

# *Johnston Public Schools*



*Technology Plan  
2002-2005*

# ***Johnston Public Schools***

***10 Memorial Avenue  
Johnston, Rhode Island 02919  
401-233-1900***

## ***District Profile***

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- ***Name: Johnston Public Schools***
- ***2002 Enrollment: 3398 Students***
- ***County: Providence***
- ***Free or reduced lunch program: 18.68%***
- ***Number of schools in District: 9***
  - ✓ ***1 early education center (284 students)***
  - ✓ ***6 elementary schools (1398 students)***
  - ✓ ***1 middle school (896 students)***
  - ✓ ***1 high school (820 students)***



## ***District Schools***

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**Sarah Dyer Barnes School (236 students)**  
24 Barnes Avenue  
Johnston, RI 02919  
401-231-8710

**Brown Avenue School (227 students)**  
14 Brown Avenue  
Johnston, RI 02919  
401-934-0270

**George C. Calef School (209 students)**  
7 Waveland Street  
Johnston, RI 02919  
401-831-2653

**N.A. Ferri Middle School (896 students)**  
10 Memorial Avenue  
Johnston, RI 02919  
401-231-8710

**Graniteville School (199 students)**  
6 Collins Avenue  
Johnston, RI 02919  
401-231-8790

**Johnston Senior High School (820 students)**  
345 Cherry Hill Road  
Johnston, RI 02919  
401-233-1920

**Thornton School (280 students)**  
4 School Street  
Johnston, RI 02919  
401-943-7369

**Winsor Hill School (247 students)**  
100 Theresa Street  
Johnston, RI 02919  
401-831-4619

**Early Childhood Center (284 students)**  
10 Memorial Avenue  
Johnston, RI 02919  
401-233-1920

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## TECHNOLOGY COMMITTEE MEMBERSHIP

Johnston Public Schools would like to offer its sincere gratitude to the following staff who gave up their time and energy for the planning and update of the 2002 Technology Plan. Without their dedication to this effort, this plan would have never been completed.

Barnes:	Peg Iacovelli, Principal Linda Bock, Computer Aide Claire Korkut, Teacher Leanne Murphy, Teacher
Brown Avenue:	Deb Danielewicz, Teacher Pat Dawson, Parent/PTO President Karen DiBiasio, Computer Aide Nancianne Smith, Teacher
Calef:	Cheryl Arnold, Computer Aide Al Cournoyer, Teacher
FMS:	Joan Fagnoli, Principal Ginny Improto, Teacher Cynthia Joyce, Teacher Rita Maron, Parent/PTO President
Graniteville:	Fatima Shakan, Computer Aide Renee Toppi, Teacher Deb Turchetti, Teacher
JHS:	Fran Ahern, Teacher Tim Barnes, Teacher Elaine Shanley, Librarian
Thornton:	Lisa Filippelli, Teacher Kathy Francis, Computer Aide Jennifer Shortall, Teacher
Winsor Hill:	Carolyn Carnevale, Teacher Audrey Iannotti, Computer Aide Stacy Landi, Teacher
ECC:	Peggy Lessa, Teacher Donna Vendetti, Teacher
Administration:	Nancy Brown, Director of Professional Development Paul Bzowski, Senior Network Technician Gail Keene, Director of Technology Chris Murphy, Director of Safety Net & Lead Teacher Math John Ward, Director of Administration

### *Technology Committee Leadership*

*Co-Chair: Gail Keene, Director of Technology*

*Co-Chair: Chris Murphy, Director of Safety Net & Lead Teacher Math*

## **DISTRICT MISSION STATEMENT**

The mission of Johnston Public Schools, in partnership with the school community, is to provide students the education to become responsible citizens of a global society by offering rigorous and dynamic programs which challenge all students to achieve high standards, become life-long learners and lead self-fulfilling productive lives.

## **DISTRICT BELIEFS**

We believe the school community consists of students, parents, school personnel, businesses, governmental and public service agencies, and residents.

We believe:

- All children are life-long learners.
- A safe, healthy school environment nurtures self-esteem and positive self-concept.
- High expectations allow each child to achieve his/her greatest potential.
- The school community is both responsible and accountable for students achieving high standards.
- That an active and cooperative partnership within the school community is essential.
- All children must be provided resources required by a comprehensive pre-K-12 standards-based curriculum.
- All students can achieve the academic and technological skills and knowledge necessary to compete in the workplace.
- Professional development of all school personnel is on going and linked to student achievement.
- Collaboration of families and schools ensures the academic success and emotional well being of all children.

## **NON-DISCRIMINATION POLICY STATEMENT**

The mission of Johnston Public Schools, in partnership with the school community, is to provide students the education to become responsible citizens of the emerging global society by offering a rigorous and dynamic academic program which challenges all students to achieve high standards, become lifelong learners and lead self-fulfilling productive lives. The Johnston Public Schools does not discriminate on the basis of age, sex, religion, national origin, color or handicap in accordance with applicable laws and regulations.

## **TECHNOLOGY BELIEF STATEMENT**

We believe that people are empowered by their independent use of information technologies and that they are united by opportunities to share resources and communicate in our local and global communities. In this Information Age, it is essential that Johnston Public Schools commit to preparing its students to work, in an evolving, information-centered, global community. Given the rapid pace of technological change and the growth of information technologies in all aspects of our lives, it is critical that students become familiar with the tools of information technology. All students and staff must be competent in using these tools to obtain information, to communicate, and to solve problems.

Educators must combine and integrate these tools with new models of teaching that acknowledge each student's individual learning style and help ensure that each student has an opportunity to become a lifelong partner.

We further believe:

- Technology allows us to further serve the diverse learning styles of our students.
- Students need to be able to use a wide variety of technological tools to enhance their future success as students and workers.
- It is imperative for all students to have access to information via technology.
- It is essential for all members of the school community to process and manage information through the skillful use of technology.
- Networked technology systems permit efficient and effective communications within the school community.
- Technology improves productivity and efficiency in the administration of our schools.
- Maintain an up-to-date wide area network for the district.

## **TECHNOLOGY MISSION STATEMENT**

Johnston Public Schools will incorporate technology as a natural part of education through an integrated, comprehensive framework to govern acquisition, application, and evaluation of technological resources. The use of technology will be curriculum driven and should be equitably integrated into the total school environment.

Johnston Public Schools must provide up-to-date technology so that students can:

- Expand their knowledge bases;
- Improve their critical thinking, problem solving, and decision-making skills;
- Access, analyze, evaluate and communicate information in expedient, efficient, and creative formats;
- Work ethically, independently, and collaboratively with a diverse and changing population both within the classroom and school, and beyond - across school, state, national and international boundaries.

Johnston Public Schools must provide up-to-date technology so that staff can:

- Improve instructional strategies to increase student achievement regardless of ethnicity, socioeconomic status, learning styles, or abilities;
- Accurately and efficiently assess, monitor, and communicate student progress;
- Continually improve professional skills;
- Collaborate through sharing of skills and resources with colleagues, both within the local school system and beyond;
- Demonstrate leadership and vision in the use of technology to increase student achievement and staff productivity.

## **NATIONAL EDUCATIONAL TECHNOLOGY GOALS**

In December 2000, the United States Department of Education established National Educational Technology goals. These goals are the backbone of Johnston Public School District's technology plan:

- All students and teachers will have access to informational technology in their classrooms, schools, communities and homes.
- All teachers will use technology effectively to help students achieve high academic standards.
- All students will have technology and information literacy skills.
- Research and evaluation will improve the next generation of technology applications for teaching and learning.
- Digital content and networked applications will transform teaching and learning.

