

Grand Forks Public Schools Technology Plan



2007-2010



Technology Vision

Grand Forks and Grand Forks Air Force Base schools believe technology resources enhance learning by allowing learners to gather and analyze information, collaborate and communicate with others through a global environment, solve problems and develop higher-level thinking skills through real world experiences.

The implementation of the technology vision will be accomplished by aligning all technology initiatives to one or more of the following technology principles.



Principle #1 – Student Centered Technology



Principle #2 – Enhance Communication



Principle #3 – Effective Planning & Funding



Principle #4 – Administrative Systems



Principle #5 – Inclusive Support Services



Principle #6 – Data Driven Decision Making



Planning Process

The planning process for this technology plan was completed in four phases.

Phase 1: Data Gathering & Analysis

A comprehensive technology assessment is administered to district stakeholders every other year.

Phase 2: Plan Development

After gathering and analyzing the data, the vision, guiding principles, and general format of the plan are developed by the district technology committees and district technology staff.

Phase 3: Constituent Review

The district technology committees review the technology plan and suggest modifications. The draft plan is also posted for review on the district intranet mail system used by all district employees. All input is considered for inclusion into the plan by the technology committees.

Phase 4: School Board Approval

The technology plan is then presented to the District Technology Committee and eventually presented to the Grand Forks School Board for approval at the annual technology work session in January of each year.



Principle #1

Student Centered Technology

Technology exists in the schools to enhance, expand and transform the learning of all students. All students will receive consistent exposure to curriculum focused, technology rich experiences throughout their education.

Rationale

Technology has become pervasive in American society. Very few businesses that exist today can survive without extensive technology use by their employees. The wide spread access to powerful low cost computers, broadband Internet connections, wireless digital technologies and satellite technologies have created the Information Age in American society.

Data indicate that 88% of our students have home computers with Internet access. Our students have grown up with technology and are very comfortable using technology in school and at home. Grand Forks schools should reflect American society in the Information Age by providing access to technology, modeling appropriate technology use and expecting students to use technology as a part of their educational experience.

Technology can potentially transform how teachers teach and students learn by providing immediate access to resources, promoting collaborative student experiences and motivating students to take responsibility for their own learning. By integrating the technology into existing curriculum, students will receive the same curricular content that is aligned to local, state and national achievement standards.



Principle #2

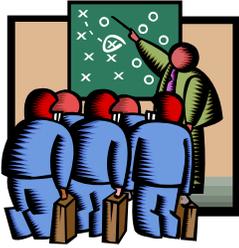
Enhance Communication

Technology will be used to enhance communication with students, parents, staff and community.

Rationale

The advances in technology have created many new ways to communicate with students, parents, staff and the community. Electronic mail, web pages, digital cellular phones and personal digital assistants are all communication advances that exist today and should be leveraged to provide better and more consistent communication with our core constituency groups.

As communication technology changes and advances, the Grand Forks Public Schools must continue to identify ways that technology can improve communication with students, parents, staff and the community.



Principle #3

Effective Planning & Funding

An effective technology planning process will exist that ensures equity, appropriateness and consistency in the access, use and implementation of technology across the district. Technology will be funded using a consistent and reliable funding formula that supports immediate needs and long range objectives.

Rationale

Technology planning will feature representative committees at the elementary, middle school and high school levels. These committees will submit annual technology priority lists to the district technology steering committee.

The technology planning process is a process driven by the elementary, middle school and high school technology committees. These committees begin working in October of each year to develop an annual technology plan that is tactical in nature and congruent with the district technology plan. The table below outlines the composition of the committees.

<u>Elementary Committee</u>	<u>Middle School Committee</u>	<u>High School Committee</u>
Principal (Chair)	Principal (Chair)	Principal (Chair)
K-2 Teacher Rep.	6 th Grade Teacher Rep.	Central HS Teacher Rep.
K-2 Teacher Rep.	6 th Grade Teacher Rep.	Central HS Teacher Rep.
K-2 Teacher Rep.	7 th Grade Teacher Rep.	Red River HS Teacher Rep.
3-5 Teacher Rep.	7 th Grade Teacher Rep.	Red River HS Teacher Rep.
3-5 Teacher Rep.	8 th Grade Teacher Rep.	Community HS Teacher Rep.
3-5 Teacher Rep.	8 th Grade Teacher Rep.	Community HS Teacher Rep.
Media Center Rep.	Media Center Rep.	Media Center Rep.
Media Center Rep.	Media Center Rep.	Media Center Rep.

