

School District of the City of Royal Oak

Technology Plan July 2011 – June 2014



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Introductory Material

District Mission Statement

The mission of the School District of the City of Royal Oak is to create a world class system for learning by building active partnerships among students, educators, families, and community to prepare all students to participate in an ever-changing world as responsible, lifelong learners.

District School Improvement Goals

Increase mathematics achievement for all students
Increase reading achievement for all students
Increase writing achievement for all students

District Educational Belief Statement

We believe:

- All people have inherent worth.
- All people need to be lifelong learners.
- All people can learn, and each person learns differently.
- It is essential to learn how to learn.
- Attitude affects achievement.
- Learning is the key to improvement.
- People have the right to learn.
- Self-discipline is necessary to achieve.
- We exist in an interdependent world.
- People grow best in a safe and supportive, yet challenging, environment.
- Learners are partners in their own learning and are responsible for their own actions.
- Citizenship and scholarship are individual, family, school and community responsibilities.
- Environmental factors affect an individual's ability to achieve.

District Background

Royal Oak is a suburban community on the Northwest side of Metropolitan Detroit. The City of Royal Oak has a population of 57,236 (2010 US census). The School District has a population of approximately 5322 students. Royal Oak offers programs from pre-Kindergarten through adult and continuing education. There are currently six elementary schools, one middle school, one high school, an early childhood center, and an adult and community education, which includes an alternative high school program. Royal Oak Schools includes 310 teachers, 25 administrators, and 81 non-instructional and support staff such as secretaries and paraprofessionals, 25 lunch monitors, and 6 computer technicians.

Schools

School	Address	School	Address
Royal Oak High School	1500 Lexington Blvd. 48073	Northwood Elementary	926 W. 12 Mile Rd. 48073
Royal Oak Middle School	709 N. Washington Ave. 48067	Oakland Elementary	2415 E. Brockton Ave. 48067
Addams Elementary School and Early Childhood Center	2222 W. Webster Rd. 48073	Oak Ridge Elementary	506 E. 13 Mile Rd. 48073
Keller Elementary School	1505 N. Campbell Rd. 48067	Upton Elementary	4400 Mandalay Ave. 48073
Churchill Center	707 Girard 48073		

Technology Plan Committee

Members:

Name	Position
Cheryl Goodgine	Executive Director of Administrative Services and Technology
Kevin Kurkowski	Academic Technology Leader
Christopher Delaney	Network/Computer Administrator
Kelly Stanesa	Response to Intervention Coordinator, Elementary School
David Simpson	Assistant Principal, Middle School
Jane Flarity-Gram	Principal, Elementary School
Alyssa Reimold	Teacher, High School
Karina Landis	Teacher, Middle School
Alison Devine	Teacher, Elementary School
Lisa Murray	Media Technician, Elementary School

Advisory Members:

Virginia Meeks	Information Services
John Schwartz	Executive Director of Business and Personnel Services
Patrick Wolynski	Director of Churchill Community Education Center
Sarah Olson	Director of Instructional Services and Staff Development
Walt Parke	Network / Computer Administrator
Mike Nirva	Network / Computer Administrator

Community Advisory Members:

Mary Dybas
Julie Gray
Pamela Grier
Donna Judd
Margaret Martin
Barbara Sparks
Lynne Staszak
Lindsey Till

Vision and Goals

Technology Vision Statement

The Royal Oak learning community will use technology resources to engage and inspire learners.

Technology Goals

Just as this current Technology Plan cycle begins, like all other Michigan districts, Royal Oak Schools now faces an unprecedented and devastating reduction in state funding. However, we remain strongly committed to using technology to help guide instruction, improve student achievement, and communicate to our parents and community. To accomplish our technology goals within the current financial climate, Royal Oak Schools will continue to seek out cost-effective new technologies, but we plan to focus primarily on updating infrastructure when necessary, enhancing professional development, and optimizing staff and student use of our existing technologies.

Curriculum & Student Achievement:

- To integrate technology in all curricular areas to enhance and support teachers' ability to assess student learning and guide instruction.
- To ensure all students and staff develop competency in using technology as a tool to enhance learning, and to engage and inspire learners.

Professional Development:

- Professional development for technology in the Royal Oak Schools will provide adequate and relevant technology training for all staff to foster an annual increase in student achievement during the years of this Technology Plan.

Accessibility:

- The Royal Oak learning community will have access to adequate, equitable and appropriate technology that supports the instructional program.

Infrastructure:

- To provide and maintain infrastructure that supports the hardware and software demands of the accessibility, curriculum, and professional development goals.

I. Curriculum

The Royal Oak learning community will use technology resources to engage and inspire learners.

- To integrate technology in all curricular areas to enhance and support teachers' ability to assess student learning and guide instruction.
- To ensure all students and staff develop competency in using technology as a tool to enhance learning, and to engage and inspire learners.

A. Curriculum Integration

Goals and strategies, aligned with challenging state and national standards for using telecommunications and technology to improve teaching and learning.

Royal Oak Schools will continue to investigate and implement innovative and effective ways to integrate technology into the curriculum. This task has no definite endpoint, but rather is an ongoing process as products and technologies evolve, and as we continually endeavor to improve upon our past successes. We use the International Society for Technology in Education's (ISTE) National Educational Technology Standards (NETS) for teachers and students, and the Michigan Educational Technology Standards (METS), as our guides.

No Child Left Behind (NCLB) requires that every student should be technologically literate by the time they finish the 8th grade. Our students begin learning and developing technology skills in kindergarten and continue to enhance and improve these skills throughout all grade levels. Technology literacy is an ongoing component of each student's educational experience.

To facilitate the promotion and sharing of specific teaching strategies and resources that effectively integrate technology into the curriculum, in 2010-11 the District began the initial stages of implementing Rubicon Atlas, an online curriculum mapping tool. We will progress toward full implementation over the next three years. Atlas will provide curriculum information for each course, including technology integration components, recommended timelines per unit, areas for teachers to record their individual lesson plans, and the ability to upload and store lesson-specific activities, worksheets, videos, websites, etc. Atlas curriculum maps can be searched in numerous ways, including by keyword and subject area, which will allow teachers the ability to share subject-specific technology integration strategies and resources. Furthermore, our teachers will have this same search ability across other Atlas member districts nationwide, allowing us to access the insights and imaginations of thousands.

As an additional means to promote and share effective technology integration, the District will pilot a quarterly newsletter for staff. This newsletter will highlight specific examples of teachers integrating technology into their instruction and will offer technology updates, guides, and tips.

Using comprehensive online assessment databases and test-reporting websites such as Pearson Inform, AIMSWeb, and Data4SS, Royal Oak Schools will continue to track and analyze student assessment data at the district level, the building level, and by disaggregating data into various subgroups such as Title I participation, special education services, and other subgroups as identified by *No Child Left Behind* (NCLB). In addition to state assessments, such as MEAP, MME, and MI-ACCESS, Royal Oak Schools uses a variety of internal, district-wide, common content-area assessments, including an 8th-grade technology literacy assessment, for these purposes. Periodic analyses of student progress in proficiency helps the District target specific

students and student populations for additional support, plan supplemental instruction for curricular areas with low achievement, target professional development to teachers in low performance areas, and evaluate the effectiveness of curricular programs in improving student achievement.

Beginning in fall 2011, Royal Oak Schools will have replaced a variety of separate, interconnected student-record database components with a fully integrated product, Zangle. Zangle includes features such as an electronic attendance and grade book, grade and transcript records, student scheduling, food service, bussing information, behavioral incidents, and detailed special education records. Full integration of these components promises to add accuracy and efficiency to data access and interpretation. Zangle will provide teachers with sophisticated grading and assignment reports that will help improve student achievement. The resulting ongoing classroom assessment collection will facilitate district-level standards-based reporting and the assessment of student performance in relation to state and national mandates and tests.

B. Student Achievement

Strategies that are based on research and that integrate technology into the curricula and instruction for the purposes of improving student academic achievement and a timeline for that integration.

Royal Oak Schools will continue to offer several technology-based options to help students improve academic performance. At the elementary schools, all kindergarten and early childhood center students use the Waterford Early Reading program on a daily basis; one Title I elementary building also uses Waterford Science and Math. When specific intervention is required, our elementary buildings use Fast ForWord and SuccessMaker. Fast ForWord is educational software that provides support in the development of brain-based reading fundamentals. Pearson SuccessMaker is an online comprehensive curriculum that provides supplemental instruction in English language arts and mathematics that is individually tailored to student needs; SuccessMaker is used in all our elementary buildings, Royal Oak Middle School, and Royal Oak High School.

Other technology integrated into the curricula includes, but is not limited to, Study Island, a standards-based Internet test preparation program; APEX Math, Harcourt Math, and MathFacts in a Flash; Lexia Reading; SpellingCity; and as part of the elementary school science curriculum students use ScienceA-Z, a web-based LearningA-Z.com product that can be accessed both at school and at home. During this plan period, elementary schools may also add other LearningA-Z products that improve reading skills and vocabulary: Razkids, ReadingA-Z, and VocabularyA-Z. Six buildings use an audio enhancement system that projects the teacher's voice uniformly throughout the room, assuring that all students hear course content clearly and consistently. During the period covered by this plan, our goal is to install this audio enhancement system in our other three buildings. To assist toward improving our English Language Learners' academic achievement, we will improve their English language skills using the ELLis and Rosetta Stone software programs. A significant advantage of most District web-based products, such as MathFacts in a Flash and Rosetta Stone, is that students and parents can access them from home.

All elementary classes have the opportunity to use computer labs with software such as Kid Pix, HyperStudio, Neighborhood Map Machine, Inspiration, Kidspiration, Image Blender, Graph Club, National Inspirer, and the Microsoft 2010 Office Suite. Computer labs also have access to

the Internet, where students can conduct research, and work with interactive websites that correlate with grade level curriculum.

Our schools use laptop carts with wireless connectivity, allowing students to use them with teachers as part of classroom lessons. By the 2012-13 year, all buildings will have the Follett library management system, as part of Zangle, for locating and cataloging media resources that enhance student learning. Ceiling mounted digital projectors have been installed in each classroom in six buildings, allowing Internet and other technology-based academic content to be displayed for all students. During this plan cycle we expect to install these projectors in our other three buildings.

Six district buildings have been using Video Furnace, which provides video-on-demand to the classroom using DVR-like functions such as stop, pause, seek, and select; and it further allows the teacher to bookmark content, which can then be integrated into the classroom lesson. Video Furnace transmits live national news feeds, and students can also use Video Furnace for their own daily news broadcasts, where students find information, write scripts, and act as news anchors and technical crew. During this Technology Plan cycle, all instructional buildings are expected to have Video Furnace installed, and equipment required for news broadcasts will be updated where necessary.

The District has started piloting the Rtl (Response to Intervention) component of Pearson Inform and will continue to expand use of this feature after planned Pearson Inform Rtl upgrades are released in summer 2011. This is a web-based program designed to track student academic progress. The Rtl component allows a team of professionals to create goals for at-risk students, comment on the success of interventions, and monitor progress.

At all grade levels students are educated about appropriate online behavior, including understanding the impact of cyberbullying, how to respond when confronted with cyberbullying, and safe and appropriate interaction on social networking sites.