Also, the national Web-based Education Commission released a policy roadmap to assist educators and communities chart the future of learning in the Internet age. The Johnston Public School District joins with communities across the nation to envision educational possibilities in the 21<sup>st</sup> Century. This plan conveys next steps for Johnston Public Schools in using technology more productively and in weaving it more thoroughly into daily learning and teaching.

The United States Department of Education also recognized areas, which a technology plan should include for ultimate success:

- The plan must establish clear goals and strategies for the use of technology in an educational setting.
- The plan must have a professional development strategy to ensure that staff knows how to use these new technologies to improve education.
- The plan must include an assessment of all technologies, such as hardware, software, and other services to ensure the integrity of the technology.
- The plan recognizes the cost associated with acquiring and supporting the plan.
- The plan must include an evaluation process, which enables the schools to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities as they arise.

This document describes an information technology strategy to transform the way the Johnston Public School Department utilizes and supports its technology. When implemented, it will bring sweeping changes in the way computers, computer networks, and new digital technologies are used. It lays the groundwork for a technologically enlightened future for all members of the school community. The integration of technology through this technology plan depends on the collaboration of all these elements for the immediate purpose of improving student achievement and the ultimate purpose of preparing our students to be productive members of an information society.

## **OUR CURRENT STATUS**

In November 1998, school community members created the first technology plan to implement the use of computer technologies in the Johnston Public Schools district. This technology plan focused on providing computer hardware and software to all schools, building a wide area network, hiring of technology staff, student and staff skills, and curriculum integration through technology.

Specifically, our *1998 Technology Plan Goals* were:

- **GOAL 1:** Promote the development of effective reading, writing, and communication skills.
- **GOAL 2:** Develop geographical, cultural, and political awareness and understanding of people all over the world.
- **GOAL 3:** Promote a better understanding of telecommunication/distance learning technology.
- **GOAL 4:** Use technology to enhance readiness, remediation, reinforcement, and enrichment.
- **GOAL 5:** Use each component of a technology system correctly.
- **GOAL 6:** Understand the major social and ethical issues in the field of information technology.
- **GOAL 7:** Use technology to develop problem-solving skills.

Since the creation of this plan, considerable work has been accomplished and all goals have been met. Students and staff work within a new generation network environment in which all classrooms, labs, libraries, offices, and work areas are equipped with multi-media computers, Internet access, video streaming capabilities, distance learning capabilities, and every classroom has a telephone with voicemail.

## **CURRENT HARDWARE**

- **NETWORK** – The original technology plan supported implementation of a wide area network (WAN), which linked all schools, classrooms, and district offices. The design of our network created local area networks (LAN) in all schools to provide students, teachers, and administrators access to resources such as servers, printers, and Internet/email. In order to ensure that every school has access to the World Wide Web and to allow sharing of statewide resources, local area networks

were connected to the wide area network (WAN.) Our original wide area network district server was a Dell 6300 PowerEdge Pentium II Xeon and our operating system was Novell Netware 5.0. We used MMS (Modular Management Systems for Schools) student administration software at all schools. This software did not support centralized management nor district integration. Also, this network, while reliable, required a sneaker-net approach of management for every task, thus an extremely needy network for staff time.

We began planning a network upgrade in early 2000, partnering with technology professionals and the Rhode Island Department of Education to align our decisions with state-of-the-art technology and future goals of the Department of Education. We installed the new hardware and software throughout the late spring and summer of 2001, and opened the 2001-02 school year with the new network, deploying SASI student administration software, complete with converted data from MMS and trained staff. Staff training sessions were offered to all school management staff through the summer of 2001, as well as “train the trainer” teachers who assumed leadership roles in their home schools to train teaching faculty to use the Classroom module.

Our updated network is a state-of-the-art Citrix Farm, using Compaq DL580R rack servers, operating Windows 2000 Server, running Citrix MetaFrame 1.8. We have one primary domain server, one backup domain server, five terminal servers, one ParentConnect server, and one SASI District Integration Task server. We also set up a “test server” environment in order to test all software applications, patches, and upgrades before placing them on the production servers.

Citrix MetaFrame is built on the most advanced technologies in the industry and provides the only solution of its kind offering secure, Internet-based access to Windows®, UNIX®, and Java™-based applications from virtually any device, via any connection, all with unparalleled manageability and scale. This application leads the industry in providing predictable performance with a lower total cost of ownership when applications, devices, operating systems and connections are diverse.

All LAN servers at individual schools have been upgraded to Windows 2000 Server and are domain managed. All curriculum softwares are loaded on the LAN server at each school.

- **FIREWALL SECURITY/INTERNET FILTERING** – Network security is critical when managing any technology infrastructure. Disaster recovery and protection of sensitive information is a top priority of network management. Additionally, the Child Internet Protection Act (CIPA) was signed into law on December 21, 2000. This law requires all K-12 public schools to certify that enforcement of a policy for Internet safety is in place, which includes the use of filtering or blocking technology. Internet safety is defined as protection against access through computers with Internet access to visual depictions that are

obscene, child pornography, or (in the case of use by minors) harmful to minors. We have accomplished these tasks, firewall security and Internet filtering, at the district level and additional Internet filtering at the RINET level.

- DESKTOP COMPUTERS** - Our district has approximately 1000 desktop and laptop computers, purchased and donated. Of the total number of computers, 889 are placed in our schools for curriculum support and integration in the classrooms and labs. (See chart below) All computers in our district are three years old or younger and all meet the district standard. All computers are equipped with a suite of application software used by members of the learning community, based on a district standard for curriculum support and integration, and technical support. From any computer in any area of the district, members of the network can access files from shared drives in their classroom/office, from individual schools and across the district via the wide area network (WAN), gaining access to student data management software, business office, and a variety of application software, updates, and shared information sites.

School/Office	Total number of PC's	Student:PC Ratio
<b>Barnes</b>	<b>76</b>	<b>3.1:1</b>
<b>Brown</b>	<b>72</b>	<b>3.1:1</b>
<b>Calef</b>	<b>66</b>	<b>3.1:1</b>
<b>Early Childhood Ctr</b>	<b>30</b>	<b>9.5:1</b>
<b>Ferri Middle School</b>	<b>229</b>	<b>3.9:1</b>
<b>Graniteville</b>	<b>63</b>	<b>3.1:1</b>
<b>Johnston High School</b>	<b>175</b>	<b>4.7:1</b>
<b>Thornton</b>	<b>111</b>	<b>2.5:1</b>
<b>Winsor Hill</b>	<b>67</b>	<b>3.7:1</b>
<b>District student ratio</b>	<b>889</b>	<b>3.7:1</b>

- CURRENT SOFTWARE** – During the 1998 Technology Plan, we purchased curriculum software at all nine schools for all grade levels. They are:

Inspiration	USA Explorer
Kid Pix	Reading Mansion
Harcourt Brace Math	Harcourt Phonics Express
Reader Rabbit	Harcourt Mission Comprehension
Type to Learn	Learning Center – Spelling &
World Book Encyclopedia	Grammar
Encarta	MS Office Suite (Word, Excel,
The Amazing Writing Machine	PowerPoint, Access, FrontPage)

- **VIDEO STREAMING PROJECT** - Ferri Middle School was chosen as one of ten schools in the State of Rhode Island for a pilot video-streaming project provided by Channel 36, which was totally free of cost to the district. Channel 36 offers over 1000 subject videos with unlimited use. Teaching faculty at the middle school have been able to use this service daily, either by live streaming or the downloading of the file to a server for later use. The director of technology worked very closely with Leroy Czaskos from Channel 36, teachers, parents, and staff, to showcase the product and test equipment at every school in our district. Our goal is to make this teaching tool available for all teaching faculty in our district at the classroom level. All nine schools in our district were successful in video streaming with our current infrastructure and equipment.
  
