# Technology Planning Committee Report

April 25th, 2017

# Technology Planning Committee

- Committee Charge:
  - Provide input and feedback in preparation for recommended updates/revisions that will go before the School Board

| Core Committee Members | Committee Members |
|---|---|
| Kathryn Heeke – Curriculum Director | Priscilla Brucato – Ideal Teacher |
| Jim McMahon – Technology Specialist | Dana Halper - Gurrie Teacher |
| Joanna Marek - Library Media Specialist | Celine Hill – Seventh Ave. Teacher |
| Trish Murphy – Technology Manager | Julie McGovern – Gurrie Teacher |
| Cathy Nestlinger - Library Media Specialist | Leesa McHugh – Hodgkins Teacher |
| Barb Hobe - Library Media Specialist | Celeste Pearson – Parent/Community Member |
| Frank Ramirez– Desktop Technician | Kelly Rogan – Parent/Community Member |
| Tracy Renaghan- Library Media Specialist | Liz Waterston – Spring Ave. Teacher |
| John Signatur - Principal | |
| Jennifer Sutsser- Library Media Specialist | |

# Technology Plan

- The Technology Planning Committee worked throughout the 2016-2017 school year to recommend revisions to the 3-year Technology Plan 2016-2019.

# 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. Student Achievement**
  - 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 Learning Environment**
