GUTHRIE PUBLIC SCHOOLS

TECHNOLOGY PLAN

2013-2016

"Staking a Claim in our Children's Future"

Executive Summary

The effective use of technology in education is paramount to our successful movement into the twenty-first century, making it essential that we provide our students, staff, and community with ample opportunities to integrate technology into their learning experiences. Implementation of technology into the curriculum can help us in this quest by offering many new revolutionary tools that are changing the face of the educational process and the ways we are able to access information. This transformational power of technology, together with the help of parents, staff and administrators, will better equip our graduating seniors to enter the technology-based workplace and to be more responsible, effective, participants in society.

In today's global environment, technological competence parallels the ability to read. Successful integration of technology into the curriculum will result in students with improved achievement and higher test scores; improved student attitude, enthusiasm, and engagement; richer classroom content; improved student retention and job placement rates.

Technology helps teachers improve their classroom practices by expanding their opportunities for training and by fostering interaction with other teachers and professionals. Technology used as an administrative and management tool, enables principals and superintendents to effectively save money, streamline operations, and monitor student progress. Technology offers new and exciting ways for parents to increase their involvement in their children's education.

On the whole, Guthrie Schools are beginning to incorporate technology into the curriculum. Technology purchases are determined by long-term goals, controlled by budget constraints, and made with the direction and guidance of a comprehensive, District-wide technology plan.

The technology plan presents specific recommendations for the development of a comprehensive educational network of information resources. The plan recommends diverse educational technologies and provides wide and equal access for students and staff.

Vision Statement

We envision technology as an effective and necessary tool, capable of enhancing both the communication ability and productivity of our students, staff and parents. Guthrie students must be competitive in an ever-changing world. The opportunity to develop technological proficiency will empower Guthrie Public Schools to:

- Create a global, diverse, and enriched learning experience
- Enable students, parents, and staff to become lifelong learners
- Enable students to become active participants in our information-based society
- Enhance problem solving skills in all areas of the educational environment
- Strengthen the partnership among students, home, school, and community

Mission Statement

"It is the mission of the Guthrie Public Schools to empower all students with the tools necessary to become productive members of society through a cooperative effort between the student, home, school, and community."

Technology will be utilized to support curriculum, to provide integrated opportunities for learning, and to prepare the student for lifelong global learning in a rapidly changing technological society. Guthrie Public Schools must provide up-to-date technology so that the following Priority Academic Student Skills (PASS) can be effectively addressed.

The student technology objectives are:
- Operation of the computer
- Use of application software as a tool
- Problem-solving and research skills
- Use of telecommunications
- Technology awareness
- Understanding of ethical and legal issues in technology
- Appropriate technology skills necessary for success

Guthrie Public Schools must provide up-to-date technology so teachers and staff can:

- Improve instructional strategies to increase student achievement
- Communicate student progress accurately and efficiently
- Improve professional skills
- Network with other professionals to share skills and resources
- Demonstrate dimensions of technology-based learning to promote student achievement and staff productivity
- Promote parental and community involvement

Guthrie Public Schools Technology Priority Goals

Administrative Goals

I. All administrators and support staff will have electronic access at any time to available administrative and instructional technologies.

II. The District will continue to acquire the latest hardware, software, and improved communication technology to enhance administrative efficiency in all schools.

III. The District will provide professional development to administrators and related support personnel on the implementation of the latest administrative and instructional technologies.

Instructional Goals

I.   The District will provide all students and teachers access at any time from any place in the school to available instructional technologies.

II.   The District will continue to acquire hardware which meets or exceeds state standards for instructional technologies.

III.   The District will continue to acquire instructional software and other media to support the use of instructional technology.

IV.   The District will coordinate the involvement of personnel and technology facilities in the community for the purpose of incorporating new technologies into instruction.

