District Technology Update

Strategic Plan-Technology Goal & GLHS/CMS iPad Update

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Tonight’s objectives:

● Review of Strategic Plan goals–technology
● Update of 3-Year Technology Roadmap and Plan
● Share how technology is being utilized to enhance learning in our classrooms
5 Year Strategic Plan
“Good to Great”

ACADEMIC CURRICULUM:
Continue to focus investments on leading educational programs, specifically in the areas of science, technology, engineering, math and critical thinking in order to drive 21st century academics within the boundaries of our budget realities.
- Expand Stem opportunities at all levels
- Expand professional development
- Improve school transition related activities
- Develop critical thinking centers throughout the district

TALENT:
Attract, develop and retain the highest performing educators. Align and motivate all staff – teachers and administrators – to achieve district goals.
- Develop a formal recruiting process
- Promote district success
- Explore differentiated supervision

STUDENT ACHIEVEMENT:
Continuously improve our school ranking relating to student achievement and performance – targeting the top third ranking status among peer group.
- Benchmark progress against prior years and dashboard peer group results
- Encourage rigorous course work
- Address college readiness standards
- Improve special education student access to general education programs

GUIDANCE SERVICES:
Improve the overall perception and performance of our Guidance Department to better meet the general needs of our students and parents – particularly in the areas of college readiness, parent outreach and university outreach.
- Enhance communication regarding guidance info
- Improve the college selection process

TECHNOLOGY:
Provide our students and staff with a state of the art learning and operating environment by continually assessing and improving the efficient and effective use of technology inside and outside the classroom.
- Improve community related communications
- Develop a formal tech plan addressing best practices, operations, and professional development
- Evaluate software systems on an ongoing basis to address district needs
Focus on Technology Portion of Strategic Plan

**TECHNOLOGY:**

Provide our students and staff with a state of the art learning and operating environment by continually assessing and improving the efficient and effective use of technology inside and outside the classroom.

- Improve community related communications
- Develop a formal tech plan addressing best practices, operations, and professional development
- Evaluate software systems on an ongoing basis to address district needs
“Create & Maintain a 3-Year Dynamic Technology Operating Plan”

- Roll-out of 1:1 iPad
- Maintenance of 1:1 iPad
- Hardware replacement plan
- Risk management plan
- Update to “Technology Roadmap” presentation to the Board of Education
Expanding district iPad access

- Successful implementation of 1:1 iPad initiative at GLHS (Nov. 2013) and 8th grade at CMS (Fall, 2015)
- 2015-16 Integration of Google Suite/Classroom with 1:1 environment resulted in higher levels of student/teacher engagement
- Expansion of 1:1 to Grades 6 & 7 (Fall, 2016) was explored as a result of successful implementation in Grade 8
- Utilizing TAB committee, the district followed similar process for considering variety of options that would enhance the opportunity for student use of technology.
  - Process included considering various devices and weighing previous investments into hardware, devices, applications and professional development
  - It was determined that iPads offered the district the best device for supporting the most students in the integration of technology as a valuable learning tool.
GLHS iPad Update

New iPad Air 2 available for all high school students during summer.

Ipad Air 2 came with iOS 9.3.2- A8X chip; Front and back camera; 2 GB RAM; 64GB hard drives for forward compatibility; 10-hour battery life; 0.96 pounds

- Class of 2017 - Began August 3
- Class of 2018 - Began August 9
- Class of 2019 - Began August 16
- Class of 2020 - Began August 23

Distribution of ebooks, apps, completed wirelessly and completed remotely.
Improved Distribution

Pick up faster, convenient for students & staff.

Now: 5-minute process in main office during summer school hours. Students came in on their own schedule.

In past years: students filled gyms at long tables lead by staff members through a 45-minute process.
CMS iPad Update

iPads available for all middle school students early in the current school year.

The iPad 2 - iOS 9.3.2 or 9.3.3. depending on when wiped and prepared; Front and back camera, 8-hour battery life; 0.5 GB RAM; 1.33 pounds

● Class of 2021 - Wednesday Sept. 7 (First Day of School)
● Class of 2022 - Monday, Sept. 12
● Class of 2023 - Monday, Sept. 19

Distributed during late-day periods, with videos and paper how-to documents at www.bhpsnj.org/ipadstudent
Hardware Replacement Plan