Other technology integration specific to grade level

All teachers use technology to implement the curriculum in all content areas, but the focus or approach varies depending on student grade level. Elementary students begin with basic technology skills and knowledge such as understanding the care and functions of various computer system components, logging in to the network, opening folders and files, using programs, navigating to websites, and closing down at the end of their session. Students progress through more challenging skills as they continue through the grade levels. By the later elementary grades, students are able to independently create and save projects and have a greater understanding of technology concepts, including how technology benefits society. Students use video cameras and digital cameras to engage their interest in learning; for example, students have used these to film book reports, film weather reports, and to identify and photograph specific geometric angles they notice in objects located in their natural settings.

Middle school students continue to build on the technology skills learned in the elementary school. Technology in the middle school has traditionally been taught through content areas rather than as an individual course; however, the middle school anticipates that, beginning in fall 2011, the standard curriculum will include a technology course that integrates and interacts with all other course subjects. Students use word processing, spreadsheets, databases, multimedia presentation programs, graphic organizers, and graphing calculators with increasing mastery, and they use the Internet as a research tool and information database. The middle school has computer labs and laptop carts that teachers may sign out for projects and lessons related to the curriculum.

At the high school level, technology continues to be an effective tool and valuable resource for students and teachers in all content areas. There are a number of computer labs in the building that are available for teachers to sign out for projects and lessons related to the curriculum. In addition to computers, there are many other technology tools that are used to enhance teaching and learning. For example, graphing calculators are used extensively in mathematics courses, and science classes make use of probes and other specialized equipment.

In addition to this embedded use of technology, there are many opportunities for high school students to take courses that will extend and enhance their usage of technology. These include the following Board of Education approved courses:

INTRODUCTION TO VIDEO PRODUCTION

This course introduces students to the field of video and television production. Students will write scripts, develop storyboards, shoot and edit video and learn the basics of running a live television studio. Students will be introduced to Electronic News Gathering (ENG), Public Service Announcements, paid Commercial Advertising, Filmmaking, and other industry related aspects of video production and broadcasting. This course is designed to teach basic production skills with real-world applications. The program is built on industry practices and develops communication skills through multiple media formats. This course is a prerequisite for WOAK Advanced Video and Media Production.

WOAK ADVANCED VIDEO AND MEDIA PRODUCTION

This advanced course provides instruction in Video and Television production in a real-world setting. Students will operate the WOAK television production studio, produce the daily live news program, The Raven Report, work with the WOAK Community Access Channel and the television field production van to provide programming content to be cablecast on WOAK. Students will write scripts and storyboards, produce and edit projects primarily about ROHS events and activities. Students will learn detailed practices in shooting digital video and non-linear video editing with industry standard software and technology. This course is structured with a broadcast industry focus and prepares students for work-based applications of media production.

WRITING FOR THE SCHOOL YEARBOOK

Students in this course produce the school yearbook. Students learn skills in organization, layout, writing, sales, and advertising. This course is suggested for students who have good writing abilities and who are able to work well independently. In order to take this class, students must have a recommendation from the sponsor after application. This course is scheduled for one hour per day, but additional time is often required to complete the assignments.

WRITING FOR THE SCHOOL CREATIVE ARTS MAGAZINE

Students will advance their creative writing skills in a variety of genre such as narrative, poetry and essay, and will use advanced editing and revision techniques. They will learn the fundamentals of layout, design and desktop publishing and will create a personal magazine of their original work. They will learn all aspects of publication and produce the Royal Oak High School Creative Arts Magazine. This course is scheduled for one hour per day, but additional time is often required to complete the assignments.

WRITING FOR THE SCHOOL NEWSPAPER

Students in this course will produce a contemporary school newspaper comprising news, sports, features, and editorials. All newspaper staff will write and revise articles, sell advertisements, create publicity, and use InDesign and Photoshop software to lay out and publish new editions every six weeks. This course is suggested ONLY for students who have had previous journalism training. Students must be selected by sponsor in order to take this class. The course is scheduled for one hour per day, but additional time is often required to complete the assignments.

WRITING FOR THE SCHOOL NEWSMAGAZINE

Students will develop their abilities as global thinkers and ethical reporters as they research, report, and publish articles on local, national and world issues for a monthly news publication in magazine format. Articles in the magazine will focus on connecting readers to their school, community, nation and the larger world. As members of the magazine staff, students will employ the principles and skills learned in the journalistic writing course to write stories that reflect truth, credibility, balanced reporting, and a more global worldview. Students will use InDesign and Photoshop software to design the newsmagazine, which is written, funded and published by students and supervised by a faculty adviser. The magazine is registered with the Michigan Interscholastic Press Association (based at Michigan State University) and is submitted for review and evaluation by professional journalists every year. The ROHS newsmagazine will feature in depth news and feature stories, as well as editorials, sports stories and columns. Members of ROHS and the Royal Oak community will be interviewed for their perspectives.

BUSINESS MANAGEMENT, MARKETING & TECHNOLOGY - COMPUTERIZED ACCOUNTING

This course provides a brief review and a concentration of the first year course and includes an introduction to partnership, corporation accounting and basic cost accounting. Its primary purpose is to develop greater mastery in accounting using Excel and other applicable accounting software to prepare the student entering the world of finance or for post secondary education. Students continue to use the microcomputer in their accounting studies.

BUSINESS MATHEMATICS AND PERSONAL FINANCE

Mathematical problems that arise in business and consumer affairs are dealt with in this course. Addition, subtraction, multiplication and division of whole numbers, fractions and percentages are used in the process of learning to deal with taxes, discounts, interest and other common matters. Students will use electronic calculators and computers as tools to process business math applications.

BUSINESS MANAGEMENT & TECHNOLOGY

This course introduces the student to the basic skills of keyboarding, speedwriting, notetaking and accounting. Word processing, spreadsheet, database and graphic computer applications will be integrated into the foundation business skills of resource management, applied communications, applied mathematics, problem solving and decision-making. Student will be required to use thinking, management and organizational skills. Career planning, work ethics, and the economics of work will be essential units in this course.

COMPUTER APPLICATIONS IN BUSINESS

This course is designed for the business, Tech Prep and college-bound student. Emphasis is placed on the use of technology for writing, manipulating, interpreting and representing business data and information. Using Word and Publisher the student will create business letters, memos, Web pages, newsletters and more. Using specific formatting features, such as tables or drawing, students learn to enhance the appearance of their documents. After learning basic tools and elements of Excel, the students will demonstrate the essentials of creating workbooks, using formulas, functions, and analyzing data.

WORD PROCESSING AND DOCUMENT FORMATTING

This course is designed to give students a working knowledge of keyboards and computers. It includes mastery of the keyboard, drill in speed and accuracy, application of the basic skills on letters, manuscripts, reports, tabulation work and other formatting techniques for personal and business usage.

INFORMATION PROCESSING, DOCUMENT FORMATTING AND DESKTOP PUBLISHING

This course requires independent work in production typing including business letters, tables, research papers and business forms. Students will use microcomputers. This course incorporates good work habits, promotes self-reliance in keyboarding and improves grammar, punctuation, and computer vocabulary. Reprographics, research and analysis, proofreading and editing, and word processing projects are required for this course.

WEB PAGE DESIGN

Web Page Design provides students with advanced knowledge of developing, creating and hosting Web pages. Students will experience web page hosting on Windows based servers and Linux based servers. Students will format for resolution and for different browsers. Students will explore webpage management issues, webpage maintenance, legal issues, and troubleshooting. Students will also use scenarios and multiple lab exercises to practice their skills and reinforce the concepts they learn. Your skills will apply in a wide range of business environments including professional offices, small businesses, and corporate information services.

BASIC TECHNICAL DRAFTING/CAD

Geometric construction, three-view orthographic drawing, dimensioning, and introduction to manufacturing processes using manual drafting methods are covered as well as sectional views, single auxiliary views, and threads and fasteners employing the AutoCAD system. Students considering technical careers will find this course essential.

MECHANICAL DESIGN/CAD

This course covers detail and assembly drawings, secondary auxiliary views, and manufacturing processes including castings, forgings, and fabricated machine parts using the CAD system. Also covered is solid modeling including primitives, revolutions, and extrusions with an introduction to parametric technology.

ANIMATION AND RENDERING

The goals of this course are to give students advanced skills in the application of 3D modeling, rendering, animation, and presentation. Students will develop technical illustrations and architectural walkthroughs and flybys. Students will gain experience and knowledge with integration of software, website links, project testing, design and production quality.

ARCHITECTURAL DRAFTING AND DESIGN

Architectural Drafting and Design includes the study of the basics of residential house design. Working drawings, including plot plans, footings and foundations, floor plans, roof designs, elevations, sections, electrical and plumbing will be completed using the CAD system.

ADVANCED ARCHITECTURAL DRAFTING & DESIGN

Advanced units in group project design, presentation drawing, subdivision layout, multiple unit housing, and model construction will be studied. Computer aided design and drafting will be covered. May be repeated for credit with approval of instructor and principal.

INTRODUCTION TO GRAPHIC COMMUNICATIONS 1 & 2

If you are creative and would like to learn about the third largest manufacturing industry in the United States, then this is a class to consider. You will go from designing your own artwork to producing the finished piece. Projects that you will produce will include memo pads, greeting cards, business cards, mouse pads, coffee mugs, t-shirts and more. Units of instruction will include: job planning and layout, desktop publishing, graphic arts photography, image assembly, offset press operation and finishing operations. This course will also survey the major printing processes of Lithography, Flexography, Gravure, Letterpress, Screen Print, and Engraving.

GRAPHIC COMMUNICATIONS 3 & 4

This class is an extension of the processes and procedures that were covered in Introduction to Graphic Communications classes. Projects that you will produce will be multi-color memo pads, greeting cards, business cards, t-shirts, and mouse pads. In learning about the third largest manufacturing industry in the United States, units of instruction will include job planning and layout, desktop publishing, copy preparation, graphic arts photography, image assembly, offset press operation, bindery-finishing operations, ink and paper. We will also look at career pathways that include job shadowing, co-op, employable skills and college options. You will also produce actual print production jobs competencies.

GRAPHIC COMMUNICATIONS 5 & 6

This class is an extension of the processes and procedures that were covered in Introduction to Graphic Communications 3 & 4. Students will continue to work towards certification in the five areas of PrintED certification. These areas include Desktop Publishing, Press, Digital Output, Digital File Preparation, and Bindery/Finishing. You must maintain an 80% average in these areas to receive these certificates. We will also look at career options that include job shadowing, co-op, employability skills and college options. You will also produce actual print production jobs for customers to develop and increase skills in your desired imaging competencies. Process color printing will also be covered during this course. A portfolio is required for this course.

VISUAL IMAGING TECHNOLOGY

If you are interested in computers and what they can do, then this will be a class for you. You will be introduced to desktop publishing using Macintosh Imac Intel computers and Adobe InDesign, Photoshop, and Illustrator software. You will also explore the use of still and video digital cameras and how they apply to the graphic communications industry. Projects will include designing newsletters, packaging, memo pads, greeting cards, mouse pads, coffee mugs, and t-shirts. Students may also explore DreamWeaver, Flash, Maya 3D, and sound editing software. This course will also survey the other major occupations within Visual Imaging Technology and Graphic Communication industries.