V.   The District will utilize human resources within the system to support the implementation of instructional technology

VI.   The District will acquire improved communication technology to support the instructional process.

VII.   The District will acquire improved technology to increase parental involvement and to promote better home/school communication.

VIII.   The District will revise curriculum to emphasize the application of technology in all subject areas.

IX.   The District will support and collaborate with community service agencies to expand the existing adult literacy programs.

Professional Development Technology Goal

The District will provide professional development to teachers and other staff on the effective implementation of new technology in education.

Plans to Evaluate the Successes and/or Failures of Implementation

- Collect data on usage and technical difficulties in the use of distance learning programs. Adjust professional development and follow-up as needed.

- Assess individual school requests for additional hardware equipment and acquisitions to determine cost effectiveness and consistency with system-wide technology goals.

- Assess acquisitions for hardware that would take into account students with special needs, particularly those who are vision, hearing, orthopedic, mentally, or physically challenged.

- Analyze assessment forms returned from teachers on instructional software currently being used by teachers and adjust professional development accordingly.

- Report to parents and community on instructional software currently being used and assessed by teachers.

- Survey schools as to parental/community involvement in technology currently being implemented at individual school sites.

- Assess individual school programs for the effective and beneficial involvement with business, industry, and other community leaders.

- Assess impact of grants, business, and corporate financial support to instruction in the school system and make recommendations to the Board for the continued solicitation of such funds.

- Review the standards policy for programming on the District's local cable public access channel.

- Assess the curriculum as part of the annual revision process to ensure appropriate application of technology in the total curriculum.

- Assess the effective implementation of the Priority Academic Student Skills (PASS) Instructional Technology guidelines by building-level personnel and suggest appropriate revision.

- Survey teachers to determine how Internet access has impacted the curriculum for their appropriate grade or subject level and revise guidelines for accessing on-line services as needed.

- Complete data collection on how teachers have incorporated word processing applications on the computer as a tool for teaching writing in all curriculum areas and expand the use of computers as a writing tool.

- Appraise the formal technology training offered through Professional Development and its effectiveness in the instructional process.

- Collect data of in-service training by technology specialists to determine building-level emphasis on integrating technology into the school curriculum.

- Survey parents as to the improvement of school/community communication.

Impact on Curriculum, Instruction, and Evaluation

Through the use of advanced computing and telecommunications technology, learning can be qualitatively different. The process of learning in the classroom can become significantly richer as students have access to new and different types of information. Students can then in turn manipulate that information on the computer through graphic displays and can communicate their findings in a variety of media to their teachers, students in the next classroom, or students around the world.

The impact of the plan will be observed by:

1. **Increased teacher knowledge and skill in use of technology within curriculum development**

Learning to utilize multimedia technology is an important tool in learning to read and write. Students today receive, and will increasingly receive, information from various types of visual media. Using multimedia as a learning tool is much more than giving students a camera and shooting pictures or operating a computer. Technical applications must be taught as part of an existing subject so students understand how technology can be a tool that makes them a more productive and powerful person in any subject area.

2. Renewed teacher commitment and enthusiasm to teaching and instruction

The plan provides teachers with the necessary knowledge and skills to infuse technology into their classrooms. The most effective and efficient approach to improving instruction is to enhance the skills of the teachers, support them in professional development, and provide them with the necessary tools.

3. Expanded knowledge of, and access to, educational resources

Through planned training, the plan will promote a desire to use technology and provide the tools to meet the need. They will discover techniques for integrating Internet resources into instruction. Teachers will have immediate access to experts and special interest on-line discussion groups. The possibilities of engaging their students in "real world" learning projects and supplementing class lectures with multimedia presentations and online resources will tailor student learning opportunities more specifically to each individual student.