- **CENTRAL OFFICE** – A school system’s central office performs administrative duties for all schools in the district. Two major functions of the Central Office are financial management and student record-keeping. In addition, the following functions are supported by the WAN/LAN:
  - ✓ Personnel and payroll functions (recently updated ADP system)
  - ✓ Financial planning, budgeting, and reporting
  - ✓ School transportation management
  - ✓ School planning
  - ✓ Fixed asset tracking
  - ✓ Internet/email

Student records are obtained through WAN access to the SASI District Integration Server, located in the IT Office at the high school.

- **SPECIAL EDUCATION** – As part of our SASI student administration software, centralized tracking of special education students and their needs, everything from primary handicapping condition to anticipated services to PL-89313 eligibility. Our Special Education director and staff offices are located in the Central Office, so all network benefits are available to this staff. Additional support to our district’s special needs students are offered through software, oversized monitors, and printing services in the Print Center.
  
- **INFORMATION TECHNOLOGY DEPARTMENT** – In the spring of 2000, Johnston Public Schools’ School Committee approved the official creation of an Information Technology Office for the district. During November 2000, the IT Office moved into office space in Johnston High School, complete with a work area, secure server room, and small supply/storage room.
  - **IT Staff** – Staff support positions include one director and one full-time technician to support a district of 3400 students, nine school buildings, 1000+ desktop/laptop computers, 200+ printers, project management for SASI student administration, email accounts for approximately 500+ faculty/staff, routine/emergency end-user support, liaison to teachers, parents, students,

DOE student data reporting, software license management, district computer inventory, fiscal management responsibilities, and various committee work. Responsibilities for the IT Office not mentioned are those of network management. (See job description on page 41) Our district currently does not have a network manager position, nor do we have clerical support. Our new technology plan, as did the original technology plan, is requesting to hire a network manager position. In corporate America, the ratio for technology support (computers to staff) is 50:1. In public education, these ratios are much larger. However, successful learning must be supported by many efforts, and one of those is technical support of your wide area network. With today's sophisticated networks and security concerns, schools must address this staff position.

- **Print Center** – As part of the services offered by the IT Department, the district Print Center, which was opened during the fall of 1999 is highly used by our staff. This office provides reproduction services for all staff in our district, to the tune of over 5,000,000 copies per year, which breaks down to over 450,000 copies per month, 150,000 copies per week, during the school year. We have two staff members who operate the Print Center and the director of technology manages the operation. We have two large digital copiers, one black and white, and one digital color, with both networked and on-line providing web-based and WAN access to our district staff. We have one large production copier that provides a speed of 100 copies per minute, which serves to do all large routine jobs. We offer many services to our staff in paper colors, sizes, weights, booklets, letterhead, business cards, note cards, or any job needed if we can accommodate size. We offer enlargement and reduction services, black and white copying, color copying, disk storage of large handbooks and documents, forms for the district, so that jobs may be done with on-line digital quality. We also offer our services to community members at a charge of 5¢ per copy for black and white, and all color copiers made are charged at 35¢ per copy. There are two runs per day per school, with pickups and deliveries made with every visit. We have developed a very solid and routine operating system to accommodate our staff needs.

VISIO GRAPH HERE OF WAN

**SUMMARY OF ACHIEVEMENTS**

<b>Classroom Level</b>	<b>Building Level</b>
<p><b><u>All Elementary Schools:</u></b></p> <ul style="list-style-type: none"> <li>• Multimedia Computers, 1-2 PC's in every classroom               <ul style="list-style-type: none"> <li>- Dell Optiplex GN</li> <li>- 233 MHz processor</li> <li>- 64 mg RAM</li> <li>- 3.5" floppy drive</li> <li>- CD Rom</li> <li>- 14, 17, 19" color monitors</li> </ul> </li> <li>• Connectivity to information at classroom, building, district, region, state, national, and global levels</li> <li>• Teacher access to SASI on-line student data management system to take daily attendance, view emergency, demographic, parent, grade, health, and record discipline for all students in classroom</li> <li>• InteGrade Pro Electronic Gradebook</li> <li>• Access to web-based SASI student management software training</li> <li>• Email Account for all staff</li> <li>• Printers (most classrooms and shared production printers)</li> <li>• Video streaming capabilities</li> <li>• Telephone with voicemail</li> </ul>	<p><b><u>All Elementary Schools:</u></b></p> <ul style="list-style-type: none"> <li>• Network Server connection (LAN and WAN)</li> <li>• Connectivity to information at classroom, building, district, region, state, national, and global levels</li> <li>• SASI, on-line student data management system to do attendance, view emergency, demographic, parent, report cards/grade reporting, health, and discipline information for all students in classroom</li> <li>• Model Classroom Initiative</li> <li>• Building email listserves for staff communications</li> <li>• Video streaming capabilities</li> <li>• Distance learning capabilities</li> <li>• Computer Lab with individual workstations to accommodate up to 25 students simultaneously in a instructional setting</li> <li>• Computer Aide staff position</li> <li>• Instructional/curriculum and student management softwares</li> <li>• Large laser printers networked for all staff in office</li> <li>• Technology for special needs students</li> <li>• Telephone with voicemail</li> <li>• Fax capabilities</li> <li>• Scanner(s) &amp; CD Burning capabilities</li> <li>• Projection Equipment</li> <li>• TV &amp; VCR</li> <li>• Building-based computer aide to support technology efforts and needs (except Early Childhood Center)</li> <li>• Production Print Center with courier service to shuttle job requests and finished products with black/white &amp; color copies available.</li> </ul>

## SUMMARY OF ACHIEVEMENTS

<b>Classroom Level</b>	<b>Building Level</b>
<p><b><u>FMS &amp; JHS:</u></b></p> <ul style="list-style-type: none"> <li>• Multimedia Computers, 1-2 PC's in every classroom               <ul style="list-style-type: none"> <li>- Dell Optiplex GN</li> <li>- 233 MHz processor</li> <li>- 64 mg RAM</li> <li>- CD Rom/3.5" floppy</li> <li>- 14" &amp; 17" color monitors</li> </ul> </li> <li>• Networked student labs</li> <li>• Apple Macintosh classroom computer labs (3 classroom/labs in JHS)</li> <li>• Connectivity to Internet, providing information at classroom, building, district, region, state, national, and global levels</li> <li>• Teacher access to SASI on-line student data management system to do daily/period attendance, view emergency, demographic, parent, grade, health, and discipline information for all students in classroom</li> <li>• InteGrade Pro Electronic Gradebook</li> <li>• Web-based SASI software training sessions</li> <li>• Printers (most classrooms)</li> <li>• FMS chosen as one of ten pilot schools in Rhode Island for video streaming project provided by Channel 36.</li> <li>• Video streaming capabilities</li> <li>• Distance learning capabilities</li> <li>• Telephone with voicemail</li> </ul>	<p><b><u>FMS &amp; JHS:</u></b></p> <ul style="list-style-type: none"> <li>• Network Server (LAN and WAN) on Gigabit Fiber module between FMS and JHS</li> <li>• Connectivity to Internet, providing information at classroom, building, district, region, state, national, and global levels</li> <li>• SASI, on-line student data management system to view attendance, emergency, demographic, parent, report cards/grade reporting, health, Special Education information, and discipline information for all students in classroom</li> <li>• Building email listserv for staff communications</li> <li>• Model Classroom Initiative (FMS only)</li> <li>• Video streaming capabilities</li> <li>• Distance learning capabilities</li> <li>• Video conferencing equipment (FMS only)</li> <li>• RILINK automated library software, loaded on server farm for centralized management, with computer labs in both school libraries for student use and research</li> <li>• Computer Lab classrooms with individual workstations to accommodate up to 25 students simultaneously in a instructional setting (FMS – 2 computer labs; JHS – 4 computer labs, which includes CAD lab and state of the art computer-based wood-working lab)</li> <li>• Instructional/curriculum and administrative software access</li> <li>• Large laser printers networked for all staff in building</li> <li>• Classrooms and equipment for special needs students</li> <li>• Telephone with voicemail</li> <li>• Fax capabilities</li> <li>• Scanner(s)</li> <li>• Projection Equipment</li> <li>• TV &amp; VCR</li> <li>• Production Print Center service with courier service to shuttle job requests and finished products with 2-day turn-around, black/white and color copies available.</li> <li>• Wireless technology in lab area. (FMS Lab &amp; JHS IT Office)</li> </ul>

