NASHOBA REGIONAL SCHOOL DISTRICT

EDUCATIONAL TECHNOLOGY UPDATE

November 2017

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The purpose of this document is to provide stakeholders with the status of the eight goals outlined in the 2016-2018 Technology and Digital Learning Plan and communicate next steps. We are very grateful to all members of the Technology Committee that helped to create this plan and articulate these eight goals. A large amount of time was spent discussing and articulating the goals that provided us a clear direction. Now it is time to reassess, expand and revise our goals.

Technology at Nashoba is interwoven into our communications, productivity, instruction and learning for all staff and students. In order to more effectively plan and enable all stakeholders an avenue to provide feedback, the planning process has been restructured to a broader, more collaborative, and inclusive model. The 2017-2018 Educational Technology Committee is made up of administrators from each school building and departments, as well as representation from school committee. While this committee meets every other month, focus groups will meet during or after school to target key technology areas to improve student achievement. Each of these groups has an Educational Technology Committee representative creating a path for direct input into the planning and decision making processes. Educators who are not participating in one of these groups are encouraged to reach out to their building administration representative to provide feedback, participate in surveys or meet with their building instructional technology specialist or a member from Teaching and Learning.

The Educational Technology Committee will take into consideration feedback from all stakeholders when planning the implementation of sustainable and safe technologies and procedures that positively impact student achievement.

2016-2018 TECHNOLOGY AND DIGITAL LEARNING PLAN 🔗

Goal1: Wide Area Network

To determine the feasibility of Nashoba Regional School District to own a fiber WAN connection between buildings through the eRate competitive bidding process.

Updates

- It is recommend to postpone moving towards any large construction projects at this time.
- We will continue to post bids and apply for eRate reimbursement to evaluate and select cost effective WAN services.

Goal2: Local Area Network / Wireless Network

To provide a robust internal wired and wireless infrastructure for the Nashoba Regional School District.

Updates

- 100% of classrooms now have dedicated Wireless Access Points
- Connection between switches upgraded from 1Gb to 10Gb in all buildings
- eRate funding commitment received FY17 & 18 (50%)
- Will continue to upgrade infrastructure and apply for eRate funding in FY19

Goal3: Internet Access

To increase our current bandwidth of 500Mbps to 4000Mps (4 Gbps) by the fall of 2019.

Updates

- Bandwidth usage is continuously monitored and increases are made based on:
  - Amount of bandwidth consumed
  - Types of instructional programs currently used
  - Anticipated types of instructional programs that are likely to increase in usage
  - Goal is recommended by the United States Office of Educational Technology. Based on usage monitoring results, it is not anticipated that we will need 40000 Mbps by the fall of 2019
- eRate reimbursement for FY17 received (50%)

Goal4: Budget and Equipment Replacement Cycle

To develop a replacement plan that will allow Nashoba to replace equipment that no longer meets the required function for teaching and learning or productivity.

Updates

- Planning for replacement purchases and instructional programs is a collaborative process. Building Principals, Directors and the Dept. of Teaching and Learning meet with the Technology Manager and Business Manager to discuss their projected needs. This helps to ensure that purchased hardware and instructional programs will support the curriculum and are aligned with the district improvement goals.
- An up to date inventory makes it possible for Nashoba to plan for the replacement of devices and reasonably project costs based on the age of the devices. However, changes can occur as the result of changes in curriculum, instructional needs, industry standards and the need to move towards interoperability of systems.
- Replacement of Devices by number of years
    - Laptop -5YRS
    - Chromebook -4YRS
    - Labs -6YRS
    - Interactive Boards & Projectors -10YRS
    - iPads– 4/5YRS
    - Printers -10+YRS
    - Infrastructure - industry standard dependent

Goal 5: 1:1 Mobile Devices

To continue to explore options to expand the 1:1 mobile devices.

Updates

- Recommendation is to expand the 1:1 program to Grades 6 - 12 in the Fall of 2018. Grades 8-12 will take the Chromebooks home overnight while grade 6 and 7 will leave them in school.
- Rationale for Expansion
  - We are finding that our grade 6 & 7 teachers are asking for increased availability of Chromebooks as they utilize more authentic and up to date online curriculum resources. Lesson planning increasingly involves the need for students to use Chromebooks or devices to access online resources, collaborate, create, take assessments and use flexible technologies that support the personalization of learning.
  - Library Media staff in grades 6-12 have been weeding out non-fiction resources on the shelves and moving towards more current and authentic non-fiction online resources via databases at the request of teachers.
  - Next generation assessments assess a wider range of thinking skills and not just rote memory through standard multiple choice questions. Technology-enhanced test items use functions that allow for the assessment of higher order thinking skills such as comparing and contrasting, explaining reasoning through constructed text or equations, highlighting evidence in a text or selecting coordinates on a graph, or completing a chart. The goal is to measure competencies that matter to college and career readiness. 1:1 Chromebooks provide teachers with the ability to assess these types of skills and provide students with more opportunities to utilize critical thinking and problem-solving.
  - 1:1 promotes equitable access to digital resources and provides opportunities for students to learn at their own pace, use the tools that support their learning styles and to dig deeper into areas of interest.

