

**North Providence
School Department**

NPSD

2016-2019

Technology Plan

Introduction

The North Providence School Department recognizes that our world is changing rapidly and that technology is a major driving force in change. Technology is ubiquitous, and an essential tool in allowing students, employees and parents a unique opportunity to communicate, collaborate and create content as a community of learners. Technology today, allows both synchronous and asynchronous communication, collaboration and content creation. The possibilities for using technology effectively to impact student achievement and staff productivity are seemingly endless.

As technology continues to proliferate throughout our world, the subject of technology in schools becomes a critical one. School districts must address several questions as they integrate technology in schools. What are the technology applications that will be integrated into curriculum, instruction, and learning? How can technology applications support the transformation of curriculum, teaching, and assessment? How will technology be used for managing organizational resources? How can technology be used to support communication to and provide services to other community organizations? What kinds of professional development will be required?

Planning for technology integration in schools is complex. This technology plan should be viewed as a long term, continuous journey and not a destination or a series of unconnected events. This plan is intended to tackle effectively the task of implementing technology into all aspects of the educational process: curriculum, instruction, assessment, and organization and management of schools. Careful planning is crucial to technology integration, and there are no shortcuts to comprehensive planning for technology integration. An important resource that informed this document are the [ISTE Standards for Teachers](#) and [ISTE Standards for Students](#).

This plan recognizes the necessity of technology integration and is based on three general principles:

1. Information technologies are changing the way people communicate with each other, how and where they work, and how they entertain themselves.
2. Emerging technologies are central to educating the students to become productive workers, responsible citizens, and lifelong learners.
3. America's economic strength and ability to compete in the global community are tied to how well schools weave technology into the fabric of education.

This plan defines the core of technology functions and components necessary in designing and implementing technology applications in education. It sets a bold direction for the school district as it continues to make improvements in teaching and learning for all students.

Technology Network and Support System

A comprehensive technology support system addresses six major functions. Each of these functions includes five core technology components. Technology planning should be integrated into the overall technology network and support system design for the school district. This section of the technology plan describes the core technology functions to be employed by teachers, administrators, students, and other staff.

Core Technology Functions

1. **Supporting Teaching and Learning:** This includes the use of computers and other technologies such as tablets, gaming, and distance learning tools for enhancing teaching and learning processes. The NPSD continues to include interactive, collaborative social media tools to support teaching and learning.
2. **Managing Curriculum and Instruction:** This includes such instructional support activities as organizing student learning goals, aligning instructional resources and assessments to learner goals, monitoring performance, and preparing various reports.
3. **Processing Information:** This includes such tasks as word and document processing, document storage and retrieval, and desktop publishing. Document processing is concerned with creating, storing, updating, and disseminating a wide range of written communications in an interactive format using such tools as Google Apps for Education, word processors, forms management, spreadsheets and databases.
4. **Supporting Communication:** This includes information exchange via voice, video and data using electronic and voice mail, electronic bulletin boards and online teleconferencing.
5. **Administering and Managing Organizational Resources:** This includes such functions as management of information related to students, personnel, finances, organizational and other resources used to support teaching and learning.
6. **Managing Learning Resources:** This includes computerized cataloging and circulation, acquisitions and information retrieval to support teaching and learning.

Core Technology Components

The following five components will be addressed throughout the plan.

1. **Human Resources:** This includes all staff who are assigned responsibilities developing and maintaining hardware, software, or other components of the system, as well as faculty and other staff who use the system.

2. Equipment and Networks: This includes computers, printers, routers, telephone systems, local and wide area networks, distance learning networks, all hardware.
3. Software and Materials: This includes traditional computer software, as well as the management of centrally managed software solutions, and off-site hosted solutions.
4. Facilities and Space: This includes offices, workrooms and classrooms equipped with air, lighting and wiring systems.
5. Policies and Procedures: This includes directives, regulations and guidelines for the appropriate use of the technology network and support system.

Levels of Technology to be Addressed

In designing the technology network and support system, three levels of technology need to be addressed. First, the outer level includes external pathways to the outside world; school-to-school; school-to-district office; school-to-resources in the community, state, country, and world. Currently at this level are telephones, radios, televisions, and all components of the information highway. A second level deals with technology within each building. At this level a system is needed for both communications and information exchange that links individual users to the external pathways and to information sources within the school. The third, innermost level involves the means that students, teachers, administrators and other staff use to access the system. These include devices such as: computers, laptops, chromebooks, smartboards, document cameras, printers, scanners, TV monitors, and facsimile machines.