4. Improved curriculum and instruction with appropriate student assessment

Properly used, technology can enhance the achievement of all students. Among the attractions of computer assisted instruction are its ability to individualize instruction and to provide instant feedback. Since students are able to control the pace at which they proceed through their exercises and activities, they are neither held back nor left behind by their peers. Multimedia technology expands the possibilities for more comprehensive student assignments that require students' active participation and application of knowledge. The use of technology in the classroom improves students' motivation and attitudes about themselves and about learning. Students are found to be challenged, engaged, and more independent when using technology.

5. More relevant curriculum to keep students in school

Students are no longer restricted to writing paper-and-pencil essays. They can create multimedia presentations using computers to combine text, graphs, charts, digital images, photographs, slides, real-time video, and sound. No longer do class projects have to be static—they can be dynamic through the use of technology. Video and audio technologies bring material to life, enhancing students' ability to remember and understand what they see and hear. By incorporating pictures, sound, and animation in classroom activities, multimedia significantly enhances student recall of basic facts, as well as their understanding of complex systems.

Technology is particularly valuable in improving student writing. For example, the ease with which students can edit their written work using word-processing, makes them more willing to do so, which in turn improves the quality of their writing.

6. Expanded knowledge about teacher-led implementation of technologies and "best-teacher practices"

The computer must be recognized as an effective teaching tool, which assists the educator, as well as the student. Software offers students individualized learning. While students progress on a subject at their own pace, those who begin to fall behind can receive proper interpersonal attention from the instructor. The computer allows the teacher to concentrate on interaction and individualized assistance. As an assessment tool, technology yields meaningful information, on demand, about students' progress and accomplishments and provides a medium for its storage.

Current environment

Presently the Guthrie Public School System network is comprised of 13 sites connected by a 1GB fiber WAN. These sites are connected to the Internet by a 100 MB circuit provided by Cox Communications. All District computers have access to the Internet.

The District has consolidated all servers into the one location to save time and money.

100% of classrooms have at least one computer.

Every classroom in the District is wired for connection to the Internet.

Technology Goals
1. Provide at least 1 modern computer for every classroom
2. Continue to provide information to the public and staff through an Internet and an Intranet presence.
3. Provide a mobile lab at the Junior High for teachers to schedule for class use.
4. Provide a mobile lab at each elementary for teachers to schedule for class use.
5. Establish a program of regular technology staff development training for all teachers and administrators in the District.
6. Establish a full schedule of Distance Learning Classes for both students and staff.
7. Establish a schedule for upgrading and replacing computers and servers.
8. Upgrade and replace aging equipment on a regular basis.

Minimum Required Components

1. **Strategies for improving academic achievement and teacher effectiveness** –

   a. Our students are developing technology skills at an earlier age. Consequently they expect to be taught with technology. In order for this teaching to take place we must provide the infrastructure to support all types of technology. Guthrie has taken the first step by securing a 1GB wide area network connection between all sites. This enables the District to consolidate services in a central location and to provide the highest degree of uptime possible to our users. Once teachers and students learn that the technology is reliable, they are using the skills that they have learned from classroom and professional development to integrate technology into every lesson. Ed Tech funds will be used to constantly expand and upgrade the infrastructure used by the staff and students.

2. **Goals** –

   a. By 2014, all students will reach high standards, at a minimum attaining proficiency or better in reading/language arts and mathematics.

      i. Increase reading API from 1290 to 1500

         1. Purchase assessment/screening materials/software to monitor student's progress & drive instruction.

         2. Purchase computers and PDA's at school sites.

   b. All Limited English Proficient students will become proficient in English and reach high academic standards, at a minimum attaining proficiency or better in reading/language arts and mathematics.

      i. Forty percent (40%) of all K-12 limited-English-proficient (LEP) students enrolled will show progress in attaining English proficiency (increasing one or more levels of proficiency established by the state).

      ii. Ten percent (10%) of all K-12 LEP students enrolled will attain English proficiency (exiting out of ESL program).

      iii. Ten percent (10%) of K-12 LEP students will be at or above proficient in mathematics on the State's assessment.