Goal 6: Information Systems

To enhance interoperability between data systems, leading to a reduction of redundant data entry and an increase in data integrity. Improve and maintain up to date student information system and servers.

Updates

- Integrating Systems Focus Group Formed
  - Researching Alternative Solutions that impact
    - Curriculum, Instruction and Assessment
    - Staff Productivity
    - Possible elimination of existing tools the are "unconnected"
    - Possible integration of existing resources
    - Ease of access for Parent/Guardian to information
- Online self-registration in PowerSchool is targeted to begin in January of 2018 for kindergarten registration

Goal 7: Technology Web Help Desk Support

To reduce web help desk response time to maximize the seamless integration of technology in the classroom and increase staff productivity when using technology tools.

Updates

- Technology survey results demonstrate high end-user satisfaction
- Technology surveys will continue to seek feedback from end-users
- Feedback from leadership is provided every two weeks
- Increased usage of the online Help Desk has streamlined the process, helping to provide timely support

Goal 8: Teaching and Learning

To design and implement technology infused instruction and practices that transform teaching and learning so that all students can achieve their highest potential and are prepared for college and career.

Updates

- Professional Development opportunities offered during / after school and online in the 2016-2017 school year and during summer academy were well attended
- Addition of middle school Instructional Technology Specialists increased support and in-school professional development for educators and students Grades 6-8
- Curriculum development that was developed in the 2017-2018 school year and summer academy required educators to define how technology was being used utilizing the Substitution, Augmentation, Modification and Redefinition (SAMR) model. More workaround educators self-assessing needs to be done in this area. This year we will be piloting a rubric that helps us to identify how technology impacts student learning by examining the SAMR model combined with Depth of Knowledge and Bloom'sTaxonomy. The Digital Learning Coordinator is currently working with the HS ITS and HS, Asst. Principal of Academics to develop a checklist that will provide us with a baseline.
- The Director of PPS and the Digital Learning Coordinator are forming a Digital Program Evaluation Team whose focus will be to develop and implement protocols for evaluating and adopting digital tools and programs for the District. This team will collaboratively design a vetting process that ensures quality,accessibility and sustainability of digital content and technology tools for students and staff using research-based criteria. The team will be comprised of 2 General and 2 Special educators, 1 Instructional Technology educator, 1 Library Media educator and 1 IT staff member
- The Coordinator of Digital Learning continuously seeks feedback and recommendations both Instructional Technology and Library Media staff. These two groups are instrumental in providing Nashoba direction and helping to move our educators forward in using digital resources in ways that improve student learning.

2017-2018 Educational Technology Committee Members

Kaitlyn Angulo , Sawyer Asst. Principal
Joel Bates, Sawyer Principal
Alise Crossland, School Committee
Stephen Cullinane, HS Asst. Principal
Neal Darcy, School Committee
Joan DeAngelis, Director of PPS
Laura Friend, Luther Burbank Principal
Kyle Grady, Hale Principal

Martina Kenyon, STEM Coordinator
Cynthia Larsen, Digital Learning Coordinator
Patricia Marone, Business Manager
Ross Mulkerin, Center Principal
Patricia O'Connor, ELA Coordinator
Sean O'Shea, Mary Rowlandson Principal
Elizabeth Pratt, HS Asst. Principal of Academics
Su Qi, Technology Manager

2017-2018 Focus Groups

Integrating Systems: Representatives from each school building, the Director of PPS, Business Manager, IT and Teaching and Learning researching holistic systems that will enhance interoperability between data systems, remove redundancy, increase data integrity and put instructional resources and data at the fingertips of our educators.

Assessment and Response to Intervention: K-8 Principals are meeting with Teaching and Learning to revise benchmark assessments and processes for referring at risk students. Part of this work is exploring option for using technology to streamline data to inform instruction.

Digital Program Evaluation Team: The Director of PPS and the Digital Learning Coordinator are forming a Digital Program Evaluation Team. A group of educators will develop and implement protocols for evaluating and adopting digital tools and programs for the District. This team will collaboratively design a vetting process that ensures quality,accessibility and sustainability of digital content and technology tools for students and staff using research-based criteria.

Instructional Technology and Library Media Educators: These educators are key resources in each of our buildings. They meet with the Digital Learning Coordinator during early release professional development with a focus on instructional strategies and resources that support all students and their abilities to become successful and ethical life long learners in an ever increasing digital world.

High School 1:1: The Digital Learning Coordinator is working with the Instructional Technology Teacher and the Assistant Principal of Academics to focus on supporting educators with effective instructional strategies in a 1:1 mobile device learning environment.

Technology Manager and Principals: Meetings occur every other week in each building to discuss the status of technologies and support needed.

Technology Manager and Digital Learning Coordinator: Meetings occur every Monday. Information sharing occurs for the purpose of identifying any issues that impact teaching and learning, provide updates regarding instructional needs and new technologies, and to plan for short-term and long-term solutions that improve instruction and end user experiences.