INTRODUCTION TO TECHNOLOGY

Learners will explore engineering through the use of design and technology. They will work individually and in teams to solve technologically based problems through hands-on activities. Selected activities will be drawn from the areas of manufacturing systems, power and energy systems, transportation systems, biotechnology systems and informational systems.

MATERIAL SCIENCE AND TECHNOLOGY

Learners will develop an understanding of materials such as ceramics, metals, plastics, composites and the processes associated with them. They will experiment with materials in a hands-on manner to discover their nature and properties while applying scientific concepts. Students will learn by designing and creating products of their own choosing.

APPLICATIONS IN TECHNOLOGY

This course allows learners to develop the fabrication/ technical skills necessary for engineering and manufacturing. Learners will spend one semester developing the skills necessary for CNC (Computerized Numerical Control) machining. They will use Mastercam CAD/CAM software to design, program and machine engravings, 2 dimensional and 3 dimensional objects on mills and lathes. The second semester will be spent in the lab to allow learners to develop traditional engineering skills in areas such as precision measurement, traditional milling and turning, welding, finishing, adhesives, fasteners/ taps and dies, etc. Learners will process a variety of materials such as plastics, metals, ceramics and composites.

ENGINEERING TECHNOLOGY

This course provides learners with the opportunity to explore practical and realistic situations associated with the development, testing and marketing of technological solutions. Learners will be challenged to design several types of student operated vehicles for the purpose of competition. Quality and teamwork will be the foundation for all work completed in class. Extra-curricular activities will be part of the class. Learners will explore units in electricity, electronics, programming, mechanical systems, and fluid power. This course is designed to provide learners with the technical knowledge and experiences necessary to maximize the student's success in a technical and engineering curriculum at the post-secondary level.

ROBOTICS/AUTOMATION AND CONTROL SYSTEMS

Learners will be provided with opportunities for the fabrication, assembly, operation, programming and testing of robotized and automated equipment. The design and development of solutions to competitive robotics events will be an integral part of the course. Students will be given the opportunity to participate in several different robotics competitions such as OCCRA (Oakland

County Competitive Robotics Association) and national FIRST Robotics Competitions. Learners will study the principles of CAD/ CAM, as well as, the operation of computerized sensors, actuators, equipment and machines. Learners will explore units in electricity, electronics, programming, mechanical systems, and fluid power. This course is designed to provide learners with the technical knowledge and experiences necessary to maximize the student's success in a technical and engineering curriculum at the post-secondary level. Teamwork and quality control are also an integral part of the course.

MATERIALS PROCESSING 1 & 2

Students will work in teams to solve problems that involve the use of metals, plastics, wax, and woods in the manufacturing world. The emphasis will be on traditional as well as computer-aided manufacturing techniques that will prepare the student for working in the 21st Century environment.

MATERIALS PROCESSING 3 & 4

Students will work on problems related to the technology of processing materials. Processes involving computer manufacturing will be used to carry materials from design to finished product.

MEDIA SERVICES

Students will work in the media center providing services to students and staff. These services include: pick up and delivery of equipment; set up of instructional technology; working at the circulation desk; shelving books and other materials. Students will learn how to utilize media center resources such as electronic databases, instructional technology, and printed materials. Students must enjoy working with people, have excellent attendance, and be dependable. Application for this course must be made through the media specialist

C. Technology Delivery

Strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies.

On-line Resources: Students and staff are provided with access to web-based and online learning opportunities.

- Cyber Film School and Cyber College are used in the TV production classes and the video production classes. They provide web-based content and instruction using streaming video in an interactive format.
- GaleNet and Grolier's are used in all levels of our School District. These databases are used to supplement the current course content. In addition to access at our buildings, these resources are available for students to access from their home computers.
- Web-based technologies including curricular-focused websites like MI-Climb and Michigan eLibrary (MeL).
- United Streaming is available in our middle school, our high school, and the six elementary schools. This resource is supported by scientific research and therefore fulfills mandates set by *No Child Left Behind*. Teachers can select from over 40,000 video content clips and 4,000 full video titles. The video content is correlated to Michigan's Standards and GLCE. The video library can be searched by curriculum standard, keyword, subject area, and grade level. This resource will enable our teachers to incorporate video clips into multimedia presentations and the student-learning environment.
- We will explore implementing iTunesU, an educational video resource with content from over 400 universities and from "MI Learning", a collaboration of groups including the Michigan Department of Education that offers videos aligned with Michigan curriculum standards.

Collaborative Projects: Schools, colleges, universities and even the workplace are being linked to support long-term projects. Through articulation agreements and business partnerships, teachers can receive excellent, free training on software programs.

On-line Courses: e2020 is a web-based credit recovery program for high school students used at both Royal Oak High School and Churchill.

Video Teleconferences and Field Trips: Teachers and students can create a “classroom without walls” by accessing experts in the field or other students in distant locations to participate in instructional activities. Adobe Connect is one example of such software that the District will explore.

Technology Based Interaction:

- Moodle (<http://moodle.org/>), which is much like Blackboard, is a web 2.0 learning management system for teachers and students to communicate with each other. Teachers can post assignments and also reference documents or web links about the assignments. Students can post comments to each other and to the teacher about the assignments or to discuss and debate topics.
- Gaggle (<http://www.gaggle.net>) is a safer web-based email system primarily designed for use by students. It has built in content filters that block inappropriate words and phrases. The teacher initiates student involvement, defines the scope of use and supervises. A homework drop box allows students to submit their work from any location; the work is time-stamped so that teachers can confirm work was submitted prior to the due date. Gaggle also contains a feature called GaggleTube that provides a safe, reliable interface for teachers to peruse, and provide student access to, filtered educational YouTube video content.
- TeacherTube and SchoolTube, websites that offer teacher-posted educational videos.
- SynchronEyes (www.smarttech.com) is a tool that allows the teacher to monitor student usage of lab computers to keep the focus on learning; allows the ability to remotely observe progress and understanding of the lesson; students and teachers can communicate directly, either privately or in a group chat forum, regarding questions on the instruction. It also permits the teacher to share a computer screen (teacher’s or student’s) to demonstrate a concept or example with the whole class, and allows the teacher to deliver quizzes and have them marked automatically, which helps the teacher to quickly assess lesson comprehension.
- Drupal, a website content management system, that is used to maintain the District website and individual teacher websites.

D. Parental Communication & Community Relations

Strategies to promote parental involvement and to increase communication with parents and community, including a description of how parents and community will be informed of the technology to be used with students.

Royal Oak Schools has established several avenues for sharing information with parents and the community. One of the most effective ways of communicating is via the District’s website. Through this online resource, parents and the community can view district news, district standards, calendar information, school board minutes, and watch recorded school board

meetings. Using Drupal, our website management system, many teachers have created their own classroom websites to communicate classroom-specific information to students and parents. We continuously update the information on our website, thereby providing current and relevant information to parents and interested community members.

Zangle Parent Connect replaces a variety of previously used parent information portals with the advantage to parents that all this information is now be available from a single login. Zangle Parent Connect provides parent access to edit emergency contact information, view food service account balances and purchase history, and monitor student assignments, grades, and daily attendance. Zangle also provides a communications page with sections for teacher, building, and district communications to parents and students.

SchoolMessenger, an emergency notification system, phones and emails parents regarding snow days, school closures, and other information where timely notification is critical. eNews is an opt-in email list that provides a variety of district and school information, and eFolders provides parents with weekly emailed information specific to their children's elementary school. Parents can also follow district news by RSS feed and on both Facebook and Twitter. Additionally, just prior to this plan cycle, Royal Oak Schools participated in a nationwide community survey study to help school districts improve communication with parents and community members. Approximately 100 school districts across the United States and Canada were selected to participate in this survey. Our local results will be sent to us in spring 2011, and national results will be sent in July 2011. Royal Oak Neighborhood Schools plans to use these results to refine our current communication effort and improve its effectiveness.

In an effort to better communicate what our students are learning in school, Royal Oak Schools created parent guides to explain each grade's curriculum. These guides highlight the four main, core curriculum areas: language arts, mathematics, science and social studies. They are available from a link on the parent section of the District's website. As our implementation of Rubicon Atlas progresses, we will activate the Atlas parent portal, allowing parents access to our full online curriculum.

Six district buildings have upgraded phone and voicemail systems, which encourages staff to maintain good communication with parents. Staff members may leave classroom assignments on the voicemail system as well as retrieve messages from parents. During this plan cycle we expect to upgrade our other three buildings with this phone and voicemail system.

A newsletter, Your Schools, is posted on our website and is mailed to every resident on a periodic basis. This newsletter contains information about what is happening in the District. It also tells people how to access our website and cable television station, where additional information can be obtained.

Royal Oak Schools works with many agencies in the area to promote education, communication and community involvement. This is achieved in many different ways such as grant writing and sharing press release information to all forms of print, TV, and radio media.

For interested parents and community members, this Technology Plan will be available on our website at: http://www.royaloakschools.com/pdf/Technology_Plan.pdf

Our acceptable use policy is also available on our website at:
<http://www.rosd.k12.mi.us/portal/policy/program>

This policy includes details about many of the ways that students can and should use the District's technology.

Community members reviewed an initial draft of this current Technology Plan to contribute to the planning process and final document. The District Technology Committee and community members will review this plan periodically to provide further opportunity for input.

E. Collaboration

Strategies for developing the program, where applicable, with adult literacy providers

The Royal Oak Continuing Education main office is housed at Churchill, as is the alternative high school program. Through the Continuing Education office a variety of courses are offered, including adult English as a Second Language, GED preparation classes and testing, and adult high school completion classes. These programs have full access to technology to support the teaching and learning process via two networked computer labs, e2020 online courses, data projectors, digital cameras, and one networked computer in each classroom.

Curriculum and Student Achievement Timeline

2011-2012:

- Train all teachers on Zangle grade book, attendance, and reporting software
- Provide Zangle training to all secretaries and administrators
- Provide online instruction to parents on using Zangle's Parent Connect
- January: Begin process to convert existing library management systems to Follett library management system component of Zangle
- Expand preliminary use of Rubicon Atlas online curriculum mapping
- Continue developing scope and sequence for technology instruction
- Request that subject area curriculum committees identify quality web resources
- Increase the use of Pearson Inform and Data4SS to assist teachers in identifying areas of need
- Expand the use of Pearson Inform Rtl (Response to Intervention) for students with identified needs
- Investigate using Razkids, ReadingA-Z, and VocabularyA-Z in all elementary buildings
- Explore use of iTunesU
- Pilot use of Adobe Connect for classroom collaboration and distance learning
- Pilot technology integration newsletter
- Evaluate whether piloted technology integration newsletter was practical and beneficial
- Assess 8th grade technology literacy
- Technology Plan Committee to assess progress made toward Technology Plan goals

2012-2013:

- Train new staff on Zangle, as needed
- Fully implement teacher use of Rubicon Atlas
- Fully implement Follett library management system component of Zangle
- Continue use of electronic assessments
- Continue locating quality web resources
- Continue placing K-12 curriculum with resources on District website
- Continue developing scope and sequence for technology instruction
- Use results of 2012 8th grade technology literacy assessment to modify technology integration and instruction where necessary
- Assess 8th grade technology literacy
- Technology Plan Committee to assess progress made toward Technology Plan goals

2013-2014

- Train new staff on Zangle, as needed
- Assess readiness for opening parent portal to Rubicon Atlas
- Continue use of electronic assessments
- Continue locating quality web resources
- Continue placing K-12 curriculum with resources on District website
- Continue developing scope and sequence for technology instruction
- Continue instructing students in the use of appropriate technology
- Use results of 2013 8th grade technology literacy assessment to modify technology integration and instruction where necessary
- Technology Plan Committee to assess progress made toward Technology Plan goals

Curriculum and Student Achievement Goals & Action Plan

Goals:

1. To integrate technology in all curricular areas to enhance and support teachers' ability to assess student learning and guide instruction.
2. To ensure all students and staff develop competency in using technology as a tool to enhance student learning, and to engage and inspire learners.

