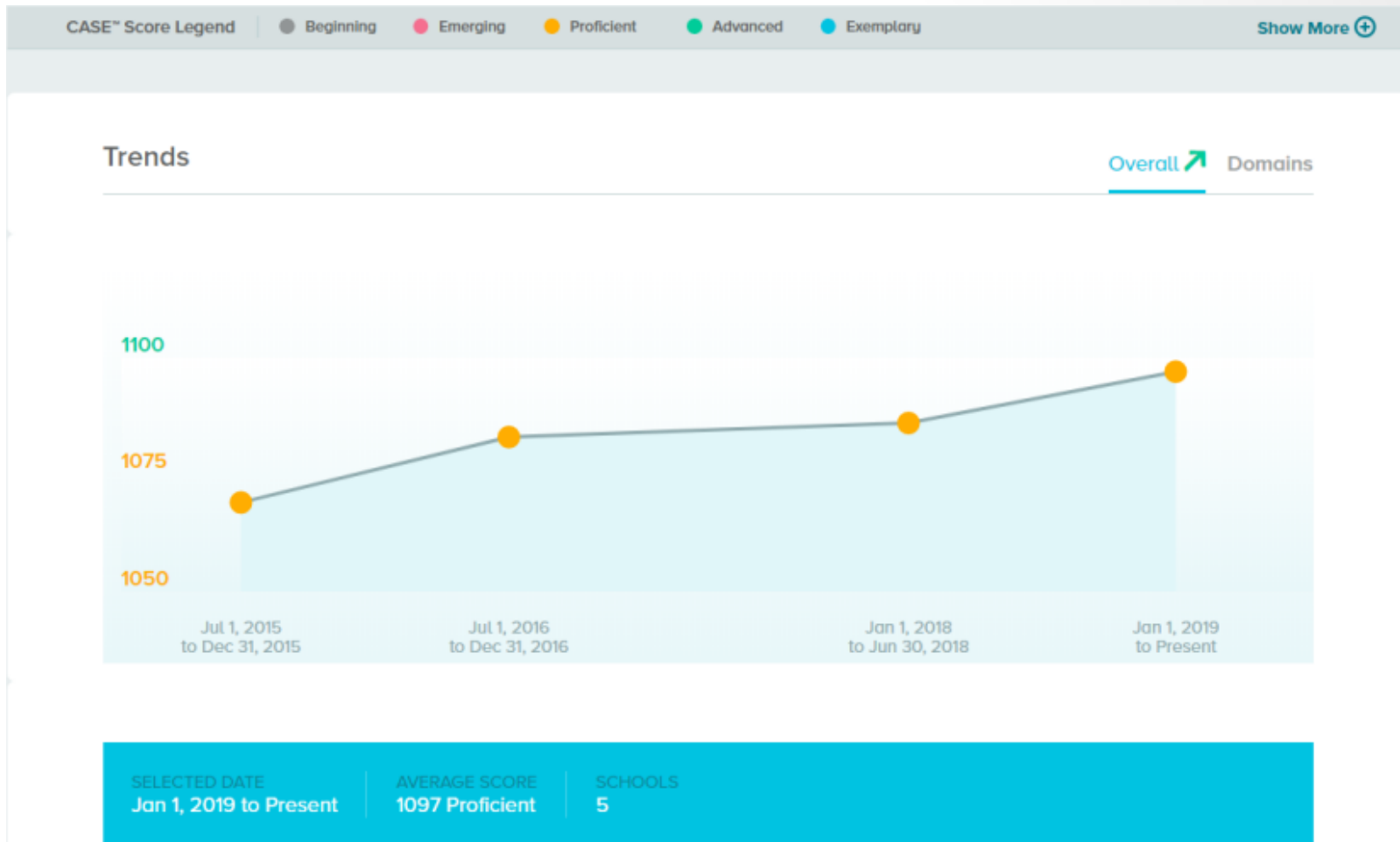
BrightBytes - Explained

- BrightBytes uses the CASE framework:
Classroom, Access, Skills & Environment.
- This CASE technology framework provides insights into the effectiveness of technology in improving student achievement.
- According to BrightBytes research-based framework these are the essential factors needed for successful implementation of technology in the classroom.

