

HAVRE PUBLIC SCHOOLS TECHNOLOGY CURRICULUM REVIEW 2022

Technology Committee Members:

Craig Mueller, Superintendent

Brad Moore, Assistant Superintendent

Garrit Ophus, HPS Board of Trustees

Tim Scheele, HPS Board of Trustees

Holly Bitz, Lincoln McKinley Principal

Pax Haslem, Sunnyside Principal

Aaron Hanson, HPS Senior Systems Analyst

Lauren Todd, Highland Park Teacher

Seth Flaten, Lincoln McKinley Teacher

Cheree Bekker, Lincoln McKinley Librarian

Erin Lynch, Sunnyside Teacher

Carrie Gillen, Sunnyside Librarian

Hayley Criner, Havre Middle School Teacher

Marcus Todd, Havre High School Teacher

Todd Remus, Havre High School Teacher



THE FRAMEWORK FOR SCHOOL SYSTEM TECHNOLOGY SUCCESS

**Adapted from CoSN (The Consortium for School Networking)*

The Framework for School System Technology Success consists of three primary implementation categories for operational readiness in a digital environment. These categories of essential areas outline the practices needed to be a successful digital school system.

The categories are aligned to CoSN's Framework of Essential Skills, which contains ten specific skill areas:

1. Leadership & Vision
2. Strategic Planning
3. Ethics & Policies
4. Instructional Focus & Professional Development
5. Team Building & Staffing
6. Stakeholder Focus (insufficient data collected to include in HPS framework)
7. Infrastructure
8. Information and Data Management
9. Communications Management
10. Business Management

1. Leadership and Vision

The executive team works together to develop a shared vision with all stakeholders for effective and strategic technology use. The vision describes how technology infused teaching and learning will support students in gaining the skills and knowledge they will need for success in college and the modern workplace. Student outcomes drive the educational vision, which describes how technology will be used to support school system goals.

1A. Shared Vision – School system leaders have created a shared vision for creating and sustaining a digital environment that is aligned with the school system strategic plan and goals.

Evidence:

- School District Work Plan, developed and revised annually, School District Strategic Plan

1B. Executive Leadership – A cross-functional executive leadership team meets periodically to monitor and communicate progress.

Evidence:

- Weekly “LTN” Meetings in the Superintendent’s office, Area Reports, District Advisory Meetings, Administrative meetings, and building-level leadership team meetings.

1C. Distributed Leadership – Decision-making is distributed to the school system staff that is closest to the day-to-day operations, information, and impact of specific decisions.

Evidence:

- Monthly Administrative Meetings with Building Principals

1D. Innovation and Experimentation – The school system supports action research, experimentation, and innovative practice.

Evidence:

- Teacher and Classified Employee of the year recognition.

1E. Flexibility and Adaptability – The school system has an appropriate and quick response to changes in internal or external conditions.

Evidence:

- District utilizes Chromebooks, iPads, and Bytespeed laptop computers, Apple TV's, Provides training (August Institute and other PIR opportunities) related to technology integration

1F. Data-Informed Decision Making – The school system uses evidence, data, and research in making educational and operational decisions.

Evidence:

- K-5 RTI Process, 6-8 Successmaker (DIBELS, AR Reading and Math)

1G. Continual Improvement – The school system is continually improving its processes and outcomes.

Evidence:

- Accreditation process and curriculum revision cycle, curriculum templates are posted online

1H. Equity – The school system ensures that all students have equitable access to, and use of, technology inside of school facilities and supports equitable access outside of school facilities.

Evidence:

- District provides wireless password to students and community members, online technology supports are available through the website. District is approaching 1-1 implementation of Chromebooks

2. Strategic Planning

School system leaders utilize their high-level view of the school system to identify the steps needed to transform the digital vision into a long-range plan, complete with specific goals, governance, objectives, and action plans.

2A. Clear Goals – The school system has clear and aligned goals.

Evidence:

- Havre Public School Board's Strategic action plan includes short and long-term goals.

2B. Measures and Metrics – The school system regularly measures progress against goals.

Evidence:

- Utilization of programs to measure progress

2C. Governance – The school system has an effective governance process.

Evidence:

- School handbooks identify expectations and appropriate use policies. School district policies outline procedures for the district.

2D. Resource Alignment – Resources are aligned to build capacity according to defined school system priorities.

Evidence:

- School budgets include components that are allocated to expenditures related to technology

2E. Instructional Goals Precede Technology Goals – School system use of technology follows the goals and vision for teaching and learning.

Evidence:

- Staff utilizes technology standards by grade level.

2F. Technology Planning – The school system plans for technology implementation, funding, and evaluation.