- Continual improvement of hardware devices across the district, including improved WiFi and upgraded network switches
  - Upgrades will be implemented both via a needs analysis and through regularly-scheduled improvements to prevent weaknesses in the implementation.
- District tracks Internet usage - when needs increase, we can increase bandwidth
- Some tasks are not conducive to iPad use - Photoshop and Illustrator, C++, AutoCAD
  - Need fewer Windows-based machines in favor of 1:1 iPads
  - New devices placed according to needs assessment via Technology Advisory Board and ongoing replacement schedule
Website Updated

Responsive web design, user-friendly
Appearance adjusts based on device
WiFi - at Grade 2-5 schools

- Installation of professional grade WiFi to support use of iPads and laptops
- Improved functionality and consistency of network
Risk Management Plan

● Avoid Risk
  ● Cisco content firewall / intrusion protection device

● Control/Mitigate Risk
  ● Students use iCloud to find lost devices, protect data
  ● PRTG Alerts to technicians

● Accept Risk
  ● Continue to replace aging equipment with newer

● Transfer Risk
  ● Technology partners such as Dyntek, SchoolWires, Honeywell, Google vault
Looking Ahead...

- Adding wifi to Mary Kay McMillin ECC on par with Grade 2-5 schools.
- Continue replacing network switches in GLHS / CMS
- Continue to assess equipment in order to ensure that we are meeting the academic needs of our students
  - Device capabilities
  - Online resources & textbook replacement
  - Academic Apps
Utilizing iPads at GL

- Student Use
- Teacher Use
- Analysis using the SAMR Model
- Alan November
- Professional Development
iPad Usage Analysis

SAMR model data collected through

- formal observations
- informal observations
- informal walk-throughs
- walk-by observations
iPad Usage Analysis

What type of task is the iPad being used for in class?

- Google Suite (Docs, Slides, Sheets, Forms): 52%
- Note-taking: 51%
- Research: 37%
- Google Classroom: 36%
- Student Assessment: 27%
- Creating Presentations (movies, slideshows, etc.): 26%
- Share Videos: 15%
- Email/Communication: 12%
- None Used: 8%
- Homework Collection: 4%
Two Year Comparison

2014-2015

- Enhancement Level: 31%
- Transformation Level: 69%

2015-2016

- Enhancement Level: 24%
- Transformation Level: 76%

Enhancement Level = Augmentation and Substitution
Transformation Level = Redefinition and Modification
Inspired by Alan November

Keynote

6 guiding questions to consider when designing transformational learning experiences that leverage the power of technology.

- Did the assignment build capacity for critical thinking on the web?
- Did the assignment develop new lines of inquiry?
- Are there opportunities to broaden the perspective of the conversation with authentic audiences?
- Is there an opportunity for students to share – across various media with capacity for continuous feedback?
- Is there an opportunity for students to create a contribution (purposeful work)?
- Does the assignment provide “best in the world” examples of content and skill?

Additional topics can include building collaborative classrooms, teaching students to self-assess and a range of quality teacher feedback strategies.
Technology in Practice

There have been several ways that teachers, students, and administrators have been sharing:

- Started with a small vanguard group, now most staff members could be a part of that group
- Tremendous increase in collaboration
  - For planning purposes and management of various responsibilities
- Presentations at faculty meetings
  - Both staff and students
- Google classroom as a classroom engagement tool & communication pathway
Professional Development Supporting our Technology

● **Sample of Technology Prof. Dev. offerings throughout 2016-17**
  ◦ 4-12 Using Google Forms to Enhance Classroom Instruction
  ◦ 6-12 Working with Notability
  ◦ 6-8 Using Educreations and ShowMe
  ◦ Google Classroom 2: Organization of Google Drive/Add-ons
  ◦ K-12 Google Docs: Learn the Tricks of Using Google Docs, Sheets, and Slides
  ◦ K-12 Using SchoolWires
  ◦ K-5 iPads in the Classroom: Using Explain Everything
  ◦ K-5 Math Apps for Skill Development/Differentiation
  ◦ K-8 Collaborate for Project-based Assessment Using iMovie

● **Supporting expansion of 1:1 at CMS—Professional Development offerings**
  ◦ Active iPad Classroom
  ◦ Google Classroom Introduction
  ◦ iPad Best Practices for 6th and 7th Grade Teachers
  ◦ 6-12 Flipping Your Classroom
  ◦ Google Classroom for CMS Teams
Apple School Manager/Classroom

Teacher can:

- Guide students through a lesson, see their progress, and keep them on track
- Monitor students to keep students on task
- Lock students into apps
- Blank student screens
- Physically open a page on a student's iPad from their own device
- Start, focus, or pause student work
- See what your students see with Screen View
- Share student work on the classroom Apple TV
Questions?