Technology Network and Support System (TNSS)

Functions, Goals and Objectives

Function 1	Goal	Objectives
Supporting Teaching and Learning	Enhance learning opportunities by providing technology-rich learning environments that support high performance teaching and learning, as outlined in EduvateRI's whitepaper, "Created a Shared Understanding of Personalized Learning for RI" Provide quality and ongoing professional development to all faculty to enable effective blended learning and student-centered learning environments.	<ul style="list-style-type: none">● Support the development and implementation of blended learning in all 2nd-12 grade classrooms● Provide quality and ongoing PD for Faculty throughout the school year● Examine data and information to create knowledge and support decision making.● Engage in systems thinking, making connections, and understanding patterns in order to solve problems across all grade levels.
Function 2	Goal	Objectives
Managing Curriculum and Instruction	Design and deliver a variety of authentic learning opportunities. Enable teachers to easily access, implement, reflect	<ul style="list-style-type: none">● Document and organize student learning outcomes and student learning opportunities.● Organize curriculum resources (i.e., units, lessons, modules).● Document learning (i.e., portfolios,

	and adapt district-approved curricula.	performance profiles, performance assessments). <ul style="list-style-type: none"> ● Prepare performance/ assessment reports.
Function 3	Goal	Objectives
Processing Information	Organize and manage the development of information products in a variety of formats	<ul style="list-style-type: none"> ● Provide integrated software for district-wide use. ● Manage all forms for all major functions for teaching, learning, management and administration. ● Utilize Assessment Applications integrating instruction, curriculum and assessment
Function 4	Goal	Objectives
Supporting Communication	Facilitate information exchange within the organization and between the organization and external organizations.	<ul style="list-style-type: none"> ● Provide an integrated communication & collaboration tool to support employees and students in the NPSD. This tool includes the following: Skyward and all GAFE apps ● District-wide VoIP services ● Provide appropriate links to external communication networks. ● Facilitate online learning opportunities for students, teachers and administrators. ● Provide management information system that provides all members of the NPSD community access to contextual and assessment data. All of this data will be secure and reached via https protocols.
Function 5	Goal	Objectives
Administering and Managing Organization Resources	Facilitate optimum allocation and management of resources, including time, people, facilities, and space.	<ul style="list-style-type: none"> ● Provide an automated student scheduling system across secondary schools ● Budget preparation processes linked to strategic planning, contracts, regulations, etc. ● Automated helpdesk system, via <i>Facilitydude</i>, providing access to all NPSD staff members.

Function 6	Goal	Objectives
Managing Learning Resources	Organize and facilitate access to a comprehensive collection of resources to support teaching, learning, administration and management.	<ul style="list-style-type: none"> ● Continue to curate an online catalog of learning resources and update rosters through System's Manager ● Develop an electronic portfolio system for students for incoming 9th graders 2017-18 ● Utilize GAFE Management Console tools for district's devices

North Providence Public Schools

Mission and Vision

Mission Statement:

The North Providence Public Schools, in partnership with the entire community, is dedicated to providing all learners with access and opportunity to a challenging comprehensive education, while developing 21st Century Skills in a safe, personalized learning environment.

Vision Statement:

We envision the North Providence Public Schools as a learning community. Classrooms, media centers and offices will be electronically connected and equipped, providing all members of the community with easy and equitable access to information technologies for teaching, learning, management and support.

RI Education Commissioner Ken Wagner's recent Memo of December 2016 announced a national survey results on personalized learning. Superintendents identified three areas fundamental to scaling success in personalized learning: creating the right infrastructure, providing meaningful professional development and ensuring sustainability of the changes.