Evidence:

- Technology curriculum review is a part of the 5-year review process defined in ARM.

3. Ethics and Policy

The school system leadership team models responsible decision-making and manages the creation, implementation, and enforcement of policies related to the social, legal, and ethical issues linked to technology use throughout the school system.

3A. Legal Compliance – The school system understands and adheres to applicable local, state, and federal laws.

Evidence:

- School administrators are properly licensed and hold certification from the State of Montana, including coursework and training in school, state, and federal law. School handbooks are reviewed annually and approved by the board of trustees. School district policies are aligned with MCA, state, and federal law and are updated in accordance with recommendations from the MTSBA.

3B. Responsible Use – The school system maintains policies for responsible and ethical use of technology and reviews them regularly.

Evidence:

- 2021-2022 adopted a new technology agreement, acceptable use policy, and password procedures. Student identification numbers were transferred to the 9-digit state coding effective 2017-2018.

3D. Data Storage and Retention – The school system maintains policies for the storage and retention of data.

Evidence:

- Data storage and retention is referenced in school board policy and in the building handbooks.

3E. Disaster Recovery and Business Continuity – The school system maintains policies for disaster recovery and business continuity.

Evidence:

- There are written policies regarding disaster recovery and these policies are fully followed.

3F. Data Security – The school system maintains policies for ensuring information and data security Evidence:

- There are written policies and procedures for ensuring data security and these policies are instituted at the building and district levels.
- These policies are compliant with local, state, and federal law and conform to industry practice.

3G. Student Data Privacy – The school system maintains policies for assuring appropriate student data privacy and such policies comply with local, state and federal laws.

Evidence:

- School and District Administration regularly discuss procedures related to the safekeeping of student data. Student names are only to be used and cited in documents that are attached to emails. A “disclosure” statement has been discussed at the administrative level. A confidentiality message is posted on IC to remind users of data privacy.

3H. Environmental Conservation – The school system maintains environmentally friendly policies for the

purchasing, disposing, and responsible use of technology.

Evidence:

- There are written policies for purchasing and disposing of technology and these policies adhere to best practice for energy saving and environmental protection.

3I. Policy Effectiveness – The school system reviews and improves policies relating to technology on a regular basis.

Evidence:

- Technology and the technology plan is reviewed on a 5 year cycle, however, the technology department is regularly reviewing practices, devices, and strategies on how to improve technology use at the building level.

4. Instructional Focus and Professional Development

School system leaders budget, plan, and coordinate ongoing, purposeful professional development using technologies for all staff.

4A. Adaptation of Innovative Practices – The school system encourages staff to bring in best practices from the field and adapt them to their own circumstances.

Evidence:

- Teachers are encouraged to share their learning experiences from best practices conferences at building level meetings, and are expected to complete the HPS post-professional development survey found on the district website.

4B. Student Ownership – school system encourages use of technology to support student ownership of their learning.

Evidence:

- Students have access to a variety of technology tools: iPads, Chromebooks, Bytespeed laptops, and computer labs. The district strives to provide meaningful professional development to teachers regarding the implementation of technology in their daily lessons.

4C. Balanced Outcomes – The school system values and uses multiple metrics of student success, including content area mastery, as well as 21st century skills.

Evidence:

- The district works with the Seven-Step Framework on curriculum review, including the construction of content-based matrices that encourage higher level thinking, questioning, and learning.

4D. Data-Informed Instruction – Teachers use formative and summative assessment data to customize their instruction.

Evidence:

- The elementary schools use STAR, Dibels, and Smarter Balanced test results to make decisions regarding programming. The High School uses state science and the ACT as two forms of standardized assessment to evaluate student achievement.

4E. Professional Development – Professional Development is experiential, ongoing and job-embedded.

Evidence:

- A professional development committee brings to the administration ideas about areas of interest from the staff. Decisions based on data gathered are used when decisions are made regarding the selection of professional development for the district.

4F. Collaborative Professional Development – Professional development is collaborative, with teachers

advancing their practice together.

Evidence:

- A professional development committee brings to the administration ideas about areas of interest from the staff. Decisions based on data gathered are used when decisions are made regarding the selection of professional development for the district.

4H. Continual Improvement – The school system is continually improving its processes and educational practices.

Evidence:

- The school system has a continuous improvement plan. ESSA legislation dictates that this plan will be inclusive of other improvement efforts across the district.

5. Team Building and Staffing

School system leaders create and support cross-functional teams for decision-making, technology support, professional development, and other aspects of the school system's technology program. The school system aligns resources to functional requirements. The school system hires motivated, self-directed staff.

5A. Organizational Structure – The school system has an effective, functional, streamlined organizational structure.

