HILL VIEW MONTESSORI
CHARTER Public School

Technology Plan
2013-2017

Background

Hill View Montessori Charter Public School (HVM) was founded in 2003 and opened in 2004 to 122 students in grades K-3. Each subsequent year an additional grade was added through grade 8. In 2012, additional students were added to reach 34 students at every grade level. The school's present cap is 306 grade K-8 students.

Mission Statement

The mission of the Hill View Montessori Charter Public School is to provide a grade K-8 public education that promotes academic excellence using the Montessori philosophy. In partnership with teachers and parents, children attain high levels of academic, personal and social achievement and so prepared, become constructive contributors to our community.

Benchmark 1: Technology Vision and Implementation Strategy

As a Montessori school, the vision for technology usage is one of integration. At HVM, technology is viewed and used as a tool to make the learning environment more effective for the entire school community – teachers, students and the greater HVM community. The goal for the use of technology in the classroom by teachers and students is to enhance the students' learning experience, to aid in the educational process and to augment the students' knowledge base. It is not to be a separate and distinct subject that does not connect to other areas of the curriculum; rather it is a means to further access and demonstrate teaching and learning. In circumstances where technology can be used to support continued learning outside of the school environment and generally strengthen the school, technology will be further leveraged.

A.   Technology Goals and Implementation Strategies

Technology Goals and Strategies for Teachers

HVM teachers will know about and be able to teach their students about the technologies needed to succeed in our technological society. Staff will use information technology and other technology resources to support and/or improve instruction as well as to help the school run more effectively as a whole. Teachers will use technology as a tool to make knowledge more accessible, the learning environment fuller and communications more effective.

Strategies to ensure teachers are prepared to use and teach about the use of Technology follow:
- Teach staff computer terminology.
- Teach staff to use productivity software including Word for word processing, Excel for creating spreadsheets, PowerPoint for creating presentations and the Google Applications suite for cloud computing.

- Teach staff how to properly use search engines and how to identify and discriminate among websites for teaching and student research.
- Provide staff with a technology rich environment that is appropriate to their students' grade level so as to promote skill development and practice with technology.
- Teach good ergonomic practices to provide a safe environment in which to learn and apply technology.
- Teach staff about ethical and responsible use of technology.
- Use technology to analyze assessment results and identify areas of improvement to maximize student learning.
- Use technology to share information about student progress.
- Use technology to communicate with parents, peers and students.
- Facilitate equitable access to technology resources for all students.

Technology Goals and Strategies for Students

HVM students will learn and apply technological skills and concepts to research concepts, communicate ideas, solve problems and make decisions as appropriate for their grade level. HVM students will learn about and use a variety of technologies including computers, tablet devices, calculators, educational as well as productivity software, and various multimedia devices such as DVD/CD players, and digital and video cameras to support their acquisition and demonstration of learning.

Strategies to ensure students learn and apply technology in their learning include the following:
- Ensure students have signed; understand and pledge to follow the school's Acceptable Use Policy for technology.
- Teach about ergonomic factors associated with using technology resources.
- Provide students with keyboard training software and the resources and time to practice with it.
- Teach about internet websites; their validity and their use as part of the research process.
- Provide opportunities for students to use technology as a means of accessing knowledge and presenting learning.
- Teach and require practice of productivity software programs.
- Teach students how to use data and technology in decision-making and problem solving.

Greater HVM Community

Technology will be used to communicate with parents and the greater HVM community so they can better understand and support the school, their children and the classroom learning environment.

- Digital presentations will be used to communicate with prospective parents, legislators and other community members.
- Digital message board in the lobby of the school to communicate and celebrate learning.
- HVM's website will provide critical information about the school including enrollment and school activities and will be a resource for parents and other HVM community members.
- A website will allow parents to schedule parent-teacher conferences.

- Email will be used to communicate with parents and the community.
- HVM's website will also be used to advertise job openings to the larger community.

B. <u>Technology Needs Assessment</u>

Current Resources & Future Needs

In terms of school wide needs, first and foremost, a training program for all teachers and staff. The purchase and implementation of new technology cannot be considered a success, unless the teachers are able to feel comfortable and empowered with the tools.

Second, the infrastructure must be in place that provides for adequate access to technology. To have technology for technologies sake, without adequate ability to use it appropriately and fully and without adequate resources to support the technology does not make sense. Network and server upgrades must be a focus on a yearly basis.

Future investments will include:

- Additional electrical power (outlets) in the classrooms
- Training resources (PD sessions) for HVM staff and teachers
- Phased upgrades to network and server devices
- Additional laptops for student use within the classroom
- Limited roll-out of tablet based devices

Currently, the Technology & Data Manager provides teacher and student support; on-site troubleshooting and support with technology-related professional development and training.