BrightBytes – CASE Explained

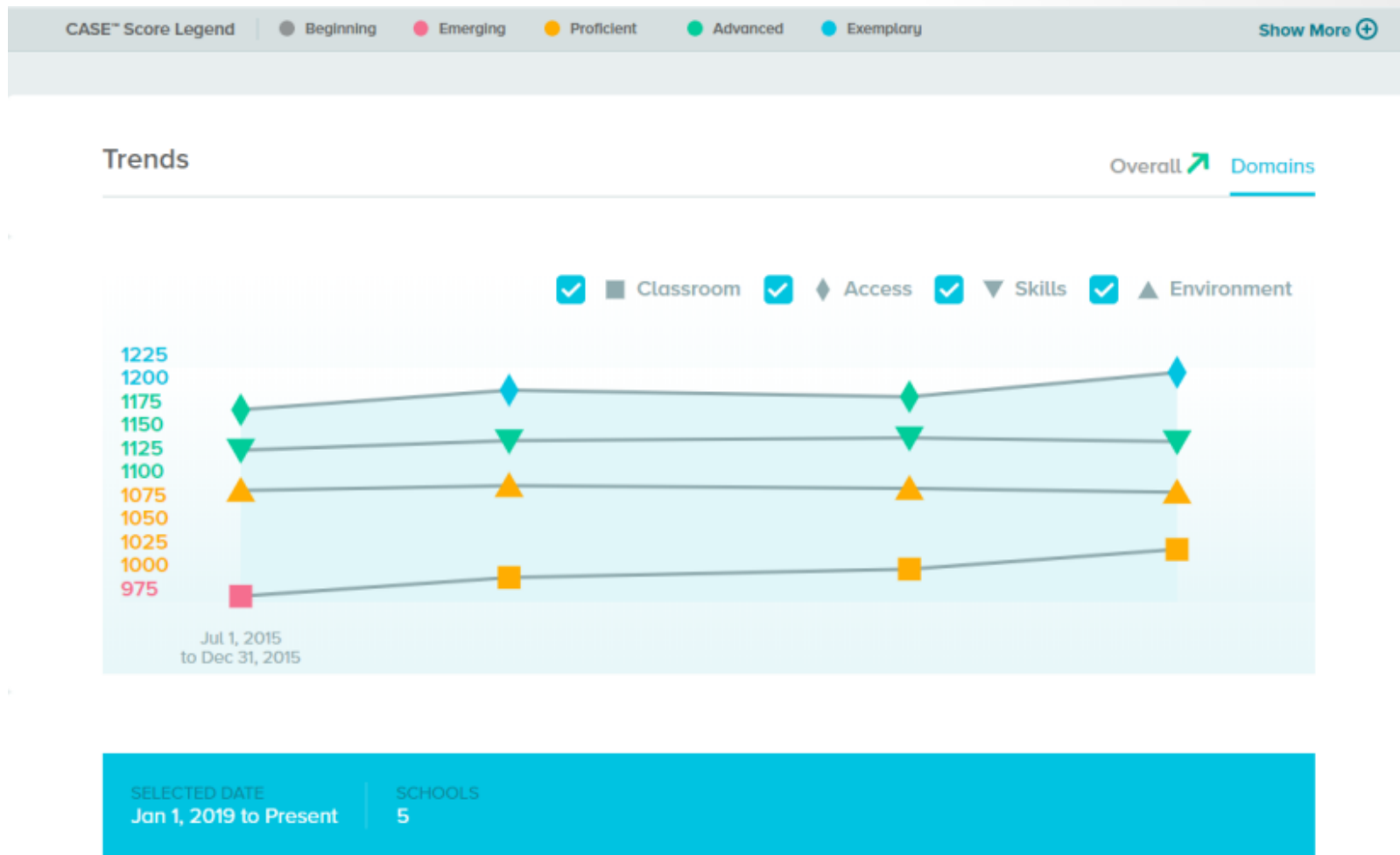
- **CASE** -4 domains BrightBytes refers to as success indicators, consists of Classroom, Access, Skills & Environment.
- **Access:** levels of connectivity students and staff have at home and school
- **Skills:** look to see if teachers and students have those skills needed to take full advantage of the digital tools they have access to
- **Environment:** District environment is looked at to see if it has created a supportive and encouraging atmosphere when it comes to technology
- **Classroom:** Once an understanding of Access to technology, how staff/students are applying Skills and how the school Environment has created a culture that supports and enhances the use of those devices and skills we can determine if these are all translating into effective classroom activities which are providing students with the greatest learning opportunities.