  - Ensure that students use technology in a safe and supportive learning environment.
- **Goal 3. Engaged Families and Communities**
  - Employ ongoing, accessible instructional technology support for students, staff and the community.
- **Goal 4. Quality Staff**
  - Model lifelong learning and exhibit leadership by promoting and demonstrating effective use of digital tools/resources.
- **Goal 5. Value-Added Resources**
  - 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 2016-2017 school year we held 3 formal meetings of the committee and sub-committee discussing current and future needs for the district involving technology in addition to our frequent informal discussions.

# BrightBytes

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

# BrightBytes - Explained

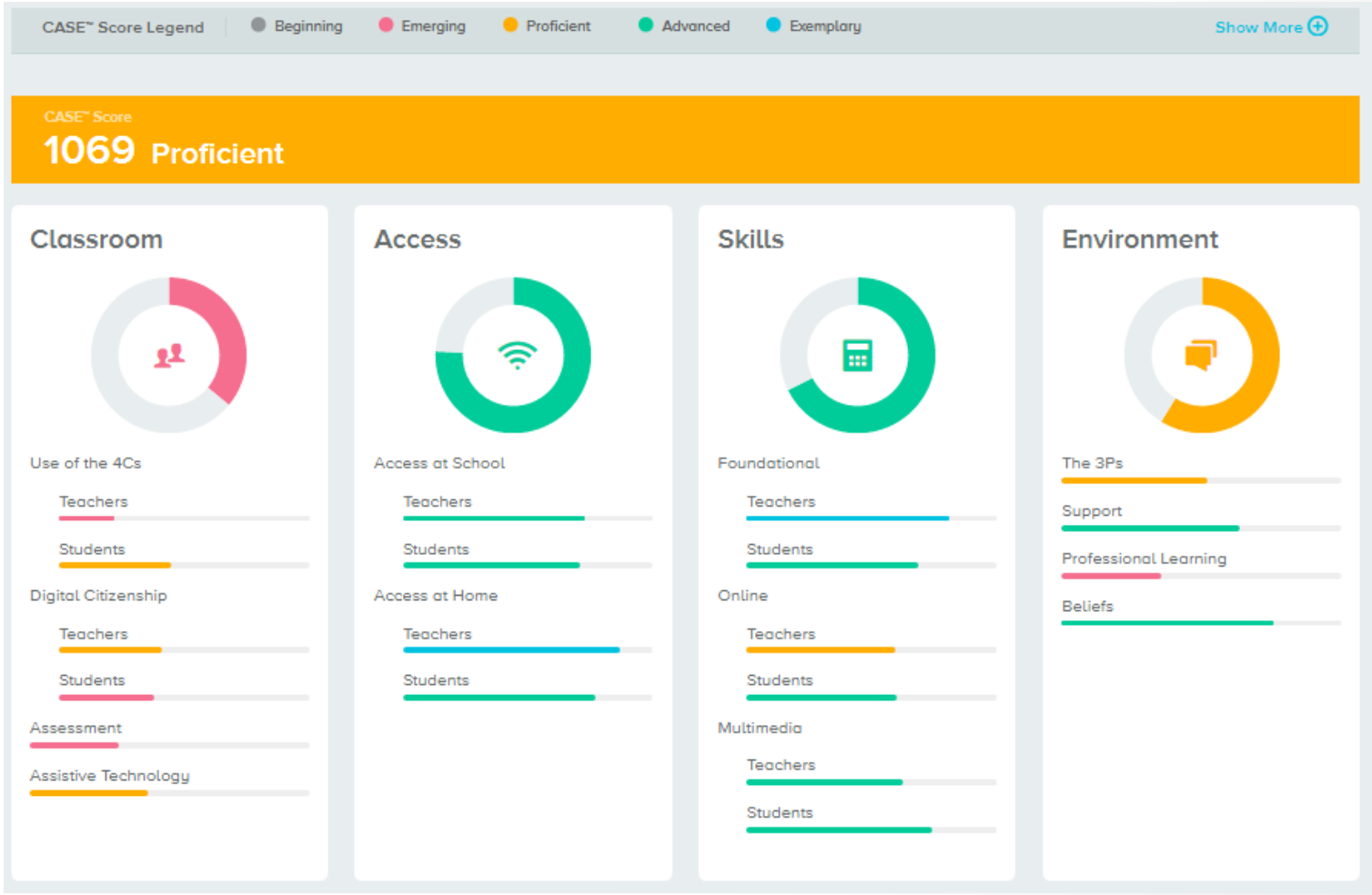
- BrightBytes uses the CASE framework: **Classroom, Access, Skills & Environment.**
- This CASE technology framework provides insights into the effectiveness of technology in improving student achievement.
- According to BrightBytes research-based framework these are the essential factors needed for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