Evaluation Questions:

1. Does the technology provide teachers with a tool for assessing student learning and guiding instruction?
2. Do students demonstrate competency in basic technology skills?

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Online attendance and electronic grade books – Zangle	Train all staff, parents	Teacher Trainers, Academic Technology Leader, Technology Dept, Exec Dir of Admin Services & Technology	Fall 2011 Continues thru 2014 for new staff	Staff able to use successfully, increased use of advanced features by staff at all levels
Extend preliminary use of Rubicon Atlas; then fully implement	Teacher trainers to train their colleagues; explore additional ways to increase awareness of product benefits	Academic Technology Leader, Director of Instruction, Teacher Trainers	Begin Sept 2011 Fall 2012	Trainings scheduled, attended Product in full use
	Import state common core standards as they become operative	Academic Technology Leader, Director of Instruction	Begin 2011, ongoing as standards become operative	Common Core standards imported
	Evaluate Implementation	Director of Instruction, Academic Technology Leader	Spring 2012	Feedback collected and evaluated
Assess readiness for opening parent portal to Rubicon Atlas	Evaluate whether product use is at a level that warrants opening parent portal.	Director of Instruction, Academic Technology Leader	Fall 2013	Evaluation complete, parent portal opened if warranted.
Identify quality web resources	Subject area curriculum committees research and identify	Director of Instruction, Academic Technology Leader, Subject Area Committees, Exec Director of Admin Services & Technology	Fall 2011	Additional web resources identified and existing web resources are reviewed for relevance
Increase the use of Pearson Inform and Data4SS to assist teachers in identifying areas of need	Increase training about use and data interpretation	Academic Technology Leader	Winter 2012	Trainings created and attended
	Increase use of Pearson Inform and Data4SS	Academic Technology Leader	Spring 2012	Pearson Inform used throughout the District; Data4SS used regularly by appropriate staff
Expand use of Pearson Inform Rtl component	Determine whether Pearson updates have significantly improved Rtl component	Academic Technology Leader, Director of Instruction, Director of Special Education	Summer 2011	Rtl component updates have sufficiently improved product to warrant District use
	Train Rtl Coordinators on Pearson Inform Rtl component, or explore other options for recording Rtl information	Director of Instruction, Academic Technology Leader	2011-2012	Rtl Coordinators successfully using a web-based product to record Rtl information

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Investigate using Razkids, ReadingA-Z, and VocabularyA-Z at all elementary buildings	Key building staff to meet with vendor, examine building budgets, begin pilot if advisable.	Director of Instruction, Academic Technology Leader	Fall 2011	Meetings held, and if purchase advisable, all buildings are using these products.
Explore use of iTunesU	Identify feasibility of installing iTunes on all District computers, assuring that access to MP3 components can remain blocked, and obtain teacher feedback about usefulness of video content.	Technology Operations, Director of Instruction, Academic Technology Leader, Exec Dir of Admin Services & Technology	Summer 2011 – Spring 2012	Decision about feasibility of installation reached; if installed, teachers are using video content.
Pilot keyboarding programs and websites in some elementaries	Identify elementary schools for pilot, and evaluate the software	Exec Director of Admin Services & Technology, Director of Instruction, Academic Technology Leader	2011-12	Pilot completed and decision made regarding further implementation
Pilot use of Adobe Connect for classroom collaboration and distance learning	Begin initial use, evaluate outcomes, investigate increasing licenses	Exec Director of Admin Services & Technology , Technology Dept, Director of Instruction, Academic Technology Leader	2011-12	Pilot completed and decision made regarding further implementation
Pilot quarterly academic technology newsletter that highlights technology integration, updates, tips	Explore options for delivery (print vs. web), collect content, publish quarterly, evaluate for publication frequency, practicality, and whether beneficial to staff.	Academic Technology Leader	2011-12 – pilot 2012 – evaluate pilot 2013-14 proceed if practical	Newsletter is produced & accessed, staff are using content to help integrate technology

II. Professional Development

Professional development for technology in the Royal Oak Schools will provide adequate and relevant technology training for all staff to foster an annual increase in student achievement during the years of this Technology Plan.

It is our belief that technology can foster an increase in student achievement when it is used for assessment and analysis, as a teaching and learning tool, and for communication.

F. Professional Development

Strategies for providing ongoing, sustained professional development for teachers, principals, administrators, and school library personnel to ensure that staff know how to use the new technologies to improve education or library services.

The District offers staff a variety of ways to gain professional development for incorporating technology use as a part of daily instruction. All offerings are aligned with International Society for Technology in Education (ISTE) National Educational Technology Standards (NETS).

The opportunities include:

1. Modeling - Staff development at this phase requires a trainer to teach lessons using technology integrated into the curriculum for the classroom teacher. The lesson is reviewed with the classroom teacher before it is taught and then discussed with the teacher afterwards.
2. Co-teaching - This model requires that the trainer and teacher work collaboratively to design a lesson, which integrates technology into the curriculum along with teaching the lesson with the teacher and trainer as equal partners.
3. Consultative - This model is used with teachers who have a high degree of proficiency with technology and who feel confident in using the tools in an integrated manner with a class. The trainer checks with the teacher at this level to help coordinate resources, provide input and help align the lesson with our curriculum, benchmarks and assessments.
4. Training-On-Demand - An individual teacher or group of teachers can decide they need training on a particular piece of software or to create a lesson using a particular piece of software. They contact the Instructional Office to schedule this training. A staff development plan is mutually agreed upon.
5. Skills Development - classes provided for a nominal fee through Oakland Schools.
6. Building based training- training that meets specific needs as identified by building staff and principal. Typically these training needs are met on staff development times built into the school calendar.

Additionally, the District has already started creating brief on-demand training videos that staff can access from their computers. This format allows staff to be trained on a precise user-specified topic whenever they desire, and as many times as they desire. We will continue to explore the possibility of expanding this training format, particular with software such as Adobe Captivate and Jing, as we continue to investigate more cost- and time-effective ways to reach the largest possible target audience.

Professional development focuses on skill building for teachers in a contextualized format. This means that technology skills (hardware and software) are developed in a project-based format. Our belief is that teachers will transfer the skills learned into integrated classroom activities for their students. An example would be to have second graders use a newsletter template created by the teacher to share what they learned about the life cycle of butterflies, a science unit in

second grade. The newsletter that students create is a project that integrates the use of technology as a communication tool with the Science GLCE describing students' knowledge of life cycles.

Royal Oak Schools budgets for the cost of substitutes during the school day for teachers and other staff who enroll in staff development offerings. Staff development opportunities are open to all Royal Oak staff, including certified, non-certified, administrative, secretarial/clerical, and para-professional. We also design and implement training programs for our secretarial and clerical staff and provide release time for them to attend these training opportunities during their regular working hours. This training focuses on job-related functions using technology, including but not limited to, email, building financial account management, use of the District Student Information System (SIS), and desktop publishing.

Royal Oak Schools established a web-based method of communicating professional development offerings of all types through the *Electronic Registrar Online*. This site allows for online signup and tracks teacher participation. This information is uploaded into the HR system, which is then forwarded to the state for tracking individual staff development activity.

Over the next three years, professional development for technology in the Royal Oak Schools will provide adequate and relevant technology training for all staff to foster an annual increase in student achievement. This will be the foundation of our staff development plans.

State agencies and school districts are required to develop robust accountability systems using data warehousing and business intelligence tools. Our goal is to equip instructional staff with the tools needed to analyze real time student performance metrics along with other demographic, achievement and budgetary indicators.

To accomplish the training needs established in our plan, Royal Oak Schools will continue to support teachers in developing skills in the use of technology for analyzing student achievement as well as in the integration of technology into instruction. Teachers can gain these skills through scheduled, planned, paid professional development, as well as through professional development opportunities attended on a voluntary basis. These staff members will be encouraged to support the on-going efforts in their buildings and become a resource for other staff throughout the District.

Professional Development Timeline

2011 - 2012

- Begin creating training videos and post to video support page of staff Intranet
- Core applications (word processing, spreadsheet, presentation software, desktop publishing, email, Internet proficiency)
- Proficiency in ISTE / NETS (International Society for Technology in Education) skills for all staff
- Zangle training – grade book for all existing and new staff
- Zangle training – attendance and SIS for all existing and new staff
- Rubicon Atlas – work with teacher trainers to expand use
- Zimbra training for all new staff
- Moodle training, specifically highlighting wikis and blogs
- Intranet training, for new staff and re-training as desired for existing staff
- Pearson Inform all staff at all schools
- If iTunesU has been implemented, train staff on how to access
- Pearson SuccessMaker – at the elementary and middle school level
- e2020 a web based credit recovery program for high school students, implemented. Train staff who work with students who are not meeting graduation requirements.

2012 - 2013

- Expand library of video training guides for staff
- Core applications (word processing, spreadsheet, presentation software, desktop publishing, email, Internet proficiency)
- Proficiency in ISTE/NETS (International Society for Technology in Education) skills for all Staff
- Zangle Training - gradebook for all new staff
- Zangle Training - attendance and SIS for all new staff
- Zimbra Training for all new staff
- Moodle training, specifically highlighting wikis and blogs
- Rubicon Atlas – work with teacher trainers to expand use
- Intranet training, for new staff and re-training as desired for prior staff
- Existing technology training on programs and systems
- Pearson Inform all staff at all schools
- Pearson SuccessMaker
- E2020 a web based credit recovery program for high school students, implemented. Train staff who work with students who are not meeting graduation requirements.

2013 - 2014

- Rubicon Atlas – train parents how to access and use parent portal
- Core applications (word processing, spreadsheet, presentation software, desktop publishing, email, Internet proficiency)
- Proficiency in ISTE/NETS (International Society for Technology in Education) skills for all Staff
- Zangle Training – gradebook for all new staff
- Zangle Training - attendance and SIS for all new staff
- Moodle training, specifically highlighting wikis and blogs
- Zimbra Training For all new staff

Professional Development Action Plan

Goal: Professional development for technology in the Royal Oak Schools will provide adequate and relevant technology training for all staff to foster an annual increase in student achievement during the years of this Technology Plan.

Evaluation Question: Did the professional development offerings provide adequate and relevant technology training for all staff leading to an improvement in student achievement?