BrightBytes – Overall Trends



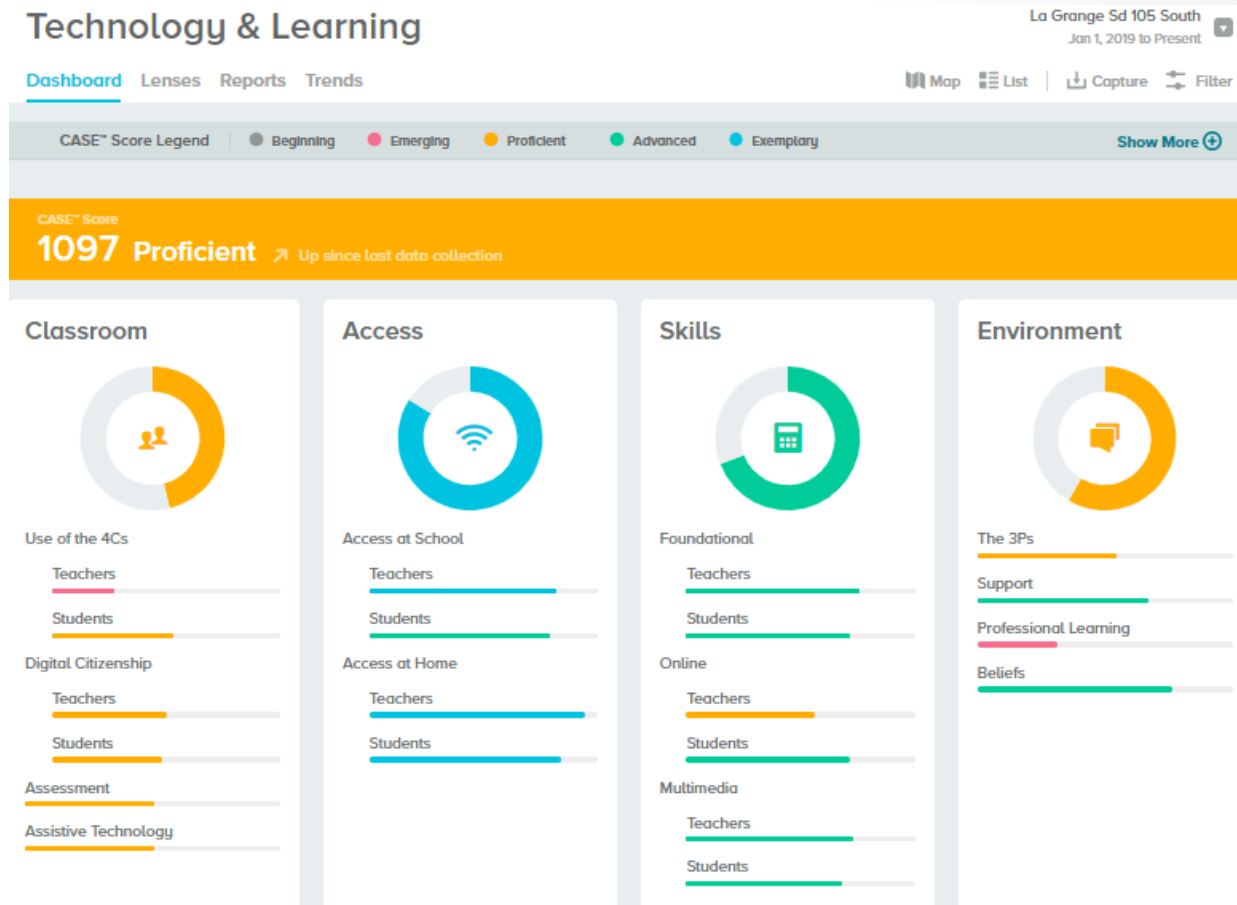
Overall score moved from 1069 (2016) to 1083 (2017) to 1086 (2018) to 1097 (2019).

BrightBytes – Domain Trends



Classroom moved from Emerging to Proficient
Access moved from Advanced to Exemplary.

BrightBytes – 2019 Survey Results



Overall, our current district CASE score is “Proficient”

GAN- Classroom: Teachers 4Cs and Assessment & Environment: PD.