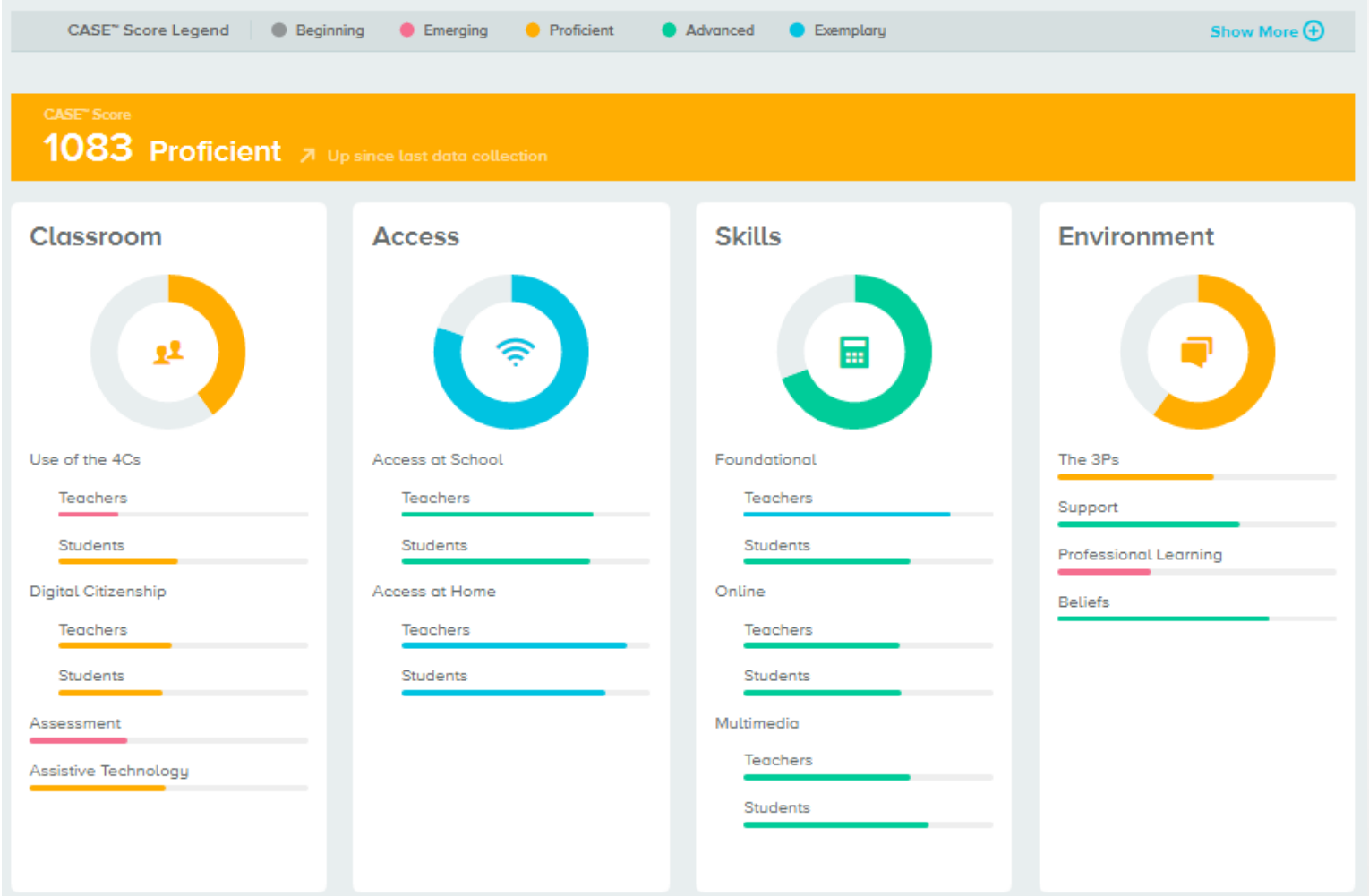
# BrightBytes – 2016 Survey Results

Overall, our district CASE score is “Proficient”, which is right in line with districts in Illinois during first time collections and slightly above the national average.



# BrightBytes – 2017 Survey Results

Overall, our district CASE score is “Proficient” overall score moved from 1069 to 1083. Classroom moved from Emerging to Proficient and Access moved from Advanced to Exemplary. GAN- Classroom: Teachers 4Cs and Assessment . Environment: PD.



# BrightBytes- 2017 Survey Results

- As a district, we have some great areas to celebrate with overall growth seen district wide.
  - The area of “Teacher Foundational Skills” and “Access” received an “**Exemplary**” score.
  - Another exciting celebration includes “Classroom” moving from “**Emerging**” to “**Proficient**” over a year’s time.
- We also 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

# Current Technology Plan Highlights/Status

- Curriculum and Instruction
  - Deployment of technology into classrooms
    - Laptop clusters (1 lab at each grade level K-4)
    - Mobile Chromebook labs (1:1 Chromebooks at school 5-8 grade)
    - Interactive Classrooms (every classroom in the district is now 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 (FASTT Math, iXL, ALEKS)
    - Social Studies (online student activities and teacher support)
    - Language Arts (Read180, System44)
    - PE (FitnessGram)
    - Assessment (PARCC, 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 site deployed beginning of 08-09 school year
  - **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
  - **Revtrak –** Online payments since 2014
  - **Parent Computer Classes-** provided since 2015

# Current Technology Plan Highlights/Status

- Professional Development
  - **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 – Illinois Computing Educators (ICE)
    - Google Apps for Education
    - Leyden Symposium

# 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.
  - **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.
  - **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.
  - **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 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.

# Proposed 2017-2018 Budget

- For FY2016-2017 the Technology Budget expenditures proposed total is $657,300 which is an increase of 75,900 from FY2016 -2017.
  - Assuming E-Rate Category II funding approval within the 2017-18 fiscal year. If for some reason funding didn't come through within the fiscal year the at-risk amount would be $167,381.