Ad Hoc (Non-voting) Members

- Technology Facilitators
- Technology Partners
- Director of Technology
- Director of Instructional Services
- Special Services Representative



Principle #3 - Continued

Effective Planning & Funding

The committees will develop a priority list of technology that reflects the consensus of the committee and supports the philosophical framework defined in the district technology plan. The funding formula ensures basic technology replacements happen on a regular schedule while still allowing each technology committee with funding for their specific needs.

Consistent and reliable technology funding is necessary to develop planning systems that meet short and long range technology objectives.

6 Mil Funding Formula

An annual technology plan will be submitted to the school board by the district technology steering committee in January of each year. This annual plan will reflect the priorities defined by the elementary, middle school, high school and district technology committees and will be distributed using the approximate percentages as indicated below.

Allocation	Percentage of Funding
Infrastructure	15% of total funding
Contingency/Maintenance	15% of total funding
Planned Obsolescence (equipment)	60% of total funding
Tech Committees	10% of total funding

Planned Obsolescence of Computers

Computers will continue to be replaced on a three to five year rotation as described in the planned obsolescence plan found in the appendix of this document. A combination of purchasing and leasing strategies will be employed to effectively refresh the computers in the district.



Principle #4

Administrative Systems

Technology will be used to support and enhance the operational and administrative needs of the district.

Rationale

Like any business, there are many administrative uses for technology in our district. The Grand Forks Public Schools will continue to update existing administrative systems and investigate new systems that could potentially add value to the operation of the district. Administrative systems include, but are not limited to, student management, financial management, human resources management, inventory/warehouse/asset management, document management, building access control, library services and food services.

PowerSchool is an early example of a technical system that can provide value to the district. The ability of PowerSchool to manage the day to day operational needs of schools and teachers while providing the value added parent communication portal is a great example of using technology to reach multiple district objectives. Ongoing support for PowerSchool, or another agreed on Student Information System, is necessary for the continued effective operations of the district.

It is necessary for the district to continue to monitor the effectiveness of administrative systems and continually search for new and improved solutions. New solutions may allow systems to be consolidated, easier to manage and less expensive to support.



Principle #5

Inclusive Support Services

A comprehensive staff development process will be in place to ensure teachers, administrators and support staffs are adequately trained to use and implement technology. Adequate technical support will be in place to ensure district technology is maintained and repaired in a timely manner.

Rationale

For technology to be used effectively, it is critical that users are supported with timely and ongoing staff development and technical support. Research clearly indicates that ongoing staff development opportunities for teachers and support staff are necessary to effectively utilize technology.

Staff Development

The Curriculum Technology Partner Program is a staff development initiative that develops and delivers integrated technology experiences to classroom teachers and students throughout the Grand Forks Public Schools. The technology partners are successful classroom teachers that receive extensive technology training with a focus on integrating technology into the curriculum. This teacher is then re-assigned as a Curriculum Technology Partner and works with teachers planning, implementing and assessing integrated technology experiences that are classroom based and centered on curriculum.

The goals of the Curriculum Technology Partner Program are to:

1. Provide integrated technology experiences for all students in the Grand Forks Public Schools.
2. Provide support for teachers through all phases of integrated technology experiences.
3. Provide district teachers with the experience and background necessary to replicate and expand integrated technology experiences in their individual classrooms.



Principle #5 - Continued

Inclusive Support Services

The Curriculum Technology Partner Program model operates on the following principles.

- A partnership is established between the classroom teacher and the technology partner.
- Staff development focuses on experiences that are relevant to the teacher's curriculum.
- Staff development is ongoing and timely.
- Technology Partner support is available during planning, implementation and evaluation of projects.
- The staff development emphasis is centered on enhanced student learning.

Additional staff development opportunities should be available district administrative and support staff. These opportunities should be focused on specific technology skills needed to meet their individual employment objectives.

Technical Support

Technical support of the hardware and infrastructure of the district is critical to the education and business operations of the district. Adequate technical support personnel must be in place to ensure same day response to mission critical systems and next day response for all other systems. Hardware and software based support solutions should be investigated and implemented as a means to improve the ability of the technical support staff to respond to technical issues quickly and efficiently.



Principle #6

Data Driven Decision Making

Technology will be used to enhance the collection, analysis and dissemination of data for teachers and administrators to use in improving student performance.

Rationale

Emerging technologies have become available that allow data to be quickly gathered, analyzed and evaluated. These systems allow teachers and administrators to make informed decisions with information provided by these systems.