         1. Purchase ESL materials or supplemental instructional materials to teach LEP students.

    c. All students will be taught by highly qualified teachers

        1. On-line professional development in the core academic content area.

    d. All students will be educated in learning environments that are safe, drug-free, and conducive to learning.

        1. Provide all teachers ongoing professional development opportunities on safe and healthy school issues (e.g. Safe and Healthy School Conference, Safe School Summit, monthly video conferences, etc.

    e. All students will graduate from high school.

        i. Increase graduation rate by 5%.

        1. Purchase supplemental instructional software and hardware for summer enrichment programs in reading/language arts/math.

3. **Steps to increase accessibility** –

    a. Guthrie Public Schools is a 21st Century Learning Center. Therefore, we provide an after school care program for our students as well as a tutoring and enhancement program. Ed Tech funds will be used to provide materials for both of these programs as well as to provide the availability of technology outside of the regular school day. Both of these programs are used to increase the education of students in the high need and high poverty areas of the District.

    b. Guthrie Public Schools provides a summer school program for all Title I students. The Junior High has implemented a required summer school for all students who have failed a class the previous school year. Students use technology to complete lessons online which will help to bring them up to grade level in all curriculum areas.

    c. Teachers are provided training in the use of technology to assist students and parents in the educational success of all students.

4. **Promotion of curricula and teaching strategies that integrate technology**

    a. All software and materials used in the District must be based on scientifically proven research and methods. Students are assessed and monitored throughout the school year. Students who are not making adequate progress are remediated in order to bring them up to the current standards of performance.

5. **Professional Development**

   a. Professional development will be offered on both a group and individual basis. All staff will be trained in the use of technology to properly assess and monitor the progress of their students. Technology is an important tool in the management of today's classroom.

   b. Staff will have various opportunities for online training associated with the various software programs used in the District.

   c. Staff Development days will be scheduled to provide staff with ideas and strategies that will help them to effectively integrate technology into their everyday lessons.

6. **Technology type and costs**

   a. In order to ensure the highest quality and uptime, the Guthrie Public Schools system has adopted a set of hardware standards. These standards help to insure the interoperability of all components within our system.

   b. The District has a technology budget of $250,000 which funds the upkeep and repair of all current equipment.

7. **Coordination with other resources**

   a. All technology related purchases in the District must be approved by the Technology Department. This ensures that the equipment is compatible with our existing environment and that we have the equipment and training necessary to use the new technology.

8. **Integration of technology with curricula and instruction**

   a. Using the strategies outlined under promotion of curricula and teaching strategies that integrate technology and professional development the District will conduct ongoing training for the integration of technology into all areas of curricula and instruction. Training will begin before school starts and continue throughout the school year. All teachers are currently expected to integrate technology into their lessons at every opportunity.

9. **Innovative delivery strategies**

   a. Students will be offered the opportunity to participate in distance learning classes that will enhance their education. These classes will be offered as both college credit and HS credit courses. Distance learning classes will be expanded to offer opportunities for students and staff to enhance their educational experience without leaving the District.

   b. Students will have the opportunity to participate in virtual learning courses through the E2020 program.

10. **Parental involvement**

    a. Parental involvement will be enhanced through the use of our District web site. All information that is available in printed form will be available for download from the school web site. Teachers are being trained in producing class web pages to aid parents in the support of their child's education.

    b. The District has implemented the School Messenger Suite. This will allow parent communication for those parents who do not have access to the Internet.

11. **Collaboration with adult literacy service providers**

    a. The Guthrie Public School District is an adult literacy provider. We offer adult literacy courses in the evening as well as through our 21st Century program. We work with the community library to provide literacy services to the entire community.

12. **Accountability measures**

    a. Success of these programs will be monitored through the use of testing scores and the District AYP.

13. **Supporting resources**

    a. A-Plus

    b. Read Naturally

    c. M-Class

    d. Voyager Learning

    e. Study Island

    f. E2020