# Going Forward: 2017-2018

- Major areas being addressed this year:
  - **WiFi -** Purchase consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support. E-Rate Category II funding will help support this initiative.
  - **Network Hardware Replacement –** Purchases consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support. We may delay the replacement of some EOL/EOS items instead opting to purchase replacement parts and/or a 3rd party support plan in order to stay within budget this year. E-Rate Category II funding will help support this initiative.
  - **Renewal of Microsoft Licensing and Cisco SmartNet –** District wide renewals are necessary each year to maintain licensing compliance and provide support. Will consider 3rd party support where available on Cisco hardware in order to reduce spending.
  - **Purchase Replacement Desktops and Laptops –** Purchase consistent with tech plan's specified replacement cycle with the exception of desktops. Holding off on desktop refresh again to reduce budget this year.
  - **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–** Expand 1:1 opportunity to 4th grade utilizing Google Chromebooks . Begin a take-home program at 6th grade and extend the at-school program in 5th grade for another year.
  - **Website Refresh –** Move from Blackboard's existing SchoolFusion platform to their SchoolWire's platform.
  - **Data Analytics and Assessment –** PowerSchool's Inform data analytics product is being retired this year after evaluating new options we are currently piloting Otus.

# Going Forward: 2018-2019

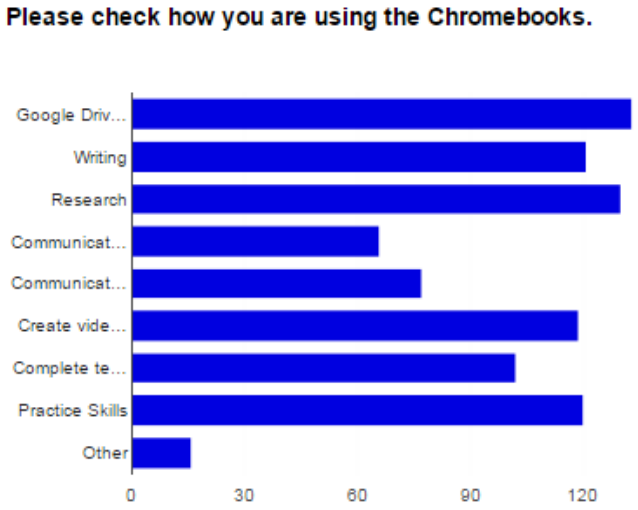
- Major areas to be addressed 2018-2019:
  - **Backup Solution*Priority *–** Purchase consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support.
  - **Network Infrastructure Replacement *Priority* –** Purchase consistent with tech plan's specified replacement cycle, focus on hardware that is End-Of-Life and End-Of-Support.
  - **Storage Solution*Priority *–** 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.
  - **Purchase Replacement Desktops 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.

# 6th Grade Student Chromebook Survey Results 2016 and 2017

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

# 6th Grade Student Chromebook Survey Results Continued …

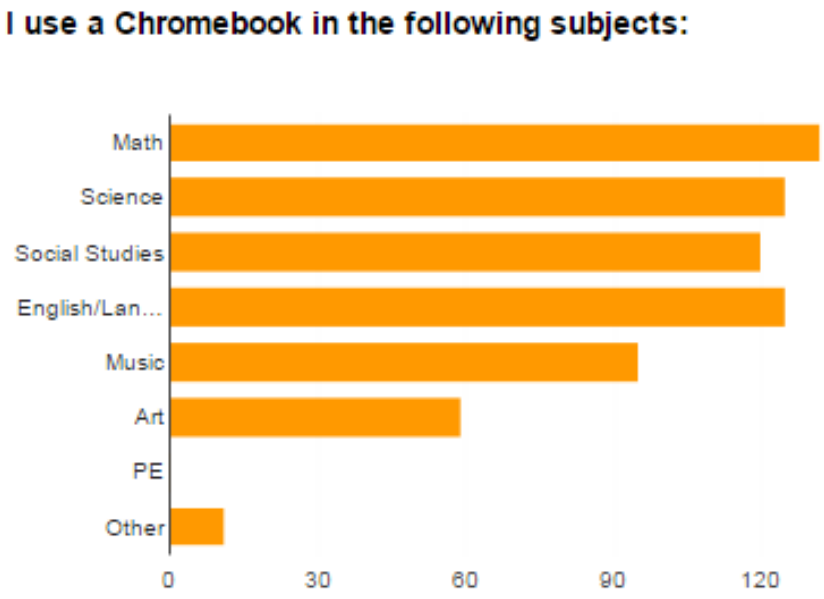
- **Students report they are using the Chromebooks in the following subjects:**