PowerSchool provides the district with the basic data gathering and operational system necessary to drive basic data driven decision making. The implementation of a district data warehouse in the near future will provide a more advanced means for using data to make operational and instructional decisions at the district, building and classroom level.

The Grand Forks Public Schools will continue to investigate and evaluate technology driven systems that would allow teachers and administrators to make data driven decisions about school and student performance.



Ongoing Initiatives

The following pages summarize the ongoing initiatives aligned with the principles of the Grand Forks Public Schools Technology Plan.

Initiative	Planned Obsolescence
Year Initiated	2002, Ongoing
Description	The planned obsolescence plan was implemented to ensure that outdated computers are replaced on a regularly scheduled basis. Computer labs, library computers, teacher computers and administrative computers are a part of this plan. A combination of leasing, leasing to own and purchasing will be used. The primary platforms listed above will be replaced every 4-5 years. Some systems may be re-purposed for specific uses for an additional 3-4 years if they do not pose a significant support cost.
Principle Alignment	Student Centered Technology, Effective Funding and Planning, Administrative Systems

Goal	Ensure that computers are refreshed with newer technology on an appropriate schedule.
Objective 1	Replace Computer Labs and Library Computers every 4-5 years.
Objective 2	Replace Administrative and Teacher Computers every 4-5 years.
Objective 3	Effectively leverage older technology in less demanding roles for an additional 3 years.

Performance Indicators	1. Usage age of computers in service.
	2. Associated repair costs of re-purposed computers older than 5 years.

2007-2008 Budget Implication	\$413,810.00
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Initiative	Infrastructure
Year Initiated	2001
Description	The infrastructure of the GFPS needs to be continually updated to ensure that a modern, high speed and stable network infrastructure is maintained for use by students and staff. Infrastructure includes the district fiber network, district/building network electronics, file/application servers, communication servers and voice/video/data cabling.
Principle Alignment	Student Centered Technology, Effective Funding and Planning, Administrative Systems, Enhanced Communication

Goal	Ensure the infrastructure can support the educational and administrative needs of the district.
Objective 1	Rotate out district fiber electronics every 5-7 years.
Objective 2	Rotate out school based network electronics every 5-7 years
Objective 3	Effectively build redundancy throughout the infrastructure of the district.

Performance Indicators	1. Stability of the infrastructure as measured by network and service outages.
	2. The ability of district personnel to effectively handle infrastructure issues using hot or cold swappable redundant equipment.

2007-2008 Budget Implication	\$100,000
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Initiative	Technology Committees at each level
Year Initiated	2000, Ongoing
Description	<p>The elementary, middle school and high school technology committees meet annually to discuss and plan for technical implementations throughout the district. More information can be found in the base technology plan document under Principle #3, Effective Planning and Funding.</p> <p>Each committee has a budget to allocate for their specific level needs in a way that supports the technology model at the indicated level.</p>
Principle Alignment	Effective Funding and Planning, Student Centered Technology

Goal	To ensure each level has the ability to direct and guide the district technology plan as well as allocate funding to specific projects at each level.
Objective 1	Guide the district with technology planning on an annual basis.
Objective 2	Develop a priority list of technology purchases for each upcoming school year.

Performance Indicators	1. Level technology meeting agendas and directives to the district technology committee.
	2. Development and implementation of annual level based technology purchases.

2007-2008 Budget Implication	\$45,000
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Initiative	Contingency
Year Initiated	2000, Ongoing
Description	Planning for a variety of contingency situations allows the technology department to quickly respond to the ever changing nature of technical and educational advances. The majority of the account allows us to efficiently repair or replace equipment during the school year. It also provides funding for technology rich, student centered curriculum experiences to be designed and implemented by classrooms teachers.
Principle Alignment	Student Centered Technology, Effective Funding and Planning, Inclusive Support Services

Goal	Ensure the district can effectively respond to “just in time” issues and opportunities.
Objective 1	Effectively repair and/or replace equipment that fails during the expected lifetime of the equipment.
Objective 2	Provide curriculum focused, technology rich opportunities for students.
Objective 3	Provide professional development opportunities for teachers and technology staff.

Performance Indicators	1. Annual repair/replacement history.
	2. Student experiences supported by implemented curriculum projects.