Evidence:

- Grade-level schools, admin team, "Who should I ask?" district organizational chart

5B. Cross-functional Structures – school system operations are cross-functional not siloed.

Evidence:

- District Advisory Council, district and building level committees, Parent Organizations, Booster Club

5C. Motivating Environment – The school system fosters an environment that supports intrinsic motivation for all staff.

Evidence:

- District allows for end-of-year transfers, Promoting an endorsement project and multiple-endorsement stipend.

5D. Functional Alignment – Functions are clearly aligned to the school system goals.

Evidence:

- Strategic Work plan poster (bullet points the direction of the district)

5E. Human Resources – The school system allocates the human resources required to support all functions.

Evidence:

- Director of Personnel/Assistant Superintendent, Personnel Administrative Assistant, Superintendent's Administrative Assistant.

5F. Communication Transparency – The school system communicates, in a timely and clear fashion, information that impacts stakeholders.

Evidence:

- IC Messenger, Radio, Newspaper, Twitter

5G. Job Descriptions – The school system has job descriptions and evaluations for all staff.

Evidence:

- Job descriptions on file in the personnel office and on admin shared folder “FS 007” on the district network

6. Stakeholder Focus

A brief survey was available online but few respondents made this a category that is not included in our plan.

7. Infrastructure

The school system maintains a robust infrastructure that aligns to industry standards and is adequate to meet the needs of stakeholders.

7A. Security – The school system has effective architecture, design, and maintenance to support current and emerging security concerns, including virus/malware protection, intrusion detection, patch management, and application controls.

Evidence: (*See HPS Electronics Agreement, Acceptable Use Agreement, Password Protocols*)

- The school system regularly conducts a technology security audit (including passwords and role-based permissions to data) and promptly addresses concerns.
- The school system reviews and modifies network security policies and access to reflect current needs of a digital school system.
- The school system addresses the security of digital communication and remote access.
- The school system has established general controls in areas of access, systems development and maintenance, documentation, operations, and security.

7B. Network Standards – The school system uses industry-accepted standards for hardware and networks.

Evidence:

- The school system has established and enforces a set of published hardware standards including Internal Network, Devices, LAN, Primary Network, WAN, Security Cameras, Phones/VOIP, and wireless.

7C. Connectivity – The school system network supports current capacity needs and can be expanded to meet future needs.

Evidence:

- Review occurs biannually

7D. Software and Device Management – The school system has the tools and processes to effectively manage school system software and devices.

Evidence:

- The school system is utilizing tools and systems that allow for effective management of devices and software.
- The school system selects and employs tools that allow for the evolving use and management of mobile devices.
- Standards and processes are in place for replacement of computing devices based on the needs of the evolving business functions and learning environments. (district is moving to Chromebooks and Bytespeed Laptop computers)

8. Information and Data Management

The school system manages the data systems that are needed for operations and instruction. There are general controls in the areas of access, system development and maintenance, documentation, operations and physical security. To the extent possible, systems are integrated and interoperable and provide each user with a simple interface to the functionality he/she needs. The school system maintains appropriate controls and safeguards for both student and staff personal information.

8A. Comprehensive Education Architecture – The school system provides data systems configured to provide the information the school system needs while also meeting the needs of all end users in systems such as:

- SIS
- Finance
- HR
- Health
- Special Ed
- Parent Notification Systems
- Data Warehouse
- Content Management
- Assessment
- Security and camera systems
- SSO / Identity Management
- Learning Management Systems

8B. Data Systems Access – The school system has appropriate and well-designed data systems readily available to stakeholders.

Evidence:

- The school system tracks and reports on system access and reliability in order to meet stakeholder expectation and service level agreements.
- The school system minimizes the number of obstacles to system access through reducing the number of unique username and password sign-ons.

8C. Data Integration – The school system has a data architecture plan that integrates systems and data that support a streamlined workflow

Evidence:

- Disparate data systems are connected in a way that automates and efficiently transfers data.

8D. Work Flow – The school system has created and implemented workflow efficiencies throughout the organization.

Evidence:

- The technology department can demonstrate that it has reduced redundancy in systems and data entry through workflows that automate data routing and approval processes and that allow for efficient information sharing.
- Users are satisfied that systems meet their business and learning needs.

8E. Privacy Protection and Security – The school system maintains processes and systems to protect student and staff personal information.

Evidence:

- The school system limits and delimits the collection, sharing, and storage of data to those data necessary to perform the school system's functions.
- There is evidence that the school system is in full compliance with federal, state, and local laws.

- The school system has a plan in place to communicate their privacy efforts to stakeholders.
- The school system is adhering to student data privacy standards and best practices.
- The school system protects access to systems and data, granting access only to authorized individuals.