| | 2017 | | 2016 | |
|---|---|---|---|---|
| Google Drive (Docs-Forms-Sheets-Slides) | 133 | 97.1% | 144 | 98.6% |
| Writing | 121 | 88.3% | 122 | 83.6% |
| Research | 130 | 94.9% | 138 | 94.5% |
| Communicate with other students (collaborate/provide feedback to others/etc) | 66 | 48.2% | 85 | 58.2% |
| Communicate with my teachers | 77 | 56.2% | 92 | 63% |
| Create videos/projects | 119 | 86.9% | 114 | 78.1% |
| Complete tests and /or quizzes | 102 | 74.5% | 105 | 71.9% |
| Practice Skills | 120 | 87.6% | 116 | 79.5% |
| Other | 16 | 11.7% | 15 | 10.3% |

# 6th Grade Student Chromebook Survey Results Continued …

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




| | 2017 | | 2016 | |
|---|---|---|---|---|
| Math | 132 | 96.4% | 126 | 86.3% |
| Science | 125 | 91.2% | 142 | 97.3% |
| Social Studies | 120 | 87.6% | 123 | 84.2% |
| English/Language Arts | 125 | 91.2% | 133 | 91.1% |
| Music | 95 | 69.3% | 25 | 17.1% |
| Art | 59 | 43.1% | 16 | 11% |
| PE | 0 | 0% | 1 | 0.7% |
| Other | 11 | 8% | 21 | 14.4% |

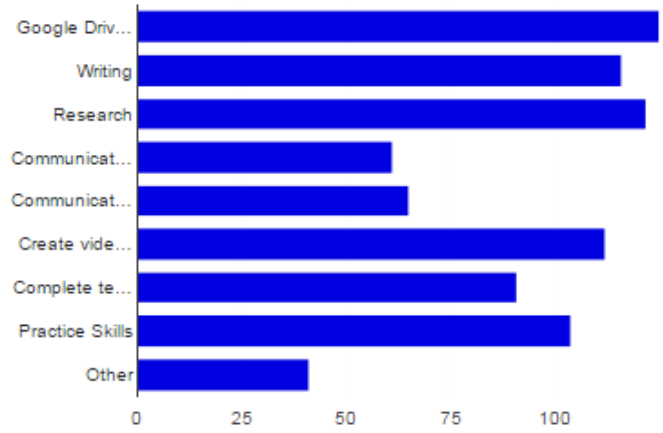
# 5th Grade Student Chromebook Survey Results 2017

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

# 5th Grade Student Chromebook Survey Results Continued …

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

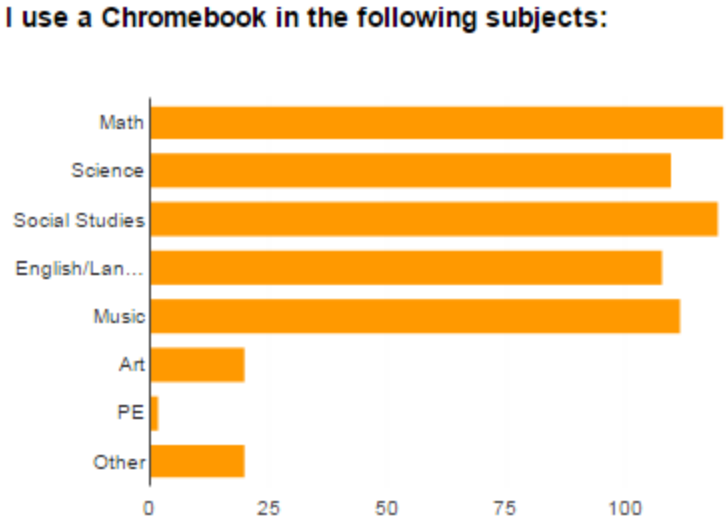
**Please check how you are using the Chromebooks.**