2007-2008 Budget Implication	\$100,000
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Initiative	Laptop Project
Year Initiated	2006, Ongoing
Description	In 2006 every certified professional educator in the Grand Forks Public Schools was issued a laptop computer and was required to take 15 hours of technology training annually. The plan encompasses classroom teachers, administrators and special education teachers, a total of about 800 certified staff. The intent was to build our district capacity in the effective use of technology by systemically implementing technology throughout the district. This is not an optional program, but rather an expectation of employment in the indicated positions. Research supports the idea that when the barriers of time and access are removed, technical capacity of the individual grows exponentially. Emerging research suggests that the more technically competent the teacher, the more they use integrated technology experiences with students.
Principle Alignment	Student Centered Technology, Effective Funding and Planning, Inclusive Support Services

Goal	Systemically increase the technical capacity of certified professional staff.
Objective 1	Provide 15 hours of high quality training opportunities to all certified professional staff.
Objective 2	Provide after school training opportunities for teachers on advanced topics. (PRISM program)
Objective 3	Provide opportunities for teachers to effectively integrate technology into their teaching by using the existing Curriculum Technology Partners Program.

Performance Indicators	1. Annual documentation of provided required training.
	2. Annual documentation of participation in PRISM technology classes.
	3. Annual report of Curriculum Technology Partner activity.

2007-2008 Budget Implication	\$ 334,402.00
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Initiative	Curriculum Technology Partner Program
Year Initiated	1998, Ongoing
Description	The Curriculum Technology Partner Program provides ongoing and direct professional development to teachers at the classroom level. See information included in Planning Principle #5, Inclusive Support Services.
Principle Alignment	Inclusive Support Services, Student Centered Technology

Goals	<ol style="list-style-type: none"> 1. Provide integrated technology experiences for all students in the Grand Forks Public Schools. 2. Provide support for teachers through all phases of integrated technology experiences. 3. Provide district teachers with the experience and background necessary to replicate and expand integrated technology experiences in their individual classrooms.
Objective 1	Provide school based access to Curriculum Technology Partners in a ratio appropriate to the level and size of the school.
Objective 2	Provide curriculum focused technology rich experiences to students.

Performance Indicators	1. Annual report of Curriculum Technology Partner integration activity.
	2. Distribution of CTP's to teachers and students by school.
	3. Annual technology performance review survey.

2007-2008 Budget Implication	\$305,370.94 (local funds) \$466,420.00 (Total, including federal funds)
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New Initiatives in 2007

The following pages summarize the new initiatives proposed for the 2007-2008 school year that are aligned with the principles of the Grand Forks Public Schools Technology Plan.

Initiative	Data Warehouse Project
Year Initiated	2007
Description	The need for the district to have a comprehensive data warehouse is evident. The data warehouse will help the district manage and use the available data to effectively monitor and improve student achievement. Future goals will include the effective use of available data by teachers and principals to inform instruction towards student achievement.
Principle Alignment	Administrative Systems, Data Driven Decision Making

Goals	To provide accurate, timely and appropriate data to all district stakeholders.
Objective 1	Begin implementation of district data warehouse in July of 2007.
Objective 2	Have all data identified and feeding the district data warehouse by May of 2008.

Performance Indicators	1. Availability of accurate district data in the data warehouse by May of 2008.
	2. Ability of data warehouse to automate the data import functions in a timely manner.

2007-2008 Budget Implication	\$ 70,000
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Initiative	Educational Cable Television Channel
Year Initiated	2007
Description	<p>The Grand Forks Public Schools have been offered a channel on the local cable television system. This was not previously available, but has recently been negotiated. The intent is to create a channel that can have timely information, pre-recorded content and live content available to the residents of Grand Forks. More information can be found in the January 2007 presentation to the Grand Forks School Board.</p> <p>The intent is to create an opportunity for secondary students to be involved in the content creation and management of the new television channel. A for credit course opportunity will be implemented during the 2007-2008 school year and the participating students will gain real world experiences planning and producing asynchronous and synchronous programming for the channel.</p>
Principle Alignment	Effective Communication, Student Centered Technology

Goals	To provide a cable television channel on the Grand Forks Cable Television system to inform the community about the activities of the Grand Forks Public Schools.
Objective 1	Have a presence on channel 15 by August 1, 2007.
Objective 2	Broadcast live school board meeting by February 1, 2008.

Performance Indicators	Implementation of necessary infrastructure to produce a presence on channel 15 by August 1, 2007.
	Implementation of the necessary infrastructure and procedures to produce live school board meetings by February 1, 2008.

2007-2008 Budget Implication	\$ 43,000
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