D. <u>Budget</u>

A budget for technology will be established every year and be part of HVM's total budget. Formal input to inform the technology budget will be solicited from the Technology & Data Manager in January of each year.

E. <u>Evaluation</u>

The successful use and implementation of technology for the school at large is overseen by the Technology & Data Manager who gives input to the Executive Director. A Technology update is provided to the Board on a regular basis, and as part of the Executive Director's monthly report. Also, the board reviews quarterly financials, part of which includes expenditures related to technology.

Through the monitoring of the progress made on student achievement goals outlined in HVM's Accountability Plan, the impact of technology use as it relates to data driven instruction can be

ascertained. The belief is that improved student achievement occurs because HVM has quality data, coupled with a strong data culture and the capacity to ensure systemic data use.

For students, an annual, informal assessment by the classroom teacher will yield informal information about the use of technology. Further, the use of technology as students demonstrate their learning will serve to verify its understanding and application.

Benchmark 2: Technology Integration and Literacy

Technology integration, outside of teaching time, as defined as "the daily use of technology in some of the following areas: research, lesson planning, organization, administrative tasks, communications and collaboration" shall be identified to be in existence when at least 90% of teachers use technology every day.

Technology integrations for teaching and learning, as defined as "the use of technology appropriately with students every day to improve student learning of the curriculum by at least 90% of teachers in some of the following activities: research, multimedia, simulations, data analysis, communications and collaboration.

Technology literacy is defined by the Massachusetts Department of Elementary and Secondary Education exists when:

- 90% of eighth grade students show proficiency in the Massachusetts recommended Technology Literacy Standards and Expectations for eighth grade.
- 100% of teachers are working to meet the proficiency level in technology and 90% of teachers have mastered 90% of the skills in the Massachusetts Technology Self-Assessment Tool (TSAT)
- The school has district level technology director/coordinator
- The district provides a .5 FTE instructional technology specialist to coach and model
- The school has staff specifically dedicated to data management and assessment..

At HVM, technological integration and literacy is further evidenced when:

- Our teachers share information about technology use for progress monitoring and assessment with their colleagues at their weekly collaborative meetings thus use it as a means to improve instruction; refer to data based formative assessment data in creating their weekly lesson plans; use the internet to research and leverage best practices posted by other teachers; use technology as a means of effective and efficient communication and for administrative responsibilities (attendance, family communications, etc.)
- All students at our Upper Elementary and Middle School levels use and have evidence of technology being used appropriately to improve, to access and/or to demonstrate student learning of the curriculum. Activities include some of the following: research, multimedia, simulations, data interpretation, communications, and collaboration.
- At the Lower Elementary level, technology is used appropriately to improve or enhance learning or to demonstrate information at least weekly.

- Staff members routinely use the software systems in place to manage student information (Special education, attendance, document sharing, e-newsletters, etc.).

Benchmark 3: Technology Professional Development

- Each year, every teacher will have participated in some form of technology professional development (coaching, modeling mentoring, study groups and in-house or online PD, etc.)

- Administrators and teachers consider their own needs for technology professional development, using the technology self-assessment tools and relay this information to the Technology & Data Manager directly or to their immediate supervisor.

Benchmark 4: Accessibility of Technology

Hardware Access
- Ratio of one high capacity internet connected computer for each student by 2015
- Technology rich classrooms
- Replacement cycle of five years or less

Internet Access
- High speed Internet connectivity for all
- External connection of 50 Mbps

Networking
- WAN of 1 Gps
- Servers for file sharing, backups, scheduling, email and web publishing
- Cloud computing services

Staffing
- Staff or contract to ensure network functioning
- Resolve critical problems in 24 hours
- One FTE per 400 computers

HVM has as its goal for 2015, technology access for all regular fulltime staff members and Upper Elementary and Middle School students in a 1:1 ratio; i.e., every staff member and student has direct access to a high capacity internet connected computer . Part-time employees shall have access, at a minimum, to at least one computer per five PT employees. (50 staff and 160 students)

HVM employees a part time Technology & Data Manager who has ultimate responsibility for all data and technology related tasks and requirements.

For students, the goal is for HVM students to have access to technology at the following rates:

- No more than five students per computer access point (laptop/desktop). Each Upper Elementary classroom will thus have at least six computer access points available in the classroom. The use of additional computers for student usage will through a shared mobile laptop lab.
- Lower Elementary students will have access to at least five student computers per classroom at all times. The use of additional computers for student usage will through a shared mobile laptop lab.
- Middle School students will have access to at least twenty computers at all times. The use of additional computers for student usage will through a shared mobile laptop lab.
- Middle School also has access to an interactive whiteboard system and A/V equipment, including a permanently mounted LCD projector and audio system.
- Shared network printers are located at strategic locations in the school and are dedicated to either student-use or staff-use.
- Classrooms will have ample calculators and other handhelds as well as at least one general use camera per classroom.