| | | |
|---|---|---|
| Google Drive (Docs-Forms-Sheets-Slides) | **125** | 96.9% |
| Writing | **116** | 89.9% |
| Research | **122** | 94.6% |
| Communicate with other students (collaborate/provide feedback to others/etc) | **61** | 47.3% |
| Communicate with my teachers | **65** | 50.4% |
| Create videos/projects | **112** | 86.8% |
| Complete tests and /or quizzes | **91** | 70.5% |
| Practice Skills | **104** | 80.6% |
| Other | **41** | 31.8% |

# 5th Grade Student Chromebook Survey Results Continued …

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




| | | |
|---|---|---|
| Math | **121** | 93.8% |
| Science | **110** | 85.3% |
| Social Studies | **120** | 93% |
| English/Language Arts | **108** | 83.7% |
| Music | **112** | 86.8% |
| Art | **20** | 15.5% |
| PE | **2** | 1.6% |
| Other | **20** | 15.5% |

# 2017 5th and 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**
    - **Easy 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**
    - **Can take them anywhere in building**

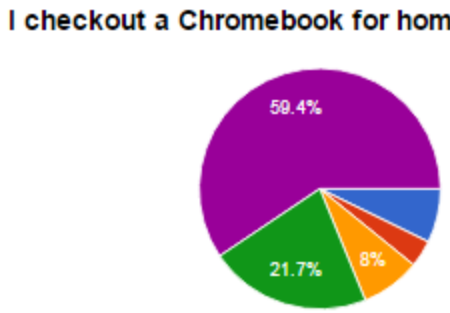
# 2017 5th and 6th Grade Student Chromebook Survey Results Continued …

- **What would make your experience with Chromebooks better at Gurrie ?**
  - **Common themes from student responses :**
    - **Nothing is needed to make it better**
    - **Use them more often**
    - **Have a touchscreen**
    - **Have a caps lock button**
    - **Get to keep them at the end of the year**
    - **Unblocking more websites (get rid of Securly)/get rid of Hapara**
    - **Have text books on them**
    - **Be able to stream music**

# 2017 5th and 6th Grade Student Chromebook Survey Results Continued …

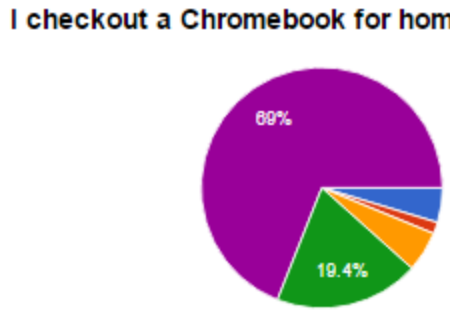
- **I checkout a Chromebook for home use:** (***new question)***

- **6th Grade**
  - **40.6% of students 1+ times a week**




| | | |
|---|---|---|
| Daily | 10 | 7.2% |
| 4 times a week | 5 | 3.6% |
| 2-3times a week | 11 | 8% |
| Once a week | 30 | 21.7% |
| Not at all | 82 | 59.4% |

- **5th Grade**
  - **31% of students 1+ times a week**




| | | |
|---|---|---|
| Daily | 6 | 4.7% |
| 4 times a week | 2 | 1.6% |
| 2-3times a week | 7 | 5.4% |
| Once a week | 25 | 19.4% |
| Not at all | 89 | 69% |

# 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 Grade-** The Technology Committee recommends a 1:1 take-home program beginning in 2017-18
  - Budget Impact:
    - No new device expenses associated with the take-home program as we will be checking out devices the district already owns.
      - Previously purchased mobile carts will be re-purposed for charging stations.
    - Chromebook cases will be needed for students to carry devices between classes and home at the end of the day.
      - Approximate cost of the cases is $30/student. The district proposes parents pay $15 for cases like was done at Gurrie this year total cost to the district $4800.
    - WiFi Hotspots for students without internet access.
      - We received the Sprint Connected Grant providing us with free internet service to students who don't currently have access at home. The district purchases the hotspots at $75/each and Sprint pays for the bandwidth up to 3GB/month for the next 2 years.