BrightBytes- 2019 Survey Results

- As a district, we have some great areas to celebrate with overall growth seen district wide.
 - The areas of “Access”, “Frequency of Computer Use”, “Support”, “Assessment” and “Collaboration”
- We continue have some growth opportunities we will be focusing our efforts on throughout the technology plan.
 - Education Technology Professional Development
 - Teacher use of the 4Cs (Communication, Collaboration, Critical Thinking and Creativity)
 - Assessment with Technology and Digital Polls
 - Professional Development

Current Technology Plan Highlights/Status

- Curriculum and Instruction
 - Deployment of technology into classrooms
 - Laptop clusters (1 mobile lab at each grade level K-2)
 - Chromebooks (1:1 Chromebooks at-school 3-5 at-home 6-8 grade)
 - Interactive Classrooms (every classroom in the district is interactive)
 - Promethean Interactive Whiteboards, Interactive lessons
 - Interactive Student Response Systems (throughout the district)
 - Digital Cameras
 - Document Cameras
 - iPads available for Specialists and checkout
 - Integration of technology into the curriculum renewal process
 - Science (online student activities and teacher support)
 - Math (Compass, iXL, ALEKS)
 - Social Studies (online student activities and teacher support)
 - Language Arts (Compass, Read180, System44)
 - PE (FitnessGram)
 - Assessment (PARCC/IRA, MAP, Access)
 - Collaboration (Google Apps for Education)
 - Multimedia (WeVideo)

Current Technology Plan Highlights/Status

- Community
 - **Gurrie PowerSchool Parent Portal**– assignments and grades provided online since 06-07 school year
 - **Electronic Report Cards** – provided at Gurrie since 05-06 school year, provided at elementary schools beginning of 11-12 school year
 - **Intermediate and Middle School Assignments Posted Online** – Gurrie 05-06; Intermediate 06-07
 - **Classroom Websites** – initially created 05-06 school year
 - **Website redesign** –SchoolFusion website deployed beginning of 08-09 school year and upgraded to a new platform summer 2017
 - **PowerLunch** (With Barcoded Badges) – Via PowerSchool provided since 2009
 - **Health Office Student Visit Tracking** – Via PowerSchool since 2010
 - **Destiny Web Based Library System**- provided since 10-11 school year, e-books added 2013
 - **SchoolMessenger System** – provided since 2012 used to send automated email and call blasts and added SMS text option in 2017
 - **Revtrak** – Online payments since 2014
 - **Parent Computer Classes**- provided since 2015
 - **Parent Teacher Conference Online Registration**- Provided since Fall 2018

Current Technology Plan Highlights/Status

- Professional Development and Support
 - **Building Library Media Specialists (LLC/Technology Directors)**
 - Recommendation of Program Committee – designed to provide building level support for the integration of technology. LMS positions were added at the beginning of the 2008-2009 school year and have been a successful addition to the buildings.
 - **Ongoing training**
 - Lunch-n-learns and after-school training sessions
 - Technology Conferences –ICE (Illinois Computing Educators)
 - Software Specific training – OTUS and Compass

Technology Plan

Highlights/Status

- **Deployment**
 - **Wireless network**- Initial deployment was completed Fall 2007, improvements were made to Ideal & Seventh Summer 2010 during construction and Spring, Gurrie and Hodgkins Summer 2011. Additional APs added to Spring/Gurrie Summer 2014. Complete upgrade of district WiFi to Meraki solution summer 2017.
 - **Infrastructure** – Implemented fiber network solution and upgraded various switches and routers Summer 2009, improvements were made to Ideal and Seventh Summer 2010 during construction and Spring, Gurrie and Hodgkins Summer 2011. Upgraded to Metro Ethernet solution Summer 2014. Upgraded switches at Gurrie, Ideal, Seventh and Spring schools summer 2017 and Hodgkins summer 2018.
 - **Technology Replacement** – purchasing replacement cycle has been established and is ongoing.
 - **Technical support**- The role of Desktop Support Technician was added at the beginning 2008-2009 school year. LMS positions were added at the beginning of the 2008-2009 school year and have been a successful addition to the buildings, approximately ½ of their time is dedicated to supporting technology. Fall 2017 a half-time support person was added to support the 1:1 take home initiative.
 - **File Server upgrades** – Servers were upgraded as needed and migrated to Windows Network Operating System Summer 2008 and replacement cycle has been established and is ongoing. 2010-2011 servers were virtualized. Additional network storage was purchased Spring 2014. All Windows 2003 servers were decommissioned in 2015. VM server clusters hardware and software were upgraded 2016.
 - **Ticket Tracking System**- Implementation of a ticket tracking system in 2008-2009.
 - **Konica Multifunction Devices** – Konica copiers/printers deployed 2013. Added server based fax functionality in 2016.
 - **Desktop Management System** – Implemented SCCM and AppSense/Ivanti desktop management solutions 2015-16.
 - **Building Security Camera System**- Implemented 2013 with additional cameras added 2014-2015.
 - **Telephony Replacement** – Unified Communication System was replaced in 2016.
 - **Backup Solution**- Upgraded onsite backup solution to Veeam summer 2018.
 - **Storage Solution** – A new Dell EMC solution was deployed in the MDF summer 2018.