All policies must adhere to [Federal Laws, FERPA](#) and how it applies to technology use in schools. Here's an [informative FERPA site for schools, parents, etc.](#)

Supporting Teaching and Learning

Components	Status as of SY2016-17	Projected Needs 2017-2021
Human resources	<ul style="list-style-type: none"> ● 1 FT Director of Communications & Technology -Town & School Dept. ● 1 FT Curriculum & Tech Integration Specialist- <i>School Dept. Only (CTIS)</i> ● 1 FT Network Systems Administrator (PreK-12)- Town & School Dept. ● 2 FT IT Technician Specialists (PreK-12) Town & School Dept. ● 1 FT Data Manager - State Reporting - Data Validation- <i>School Dept. Only</i> 	<ul style="list-style-type: none"> ● .3, .5 or 1 FTE tech coaches at each grade level: <ul style="list-style-type: none"> * Elementary 2 * Middle 1 * High School 2 Fuse Fellows * Substitutes for Tech Coaches to support teachers at each level ● CTIS and Tech Coaches attend regional edtech conferences; CTIS attends annual ISTE and URIDigiLit conferences to be current and up-to-date on all tech tools, equipment and professional development methodologies. ● CTIS needs to have current memberships with Professional Associations including, ISTE, RISTE, RIASCD, ASCD, SimpleK12, etc. ● PD on blended learning is ongoing and directed by CTIS, in concert with Asst. Superintendent, during the Summer and school year, some of which is job-embedded. ● Train Teachers in Coding through Code.org and Khan Academy ● Implement Code.org and Khan Academy in all K-12 Schools
Equipment and Networks	<ul style="list-style-type: none"> ● 80 Chromebooks for High School Teachers (12 inch HPs) ● 870 Chromebooks for all middle schools systems ● 50 Promethean Boards for Classrooms for temporary, and later new, Elementary Schools ● File Servers and infrastructure updated with Windows 2012R2 (System-wide) ● In process of implementing for all 	<ul style="list-style-type: none"> ● Continue to purchase Chromebooks for elementary schools, etc. ● Increase access point across district ● Upgrade Smart Projectors to Promethean Boards ● Continue disconnecting OSHEAN fiber in the 2 new schools, Whelan, Birchwood

	libraries with Follett Software <ul style="list-style-type: none"> ● Disconnect from OSHEAN fiber and move School Administration Building to our own fiber network 	and Ricci and move to our own fiber network <ul style="list-style-type: none"> ● 2018-19 Continue disconnecting OSHEAN at Centredale and Greystone and move them to our own fiber network
Software and materials	<ul style="list-style-type: none"> ● Discovery Ed ● Learning.com ● Renaissance / STAR ● ConnectEd - McGraw Hill ● GAFE Apps 	<ul style="list-style-type: none"> ● As needed based on curriculum development based on the NPSD's focus on Standards
Facilities and space	<ul style="list-style-type: none"> ● 1 NPHS classroom new furnishings 	<ul style="list-style-type: none"> ● Evaluate individual furniture needs in each classroom ● Upgrade electrical capacity through upgrade in Facilities
Policies and Procedures	BYOD Policy 2017-18 NPSD Computer Acceptable Use Student Policy.docx SCHOOL INTERNET 2017-18 NPSD School Internet Filtering policy.doc FERPA Laws re: Technology	<ul style="list-style-type: none"> ● Review and Revise all existing policies and technical guidelines as needed ● Implement Blended & Personalized Learning Framework ● Implement use of Personalized Learning Progressions ● Utilize on continual basis Blended Learning Walk-Through Tool in all schools for Learning Walks, Observations, Instructional Rounds

Managing Curriculum and Instruction

Components	Status	Projected Needs
Human resources	<ul style="list-style-type: none"> ● Superintendent ● Asst. Superintendent ● Director of Special Education ● Curriculum & Technology Integration Specialist ● All Principals ● Title I Coordinator ● ELL Coordinator 	* Continued communication, cooperation and decision-making between all leadership positions concerning technology implementation

	<ul style="list-style-type: none"> ● PreK Supervisor 	
Equipment and Networks	<ul style="list-style-type: none"> ● Currently updated 	<ul style="list-style-type: none"> ● Upgrade fiber to our own network
Software and materials	<ul style="list-style-type: none"> ● Skyward ● GAFE ● Discovery Ed ● Learning.com ● ConnectEd- McGraw-Hill (Math K-8; ELA k-5) ● Thinking Maps TMLC ● Virtual High School (VHS) ● Gradpoint ● Math IXL ● Renaissance Learning (STAR) Gr.6-12 ● Aimsweb K-5 	<ul style="list-style-type: none"> ● Purchase IXL in Math and ELA at NPHS ● Purchase Accelerated Math and Reader for both middle schools ● Review and revise all Curriculum Folders & Docs, Assessment Calendar, etc. as needed
Facilities and space	<ul style="list-style-type: none"> ● See Facilities Plan 	<ul style="list-style-type: none"> ● See Building Design plans
Policies and Procedures	<ul style="list-style-type: none"> ● Staff and student AUP Updated ● Updated Internet Filtering ● World Wide Web Publishing Guidelines ● On-line NPSD Policy Manual ● BYOD Policy ● Google Apps for Students ● Overnight Use of NPSD Technology 	<ul style="list-style-type: none"> ● Implement Blended & Personalized Learning Framework ● Implement use of Personalized Learning Progressions ● Utilize on continual basis Blended Learning Walk-Through Tool in all schools for Learning Walks, Observations, Instructional Rounds