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Core applications: MS word processing MS spreadsheet Presentation Desktop publishing Email: Zimbra Internet search engines	Continue providing training opportunities to all staff as needed	Technology Dept, Instruction Dept	Ongoing	Staff successfully uses core applications with minimal support.
ISTE / NETS for Teachers: 1. Technology Operations/ Concepts 2. Planning and Designing Learning Environments and Experiences 3. Teaching, Learning and the Curriculum 4. Assessment and Evaluation 5. Productivity and Professional Practice 6. Social, Ethical, Legal and Human Issues	Base all technology-related professional development on ISTE/NETS. Provide staff with copy of ISTE/NETS. Refer often to standards.	Technology Dept, Instruction Dept	Ongoing	Professional development courses are based on the ISTE/NETS for Teachers. Teachers are demonstrating competence in the six areas.
Other new and existing applications	Continue providing training opportunities to all staff as needed	Instruction Dept Technology Dept	As needed	Staff successfully uses new and existing applications with minimal support
Zangle	Gradebook Administrative Clerical High School Middle School Elementary	Technology Dept	Begin Fall 2011 Ongoing	Staff successfully uses the Zangle suite with minimal support.
Zangle	Online parent interface	Technology Dept	Begin Fall 2011	Parents are accessing student information.
Zimbra - for staff (Internet Mail Program)	Continue providing training opportunities to all staff as needed	Technology Dept, Instructional Dept	2011-2014	Staff can successfully use the main features of Zimbra.
District Intranet / Web Portal Electronic forms Calendars Directories Listservs Personal publishing	Continue providing training opportunities to all staff as needed	Technology Dept, Instructional Dept	Ongoing	Changes over time to track available technologies. Increase utilization of these facilities.

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Existing Equipment & Infrastructure Computers Peripherals Data projectors SmartBoards Palms Elmo Scanner Printer/copier Label maker Digital Cameras Voice enhancement sound field system	Continue providing training opportunities to all staff as needed Implement fully throughout the District.	Technology Dept To be identified	Ongoing Fall 2011	Staff successfully uses technology equipment with minimal support.
E2020- Web based Credit Recovery	Use computer labs	Technology Dept, Instruction Dept	Ongoing Fall 2011	Staff and students are successfully completing online learning courses.
Video Tutorials	Identify and develop for high need areas in technology use, post to District intranet page	Instruction Dept, Technology Dept,	Ongoing	Skills taught in the video tutorials are learned and used.
Electronic Testing e.g. Pearson Inform	Train staff to use test interface Train staff to extrapolate student achievement data	Instruction Dept Technology Dept	Continue Fall 2011	Assessments are created, used and analyzed. Instruction is adjusted according to student needs.
Input Methods: Short term Keyboarding Long term Emerging Technology such as Voice Input	Provide software and training to staff integrate into curriculum	Instruction Dept Technology Dept,	Ongoing	Students can keyboard faster than they can write. Successful use of speech recognition software.
Pearson Success Maker	Provide or arrange for training on the effective use of this product, for students with identified needs	Instruction Dept	Fall 2011	Teachers are effectively using the product with identified students.
Waterford	Provide or arrange for training on the effective use of this product, for students with identified needs	Instruction Dept	Fall 2011	Teachers are effectively using the product with identified students.
Fast ForWord	Provide or arrange for training on the effective use of this product, for students	Instruction Dept	Begin Fall 2011	Teachers are effectively using the product with identified students.
Rubicon Atlas parent portal	Evaluate readiness for opening parent portal to Atlas; train parents on use if opened	Instruction Dept	2013	Parents are using Atlas to access online curriculum.

G. Supporting Resources

Strategies and supporting resources such as services, software, other electronically-delivered learning materials, and print resources that will be acquired to ensure successful and effective uses of technology.

Royal Oak Schools will make a wide variety of supporting resources available to staff that allow students and staff more opportunities for using technology as a part of instruction. The following resources have been made, or are planned to be made, available:

- Acceptable use policy
- District policies and procedures
- Substitute Employee Management System (SEMS)
- Online calendars
- Royal Oak Schools web publishing guidelines
- Parent permission for student information on web page
- Training manuals in print and on the District website
- Elementary level math resources
- Video and other instructional materials from Oakland Schools
- A variety of subscription-based online resources available through building media centers and beyond
- Technology work order system (Information Resource Manager - IRM)
- Software approval process
- Royal Oak Schools Technology Plan (this document)
- Online request form to override Internet filter
- Availability of Windows operating system and Office software at educator discounts
- Online staff directory
- Checking school email from any computer with Internet access
- Online job application system
- Maintenance work order system (School Dude)
- Web-based forms including field trips and bus requests
- Drupal content management system
- Pearson Inform, and SuccessMaker software
- Zangle online grade and attendance software
- Video Furnace
- Rubicon Atlas
- Gaggle.net's GaggleTube educational video interface
- iTunesU
- Adobe Captivate and/or Jing for creating video help guides for staff

III. Infrastructure, Hardware, Technical Support and Software

The overriding purpose of Royal Oak Schools technical infrastructure is to support increased student achievement. To that end we have one infrastructure goal:

To provide and maintain infrastructure that supports the hardware and software demands of the accessibility, curriculum, and professional development goals.

H. Infrastructure Needs/Technical Specification and Design

Strategies to identify the need for telecommunication services, hardware, software, and other services to improve education or library services, and strategies to determine interoperability among the components of the technologies to be acquired.



Our current Wide Area Network consists of each building having its own server. These servers, except for Oakland Elementary, are interconnected using GPS-Synchronized Point-to-Point Wireless. Royal Oak commercial buildings in the downtown area prevent Oakland Elementary from having a clear line-of-sight to the closest wireless tower, and so alternative solutions are being explored. The plan is that by summer 2011 Oakland Elementary will also connect using the same wireless system. As emergency back-up should the wireless connection fail, all buildings are also connected by T-1 lines. The District connects to the Internet by fiber optics.

The District uses a proxy server for Internet filtering. This database is automatically downloaded and updated every evening and is run by an open source and proprietary software application.

Other security software in use includes spam filters, firewall, virus scanning, and VPN connectivity.

The District has a student-to-computer ratio of better than 3:1. Classrooms are wired with Cat5e- or better wiring and have direct access to the Internet through the District server. The District also has a computer in every classroom. There are numerous configurations of equipment throughout the District. All schools have computer lab configurations, while classrooms throughout the District have between one and four stations. Most schools have portable wireless computer labs that can be used in classrooms, and most classrooms have access to digital projectors with most mounted in the ceiling.

Royal Oak Schools focuses on standardization of hardware, software, and network infrastructure to facilitate interoperability, upgrades and reliability. All networked machines are standardized on Microsoft Windows XP operating system. Standardized software includes Microsoft Office 2010 for documents, databases, spreadsheets, presentations and publications. Web-published documents are standardized as PDFs (portable document format), which is compatible across platforms and browsers.

We have installed non-network machines in some of our schools. These computers tend to be lower-cost, refurbished, or donated machines for specific uses that do not need Internet accessibility or network capabilities. Our kindergarten program uses the Waterford Reading Program, the high school math department uses computers for work with algebra simulation software programs, and our physics and chemistry labs use these non-networked machines for laboratory work.

Parents and community have also seen significantly improved access to district information and resources. Availability of eNew, eFolders, emergency notification, Facebook, Twitter, RSS feeds, secondary-school grades and attendance, on-line calendars, reporting of current events, online policies and procedures, School Board meeting agendas, curriculum highlights, and information on food service deposits and purchases are some of the features that have been enabled.

Our efforts to address our infrastructure focus on two primary areas: increasing bandwidth and upgrading hardware to support instructional, curriculum, and accessibility objectives. Currently, elementary buildings and Churchill communicate via smaller rooftop-mounted towers to the larger towers at Royal Oak High School and Royal Oak Middle School. Because rooftop-mounted towers are lower in height, they experience reduced bandwidth as their transmissions pass through a greater number of obstacles, such as trees. Proposals to increase bandwidth, as funds become available, include purchasing more bandwidth in these rooftop-mounted towers, or installing full-size towers near these buildings for much greater bandwidth increases.

During the term of 2011-2014 we plan to complete placing telephone instruments, ceiling-mounted digital projectors, and audio enhancement systems in all classrooms, and Video Furnace in all buildings. Building computers and computer-related equipment will be upgraded on a rotating schedule throughout the District, based on functionality and equipment age, with the plan being that no equipment will be greater than five years old.

Supporting staff resources for professional development in technology include the positions of Director of Instructional Services and Staff Development, Academic Technology Leader, Media Technicians, Technology Paraprofessionals, Media Specialists and Teacher Leaders.

Supporting staff resources in the area of technical support include the positions of Executive Director of Administrative Services and Technology, Network Administrators, Academic Technology Leader, PC Technicians, and district Zangle administrators.

Infrastructure Timeline

2011 - 2012

- Upgrade computers at one of the following three buildings: Upton, Oak Ridge, Northwood
- Install VOIP (Voice over IP) phones in one of three buildings without this system
- Install classroom ceiling-mounted digital projectors in one of three buildings without this system
- Install voice amplification system in one of three buildings without this system
- Deploy Video Furnace in one of remaining three buildings without this system
- Upgrade elementary school news broadcast equipment as funds become available
- Add full-size towers to buildings, or purchase additional bandwidth for existing rooftop-mounted towers, to increase point-to-point wireless bandwidth
- Update the software image on 25 to 35% of district computers
- Replace 15 to 20% of computer hardware

2012 - 2013

- Upgrade computers at one of the following three buildings not already upgraded in 2011: Upton, Oak Ridge, Northwood
- Install VOIP (Voice over IP) phones in one of two buildings without this system
- Install classroom ceiling-mounted digital projectors in one of two buildings without this system
- Install voice amplification system in one of two buildings without this system
- Deploy Video Furnace in one of remaining two buildings without this system
- Upgrade elementary school news broadcast equipment as funds become available
- Update the software image on 25 to 35% of district computers
- Replace 15 to 20% of computer hardware
- Replace 25% of servers
- Add full-size towers to buildings, or purchase additional bandwidth for existing rooftop-mounted towers, to increase point-to-point wireless bandwidth
- Upgrade server OS (LINUX)

2013 - 2014

- Upgrade computers at the one building of the following three not already upgraded in 2011 or 2012: Upton, Oak Ridge, Northwood
- Complete upgrade of WAN to high bandwidth
- Consolidate servers due to increased bandwidth availability
- Update the software image on 25 to 35% of district computers
- Complete VOIP (Voice over IP) deployment
- Complete installation of classroom ceiling-mounted digital projectors
- Complete installation of voice amplification system
- Complete Video Furnace deployment
- Replace 15 to 20% of computer hardware
- Check on version upgrades of the following: Drupal, Zimbra, Linux, Video Furnace, etc.
- Add full-size towers to buildings, or purchase additional bandwidth for existing rooftop-mounted towers, to increase point-to-point wireless bandwidth

Infrastructure Yearly Cycle

Our infrastructure action plan is primarily based on a cycle to be repeated each year of the plan. The cycle starts with a “Current Status” report, which leads to a “Needs Analysis;” finally, a “Change Plan” is generated.