Proposed 2019-2020 Budget

- For FY2019-2020 the Technology Budget expenditures proposed total is \$733,256 which is the same as FY2018-2019.



Going Forward: 2019-2020

- Major areas being addressed this year:
 - **WAN/LAN** – Increase in bandwidth between buildings and to our ISP. E-Rate Category I funding will help support this initiative.
 - **Storage Solution**– Purchase to keep up with data storage/consumption needs and consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support.
 - **Renewal of Microsoft Licensing and Cisco SmartNet** – District wide renewals are necessary each year to maintain licensing compliance and provide support.
 - **Purchase Replacement Desktops, Chromebooks and Laptops** – Purchase consistent with tech plan's specified replacement cycle with the exception of desktops. Holding off on desktop refresh.
 - **Purchasing Additional Student Devices** - Continuing to increase the availability of laptops to students consistent with the tech plan, enabling every grade level to have a mobile lab of computers and continue to work toward a 1:1 ratio at all grade levels.
 - **Google Chromebooks**– Replace Windows devices with Chromebooks thus expanding 1:1 to 2nd grade utilizing Google Chromebooks .
 - **Replacement of Promethean Boards** – Promethean Interactive Whiteboards have reached End-Of-Life and are due for replacement.
 - **Data Analytics and Assessment** – Continued use of OTUS.

Going Forward: 2020-2021

- Major areas to be addressed 2020-2021:
 - **Purchase Replacement Desktops, Chromebooks and Laptops** – Purchase consistent with tech plan's specified replacement cycle.
 - **Purchasing Additional Student Devices** - Continuing to increase the availability of laptops to students consistent with the tech plan, enabling every grade level to have a mobile lab of computers and continue to work toward a 1:1 ratio at all grade levels.
 - **Google Chromebooks**– Continue to support existing 1:1 initiatives and evaluate possibility of expansion.
 - **Interactive Whiteboards**– Purchase consistent with tech plan's specified replacement cycle.
 - **iPads**– Purchase consistent with tech plan's specified replacement cycle.
 - **Security Camera System**– Purchases consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support.
 - **Storage Solution**– Purchase to keep up with data storage/consumption needs and consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support. *Additional Phases to complete storage not addressed in previous years

6th Grade Student Chromebook Survey Results 2016, 2017, 2018 and 2019

- **Having a Chromebook in my classes has increased my excitement to learn:** Agree or Strongly Agree 91.8% 83.2% 85.5% 82%
- **Having a Chromebook has motivated me to do more school work:** Agree or Strongly Agree 74% 78.8% 68.7% 65.3%
- **The Chromebooks have increased the quality of my homework, research, and projects:** Agree or Strongly Agree 84.2% 84.7% 87.3% 83.3%
- **I use a Chromebook at school:** % of students report using the Chromebook daily or 4 times a week 95.9% 96.3% 95.8% 99.3%
- **I use a Chromebook at home:** % of students report using the Chromebook daily or 4 times a week 10.8% 65.3% 57.7%

6th Grade Student Chromebook Survey Results Continued...

- **Students report how they are using the Chromebooks:**

	2016	2017	2018	2019
•Google Drive	98.60%	97.10%	97.50%	98.60%
•Writing	83.60%	88.30%	92.50%	91.00%
•Research	94.50%	94.90%	94.90%	97.20%
•Communicate with other students	58.20%	48.20%	43.60%	41.00%
•Communicate with my teachers	63.00%	56.20%	43.20%	41.70%
•Create videos/projects	78.10%	86.90%	83.10%	81.90%
•Complete tests or quizzes	71.90%	74.50%	82.20%	83.30%
•Practice skills	79.50%	87.60%	79.70%	81.30%

6th Grade Student Chromebook Survey Results Continued...