**DISTRICT LEVEL:**

- Creation of a state-of-the-art infrastructure that has the capability to handle future instructional and administrative growth. Network serves all instructional and administrative areas (classrooms, libraries, computer labs, special content areas, offices, etc.) Operating system is Windows 2000 Server, running Citrix Metaframe, Terminal Servers with load balancing. LAN, domain-controlled servers at all schools in cloud, allowing true centralized management.
- Network supports new and legacy PC connectivity to access new generation software and interact with data competitively.
- 1000 computers district-wide.
- T1 network connectivity; ATM upgrade scheduled for July 2002.
- District level filtering through Watchguard Technologies with database updates from Cyberpatrol. State blocking and filters through RINET with 8e6 Technologies.
- Intranet site for all district staff to access automated district-licensed software downloads, upgrades, virus patches, and e-helpdesk form for staff convenience and speed of support.
- Developed JPS Information Services Office, with technology staff to manage and support district technology needs.
- Created Professional Development Institute.
- Johnston Public School Department has the most RITTI-trained staff in the State of Rhode Island.
- Defined technology procurement standards for all schools: infrastructure, hardware, software, Internet access, and acceptable use policy for all.
- Development of Production Print Center located at JHS with on-line access from classroom or home for all staff to present jobs to be copied. Courier service provided twice daily to every school in district, shuttling job requests and finished products with 2-day turn-around; black/white and color copies available in many paper sizes, weights, textures, and colors. District print jobs of all types are done now in-house rather than at costly print shops out of district, saving the district substantial cost.
- Central Office access to SASI District Integrate System, on-line student data management system for all schools in the district; view student demographic, emergency, parent, grade, health, and discipline information for all students in the district.
- ParentConnect software (SASI component), which allows parents to gain web-based access to view a snapshot of their child's school grades, discipline, portfolios, and email access to teacher.
- Business Office network software (HP UNIX), allowing all sites in the district access to on-line requisitioning and budget accounting.
- On-line State reporting for all schools through centralized management of student management software.
- Developed annual inventory of all computer and office equipment in district, which includes asset tagging.
- District-wide email listserve for staff communication.

**WHERE WE ARE HEADED**

Education in Johnston is a shared, life-long experience in which the diverse needs of all individuals are met. This experience, provided in a safe, supportive environment would ensure success in a changing world. Research has shown that technology is more likely to have a quantitative impact on education when it is deeply rooted in the purposes and activities of the classroom. Through the integration of technology skills into the existing studies, the curricula are enriched and students develop the technology skills, which will

enable them to access, analyze, and communicate information effectively. Technology integration can also assist in meeting the educational needs of all Johnston Public School students. It fosters an environment where individualization can thrive. Through the use of an integrated learning system, students can progress at their own pace through educational activities. Both enrichment and remediation can be provided more easily to students through the use of an integrated learning system.

## **2002-2005 TECHNOLOGY PLAN TACTICS**

The curriculum of Johnston Public Schools must meet the needs of students who will work in the 21<sup>st</sup> Century. In order to compete in an information-based global economy, students must be provided with skills that involve more than traditional knowledge acquisition. As information changes and increases in volume, students must be able to think more critically, communicate more creatively, and problem-solve more analytically. In an effort to address these needs, students, parents, teachers, administrators, and staff members studied the role and purpose that technology will play in Johnston Public School's educational system, and as a result, five tactics were determined. The focus of the student learning tactics described below, not only integrate technology into the content area curricula, but also parallel the curricula and mirror their philosophies, goals, and objectives.

- **TACTIC 1: Incorporate national technology standards in all curriculum areas.**
- **TACTIC 2: Promote the use of technology using the newest generation network, which supports curricular goals of the district.**
- **TACTIC 3: Support professional development for all faculty, staff, and administrators to enhance their productivity and professional practice in collaboration with the Johnston Public Schools Professional Development Institute.**
- **TACTIC 4: Understand the major social and ethical issues in the field of information technology.**
- **TACTIC 5: Promote equitable access to learning technology as a community investment and encourage an active partnership among schools, businesses, home and the community.**

## **ACCOMPLISHING THE NEW GOALS**

To accomplish our vision for increased student learning with the use of technologies, our new Technology Plan is strongly focused on continuing to maintain a state-of-the-art network, curriculum and instruction, curriculum-based software, and professional development for district staff.

- **Equal access for the learning community**
  - ✓ Continue to provide wide area networking capabilities at all district sites, with support for upgrades as needed/required.
  - ✓ Continue to provide computer hardware and software at all sites for students, teachers and staff, with support for upgrades as needed/required.
  - ✓ Implement grade level technology goals identified to insure equity of delivery to all students.
  - ✓ Enhanced voice communications to provide parents/community greater access to school information, school staff, and the capability to leave voice messages 24 hours per day.
  - ✓ Via technology/telecommunications, enable 24/7 access to school learning resources, classroom lessons, and assignments, school information, and electronic messages for students, parents, staff, and community members.
  - ✓ Provide the school community with greater opportunity for interaction, collaboration, and information exchange.
  - ✓ Promote equitable access to learning technology as a community investment and encourage an active partnership among schools, businesses, homes and the school community.
  
- **Development of Lifelong Learners**
  - ✓ Assure skillful use of technology to support the development of lifelong learning skills and process skills such as flexibility, adaptability, critical thinking, problem solving, and collaboration, which are essential to success in our rapidly changing information age.
  
- **Integration of Technology in the Classroom**
  - ✓ Expand classroom tools for teaching and learning.
  - ✓ Provide for the integration of multiple resources for existing and emerging curriculum.
  - ✓ Enable the learning community to communicate more effectively by accessing and processing information, and working productively.
  - ✓ Link the classroom with educational resources within the building, community, and worldwide.
  - ✓ Create a collaborative environment for project-oriented activities.
  - ✓ Increase the productivity of students as they work toward attaining learning outcomes.
  - ✓ Encourage the use of multimedia tools, enabling students to become active and experiential learners.

- **Build a Culture of Continuous Learning for Staff**
  - ✓ Provide all staff access to networked systems.
  - ✓ Provide support to professional development efforts.
  - ✓ Develop school-based technology planning and learning.
  - ✓ Develop on-line learning opportunities via network.
  - ✓ Incorporate learning new curriculum with technology applications.
  
- **Support for Instructional Change**
  - ✓ Facilitate access to collegial support and best practice information from a wide variety of resources.
  - ✓ Expand the variety of teaching tools and strategies to support diverse learning styles.
  - ✓ Support productive and efficient management of student assessment and portfolio data.
  - ✓ Increase support for emerging instructional strategies, interdisciplinary, collaborative, and active learning options.
  - ✓ Enable curriculum, instruction, and assessment to be developed and aligned with each other.
  - ✓ Provide a system, which helps students, parents, and teachers work together to support educational outcomes.
  - ✓ Pilot new teaching strategies, technologies, and instructional resources.
  - ✓ Investigate emerging possibilities for electronic learning resources such as e-books and enhanced personal digital assistants (PDA) and electronic portfolios for each student.