2011 – 2012

- No Later Than (NLT) March 1st of the previous school year: Current Status report, a summary of current infrastructure including hardware and software inventory.
- NLT April 1st of the previous school year: Needs Analysis, based on current status and available resources, technical administration and needs of future upgrades.
- July 2011 – June 2012: Reviewing the real-time accessible inventory of existing hardware and software. Continue the work order process as well as software and hardware evaluations to maintain operational levels, that includes license restrictions and subscription expirations.
- Ongoing – training on maintenance and usage of current technical resources.

2012 – 2013

- NLT March 1st of the previous school year: Current Status report, a summary of current infrastructure including hardware and software inventory.
- NLT April 1st of the previous school year: Needs Analysis, based on current status and available resources, technical administration and needs of future upgrades.
- July 2012 – June 2013: Reviewing the real-time accessible inventory of existing hardware and software. Continue the work order process as well as software and hardware evaluations to maintain operational levels, that includes license restrictions and subscription expirations.
- Ongoing – training on maintenance and usage of current technical resources.

2013 – 2014

- NLT March 1st of the previous school year: Current Status report, a summary of current infrastructure including hardware and software inventory.
- NLT April 1st of the previous school year: Needs Analysis, based on current status and available resources, technical administration and needs of future upgrades.
- July 2013 – June 2014: Reviewing the real-time accessible inventory of existing hardware and software. Continue the work order process as well as software and hardware evaluations to maintain operational levels, that includes license restrictions and subscription expirations.
- Ongoing – training on maintenance and usage of current technical resources.

Infrastructure Action Plan

Goal: To provide and maintain infrastructure that supports the hardware and software demands of the Accessibility, Curriculum, and Professional Development goals.

Evaluation Question: Does the infrastructure support the needs of Accessibility, Curriculum, and Professional Development?

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Current Status	Review existing technology	Technology Dept	2011 / 2012 Annual, late winter early Spring	Annual review completed.
Needs Analysis	Review existing infrastructure and compare to demands of other 3 goals (which includes software) and compare to Tech Plan	Technology Dept	2011 / 2012 Review cycle every 3-4 years. Annual update on areas that have changed since last report.	Approval of necessary changes
Upgrade Evaluation	Review what we have/want, compared to what we need	Technology Dept	We plan for 15% to 20% annual upgrade of equipment When improving technology or equipment condition warrants. When a need is identified and funding is available, a change will be made beyond our annual planned upgrades.	Cost savings Improvements in service Better support for plan goals
Technical Support Implementation	Provide the training to maintain and use the equipment and software. Using internal & external resources.	Technology Dept	As needed	Staff can successfully use the resources

I. Increase Access

Strategies to increase access to technology for all students and teachers.

The overriding purpose of Royal Oak Schools technical infrastructure is to support increased student achievement. It is our belief that by increasing access to these resources we will be able to increase our students' levels of achievement. Our goal for increasing access is:

The Royal Oak learning community will have access to adequate, equitable and appropriate technology that supports the instructional program.

The District will continue its efforts to identify assistive technology. When appropriate, adaptive technology will be used to assist students with learning challenges. There is currently budget set aside in our Special Education department for assistive technology such as:

- Adaptive devices include but are not limited to: AlphaSmarts, Intellitools Keyboards, portable PA Systems, MP3 recorders
- Specialized software titles include but are not limited to: Kurzweil, Co-writer, Write Outloud, Boardmaker, Lexia, Earobics, Kidspiration, Inspiration, ReadPlease, eBooks, Audacity, Storyline Online

In order to give instructional staff increased access to teaching resources, staff members can post instructional activities and educational resources to the District Intranet, personal web pages for other teachers to use, and to their Rubicon Atlas online course curriculum maps (e.g. common assessments, class projects, lesson plans, websites, videos). This sharing gives teachers new opportunities to support each other in the task of increasing student achievement.

Teachers have access to a variety of multimedia tools in their classroom that will connect to the building network so that all resources are available and accessible for students and staff.

Students are given email accounts on a class-by-class or subject-by-subject basis as another means of increasing their access to learning resources. Through these accounts they are able to contact their teachers during off hours, send projects via attachments, and communicate with the larger world in a variety of learning opportunities. They also need the email accounts for communication during online courses.

We will work to expand our use of Moodle, which is increasingly used to support instructional delivery at the high school level. We will continue to use this resource with interested staff and will expect this to motivate additional staff in using this 21st century resource.

Since we standardized Windows XP on district computers, and with the wide availability of thumb drives (USB), staff and students have found it increasingly easy to convey files to and from school and other buildings.

A key accessibility objective will be to increase bandwidth on our existing high speed WAN. Because of current bandwidth limits, staff can only access their home directories within the building where they work. This causes a number of problems when meetings are held in other locations. We are exploring solutions, as resources become available, such as purchasing more bandwidth, installing additional towers for even greater bandwidth increases, or creating network updates that would allow all staff to access their building directories through our email system.

Accessibility Timeline

2011 - 2012

- Assistive technology is provided to students, as determined through a building staffing procedure
- Explore possibility of enhanced network allowing access to files outside home building
- Review of new and existing technology for possible use and/or purchase by the District
- Staff members create instructional activities and educational resources that are housed on the District Intranet for others to use.
- Email accounts are available for student use.
- Continue to expand the use of Moodle.
- Seek additional staff to train on Drupal for classroom websites.
- Add wireless network connectivity where practical and effective.

2012 - 2013

- Email accounts are available for student use.
- Assistive technology is provided to students, as determined through a building staffing procedure
- Continue to expand the use of Moodle.
- Continue to identify staff to train on Drupal for classroom websites.
- Review of new and existing technology for possible use and/or purchase by the District
- Staff members create instructional activities and educational resources that are housed on the District Intranet for others to use.
- Add wireless network connectivity where practical and effective.

2013 - 2014

- Assistive technology is provided to students, as determined through a building staffing procedure
- Review of new and existing technology for possible use and/or purchase by the District
- Staff members create instructional activities and educational resources that are housed on the District Intranet for others to use.
- Add wireless network connectivity where practical and effective.
- Substantially complete point-to-point wireless WAN.
- Email accounts are available for student use.
- Continue to expand the use of Moodle.

Accessibility Action Plan

Goal: The Royal Oak learning community will have access to adequate, equitable and appropriate technology that supports the instructional program.

Evaluation Question: Did we provide adequate, equitable and appropriate technology access to all members of the Royal Oak learning community?

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Assistive technology for special needs students	Provide appropriate technology as determined through staffing teams. Equipment will follow individual students as they move to different buildings within the District.	Exec Director Adm Serv & Tech, Special Education Department, Technology Dept	September-2011 and ongoing.	Students with special needs have technology to assist them in meeting curriculum/AYP goals in each building they attend.
Review of new and existing technologies for possible use and/or purchase.	Exploration of new and existing technologies to further enhance student achievement (e.g. Palms, Alpha Smarts, updated versions of current technology, etc.)	Exec. Dir. of Admin Services & Technology, Academic Technology Leader, Director of Instructional Services, Technology Dept	September-2011 and ongoing.	New technologies have been evaluated and purchased when applicable.
Utilize the District Intranet for staff instructional resources and educational activities.	Staff members will be able to post activities and resources to the District Intranet for other teachers to use (e.g. common assessments, class projects, lesson plans, websites)	Director of Instructional Services, Academic Technology Leader	September-2011 and ongoing.	Activities that relate to the curriculum have been created and are being shared via the District Intranet.
Provide teachers and building teams the ability to create their own website. This will be template driven.	Staff members can post current information on assignments, projects, testing, expectations (class or building), and post links as resources.	Exec. Dir. of Admin Services & Technology, Technology Dept, Director of Instructional Services	September-2011	Increasing number of classroom and or team website.
Explore the idea of a enhanced network that allows files to be saved via email system for access outside home building.	Examine cost and feasibility of project, weigh advantages vs. disadvantages, explore alternative solutions if necessary, implement enhanced network if possible.	Exec. Dir. of Admin Services & Technology, Technology Dept	September-2011	Project is cost-effective; Files are able to be saved successfully.
Student email accounts (Gaggle)	Publicize the availability of student email. Staff made aware of the opportunities to improve instruction via this technology. Students able to move files to and from home.	Exec. Dir. of Admin Services & Technology, Technology Dept, Classroom Teachers, Dir of Instruction, Building Principals	September-2011	Teachers have integrated this into their lesson plans.

Components	Strategies	Responsibility	Date/Status	Indicators of Success
Moodle	Teachers will have Professional Development opportunities to learn how to use this resource.	Exec. Dir. Of Admin Services & Technology, Academic Technology Leader, Technology Operations, Classroom Teachers	September-2011	Increasing numbers of students and staff members will actively be using Moodle.
Wide Area Network (WAN)	Install increased bandwidth in select Point-to-Point Wireless network connections	Exec. Dir. Of Admin Services & Technology, Technology Dept	September 2011	High speed wireless bandwidth increase completed at these buildings.
Wide Area Network (WAN)	Install increased bandwidth in select Point-to-Point Wireless network connections	Exec. Dir. Of Admin Services & Technology, Technology Dept	September 2012	High speed wireless bandwidth increase completed at these buildings.
Wide Area Network (WAN)	Install increased bandwidth in select Point-to-Point Wireless network connections	Exec. Dir. Of Admin Services & Technology, Technology Dept	September 2013	High speed wireless bandwidth increase completed in District.

IV. Funding and Budget

J. Budget covering the acquisition, implementation, interoperability provisions, maintenance, and professional development related to the use of technology to improve student academic achievement.

	11/12	12/13	13/14
Resources Available			
General Operating Fund	\$1,139,000	\$1,139,000	\$1,139,000
Donations of Goods & Services through ongoing partnerships	\$20,000	\$20,000	\$20,000
Universal Service Fund	\$75,000	\$75,000	\$75,000
Total Resources	\$1,234,000	\$1,234,000	\$1,234,000
Expenditures			
Salaries & Benefits Item 25d	\$612,000	\$612,000	\$612,000
Purchased Services (web, email, software conversion)	\$65,000	\$65,000	\$65,000
Maintenance			
Technology Repairs	\$112,000	\$112,000	\$112,000
Application Software	\$175,000	\$175,000	\$175,000
Equipment	\$40,000	\$40,000	\$40,000
Software			
Site Licenses	\$40,000	\$40,000	\$40,000
Application Software Purchases	\$36,000	\$36,000	\$36,000
Professional Development			
Software Implementation	\$15,000	\$15,000	\$15,000
Instructional Title II	\$20,000	\$20,000	\$20,000
Hardware: Equipment Purchases	\$119,000	\$119,000	\$119,000
Total Expenditures	\$1,234,000	\$1,234,000	\$1,234,000

K. Coordination of Resources

Strategies that will be employed to coordinate state and local resources to implement activities and acquisitions prescribed in the Technology Plan.

Royal Oak Schools allocates general fund money for its technology program. In addition, grants are applied for and used wherever possible. We have several teachers who have received technology for instructional purposes from grants provided through our local Foundation for Public Education. We anticipate teachers continuing to avail themselves of these opportunities. Access to discounts that may be realized from the Universal Service Fund will be used to offset increased costs for Internet access, T1 lines, telephone system, and electronics for increased district accessibility. Local bond money has been the means for major infrastructure replacements and upgrades. We recognize this is not an ideal method; however, it is currently reality due to the large expenditures required for computer technology.