- **Students report they are using the Chromebooks in the following subjects:**

	2016	2017	2018	2019
•Math	86.30%	96.40%	98.30%	95.80%
•Science	97.30%	91.20%	81.40%	84.70%
•Social Studies	84.20%	87.60%	85.60%	79.90%
•ELA	91.10%	91.20%	97.50%	93.80%
•Music	17.10%	69.30%	93.20%	66.70%
•Art	11.00%	43.10%	42.40%	26.40%
•PE	14.40%	0.00%	1.70%	1.40%

5th Grade Student Chromebook Survey Results 2017, 2018 and 2019

- **Having a Chromebook in my classes has increased my excitement to learn:** Agree or Strongly Agree **88.4%**
76.6% 90.3%
- **Having a Chromebook has motivated me to do more school work:** Agree or Strongly Agree **76%** **76.6%** **79.6%**
- **The Chromebooks have increased the quality of my homework, research, and projects:** Agree or Strongly Agree **85.3%** **84.7%** **78.8%**
- **I use a Chromebook:** students report using the Chromebook daily or 4 times a week **95.4%** **93.9%** **98.2%**

5th Grade Student Chromebook Survey Results Continued...

- **Students report how they are using the Chromebooks:**

	2017	2018	2019
•Google Drive	96.90%	98.00%	93.80%
•Writing	89.90%	93.90%	86.70%
•Research	94.60%	96.90%	89.40%
•Communicate with other students	47.30%	53.10%	46.90%
•Communicate with my teachers	50.40%	51.00%	41.60%
•Create videos/projects	86.80%	74.50%	85.80%
•Complete tests or quizzes	70.50%	82.70%	87.60%
•Practice skills	80.60%	86.70%	76.10%

5th Grade Student Chromebook Survey Results Continued...

- **Students report they are using the Chromebooks in the following subjects:**

	2017	2018	2019
•Math	93.80%	98.00%	85.80%
•Science	85.30%	80.60%	74.30%
•Social Studies	93.00%	67.30%	73.50%
•ELA	83.70%	82.70%	94.70%
•Music	86.80%	99.00%	72.60%
•Art	15.50%	31.60%	38.10%
•PE	1.60%	2.00%	1.80%

4th Grade Student Chromebook Survey Results 2018 and 2019

- **Having a Chromebook in my classes has increased my excitement to learn:** Agree or Strongly Agree **78.7%** **74.1%**
- **Having a Chromebook has motivated me to do more school work:** Agree or Strongly Agree **71.3%** **69.8%**
- **The Chromebooks have increased the quality of my homework, research, and projects:** Agree or Strongly Agree **70.5%** **72.5%**
- **I use a Chromebook:** students report using the Chromebook daily or 4 times a week **96.7%** **93.1%**

4th Grade Student Chromebook Survey Results Continued...

- **Students report how they are using the Chromebooks:**

	2018	2019
•Google Drive	92.60%	97.40%
•Writing	88.50%	85.30%
•Research	86.10%	75.90%
•Communicate with other students	91.00%	23.30%
•Communicate with my teachers	79.50%	49.10%
•Create videos/projects	69.90%	67.20%
•Complete tests or quizzes	86.10%	85.30%
•Practice skills	80.30%	61.20%

4th Grade Student Chromebook Survey Results Continued...

- **Students report they are using the Chromebooks in the following subjects:**

	2018	2019
•Math	89.30%	83.60%
•Science	59.80%	60.30%
•Social Studies	73.80%	81.00%
•ELA	91.00%	81.00%
•Music	86.10%	58.60%
•Art	9.00%	18.10%
•PE	7.40%	3.40%

3rd Grade Student Chromebook Survey Results 2019

- **Having a Chromebook in my classes has increased my excitement to learn: 78.3%** Agree or Strongly Agree
- **Having a Chromebook has motivated me to do more school work: 62%** Agree or Strongly Agree
- **The Chromebooks have increased the quality of my homework, research, and projects: 69.7%** Agree or Strongly Agree
- **I use a Chromebook: 93%** of students report using the Chromebook daily or 4 times a week

3rd Grade Student Chromebook Survey Results Continued...

- **Students report how they are using the Chromebooks:**

	2019
•Google Drive	89.10%
•Writing	85.30%
•Research	89.10%
•Communicate with other students	41.10%
•Communicate with my teachers	58.90%
•Create videos/projects	61.20%
•Complete tests or quizzes	68.20%
•Practice skills	82.20%

3rd Grade Student Chromebook Survey Results Continued...