## **FINANCIAL PLANNING**

During the three years covered by this technology plan, it is doubtful that the district will need to consider any additional large-scale purchases of computer hardware. As older computers fail or become unsuitable for their desired use, it will be necessary to replace them on an individual basis. Effective and pro-active technology budget planning must account for new purchases as needed and include provisions for replacements and upgrades on a regular basis. These additional purchases of hardware or software during the new plan timeframe will be based upon recommendations made by the annual review of the Technology Advisory Committee. This committee will work to formulate recommendations for technology acquisitions to the director of administration and superintendent. This effort will attempt to stabilize technology costs at a reasonable level and percentage of the overall budget, while meeting district needs. A chart, which follows on the next page, plots a pro-active approach to these hardware replacements and software upgrades/purchases. Equipment standards will reflect the findings of current research to place equipment appropriately to the application it will be used. Equipment

purchases must be recommended as they are best suited for the learning/productivity involved, i.e. special needs.

Financial support for the routine operation of the Information Technology Office has been aided by the development of an annual technology budget for routine operating expenses for FY 2002-03. This budget represents network operating costs, hardware/software maintenance, routine repairs, district copier leases for the district, including the Print Center equipment, office and paper supplies, and staff salaries.

The following chart is a breakdown of anticipated software purchases and minimal hardware replacement for the timeframe of this technology plan. New hardware and software should be reviewed on a regular basis so as to create a proactive approach to funding needs.

Microsoft Office Professional Suite district license (2002-04) Microsoft Consortium Pricing through RINET	\$ 40,000
Channel 36 Video Streaming Project (maximum cost per year is \$1,000 per school per year, but could be substantially less)	\$ 27,000
Curriculum Software Purchases/upgrades/annual license renewal for district (\$10,000 annually)	\$ 30,000
Progressive Annual PC/Terminal Replacement	\$420,000
Breakdown:	
*50 PC's – 2002-03	\$ 70,000
*100 PC's – 2003-04	\$140,000
*150 PC's – 2004-05	\$210,000

### **UPDATE OF TEACHER COMPUTERS**

To provide more flexibility for our teaching faculty, this technology plan supports researching grant funding availability for purchase of portable laptop computers for all teaching faculty, as we replace teacher classroom desktops. Laptop technology will provide teaching faculty at the high school level, who change classes every period, the opportunity to move their data from room to room as their classes change during the school day. This initiative will provide all teaching faculty mobility for off-campus meetings and conferences and to support homework, if desired.

## **UPDATE OF STUDENT COMPUTER LABS**

Thin client systems will emerge as the district standard in many areas, but specifically in lab settings, for desktop computing as terminal services mature and become more cost-effective solutions than local deployment of software applications. Legacy equipment will be moved to classroom/computer labs for additional curriculum support or recycling of parts within the district to maintain legacy equipment without additional funding.

## **TACTIC 1: INCORPORATE NATIONAL TECHNOLOGY STANDARDS IN ALL CURRICULUM AREAS.**

### **ACTION PLAN**

- **PROVIDE A TECHNOLOGY REPRESENTATIVE ON ALL DISTRICT CURRICULUM COMMITTEES TO ENSURE THE INCORPORATION OF TECHNOLOGY STANDARDS IN ALL CONTENT AREAS.**

#### **Steps:**

- ✓ Establish committee to define job description, accepted by superintendent and union president. [September – October 2002]
  - ✓ Post according to guidelines (needs to be completed before Math curriculum committee meets.) [October 2002]
  - ✓ Search committee (same committee as above to conduct interviews) from whom we would identify a representative for each content area (Math, Language Arts, etc.) [November 2002]
  - ✓ Notify the curriculum coordinator before and after process. [September – November 2002]
- **TRANSLATE NATIONAL TECHNOLOGY STANDARDS INTO KID-FRIENDLY LANGUAGE AND SPECIFIC GRADE LEVEL BENCHMARKS.**

#### **Steps:**

- ✓ Initial overall meeting to set criteria of grade level meetings. Establish deadline at this meeting.
  - ✓ Grade level meetings, K-12. [September 2002 – June 2003]
  - ✓ Review and input from designated staff.
  - ✓ Acceptance of language.
- **PROVIDE EDUCATORS WITH RESOURCES THAT DEMONSTRATE LESSONS ACROSS THE CURRICULUM BY USING THE NATIONAL TECHNOLOGY STANDARDS.**

#### **Steps:**

- ✓ Distribute grade level lesson plan examples as described in “National Education Technology Standards for Students.” [September – October 2003]
- ✓ Develop a cadre of trainers who will provide teacher workshops integrating technology into grade/content area lesson plans. [January – May 2003]

- ✓ Develop a course description and training dates for the above-listed workshops and forward to our Professional Development Institute. [April – May 2003]
- ✓ Begin workshop sessions. [September 2003]
- **DEVELOP A TECHNOLOGY HANDBOOK FOR THE SCHOOL COMMUNITY, WHICH FOCUSES ON TECHNOLOGY STANDARDS AND GRADE LEVEL BENCHMARKS.**

**Steps:**

- ✓ Establish a committee to set criteria of information for the handbook (standards, benchmarks, at-home activities.) Compile websites as well. [September – November 2002]
- ✓ Develop outline and layout of handbook (printing and creating.) [November 2002 – January 2003]
- ✓ Distribution to school community. [February – March 2003]

**TECHNOLOGY STANDARDS FOR STUDENTS**

The Technology Foundation Standards for Students are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provided a framework for linking performance indicators within the Profiles for Technology Literate Students to the standards. Teachers can use these standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication, and life skills.

- **1. Basic Operations and concepts:**
  - ✓ Students demonstrate the efficient use of technology
  - ✓ Students will sufficiently develop technical skills to be able to troubleshoot and maintain technology/productivity tools in real life situations.
  - ✓ Demonstrate sound decision-making in the selection of appropriate technology for specific purposes.
- **2. Social, ethical, and human issues:**
  - ✓ Students practice responsible use of technology systems, information, and software.
  - ✓ Students develop positive, ethical attitudes toward technology uses that support life-long learning, collaboration, personal pursuits, and productivity.
- **3. Technology/Productivity Tools:**
  - ✓ Students use technology/productivity tools to enhance learning, increase productivity, and promote creativity.

- ✓ Students will communicate effectively to multiple audiences using a variety of media and formats.
- ✓ Student content-area learning will be enhanced with technology-infused lessons.
- **4. Technology communication tools:**
  - ✓ Students will communicate effectively to multiple audiences using a variety of media and formats.
  - ✓ Students use a variety of media formats including telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
  - ✓ Students construct new meaning and knowledge by analyzing and synthesizing and evaluating different types of information.
- **5. Technology research tools:**
  - ✓ Students use technology to locate, evaluate, and collect information from a variety of sources appropriate for specific tasks.
  - ✓ Students use technology tools to process data and report results.
- **6. Technology problem-solving and decision-making tools:**
  - ✓ Students use technology resources and develop strategies for solving real world problems and making informed decisions.
  - ✓ Students will work collaboratively to solve a problem and report results.

## **PERFORMANCE INDICATORS FOR TECHNOLOGY-LITERATE STUDENTS**

Number(s) in [ ] following each performance indicator refers to the above-listed Technology Foundation standards category to which the performance is linked.