# Going Forward …Student Chromebook Recommendations

- 5th Grade – The Technology Committee recommends continuing at-school 1:1 Chromebook for 2017-18
- 4th Grade – The Technology Committee recommends expanding the at-school 1:1 Chromebook deployment for 2017-18

- Budget Impact
  - 5th Grade – No new hardware expenses associated with the at-school program as we will already own the devices.
  - 4th Grade – Move older Samsung devices from Gurrie to 4th grade moving newer devices up.
  - Purchase 2 grade levels of additional Chromebooks consistent with our replacement cycle at approximately $230/each.
  - Purchase additional mobile carts for storage and charging.
  - Total cost impact of sustaining existing program and expanding to 4th grade is $96,700.

# UPDATE- Technology Plan Highlights

- **Integrating Technology into Classrooms** – "Smart Classrooms"

| **Student to Computer Ratio Study** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/12/2017 | | | | | | | | | | | | | | |
| **School** | **K-8 Enrollment by School** | **Student Desktops** | **Student Laptops** | **Student Chromebooks** | **Total Student Computers** | **Current Student Per Computer** | **Current Student Per Laptop** | | **# additional laptops** | **#additional Chromebooks with 4th grade New Student Per Computer** | | | | |
| | | | | | | | | | | | | | | |
| **Gurrie** | **321** | 47 | 40 | 420 | **507** | **0.63** | 0.70 | | n/a | n/a | 1 to 1 | | | |
| **Hodgkins** | **154** | 25 | 76 | 44 | **133** | **1.16** | 2.03 | | 0 | 33 | 0.93 | | | |
| **Ideal** | **282** | 24 | 92 | 85 | **194** | **1.45** | 3.07 | | 0 | 43 | 1.19 | | | |
| **Seventh** | **236** | 25 | 79 | 64 | **161** | **1.47** | 2.99 | | 0 | 33 | 1.22 | | | |
| **Spring** | **325** | 24 | 86 | 108 | **206** | **1.58** | 3.78 | | 0 | 41 | 1.32 | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | **Total** | **0** | **150** | | | | |
| | | | | | | | | | | | | | | |

# 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 4-8$^{th}$ 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.
- 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 LTHS curriculum and technology (applications, subscriptions, databases etc.).
- Assess security, disaster recovery, redundancy and fail-over for district systems.
- Automate processes to improve efficiency (SIF, HR/Payroll Time Card Entry, Lunch System etc.).

# Technology Use

## System Utilization

- PowerSchool Parent Access- 51% of parents have created a PowerSchool login account (55% in 2016; 46% in 2015).
- SchoolFusion Parent Access – 442 parents have created a website account. (441 in 2016; 402 in 2015)
- D105 Website traffic – EXTERNAL Browser Sessions from April 13, 2015 to April 12, 2016 decreased slightly for some sites and others held steady or slight gains:
  - **District**: 139,997 (145,629 in 2016; 154,292 in 2015)
  - **Gurrie**: 50,668 (54,414 in 2016; 53,143 in 2015)
  - **Hodgkins**: 7,557 (8,306 in 2016; 9,748 in 2015)
  - **Ideal**: 14,558 (16,129 in 2016; 16,418 in 2015)
  - **Seventh**: 9,973 (14,604 in 2016; 13,256 in 2015)
  - **Spring**: 24,664 (30,030 in 2016; 30,327 in 2015)

# 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** | |

# Committee Approval

- The Technology Planning Committee approved the recommendations for the 2017-2018 School.

# Questions?