- **Students report they are using the Chromebooks in the following subjects:**

	2019
•Math	93.00%
•Science	62.00%
•Social Studies	62.00%
•ELA	82.20%
•Music	42.60%
•Art	6.20%
•PE	0.00%

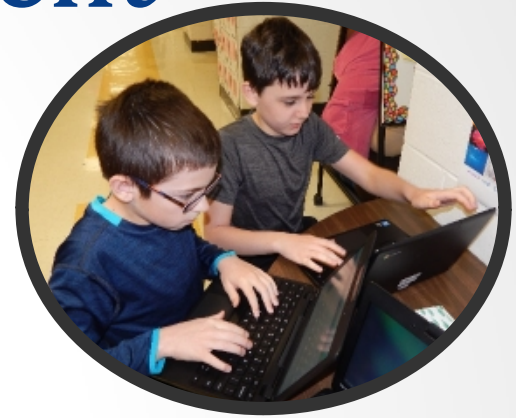
2019 3rd-6th Grade Student Chromebook Survey Results Continued...

- **What do you like best about having the Chromebooks in your classes?**
 - **Common themes from student responses:**
 - Collaborate/communicate/interact with others
 - Research/ability to look things up
 - Google Docs (Sharing Docs and Auto Save)
 - Speed/Faster/Quick logon
 - Fun/Cool
 - Ease of use and access (from anywhere) to everything
 - Not having to hand write/like to type/type faster than write
 - Deleted items are easy to undo
 - Organized/more efficient
 - Don't have to worry about lost papers/work
 - Less paper/saving trees
 - Helps to complete homework/get to take them home to do work
 - More freedom in project choice
 - Like taking assessments on them

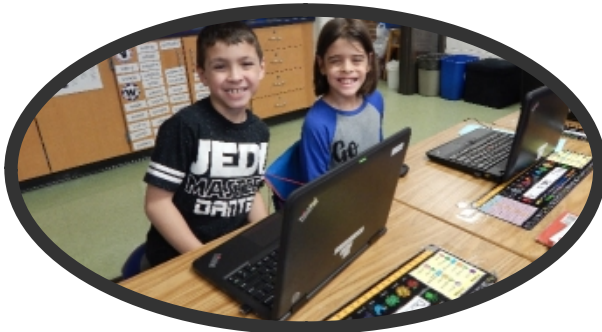
2019 3rd-6th Grade Student Chromebook Survey Results Continued...

- **What would make your experience with Chromebooks better?**
 - **Common themes from student responses:**
 - **Nothing is needed to make it better**
 - **Use them more often**
 - **Have a touchscreen**
 - **Unblocking more websites (get rid of Securly)/get rid of Hapara**
 - **Have text books on them**
 - **Be able to stream music/play games**
 - **Use sites like Kahoot and Pear Deck more often (formative assessments)**

Going Forward...Student Chromebook Results



- **Continuing to monitor results next year:**
 - **BrightBytes Survey Data**
 - **Student progress and Achievement**
 - **D105 Surveys**



Going Forward...Student Chromebook Recommendations

- 6th – 8th Grade: Maintain the 1:1 take home program for 2019-20
- 5th – 3rd Grade: Maintain at-school 1:1 Chromebook for 2019-20
- 2nd Grade: The Technology Committee recommends replacing end-of-life Windows devices with Chromebooks; therefore expanding the at-school 1:1 Chromebook deployment for 2019-20
- Budget Impact for 2019-20
 - 6th Grade – Continue to purchase Chromebooks in 6th grade for take home program (devices remain with students until graduation).
 - 2nd Grade - Purchase Chromebooks and additional mobile carts for storage and charging. (\$230/Chromebook)
 - Total cost impact of sustaining 3 year replacement cycle and expanding to 2nd Grade is \$101,500 in FY19-20.

Going Forward...Future Years Planning

- Increase student laptops to allow for increased laptops per mobile cluster of laptops in every elementary classroom working to 1:1 and continue to support 2nd-8th grade with a 1:1 laptop ratio.
- Continue to effectively move to an integrated instructional approach to technology.
- Continue to offer professional development opportunities related to technology and integration aligned with strategic plan goals.
- Continue established purchasing cycle on hardware and phase out/replace antiquated technologies.
- Assess technology supporting curriculum working closely with LMS and working to ensure we are in line with strategic plan goals, LTHS curriculum and technology (applications, subscriptions, databases etc.).
- Assess security, disaster recovery, redundancy and fail-over for district systems.
- Automate processes to improve efficiency.