8F. Effective Data Reporting – The school system provides accurate, appropriate, and timely reporting of data.

Evidence:

- The school system has processes to assure clean data and accurate information.
- The school system provides reports and data to key stakeholders in a timely manner.

8G. Standardized Assessment – The school system provides a technology environment that meets the needs of standardized assessments.

Evidence:

- The school system meets infrastructure and device standards for its state and local testing needs.
- Bandwidth is sized to manage the online testing requirements while not impacting other instruction or school system functions.

8H. Data System Performance – The school system is constantly improving the effectiveness and efficiency of enterprise IT systems.

Evidence:

- A process exists for reporting, tracking, and resolving problems and technical issues specific to improving individual system performance, efficiency, and effectiveness.
- IT leadership meets regularly with stakeholders and implements processes to gather feedback and consider stakeholder requests.

9. Communications Management

The school system manages the platforms and messages used to communicate transparently with internal and external stakeholders, effectively using both emerging and mature technologies as appropriate.

9A. Communications Systems – The school system maintains effective communications systems to communicate with stakeholders.

Evidence:

- IC Messaging System

9B: Marketing – The school system effectively markets its digital vision to all stakeholders.

Evidence:

- Updated web and email address- blueponyk12.com

9C: Mobile Communications – The school system provides access to communication tools via mobile devices.

Evidence:

- See school website for connectivity resolutions

10. Business Management

The school system manages budget, financial operations, disaster recovery, and business continuity

effectively. The school system determines the return on investment for all technology implementations. School system leaders foster good relationships with vendors, potential funders, and other key groups.

10A. Sustainability – The school system has funding plans and approaches that assure the long-term sustainability of school system technology resources.

Evidence:

- Havre Public Schools has a perpetual Technology Levy in place for each of the High School and Elementary technology funds.
- Havre Public Schools has a comprehensive budget with appropriate and adequate sources of funding for device and system refresh, network expansion, digital instructional resources, and professional development for its staff.
- Havre Public Schools provides evidence that cost analysis models (total cost of ownership, value of investment, purchasing or leasing devices/network services, outsourcing for expertise not on staff) are frequently used and updated.

10B. Roadmapping – The school system is prepared for future device and network demands.

Evidence:

- Havre Public Schools maintains a multi-year ‘roadmap’ technology plan that starts with the end-user in mind (teachers, administrators, students, support staff, etc.).
- This plan has realistic assumptions about the growth in demands based on end-user needs (e.g. internet bandwidth and wide area network bandwidth, network architecture, capacity, reliability, industry standard, flexibility for growth).
- The plan includes appropriate devices based on identified purpose.
- Appropriate databases, repositories, and functional data systems are included in the plan.
- The implementation plan (roadmap) has identified budgets that support that growth.

10C. Funding – The school system secures appropriate annual funding to meet the needs of the school system technology plan and staffing.

Evidence:

- Havre Public Schools maintains an approved budget based on combined perpetual levies, investments, and federal dollars for revenue to cover expenditures for infrastructure, storage and backup, devices, tools, digital content, internet access, and professional development.
- The school system fosters good relationships with the community and potential partners in support of a strong technology base.
- The school system has aligned capital, categorical and operational funding sources to adequately address planned expenditures.

10D. Resources – The school system allocates resources to align with program goals and priorities.

Evidence:

- Havre Public Schools has a Technology Plan in place to include the Technology coordinator as part of the administrative conversations around priorities and expenditures.
- This collective work and decision-making have resulted in a comprehensive funding model that directly supports the technology plan (roadmap).

10E. Federal Funds – The school system makes effective use of eRate, Title, and other funding programs.

Evidence:

- Havre Public Schools conducts an annual application for maximum, timely, and appropriate federal funding (e.g. eRate, Title I, Title II, etc.).
- Havre Public Schools follows USAC and other applicable rules and regulations to archive records of transactions, and to track purchased assets.

10F. Purchasing – The school system employs effective purchasing practices.

Evidence:

- Havre Public Schools follows federal, state, and local regulations in expending dollars to implement the technology plan.
- Havre Public Schools secures competitive pricing from all available sources.
- Technology leadership demonstrates successful partnerships with vendors to meet the school system's needs.

10G. Disaster Recovery – The school system has effective disaster recovery processes in place.

Evidence:

- Havre Public Schools has a documented, comprehensive disaster recovery plan that is routinely practiced and updated.

10H. Business Continuity – The school system has effective business continuity processes in place.

Evidence:

- Havre Public Schools has implemented a documented business continuity plan that is updated annually and practiced/tested by the appropriate departments or department partnerships.