Processing Information

Components	Status	Projected Needs
Human resources	<ul style="list-style-type: none"> ● Assistant Superintendent ● Data Manager ● Network Systems Administrator ● Guidance Counselors ● Secretaries 	<ul style="list-style-type: none"> ● None projected

	<ul style="list-style-type: none"> ● HR Coordinator ● Finance Department Staff 	
Equipment and Networks	<ul style="list-style-type: none"> ● Currently updated 	<ul style="list-style-type: none"> ● None projected
Software and materials	<ul style="list-style-type: none"> ● AESOP ● Munis ● Full Implementation of Skyward Student Management Information System ● Full implementation of Google Apps for Education (GAFE) ● Integration of Educator Evaluation tools in RIDE's EPSS and ISS ● Continued implementation of Student and Parent Portals in Skyward 	<ul style="list-style-type: none"> ● None projected
Facilities and space	See Facilities plan with new buildings	<ul style="list-style-type: none"> ● Continue to upgrade fiber to our own network
Policies and Procedures	<ul style="list-style-type: none"> ● Implement Data Confidentiality Policy 	<ul style="list-style-type: none"> ● Continued development of system-wide standards concerning data processing, retention, and use

Supporting, Administering and Managing Organizational Resources & Communication

Components	Status	Projected Needs
Human resources	<ul style="list-style-type: none"> ● Assistant Superintendent ● Data Manager ● Director of Communication and Technology ● Curriculum & Technology Integration Specialist ● 2 FT IT Specialists (PreK-12) 	<ul style="list-style-type: none"> ● None projected
Equipment and Networks	<ul style="list-style-type: none"> ● District Gmail Accounts ● Updated Internal Phone System ● Adequate wired infrastructure in each classroom ● VOIP District Wide 	<ul style="list-style-type: none"> ● Additional wireless infrastructure at all schools according to priorities ● Continued support for new phone system
Software and materials	<ul style="list-style-type: none"> ● GAFE ● Skyward SIS, including IEPs and RTI plans ● Google+ Network for NPSD employees ● Skyward Teacher, Student & Parent Portals 	<ul style="list-style-type: none"> ● Continued support with all aspects of Skyward

Facilities and space	<ul style="list-style-type: none"> • Adequate at this time 	<ul style="list-style-type: none"> • None projected
Policies and Procedures	<ul style="list-style-type: none"> • Staff AUP Updated and Revised Sept • Student AUP • Updated Internet Filtering Policy • See Student Handbook • On-line NPSD Policy Manual • Skyward HelpDesk(IT) Process • BYOD Policy for NPHS • Google Apps for Students 	<ul style="list-style-type: none"> • Update Overnight Use of NPSD Technology

Managing Learning Resources

Components	Status	Projected Needs
Human resources	<ul style="list-style-type: none"> • Assistant Superintendent • Curriculum & Technology Integration Specialist • Network Systems Administration Manager • Library Media Specialists (PreK-12) 	<ul style="list-style-type: none"> • Continue update rosters for all software
Equipment and Networks	<ul style="list-style-type: none"> • See inventory list from Network Systems Administration Manager 	<ul style="list-style-type: none"> • Create and implement protocol for distribution and storage for all middle school Chromebooks • Purchase 2 classes of Chromebooks in each elementary school to serve as Lighthouse Classrooms
Software and materials	<ul style="list-style-type: none"> • District Web Site to learning links 	<ul style="list-style-type: none"> • Continue to digitalize library with Follett Software
Facilities and space	<ul style="list-style-type: none"> • Adequate at this time 	<ul style="list-style-type: none"> • See Building Design Plan for new building • Update elementary school library-media center space to align with new buildings' designs
Policies and Procedures	<ul style="list-style-type: none"> • Staff AUP Updated and Revised September 2007 	<ul style="list-style-type: none"> • Update and revise as needed

	<ul style="list-style-type: none"> ● Student AUP ● Internet Search Guidelines ● On-line NPSD Policy Manual ● BYOD Policy ● Google Apps for Students ● Overnight Use of NPSD Technology 	
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Recommendations

The following recommendations will be shared with of the Technology Committee. It is the goal and recommendation of this committee to provide adequate, updated and regularly maintained technology for the entire learning community.