All students should have opportunities to demonstrate the following performances.

- **Grades K-2, prior to completion of Grade 2, students will:**
  - ✓ Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, DVD's, audiotapes, and other technologies. [1]
  - ✓ Use a variety of media and technology resources for directed and independent learning activities. [1, 3]
  - ✓ Communicate about technology using developmentally appropriate and accurate terminology. [1]

- ✓ Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. [1]
- ✓ Work cooperatively and collaboratively with peers, family members, and community when using technology in the classroom. [3]
- ✓ Demonstrate positive social and ethical behaviors when using technology systems and software. [2]
- ✓ Create developmentally appropriate multimedia products with support from teachers, family members, community, or student partners. [3]
- ✓ Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. [3, 4, 5, 6]
- ✓ Gather information and communicate with others using telecommunications, with support from teachers, family members, community, and student partners. [4]
- **Grades 3-5, prior to completion of Grade 5, students will:**
  - ✓ Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively. [1]
  - ✓ Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide. [1, 2]
  - ✓ Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. [3, 4]
  - ✓ Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. [3, 4]
  - ✓ Use telecommunications and online resources (e.g., email, online discussions, Web environments) to participate in collaborative problem solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. [4, 5]
  - ✓ Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities. [5, 6]

- ✓ Determine when technology is useful and select the appropriate tools, software, and technology resources to address a variety of tasks and problems. [5, 6]
- ✓ Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. [6]
- **Grades 6-8, prior to completion of Grade 8, students will:**
  - ✓ Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. [1]
  - ✓ Demonstrate knowledge of current uses in information technologies and the effect those uses have on the workplace and society. [2]
  - ✓ Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. [2]
  - ✓ Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. [3, 4]
  - ✓ Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. [4, 5]
  - ✓ Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. [3, 5, 6]
  - ✓ Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving. [1, 6]
  - ✓ Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real world problems. [2, 5, 6]
  - ✓ Use a variety of technological and information resources (e.g., libraries, databases, computer networks, video, spreadsheets, and Web sites) to gather and synthesize information and create/communicate knowledge. [3]
  - ✓ Create, edit, revise, and produce hardcopies of writing assignments/projects using a word processing program to enhance it with the use of format, typeface, font size/style, clipart, etc. [1]

- ✓ Use a multimedia program to create and improve reports, assignments, and projects. [3, 4]
- ✓ Access and retrieve data using the Internet and CD rom, create databases, organize and analyze the data. [5]
- ✓ Enter data and mathematical formulas in a spreadsheet in order to help analyze, organize, sort, and graph the data. [3, 4, 6]
- ✓ Interact with available graphic software to develop and reinforce creative expression in Art. [3]
- ✓ Interact with software, which develops Music composition skills and techniques and/or lyric writing skills and techniques. [3]
- ✓ Interact with CAD programs to develop and reinforce concepts in the content area. [3, 6]
- **Grades 9-12, prior to completion of Grade 12, students will:**
  - ✓ Use each component of a technology system correctly including hardware, software, and networking. (1)
  - ✓ Promote a better understanding of telecommunications. (1)
  - ✓ Engage in interactive lessons using distance-learning technology. (1)
  - ✓ Utilize on-line services, bulletin boards, email, and the Internet. (1)
  - ✓ Participate in electronic field trips. (1)
  - ✓ Demonstrate knowledge of current trends in technology. (1)
  - ✓ Develop geographical, cultural, and political awareness and understanding of people all over the world. (2)
  - ✓ Practice responsible use of technology systems, information, and software. (2)
  - ✓ Use proper computer etiquette, such as using only their password. (2)
  - ✓ Understand and respect the ethical issues in the field of technology such as privacy, licensing, viruses, public domain, etc. (2)
  - ✓ Understand and respect basic copyright laws, electronic privacy, as well as the consequences of plagiarism, infringement of access rights, and tampering. (2)
  - ✓ Use technology as a tool in math courses. (3)

- ✓ Receive reinforcement and remediation of core academic skills. (3)
- ✓ Use technology for application of daily living skills. (3)
- ✓ Use technology for SAT and GED preparation. (3)
- ✓ Utilize computer lab activities for tutorials. (3)
- ✓ Produce word-processed essays, term papers, and papers that are language appropriate using diacritical marks. (4)
- ✓ Use technology for gathering, storing, and reporting lab data. (4)
- ✓ Learn the fundamentals of touch keyboarding, word processing, desktop publishing, databases, and spreadsheets. (4)
- ✓ Apply technological skills to interpersonal communication. (4)
- ✓ Participate in on-line discussion groups with students from divergent populations and experts around the globe. (4)
- ✓ Access foreign news via telecommunication on-line services. (4)
- ✓ Create a multimedia stack for curriculum-related projects using a program such as PowerPoint. (4)
- ✓ Use computers to locate, organize, and communicate information. (4)
- ✓ Communicate with others using email and develop good habits for managing email. (4)
- ✓ Access information using CD-Rom and on-line services. (5)
- ✓ Apply programming logic to problem solving with appropriate software packages. (5)
- ✓ Expand the programming options available. (5)
- ✓ Given the opportunity to extend their knowledge of technology applications. (5)
- ✓ Use technology for computer-aided fine and commercial arts, drafting, architectural design, graphics communications, printing, composing musical scores, automotive diagnosis, and maintenance. (5)
- ✓ Utilize the computer lab activities for research and to investigate assigned problems/tasks. (5)

- ✓ Use technology for the simulation of life. (6)
- ✓ Learn to transfer technological skills to work experience and post secondary education and training. (6)
- ✓ Utilize critical thinking and problem solving strategies to complete curriculum assignments. (6)
- ✓ Use available computer software to demonstrate the problem solving skills of deductive and inductive reasoning. (6)
- ✓ Use content-specific software to promote and enhance inferential reasoning. (6)
- ✓ Manipulate, interpret, and evaluate data. (6)
- ✓ Use technology to locate, evaluate, collect, and organize information from a variety of sources. (6)
- ✓ Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate problems, issues, and information and to develop solutions. (6)

**TACTIC 2: PROMOTE THE USE OF TECHNOLOGY USING THE NEWEST GENERATION NETWORK, WHICH SUPPORTS CURRICULAR GOALS OF THE DISTRICT.**

**ACTION PLAN**

- **DETERMINE THE EFFECTIVE USE OF TECHNOLOGY THROUGHOUT THE JOHNSTON SCHOOL DISTRICT.**

**Steps**

- ✓ Form a Technology Advisory Committee to implement 2002 Technology Plan. [September 2002]
- ✓ Technology Advisory Committee will review needs assessment tool. [September – November 2002]
- ✓ Technology Advisory Committee will conduct needs assessment. [November 2002]
- ✓ Technology Advisory Committee will evaluate needs assessment and draw conclusions. [December 2002 – February 2003]

- **EVALUATE THE PRESENT STATE OF HARDWARE AND SOFTWARE OF THE DISTRICT.**

**Steps**

- ✓ Technology Advisory Committee will review present state of hardware and software in the district. (November – December 2002)
- ✓ Technology Advisory Committee will make recommendations to the administration. (January 2003)

- **PERIODICALLY ASSESS AND UPGRADE SYSTEM HARDWARE AND SOFTWARE.**

**Steps**

- ✓ Technology Advisory Committee will develop an assessment strategy and/or tool to assess the current state of hardware and software. [September 2004]
- ✓ Technology Advisory Committee will assess and make recommendations on system hardware and software periodically. [May – June 2004]
- ✓ Technology Advisory Committee will communicate with technology colleagues at the district, state, and national level. [Ongoing]

- **PROVIDE PERSONNEL TO ASSIST TEACHING STAFF WITH THE INTEGRATION OF TECHNOLOGY WITHIN THE CURRICULUM.**

**Steps**

- ✓ Technology Advisory Committee will create a draft job description for the position of curriculum technology integration specialists for each school in the district. [September 2002]
- ✓ Technology Advisory Committee will recommend job description to administration for approval and negotiation. [After completion of first action item.]