Technology Use Parents/Community

System Utilization

- PowerSchool Parent Access- **40%** of parents have created a PowerSchool login account (56% in 2018; 51% in 2017; 55% in 2016; 46% in 2015).
- D105 Website traffic – Targeted Visits April 2017 to April 2018 increased for the district site and held steady or decreased for building sites:
 - **District**: 304,577 (260,436 in 2018; 139,997 in 2017; 145,629 in 2016; 154,292 in 2015)
 - **Gurrie**: 31,652 (23,929 in 2018; 50,668 in 2017; 54,414 in 2016; 53,143 in 2015)
 - **Hodgkins**: 8,775 (7,861 in 2018; 7,557 in 2017; 8,306 in 2016; 9,748 in 2015)
 - **Ideal**: 14,695 (12,761 in 2018; 14,558 in 2017; 16,129 in 2016; 16,418 in 2015)
 - **Seventh**: 10,935 (7,662 in 2018; 9,973 in 2017; 14,604 in 2016; 13,256 in 2015)
 - **Spring**: 24,693 (24,586 in 2018; 24,664 in 2017; 30,030 in 2016; 30,327 in 2015)

Technology Use Parents/Community

Social Media Utilization

Social Media Insights Report Through Q1 2019

	Q3 2018			Q4 2018			Q1 2019		
Facebook Insights	July	August	September	October	November	December	January	February	March
Page Followers	From 180 to 219	243	253	256	278	296	326	337	349
Daily Engaged Users	324	844	725	642	571	590	780	755	1596
Top Facebook Posts	New principals at Ideal & Hodgkins	Spring Ave back to school prep	Images from Back To School Foundation Night	Superintendent Bahn on playground with students	Ideal Schools Veterans Day Coverage	Cheer Squad	Spring PTO Math & Science Night	Gurrie Video	Candidate Forum and Mr. Bahn Visiting Classroom

	Q3 2018			Q4 2018			Q1 2019		
Twitter Insights	July	August	September	October	November	December	January	February	March
Number of Tweets	11	20	29	36	34	15	26	20	23
Tweet Impressions	3,295	5,605	8,524	10,800	9,614	7,648	7,958	7,832	9,472
# of Followers	84	101	110	119	133	140	152	159	169
Top Tweet	New principal Emily Crement	Hodgkins Elementary Back-to-School Video	Foundation Back-to-School Night	Mrs. Deemer Greg Tang Math	Tomorrow John Halligan presentation	Orchestra Concert Tomorrow	Closings Update	Buses Delayed	Ms. Marek Recognized

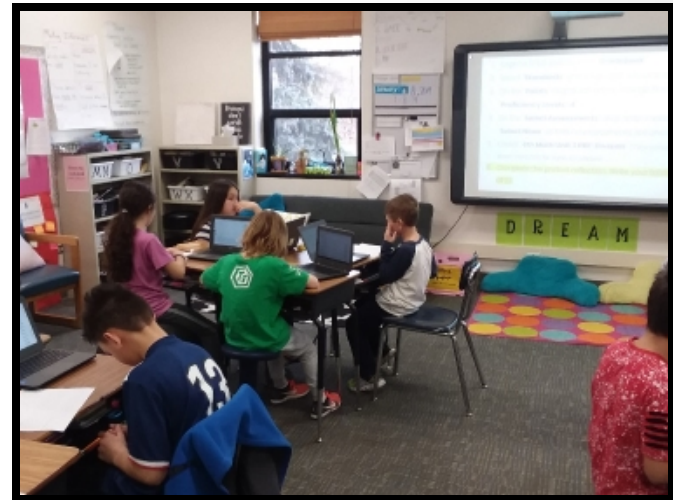
Instagram on 10/4/2018		Instagram on 1/23/2019		Instagram on 4/23/2019	
98 Posts	294 Followers	140 Posts	423 Followers	170	493 Followers

Technology Plan Historical Budget

	Proposed Tech Plan Budget	Actual Budget
2007-2008	\$900,000	\$840,000
2008-2009	\$590,000	\$590,000
2009-2010	\$622,500	\$622,500
2010-2011	\$525,000	\$502,600
2011-2012	\$768,200	\$768,200
2012-2013	\$757,800	\$703,366
2013-2014	\$709,900	\$709,900
2014-2015	\$615,000	\$615,000
2015-2016	\$581,400	\$581,400
2016-2017	\$581,400	\$581,400
2017-2018	\$657,300	\$657,300
2018-2019	\$733,256	On Budget So Far
2019-2020	\$733,256	

Committee Approval

- The Technology Planning Committee approved the recommendations for the 2019-2020 School.



Questions?