Human Resources

The North Providence School Department is committed to the realization that human resources and professional development are the most important components of the implementation of a successful technology plan. In view of this, we propose the following recommendations.

Equipment and Networks

In the next five years, The North Providence School Department is committed to providing state of the art technology and tools within the learning environment and community.

- Provide necessary student/teacher Chromebooks as described in projected needs
- Provide network infrastructure upgrades as described in projected needs
- Provide automated media center at each school

Software and Materials

In the next five years, the North Providence School Department is committed to providing appropriate software and materials to ensure the infusion of technology as an integrated part of the curriculum and the administrative operations.

- Provide the necessary software to integrate technology into curriculum and administration operations.
- Continued GAFE implementation
- Continue support of tools such as GAFE tools

Facilities and Space

In the next five years, the North Providence School Department is committed to providing appropriate space and facilities and recommend modifications based on current and projected needs.

- Provide for the continued evaluation of existing facilities and recommend modification based on current and projected needs.
- Continue progress with bond passage of two new elementary buildings and upgrades during the next two years.

Policies and Procedures

The North Providence School Department is committed to developing consistent and

standardized policies for the use of technology.

- Provide for differentiated F2F and online levels of training, adequate time frames, and consistent commitment to ongoing training
- Provide continued discussion for the decision making process regarding technology with the District Tech Committee.
- Provide a continued format for the review and re-evaluation of the approved Technology Plan.
- Review existing NPSD policies
- Provide district guidance and parameters concerning grant writing and fundraising procedures

Technology Implementation Phases

2016-2018

2016-17	2017-18
<ul style="list-style-type: none"> ● Maintain infrastructure for Wireless Classroom Initiative ● Add Chromebooks to each school ● Provide staff development virtually via Google Classroom and Modules in GAFE tools ● Continue developing policies and procedures for Instructional & Information Technologies ● Continue implementation of GAFE ● Continue Skyward implementation ● District wide devices via local, federal and grant funds ● Additional LCD Projection Units with computer cart system for each school ● Support centrally managed wireless network infrastructure across the district ● Managed Network Services with OSHEAN 	<ul style="list-style-type: none"> ● Continue developing policies and procedures for Instructional & Information Technologies ● Add 870 Chromebooks to support all middle school students ● Repurpose Middle School laptops to the high school ● Provide <i>ample and appropriate</i> Professional Development to support teachers in new pedagogies ● Add 1-2 Chromebook class sets to each elementary classroom to serve as Lighthouse Classrooms for job-embedded using Feinstein monies; ● Utilize tech coaches with Director of Educational Technology to provide on-site PD ● Continue implementation of GAFE ● Continue Fuse Coaching ● Add Tech Coach to elementary schools

Planning Professional Development for Educational Technology:

Creating a Technology-Rich Learning Community

Introduction

The North Providence School Department is committed to incorporating technology into all of the school system's educational, administrative, and management functions. This infusion of technology will present an opportunity to enrich faculty and staff learning opportunities. The NPSD will provide time for faculty and staff to take part in education and training activities on an ongoing basis.

The NPSD subscribes to the philosophy that the best trainers of teachers are other teachers. The teachers and staff realize that the acquisition of technology will be but the first step toward our goal of student-centered learning, and are committed to continued staff development. The North Providence School Department recognizes the need for continued staff development. Although the topics of professional development are typically not IT in nature, technology is embedded in every PD session. Teachers are required to use Google Apps for Education, as we are a GAFE district.

This professional development plan is based on an assessment of faculty and staff needs and is guided by:

- a shared vision of our district as a provider of challenging learning opportunities;
- a full assessment of the various data points guiding our district's next steps;
- a set of principles and understandings regarding professional development;
- a set of core and enriched technology competencies for all faculty and staff.

The plan consists of three interrelated elements – education, training and support.