**TACTIC 3: SUPPORT PROFESSIONAL DEVELOPMENT FOR ALL FACULTY, STAFF, AND ADMINISTRATORS TO ENHANCE THEIR PRODUCTIVITY AND PROFESSIONAL PRACTICE, IN COLLABORATION WITH THE JOHNSTON PUBLIC SCHOOLS' PROFESSIONAL DEVELOPMENT INSTITUTE.**

**ACTION PLAN**

- **PROVIDE AND TEACH LEGAL AND ETHICAL PRACTICE RELATED TO TECHNOLOGY USE.**

**Steps:**

- ✓ Collect and review district authorized use policy and copyright laws. (September 2002)
  - ✓ Form a Technology Advisory Committee. (September 2002)
  - ✓ Develop a network and protocol for including discussion of technology issues:
    - At School Improvement Team meetings (SIT)
    - PTO Meetings with parents
    - District meetings and individual school meetings
    - Email and hard copy messages to school community (on-going)
  - ✓ Provide technology support for professional development workshops. (on-going)
- **PROVIDE THE NECESSARY TECHNOLOGY TOOLS NEEDED TO INTEGRATE TECHNOLOGY INTO THE CONTENT AREA CURRICULUM.**

**Steps**

- ✓ Form committee to apply for grants to meet classroom technology goals, in cooperation with the district grant-writing administrator.
- ✓ Supply a laptop computer for every teacher with docking stations. (November 2002)
- ✓ Classroom ratio of students to computers to be 3:1. (September 2003)
- ✓ Palm pilots for all students in Grades 4 – 8. (September 2003)
- ✓ Supply graphics calculators for high school math students. (November 2002)
- ✓ Every classroom to be equipped with TV, DVD, TV-ator, scanner, printer, digital camera, and CD burner. (December 2003)
- ✓ AlphaSmarts for special needs students. (January 2003)
- ✓ LCD projectors for every elementary grade, middle school team, high school department, and inclusive special education. (September 2004)

- **PROVIDE TRAINING FOR GRADE LEVEL BENCHMARKS TO SUPPORT TECHNOLOGY CURRICULUM.**

**Steps**

- ✓ Hire a Technology Curriculum Coordinator. (September 2002)
  - Write grants.
  - Work with director of technology for planning.
  - Establish and encourage building copyright policy.
  - Contact person for training on the equipment available in building.
  - Participate in technology committee meetings.
  - Job descriptions to be discussed and decided by the Technology Advisory Committee and recommended to the administration.
- ✓ Hire a technology integration specialist.
  - Select and evaluate technology-related curriculum materials in conjunction with teachers.
  - Acquire technology-related curriculum materials for use by classroom teachers.
  - Provide in-service training for administrators/teachers/staff.
  - Act as peer consultants for technology-related educational activities.
  - Assist in the design of lesson plans and activities.
  - Demonstrate model lessons
  - Job description is attached.
  - Collaborate with the Professional Development Institute to provide training classes for teachers.
- ✓ Hire a computer aide for middle school and high school.
  - Schedule computer labs for classes
  - Monitor and supervise computer labs
  - Assist students and teachers with software applications, printing problems, etc.
  - Handle first level troubleshooting of equipment problems in the computer lab.
  - Prepare the computer lab for the beginning of the school day.
  - Work closely with the IT Staff performing first level troubleshooting.
  - Job description is attached.

- **PROVIDE OPPORTUNITIES TO STAY ABREAST OF CURRENT AND EMERGING TECHNOLOGIES.**
  - ✓ Technology Advisory Committee to actively support Professional Development activities through technical support issues. (September 2002)
  - ✓ Technology Advisory Committee to serve as a resource to the Professional Development Institute for training opportunities and policies. (on-going)
  - ✓ Review individual school technology plan and update as needed. (on-going)
  - ✓ Use yearly assessments to create plans for the following school year. (on-going)

## **TACTIC 4: UNDERSTAND THE MAJOR SOCIAL AND ETHICAL ISSUES IN THE FIELD OF INFORMATION TECHNOLOGY.**

### **ACTION PLAN**

- **IDENTIFY SOCIAL AND ETHICAL ISSUES RELEVANT TO GRADE/AGE LEVEL OF K-12 STUDENTS.**

#### **Steps:**

- ✓ Students and parents will read and sign the district's authorized use policy if student uses school-owned computer equipment.
  - ✓ Students will demonstrate proper care and concern when utilizing computer hardware, software, and all peripheral devices.
  - ✓ Students will understand the difference between home computer use vs. school computer use.
  - ✓ Students will become familiar with the ethical issues in the field of technology such as privacy, licensing, viruses, public domain, etc.
  - ✓ Students will use proper computer "etiquette" such as only using their own password
  - ✓ Students will understand and respect basic copyright laws, electronic privacy, as well as the consequences of plagiarism, infringement of access rights and tampering.
- **ADMINISTER INTERNET AUTHORIZED USE POLICY TO ALL K-12 STUDENTS.**

#### **Steps**

- ✓ Technology Advisory Committee reviews the district's Internet authorized use policy.
- ✓ Distribution of Internet authorized use policy annually to all students for signature by student and parent guardian.
- ✓ Distribution of materials to district staff and students on copyright laws.

**TACTIC 5: PROMOTE EQUITABLE ACCESS TO LEARNING TECHNOLOGY AS A COMMUNITY INVESTMENT AND ENCOURAGE AN ACTIVE PARTNERSHIP AMONG SCHOOLS, BUSINESSES, HOME AND THE COMMUNITY.**

**ACTION PLAN**

• **PROVIDE EDUCATIONAL OPPORTUNITIES OFFERING COMMUNITY MEMBERS TRAINING IN TECHNOLOGY.**

**Steps:**

- ✓ Create a survey to be sent home to discover technology education opportunities that are needed within the community. (September 2002)
- ✓ Inform community at large through paper and web site newsletters, email, school committee meetings, and local newspapers of upcoming technology educational opportunities. (January 2003)
- ✓ Offer technology education workshops at neighborhood schools to be continually updated on new generation technologies. (on-going)
- ✓ Offer tutorials and professional development classes on-line. (on-going)
- ✓ Invite parents/community to school technology nights at schools:
  - Open house technology nights
  - Showcase student work
  - Cyber café
  - Virtual field trips (March 2003)
- ✓ Offer programs where students and volunteer staff visit nursing homes, assisted living facilities, and the Johnston Senior Center to educate senior citizens about technology use(s). (September 2003)

• **PROVIDE A SYSTEM, WHICH BRINGS TOGETHER STUDENTS, FAMILIES, TEACHERS, STAFF AND THE BUSINESS COMMUNITY TO SUPPORT EDUCATIONAL OUTCOMES AND OFFER GREATER OPPORTUNITIES FOR INTERACTION, COLLABORATION, AND INFORMATION EXCHANGE.**

**Steps:**

- ✓ Establish a Visitor's Technology Welcome Center for the entire district in a central location such as the JHS Library. (September 2003)
- ✓ Create an on-line periodic newsletter filled with hints, tips, insights, and information about computers, computer use, and computer technology news. (January 2003)
- ✓ Include all concerned parties to form a coalition to work together and pool its resources to enhance Johnston Public Schools' participation in new generation technologies. (January 2003)