V. Monitoring and Evaluation

L. Evaluation

Strategies that the District will use to evaluate the extent to which activities are effective in integrating technology into curricula and instruction, increasing the ability of teachers to teach and enabling students to reach challenging state and national standards.

During the term of the 2011 – 2014 Technology Plan cycle a District Technology Committee will meet periodically throughout the school year to evaluate the Technology Plan. The committee will consist of central office administrative staff, building administrative staff, and a cross-section of staff and community. The evaluation will report on progress towards the objectives, as measured by the indicators of success outlined in this plan, and it will recommend improvements and/or changes to our plan. A summative final evaluation report will contain a summary of goals met, unexpected outcomes, goals not met, and a plan for addressing unmet goals and objectives. Goals that have not been met will be examined to (1) determine whether the goal is still desired, given any changes in practice or technology that may have rendered the goal obsolete; and if so, to (2) examine possible solutions that would allow the goal to be met, such as, but not limited to, redefining or restructuring steps along the timeline, alternate funding sources, more cost-effective solutions, etc. Based on the completion of the evaluation, and in response to new technological developments and opportunities, this plan will be modified accordingly.

Curriculum & Student Achievement Evaluation Questions:

1. Does the technology provide teachers with a tool for assessing student learning and guiding instruction?
2. Do students demonstrate competency in basic technology skills?

Professional Development Evaluation Question:

1. Did the professional development offerings provide adequate and relevant technology training for all staff leading to an improvement in student achievement?

In addition to assessing the evaluation question, our evaluation of our Professional Development efforts will also be based on the six principles for effective professional development. These include:

1. Content area specific professional development should be grade level appropriate.
2. Training for administrative and non-instructional staff should be directly connected to specific job responsibilities.
3. Technology planning and curriculum planning should be integrated into a single process.
4. Professional development for curriculum and technology should be coordinated to accomplish the use of technology to achieve curricular goals.
5. Professional development and training should include time for collaboration, practice, planning, and follow-up.
6. Tools should be available after professional development has been accomplished.

Accessibility Evaluation Question:

1. Did we provide adequate, equitable, and appropriate technology access to all members of the Royal Oak learning community?

Infrastructure Evaluation Question:

1. Does the infrastructure support district needs in the following areas?
 - a. accessibility
 - b. curriculum
 - c. professional development

M. Acceptable Use Policy

Strategies are in place to monitor the District's Acceptable Use Plan for staff and student use of the technologies.

Royal Oak Schools has developed an Acceptable Use Policy (AUP) that details technology use for students and staff, and incorporates federally-mandated requirements through the Child Internet Protection Act (CIPA). As technology changes and new challenges arise, the District Technology Committee will review and suggest modifications to the AUP.

All staff technology users are required to sign the Technology Resources Acceptable Use Agreement, which acknowledges that they have read and agree to the terms specified in the AUP; new signatures are required whenever the AUP is modified. These signatures are kept in staff personnel files.

Student users, and their parents, sign a Parent/Guardian Acknowledgement and Release that acknowledges that they have read and agree to the terms specified in the AUP. New signatures are required when students move from elementary school to middle school, and from middle school to high school. Additionally, new signatures are required whenever the AUP is modified. These signatures are kept in student files.

The AUP and all associated agreement forms are included in the appendix.

Resources

policy

BOARD OF EDUCATION
SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

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TECHNOLOGY USE

TECHNOLOGY RESOURCES ACCEPTABLE USE POLICY

The School District of the City of Royal Oak recognizes that advancements in technology provide a vast and diverse array of educational resources. Accordingly, the School District provides students, teachers, employees, and administrators with access to the School District's Technology Resources, which includes access to the Internet. The School District believes that, through proper use, the School District's Technology Resources will benefit its students, teachers, employees and administrators.

Use of the School District's Technology Resources is a privilege, not a right, and accordingly, all individual users of the School District's Technology Resources shall accept responsibility for the acceptable use thereof. In order to ensure that students, teachers, employees and administrators utilize the School District's Technology Resources in a responsible manner, the superintendent, or his or her designee, shall establish rules and procedures for the acceptable use of the School District's Technology Resources. This Technology Resources Acceptable Use Policy, and the corresponding rules and procedures shall apply to all users accessing the Technology Resources in the School District, through both on-site and remote connections.

All users of the School District's Technology Resources shall complete a Technology Resources Acceptable Use Agreement accepting responsibility for use of the School District's Technology Resources. Violations by individual users of the Technology Resources Acceptable Use Agreement, this Policy and/or rules and procedures regarding the use of the School District's Technology Resources may be a violation of the Student Code of Conduct, any employee contract, and/or State or Federal law. Failure to follow this Policy, and the corresponding procedures, rules and regulations of the District may result in termination of the user's privilege to access the Technology Resources and the user may be subject to other disciplinary or legal action.

It is the sole intent of the School District that the Technology Resources will be used in compliance with the School District's curriculum, the students' career development and appropriate self-discovery. The School District's Technology Resources are not established as a public forum, either full or limited.

03/23/00
5/9/02
10/30/08
5/13/10

procedure

BOARD OF EDUCATION
SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

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PROCEDURES FOR ACCEPTABLE USE OF TECHNOLOGY RESOURCES

The following Procedures govern the use of the Technology Resources, including the Internet, electronic mail (“e-mail”) and webpage publishing in the School District of the City of Royal Oak (the “School District”). These Procedures shall apply to all students, teachers, employees, administrators and other users of the Technology Resources who have access privileges through association with the School District. The School District’s Technology Resources shall only be used to access information related to the School District’s curriculum or conduct School District business during work/school hours. The School District’s curriculum shall include, by way of demonstration and not limitation, a student’s course work, a teacher’s instructional program, and an administrator’s duties.

The following Procedures govern the use of the Technology Resources, including the Internet, electronic mail (“e-mail”) and webpage publishing in the School District of the City of Royal Oak (the “School District”). These Procedures shall apply to all students, teachers, employees, administrators and other users of the Technology Resources who have access privileges through association with the School District. The School District’s Technology Resources shall only be used to access information related to the School District’s curriculum or conduct School District business during work/school hours. The School District’s curriculum shall include, by way of demonstration and not limitation, a student’s course work, a teacher’s instructional program, and an administrator’s duties.

A. Definitions:

Technology Resources-Includes, but is not limited to, the Internet, electronic mail (“e-mail”), Computer Systems (as defined below), cameras, televisions, video cassette recorders, DVDs, laserdiscs, telephones, School District-issued cellular/data phones and all voice, video and data systems.

Computer System and/or System-Includes, but is not limited to, computer hardware, disk drives, printers, scanners, software (operation and application), the network and any other associated equipment.

B. Procedures and Rules for the Use of Technology Resources

1. The use of all Technology Resources is a privilege and with that privilege, all users have no expectation of privacy in e-mail, data on a workstation or server, network communications, Internet use, telephone, voice mail, video recording, and all other Technology Resources. The School District is the owner of the Technology Resources and therefore all users understand that their use of the Technology Resources can and may be strictly monitored electronically by School District personnel at any time

2. Users shall not make copies of software from School District Computer Systems. Use of the School District Technology Resources or the Internet for fraudulent or illegal copying, communication, taking or modification of material in violation of law is prohibited and will be referred to federal authorities. The illegal use of copyrighted software is prohibited. The School District upholds the copyright laws of the United States, as it applies to computer programs or licenses owned or licensed the School District. Such action is also governed by the School District's Copyright and Fair Use Policy and Regulations.
3. Users shall not install any software on School District computers, servers or any School District Technology Resources without the express prior written permission of the School District's Technology Administrator.
4. Users shall not give computer software to others unless it is clearly identified as in the public domain as freeware, or if they have written permission from the copyright owner.
5. Users shall not knowingly or intentionally disclose, transmit, disseminate or otherwise distribute copyrighted, private, confidential or privilege information.
6. Users shall not knowingly or intentionally introduce a virus, worm, Trojan horse, rootkit, or engage in any other malicious action affecting School District Technology Resource.
7. Users shall not attempt to obtain any other user's password(s) and shall not read, copy or alter other user's data without their permission, unless it is required to perform the users job function. Users shall not intentionally seek information, obtain copies of, or modify files, other data or passwords belonging to other users, or misrepresent other users on the Internet.
8. Users shall not knowingly or intentionally damage or alter any aspect of the School District Technology Resources or alter or modify the Technology Resources.
9. Users shall not knowingly or intentionally allow others to use their identity/password(s) to access School District Technology Resources and Computer Systems. All users shall maintain the security and confidentiality of their identity/password(s). Users shall not use a computer that has been logged in under another user's name. Users shall immediately notify the School District if a security problem is suspected or identified.
10. Users shall not infiltrate, "hack into," attempt to access or actually access the Technology Resources, data, materials or files that they are not authorized to access or the individual knows or reasonably believes may negatively affect the integrity of the School District's Technology Resources and/or Computer System.

11. Users shall not use the School District Technology Resources for purposes other than for School District-related business during work/school hours. The Internet and Technology Resources shall not be used for illegal activity, for-profit purposes, lobbying, campaigning, non-school district related advertising and/or fundraising, transmitting offensive materials, hate mail, mass e-mailing, discriminating remarks, or obtaining or sending obscene or pornographic material.
12. Users shall not modify any School District Technology Resources without the written permission from the School District's Technology Administrator.
13. Users shall not use School District Technology Resources to harass or intimidate.
14. Users shall not download or install any programs, files, technology, games or other electronic media without the written permission from the School District's Technology Administrator.
15. Users shall report any problems or malfunctions with the Technology Resources or Computer Systems to the School District's Technology Administrator.
16. The School District may, at any time, make determinations that particular uses of the Internet and Technology Resources are not consistent with the goals or mission of the School District.
17. Users shall not play video games, visit chat rooms or otherwise use the Technology Resources for non-academic purposes.
18. Users shall not take supplies such as paper, printer cartridges, toner, writeable media or any other supplies that are provided by the School District.
19. It is the responsibility of teachers and staff to monitor all use of the Technology Resources by students that they are supervising.
20. Users shall not create or use web technology services for School District related business that cannot be monitored or controlled by the School District.
21. Messages sent by users via e-mail shall neither contain profanity, obscene comments, sexually explicit material, expressions of bigotry, racism or hate, nor shall they contain personal information the user would not want made available to strangers such as your name, address, telephone number, social security number, pictures or other personally identifiable information. Students shall not agree to meet someone that they met over the Internet or through e-mail without their parent's prior written approval and participation.