Guiding Principles

Professional development for technology must respect our district's traditions while enhancing the development of its learning community. The NPSD recognizes the expertise of its own staff and will use the "teachers training teachers" model. Based on staff interviews and surveys the following findings are:

- Many members of the faculty use computers to be more productive personally and professionally.
- Many teachers use computers in their teaching.
- All faculty need to use more technology in their teaching.
- All faculty members have received on-going technology training.

Our district's vision statement for technology also provides guidance for the professional development design. Key elements from the vision are:

- Continue to grow as a learning community.
- Provide technology-rich learning opportunities.
- Provide multiple learning opportunities.
- Integrate technology into curriculum and instruction.

Professional development guidelines should:

- Provide a balance of education, training and support services, with focus on educational tech leaders receiving current and continual professional development.
- Integrate professional development into day-to-day learning and work.
- Link professional development to the goals of the district.
- Develop a support system for professional development to assure long-term growth.
- Focus the assessment of professional development on its contribution to the quality of student learning opportunities.
- Integrate education, training and support for technology with classroom instruction and administrative needs.
- Employ classroom and workplace support and coaching so that technology and content can be linked.
- Provide choices for individual professional development that accommodate different learning styles and preferences, such as but not limited to the following: online learning environments, collaborative learning tools such as GAFE, and social networking tools such as Google+.

Technology Competencies

The use of technology is essential for successful lifelong learning and work in a technological and information-rich society. To prepare its graduates for this society, all of our district’s faculty and staff must be technology literate. Some core competencies expected of faculty and staff are found in the following chart.

Core Competencies	Advanced Competencies
<ul style="list-style-type: none">● Integrate technology into student learning environments and learning opportunities.● Prepare a variety of written communications using digital tools in our Google Applications for Educators suite.● Integrate playlists and station rotation model to facilitate blended learning● Use digital tools to support collaborative learning and work.● Access, process and analyze data and information from district used databases.● Use system-wide communications systems.	<ul style="list-style-type: none">● Utilize a variety of technology tools to communicate, collaborate and create content at more sophisticated levels benchmarked against a typical users level of performance.

<ul style="list-style-type: none"> ● Use information systems and information following district procedures and policies. ● Use district administrative applications and accomplish administrative and management tasks as required. 	
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These competencies relate to the six functions that comprise our district’s Technology Network and Support System (TNSS): supporting teaching and learning, managing curriculum and instruction, processing information, supporting communication, administering and managing organizational resources, and managing learning resources.

Program Components

Structure

The professional development program structure has three components: education, training and support. The education component will be devoted to building a shared foundation of knowledge and understanding about the uses of technology. The education component will help faculty and staff to form individual and collective images of the ways that computers and related tools can enhance teaching and learning. This component will include such activities as: virtual professional development based on mastery / competencies through task completions; brief articles, Tech Tuesdays, discussions, visits to exemplary programs, and professional development workshops given by the faculty before or after school,

The training component will be devoted to developing skills in the use of various technology tools and in applying these tools in a wide variety of teaching, learning, and administrative environments. Special attention will be given to modeling the effective use of technology. The training component will include such activities as workshops in the district or away, seminars, hands-on practice addressing specific competencies.

The support component will include a variety of assistance activities to provide ongoing help to faculty and staff as they apply their new knowledge and skills. This will include such activities as in-class demonstrations, and modeling, coaching, peer feedback, active research, peer tutoring, informal exchanges, and access to help from various support services.

Content

The NPSD subscribes to the philosophy that technology content tools are best learned by using the tools for authentic purposes to get a critical function accomplished. The district identifies this learning as “just-in-time” learning, and uses it continuously throughout the school year. This can only be effective if the district has developed enough capacity to allow colleagues the opportunity to share their knowledge in informal and formally structured forums. The district subscribes to a distributed leadership model to accomplish this work. The competencies may be

acquired in many ways through various opportunities.

Experiences indicates that, as teachers progress in their training, they will need additional support to help them apply their new knowledge and skill in their classroom lessons and teaching practices. For example, following training in the use of the GAFE tools, teachers may have sufficient knowledge and skill to demonstrate the creation of a simple document for their students, but may not be ready to go beyond simple replication of what they learned. At this time, the support component becomes important supplying informal collegial help. With this resource, teachers and staff will be able to develop their skills in ways not addressed during the training.