HVM has two additional digital projectors that are shared throughout the school for classroom use and special presentations.

Ongoing improvements will be undertaken to ensure HVM strives to met the Massachusetts Department of Elementary and Secondary Education's benchmarks for accessibility of technology including:

- Computer and internet to user ratios
  - Introduction to emerging technologies
  - Use of universally designed assistive technologies for general education
  - Procurement policies
  - Replacement plan/cycle
  - Ability to participate in online assessments (PARCC)
- Networking
  - Bandwidth recommendations for LAN/WAN
  - Secure file sharing, backups, email, web publishing
- Access outside the school day
- Staffing for Technology Support
  - Resolution within 24 hours

Benchmark 5: Virtual-Learning and Communications

HVM continues to seek out new educational resources available online. In 2011, HVM implemented Google Applications for Education. This suite of tools is currently being used by all staff and selected student populations. Initially we have identified our 7th and 8th grade students as the prime beneficiary of the Google Applications suite.

HVM maintains and updates a website for the community. Parents and students can access the site to obtain necessary forms, view school calendars and general news. This resource has also been useful for spreading the word about HVM enrollment and lottery to families.

Since 2012 we have actively updated an official Facebook page for the school. We view this as another opportunity for us to communicate with parents/guardians, as well as community members who are interested in learning more about HVM.

Benchmark 6: Safety, Security and Data Retention

HVM has a board-approved Acceptable Use Policy (AUP) regarding internet and network use. The policy is updated as needed to help ensure safe and ethical use of resources by teachers and students. The policy is shared with parents and students annually as well as included in the Family Handbook. Every student/parent is required to sign-off on the Acceptable Use policy each year before students will be allowed to use computer technology. A copy of the current HVM Acceptable Use Policy is included in the appendix.

HVM currently has Technology Protection Measures in place to filter internet content. HVM will continue to analyze out Technology Protection Measures to ensure they are CIPA compliant.

Electronic records, including e-mail, are retained through on-site and off-site backups. Retention policies are in place to ensure compliance with Massachusetts Public Record Retention Law and Family Educational Rights and Privacy Act (FERPA).

Appendices

HVM Acceptable Use Policy

HILL VIEW MONTESSORI
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Pledge for Appropriate Use of Computers

Hill View Montessori Charter Public School's information technology resources, including hardware, software and internet access, are available for educational purposes only. Students must understand and abide by the school's technology usage rules in order to use HVM computers. If the rules are not followed, students may face disciplinary action including the loss of computer privileges.

As a technology user, I agree to:

1. Utilize HVM computers for educational purposes to support learning and enhance instruction only.
2. Use only assigned accounts.
3. Keep passwords secure.
4. Access age-appropriate websites only.
5. Respect the privacy of others.
6. Honor property rights; follow copyrights, giving proper credit for other's intellectual property.
7. Represent HVM honorably in all instances involving use of computer resources.
8. Communicate only in ways that are kind and respectful.
9. Transmit, access, copy and/or create materials that are legal and do not violate the school's code of conduct.
10. Alert a teacher about the presence of any violation of this agreement.
11. Alert a teacher about the existence of any threats to the school's students and staff.
12. Respect HVM computer resources as private property of the school.
13. Refrain from damaging the school's computer network, bypassing network restrictions or security.
14. Refrain from accessing social networking sites such as, but not limited to, MySpace, FaceBook and Twitter.

Note on Computer Supervision and Monitoring: HVM, its network administrator and other authorized individuals monitor the use of information technology resources to ensure that uses are secure and in conformity with school policy. Administrators reserve the right to examine, use and disclose any data found on the school's information network to further the health, safety, discipline or security of others and/or to protect property; may share findings with law enforcement and use it to determine disciplinary actions.

I/we have read and agree to all rules stated in The Pledge of Appropriate Use of Computers.

Parents, please discuss these rules with your child and sign to authorize your child's use of technology resources of the school and connections to the Internet; to indicate understanding that access to the Internet will necessarily involve access to information, which is not under the control of the school; agree that your child will comply with all network rules and that the school may suspend or revoke network/Internet access as the school deems appropriate. Violation of any of the rules will result in disciplinary action, up to and including suspension from school in certain instances, at the discretion of the school leaders.

_____   _____
Student signature   *Date*

_____   _____
Parent/Guardian signature   *Date*