22. The content, use and maintenance of a user's electronic (e-mail) mailbox is the user's responsibility. Accordingly, users shall:
 - a. Check e-mail regularly;
 - b. Delete unwanted messages;
 - c. Save e-mail messages in accordance with the School District's Record Retention Policy;
 - d. Never assume that their e-mail cannot be read or accessed by others; and
 - e. Use caution when opening attachments from unsecured sources
23. The School District in its sole discretion reserves the right to terminate the availability of Technology Resources, including Internet access at any time.
24. The School District reserves the right to:
 - a. Make determinations as to whether specific uses of its Technology Resources are consistent with its goals, educational mission, Policies and/or Procedures.
 - b. Monitor and keep records of Internet use and to monitor fileserver space utilization by users.
 - c. Terminate a user's privilege to access the Technology Resources to prevent further unauthorized activity.
25. Failure to follow the policy, procedure, rules and regulations of the School District may result in termination of the user's privilege to access the Technology Resources of the School District. In addition, the user may be subject to other disciplinary or legal action.
26. Parents or legal guardians of users under the age of eighteen have the right to revoke their student's user account.
27. Each user shall be responsible for any and all damages to the Technology Resources resulting from their deliberate or willful acts.
28. Any and all web technology services or web pages used for or representing the School District or School District-related business shall be used, designed and published in accordance with the School District's Web Page Development Policy.

Disclaimer: The School District will make every effort to provide appropriate Technology Resources and services, however, the School District makes no warranties of any kind, whether expressed or implied, for the Technology Resources it is providing. The School District shall not be responsible for any damages incurred by a user of the Technology Resources including loss of data resulting from delays, non-deliveries, mis-deliveries, or service interruptions. The School District does not endorse or guarantee the accuracy or quality of information obtained via the Internet or electronic mail.

In no event shall the District be liable for any damages (whether direct, indirect, special or consequential) arising out of the use of the Internet, accuracy or correctness of databases or information contained herein, or related directly or indirectly to any failure or delay of access to the Internet or other network application.

Web Publishing Procedures

Ownership and Retention

All web content on the District's server(s) is the property of the School District of the City of Royal Oak. This includes but is not limited to web pages, blogs, wikis, forums or other digital information.

Individual classrooms and school-sponsored organizations are encouraged to have web pages if the teachers of the participating classrooms or sponsor take the responsibility of updating and maintaining the information. Though students may actively assist in the maintenance of the web pages, the classroom teacher or sponsor is responsible and will evaluate the information to be included on the web pages.

Safeguards

The distribution of student addresses, phone numbers, email addresses, or ages will not be included in web pages. Web page documents may not include any information that indicates the physical location of a student at a given time, other than attendance at a particular school, or participation in activities.

Images of students and their work may be published on classroom, school-sponsored groups web pages or District web site. At times, images may be accompanied by first names. Individual or group video or digital recordings may appear on web pages or District web site.

Names, work number, work email address, and photos of staff members may be published on school/district web pages.

School Board Policies

Digital transmission of materials is a form of copying. As specified in District Policy, no unlawful copies of copyrighted materials may be knowingly produced or transmitted via the district's equipment, including the Web server(s).

Rights to intellectual property must be respected. For each re-publishing of a copyrighted graphic, audio, video, or text file or content available to the public that was produced externally, there must be a notice on the page crediting the original producer and noting how and when permission was granted. Copyrighted material for instructional purposes must adhere to the regulation of The Technology Education, and Copyright Harmonization Act (the TEACH Act).

All web content on District servers must adhere to all District policies and procedures. Web content includes, but is not limited to web pages, blogs, wikis, forums or other digital information sources.

Content Standards and Publishing Location

Content of web sites related to the School District of the City of Royal Oak, whether created by a school, classroom, or school-sponsored organization, shall be periodically reviewed by the staff member to whom the web content has been assigned. The actual development of the web content may involve staff, students, community volunteers, or a combination of groups.

Web content must reside on the district's web server and no mirror sites are allowed. Mirror sites are defined as "identical sites residing on another server."

Subject Matter

All subject matter web content should relate to curriculum, instruction, school-authorized activities or general school district information. All subject matter should be appropriate for display in any classroom in the District, including classrooms of our youngest students.

"Personal" home pages will not be published on the district web server. Links to personal home pages will not be allowed in district web content.

When a school has a partnership it wants to recognize, the recognition should be in the form of an acknowledgement. Non-District approved advertisements are not permitted.

Quality

All district web content must be accurate, meet with district academic standards, and be relevant to the building and/or program that is designing the web content.

All web content must be free of spelling and grammatical errors.

All web content will be linked to other District content in relation to their current location on the District's web site.

All links shall adhere to subject matter pertaining to student instruction and quality. Before publishing, all links shall be checked and confirmed for authenticity, quality and student safety.

Any web content not updated for more than 90 days may be subject to review and removal by the Webmaster.

Parent/Guardian Acknowledgement and Release

As the parent(s)/guardian(s) of the student named below, I/we have read the School District's Technology Resources Acceptable Use Policy and Procedures and this Technology Resources Acceptable Use Agreement and discussed them with my/our child. I/We understand that access to and use of the School District's Technology Resources is a privilege designated for educational purposes. I/We hereby give permission to the School District to open a user account for my/our child and certify that information contained in this Agreement is correct. I/We consent to and understand that School District staff may monitor my/our child's electronic communications, including e-mail and files that he/she downloads, as well as consent to allow my/our child to use the Internet and I/we assume the risks associated with my/our child's use of the Internet. I/We hereby agree to release, indemnify and hold harmless, in both my/our personal capacity, and as guardian of my/our child, the School District as well as its board members, school teachers, employees administrators, and adult volunteers, from any claims arising out of my/our child's violation of, or conduct inconsistent with, the School District's Technology Resources Acceptable Use Policy and Procedures and/or this Agreement, including, but not limited to, claims arising from materials my/our child may download or relationships he/she may establish with people online, whether such claims arise from Internet use performed on School District Technology Resources through school accounts or personal computers.

Signature of Student: _____ Date: _____

Print name of Student: _____

Signature of parent/guardian: _____ Date: _____

Print name of parent/guardian: _____

Signature of parent/guardian: _____ Date: _____

Print name of parent/guardian: _____

3/23/00
5/13/10

TECHNOLOGY RESOURCES ACCEPTABLE USE AGREEMENT
(For Student Users Age 18 or Older)

All users of the Technology Resources of The School District of the City of Royal Oak (the “School District”) are required to sign this Technology Resources Acceptable Use Agreement (the “Agreement”) in order to obtain access to the School District’s Technology Resources. The School District does not authorize any use of the Technology Resources which are not conducted in strict compliance with this Agreement and the School District’s Technology Resources Acceptable Use Policy and Procedures. Your signature below indicates that you have read the terms and conditions of this Agreement and the School District’s Technology Resources Acceptable Use Policy and Procedures (located on the School District’s website) carefully and understand their significance.

Student Acknowledgement

I have read the School District’s Technology Resources Acceptable Use Policy and Procedures, the terms and conditions of which are incorporated herein by reference, and hereby agree to those conditions, rules, and regulations. By executing this Agreement, I expressly agree to be responsible for my use of the School District’s Technology Resources in accordance with the School District’s Technology Resources Acceptable Use Policy and Procedures, and to assume all responsibility for any liability associated with my use of the Technology Resources in violation of this Agreement. I acknowledge my responsibility to uphold the integrity of the Technology Resources. I consent to, and understand that, the School District may monitor my electronic communications, including logs showing my Internet access, e-mail, downloaded files and other uses of the Technology Resources of the School District. I understand and agree that the School District assumes no responsibility for my use of the Technology Resources and assume the risks associated with use of the Technology Resources, and the Internet, including, but not limited to, intentionally or unintentionally gaining access to information and communications that I find inappropriate, offensive, controversial, or otherwise objectionable. I understand that violating the School District’s Technology Resources Acceptable Use Policy and Procedures may result in having my use privileges of the School District Technology Resources suspended or revoked, and that I may be further subject to disciplinary action, in accordance with the School District Student Code of Conduct (up to and including loss of class credit or expulsion), or other legal action.

I also hereby agree to release, indemnify and hold harmless the School District, as well as its board members, teachers, employees and agents, from any claims arising out of any illegal or inappropriate activities with which I have been involved or out of my violation of, or conduct inconsistent with, the School District's Technology Resources Acceptable Use Policy and Procedures and/or this Agreement, whether such claims arise from Internet use performed on School District Technology Resources through school accounts or personal computers.

Signature of Student: _____

Date: _____

Print name of Student: _____

TECHNOLOGY RESOURCES ACCEPTABLE USE AGREEMENT
(For Non-Student Users)

All users of the Technology Resources of The School District of the City of Royal Oak (the "School District") are required to sign this Technology Resources Acceptable Use Agreement (the "Agreement") in order to obtain access to the School District's Technology Resources. The School District does not authorize any use of the Technology Resources which are not conducted in strict compliance with this Agreement and the School District's Technology Resources Acceptable Use Policy and Procedures. Your signature below indicates that you have read the terms and conditions of this Agreement and the School District's Technology Resources Acceptable Use Policy and Procedures (located on the School District's website) carefully and understand their significance.

I have read the School District's Technology Resources Acceptable Use Policy and Procedures, the terms and conditions of which are incorporated herein by reference, and hereby agree to those conditions, rules, and regulations. By executing this Agreement, I expressly agree to be responsible for my use of the School District's Technology Resources in accordance with the School District's Technology Resources Acceptable Use Policy and Procedures, and to assume all responsibility for any liability associated with my use of the Technology Resources in violation of this Agreement. I acknowledge my responsibility to uphold the integrity of the Technology Resources and to retain copies of all e-mails and applicable attachments which conduct official School District business in accordance with the School District's Record Retention Policy. I consent to, and understand that, the School District may monitor my electronic communications, including logs showing my Internet access, e-mail, and downloaded files. I understand that violating the School District's Technology Resources Acceptable Use Policy and Procedures may result in having my use privileges of the School District Technology Resources suspended or revoked, and that I may be further subject to disciplinary action, in accordance with the terms and conditions of any applicable contract or collective bargaining agreement, or other legal action.

I also hereby agree to release, indemnify and hold harmless the School District, as well as its board members, teachers, employees and agents, from any claims arising out of any illegal or inappropriate activities with which I have been involved or out of my violation of, or conduct inconsistent with, the School District's Technology Resources Acceptable Use Policy and Procedures and/or this Agreement, whether such claims arise from Internet use performed on School District Technology Resources through school accounts or personal computers.

Finally, I agree to report any substantial misuse of School District Technology Resources, including the Internet, to my immediate supervisor.

Signature of Non-Student User

Date

Printed Name of Non-Student User

3/23/00
5/13/10

Resources

Michigan Department of Education – Technology Planning
<http://techplan.org/>

State of Michigan Technology Plan
<http://techplan.org/STP%202010%20Final.pdf>

Michigan Educational Technology Standards – K-8 Checklist
<http://techplan.org/METSDraft052405.doc>

Michigan Technology Standards – Content Overview
http://www.michigan.gov/mde/0,1607,7-140-28753_28762---,00.html

Michigan Curriculum Standards & GLCE
http://www.michigan.gov/mde/0,1607,7-140-28753_33232---,00.html

ISTE/NETS for Students
<http://www.iste.org/standards/nets-for-students.aspx>

ISTE/NETS for Teachers
<http://www.iste.org/standards/nets-for-teachers.aspx>

ISTE/NETS for Administrators
<http://www.iste.org/standards/nets-for-administrators.aspx>

National Education Technology Plan
<http://www.ed.gov/technology/netp-2010>

E-Rate, The Universal Service Fund for Schools and Libraries
<http://www.sl.universalservice.org/>