It is essential that our district provide time for faculty and staff to take part in education and training activities. Our district's program for professional development in the area of technology will be flexible, responding to changing technologies and academic and administrative needs as expressed by individuals.

Assessment

Assessment of the professional development program should address these variables:

- Changes in participants' knowledge
- Changes in participants' skill level and use
- Changes in participants' opinions and feelings
- Changes in quality of student learning opportunities
- Changes in student performance

Implementation Considerations

The following considerations are very important for the implementation of the professional development program.

Staging and Phasing:

Training and support need to be provided "just in time," that is, just before and during the period when the teachers will have an opportunity to apply the new learning to their work. The education component can be scheduled at any time.

Scheduling:

Professional development opportunities need to be scheduled at different times (of the day, week, school year, and vacation periods) in order to accommodate the diverse faculty and staff schedules and responsibilities. Training opportunities need to include both synchronous and asynchronous opportunities for teachers, administrators, students and parents.

Networks:

Linking faculty and staff who have common learning agendas can promote peer exchange. These networks should include informal support exchanges as well as the use of collaborative

learning tools.

Time:

Faculty and staff need time for learning. The North Providence School Department employs a range of methods for sufficient time for education and training.

Potential Funding Sources

Implementation of the Technology Plan will require resourcefulness in the acquisition of a variety of funding sources. An in depth investigation of the funding solutions, public support, promotional efforts, and ongoing financial planning will be required for a successful implementation and continued support of technology.

The Educational Technology Planning Team submits the following funding options for consideration.

School Reform/Restructuring Grants:

The effective use of technology in the curriculum is a requirement in these grants. Schools that receive the grants may use restructuring dollars to powerfully impact the curriculum program and student learning program via the use of technology tools.

Endowments:

Parent groups such as PTA's along with the public sector could form partnerships to create Endowment Programs. The interest from these dollars raised to achieve school goals could then be used for the required technology needed for plan implementation.

Grants and Foundations:

Given the difficult economic conditions in the community, grants and foundations must be explored as ways to achieve district technology goals. Fortunately, the NPSD has been very successful in securing funding for educational technology. Create a subcommittee on each SIT team so that grant writing teams can try to secure more funding for classroom technology.

Reallocation of System Funds:

The re-evaluation of curriculum design and implementation in the schools to include technology as part of the instructional program for all students will result in the redistribution of curriculum funds. Dollars previously targeted for textbooks, traditional teaching supplies, staff development, will be re-examined and, if appropriate, redirected toward system technology goals. This will include the use of technology tools to improve curriculum, deliver effective software programs to support existing instructional programs, and technology tools to improve teacher efficiency in the classroom.

Technology Partnerships:

Potential partnerships between the school district and public and private sectors should be examined. These partnerships will include work-study programs, equipment on loan, and

donations. In addition, these partnerships can serve as links to other joint partnership grants. The NPSD has already taken advantage of a partnership with Feinstein to obtain technology in the classroom.

Categorical Funds:

These funds (Title I, II) could be used to purchase hardware, software, and staff development to support technology-based instructional projects. The NPSD has already taken advantage of Title funding whenever possible and appropriate.

Home and School Organizations:

Home and school organizations can coordinate fund-raising activities to meet the identified needs of a school, such as acquiring technology equipment. Each of the individual school PTA or PTO organizations purchased several technology components for each school. Various PTA groups bought technology items such as digital cameras, scanners, 3D printers, MakerSpaces and software for each of their schools.

Summary

The North Providence School Department recognizes that the implementation of technology is a process that requires an ongoing philosophical and financial commitment. The NPSD has clearly made that commitment since the inception of its first Technology Plan in 1996. The impact of technology on the educational community is crucial to developing skillful, competent and knowledgeable citizens able to compete in our global society. The Technology Committee recognizes the North Providence School Department has taken the necessary steps in tackling many of the issues raised in the introduction of this plan:

- What are the technology applications that will be integrated into curriculum, instructions and learning?
- How can technology applications continue to support the transformation of curriculum, teaching and assessment?
- How can technology continue to be used for managing organizational resources?
- How can we continue to use technology to support communication to the outside community.
- What kinds of professional development opportunities do we need to provide now that some staff members have been introduced into using technology for their own production?

The Educational Technology Planning Team believes through the concerted efforts of the North Providence community the goals of this plan can be realized. Our endeavor can have a dynamic impact on how we meet the individual needs of the entire North Providence learning community.