- ✓ Create a directory of business/community resources to help teachers and staff match their needs with community strengths. (on-going)
  - ✓ Hire coordinator of these activities who will encourage participation among business/community partners to foster better communication between partners and schools. (September 2002)
  - ✓ Increase student career exploration opportunities through the use of instructional technology and business community contacts
    - Create a business survey to determine what jobs and training abilities will be needed in the future. (January 2003)
  - ✓ District-wide collaboration to develop links from the JPS web page to community groups:
    - Community groups, such as Johnston Historical Society
    - Museums
    - Libraries
    - Colleges (January 2003)
  - ✓ Develop staff responsibility for consistent communication with local newspaper contacts for newsworthy technology events, which occur within our district. (on-going)
- **EQUAL ACCESS TO ALL SCHOOLS, STUDENTS, TEACHERS, AND STAFF OF HARDWARE, SOFTWARE, AND NETWORK CONNECTIONS.**

**Steps:**

- ✓ Ensure equitable distribution of all hardware and software among all schools within district. (on-going)
- ✓ Invite hardware and software vendors to send representatives to demonstrate their latest products. (December 2002)
  - Create an assessment tool (evaluation form, one for teachers and one for students.)
  - Teachers/staff evaluate the showcase products.
  - Integration technologist specialist decide which and what should be purchased based on feedback from the above assessment tools and collaboration with the IT Staff for network compatibility.
- ✓ Update Johnston Public Schools' homepage.
- ✓ Create curriculum web sites, as links on the JPS homepage, to support new and continuing curriculum areas. (on-going)
- ✓ Teachers, along with their students, will be given the opportunity to create a professional website, hosted by the JPS homepage. (on-going)
- ✓ Provide all students with electronic portfolios. (September 2004)

- **FORM ACTIVE PARTNERSHIPS WITHIN AND AMONG SCHOOLS, BUSINESSES, HOMES, AND THE COMMUNITY.**

**Steps:**

- ✓ Encourage exchange of resources between schools and businesses. (January 2003)
- ✓ Update and distribute a family/student technology survey:
  - Work with community resources to make technology assess as easy as possible for small number of students without computers/Internet at home.
  - Have businesses/community donate older computers to these families.
  - Establish a donation program. (on-going)
- ✓ Johnston Public Schools will maintain a web site where businesses can access information about our technology program in order to offer internships and opportunities for job sharing. (on-going)
- ✓ Use video conferencing between colleges, businesses, schools, and members of the community to form partnerships in which information and knowledge may be exchanged. (on-going)
- ✓ Seek out businesses willing to share their knowledge regarding the creation of professional web sites. (January 2003)
- ✓ Develop and implement a plan for opening selected schools and the Marian Mohr Library for after school and evening hours to use computer labs by community residents. (September 2002)

## **JOB DESCRIPTIONS**

### **NETWORK MANAGER**

- The school district will be responsible for six local area networks and one wide area network located in the JHS Information Services Office, with Gigabyte fiber run between Johnston High School and Ferri Middle School. The networks will include both instructional and administrative activities. With daily classroom activities and administrative activities dependent upon the network for daily operation, it is of vital importance the network be functioning at all times and operating systems be up-to-date with needed software patches, updates, security, and virus protection. It is necessary to monitor the security levels and virus prevention control on a daily basis.
- The computer network manager will facilitate a trouble-free and secure networked environment for the instructional and administrative services on a daily basis. The network manager will also be responsible for maintaining the standards set for the network.
- Responsibilities will include:
  - ✓ Maintain daily up-keep and administration of the networking interconnectivity elements and the computing hardware/software elements on the local area networks and the wide area network
  - ✓ Provide a secure environment for the data on the network.
  - ✓ Manage network hardware equipment at the head-end.
  - ✓ Manage network operating system software.
  - ✓ Manage network protocols.
  - ✓ Perform backup and recovery tasks on the network.
  - ✓ Install new software on the network.
  - ✓ Upgrade software on the network.
  - ✓ Perform start and end of the year maintenance on the network
- This committee recommends this position may be initially hired as a part-time position, working at least 20 hours per week.

## **TECHNOLOGY INTEGRATION SPECIALIST**

- Technology and the use of technology promote activities that will continue to evolve over time. Therefore, it is not enough simply to provide hardware and software to classroom teachers. The use of technology in classrooms requires changes in methods of classroom management and curricular integration. There is a need to provide teachers with assistance to implement such methodology in the classroom.
- The technology resource persons will assist teachers to make effective use of the technology and of classroom management strategies. They will be involved in professional development and in-service activities, as well as in helping individual teachers find the best ways of using technology to improve their instruction. They will also assist in the evaluation and selection of materials.
- Responsibilities will include:
  - ✓ Select and evaluate technology-related curriculum materials in conjunction with teachers.
  - ✓ Acquire technology-related curriculum materials for use by classroom teachers.
  - ✓ Provide in-service training for administrators/teachers/staff.
  - ✓ Act as peer consultants for technology-related educational activities.
  - ✓ Assist in the design of lesson plans and activities.
  - ✓ Demonstrate model lessons

## **COMPUTER AIDE POSITIONS FOR FMS AND JHS**

- The computer labs are used on a daily basis both by classes and by individuals. The computer lab aide supports and assists teachers and students in class related work. The aide provides adult supervision and security in the lab. The computer lab aide frees the teacher to teach the lesson and avoid concern with technical problems.
- Responsibilities will include:
  - ✓ Schedule computer labs for classes.
  - ✓ Monitor and supervise computer labs.
  - ✓ Assist students and teachers with software applications, printing problems, etc.
  - ✓ Handle first level troubleshooting of equipment problems in the computer lab.
  - ✓ Prepare the computer lab for the beginning of the school day.
  - ✓ Support the computer resource person.
  - ✓ Work cooperatively with the Information Services staff performing first level troubleshooting of the equipment and network equipment located at schools.

## **JPS Technology Plan 2002 Student Use of Technology – Needs Assessment Tool**

**Students: Please check the level which best describes what you can do at the present time.**

### **1. Basic Computer Use**

- Level 1, I do not use a computer.**
- Level 2, I log-on, log-off, open, use and close a program on my own.**
- Level 3, I open and use more than one program at the same time.**
- Level 4, I learn new programs on my own.**

### **2. File Management**

- Level 1, I do not save any documents I create using the computer.**
- Level 2, I select, open, and save documents on different drives.**
- Level 3, I create my own folders to keep files organized.**
- Level 4, I move files between folders and drives.**

### **3. Word Processing**

- Level 1, I do not use a word processor.**
- Level 2, I use a word processor for basic writing tasks.**
- Level 3, I use the tools of the word processor, such as spell check and grammar check to edit my work.**
- Level 4, I use the word processor to improve my previous drafts and publish a final document.**

### **4. Spreadsheet**

- Level 1, I do not use a spreadsheet.**
- Level 2, I enter data in a spreadsheet and create charts.**
- Level 3, I choose a chart which best reflects my data and apply title and labels.**
- Level 4, I move files between folders and drives.**

### **5. Database**

- Level 1, I do not use a database.**
- Level 2, I locate information from a pre-made database such as Library Search and electronic magazine sources.**
- Level 3, I create my own database and add or delete information.**
- Level 4, I generate reports from a database in order to answer questions.**

## **6. Graphics**

- Level 1, I do not use graphics with my word processing pieces.
- Level 2, I create pictures with painting and drawing programs and use clip art.
- Level 3, I edit clip art, scan and import graphics from a variety of sources and modify them using a graphic editor (L-View.)
- Level 4, I invent, select, and use graphics in order to make a point or illustrate what I have learned.

## **7. Email**

- Level 1, I do not use email.
- Level 2, I compose and send email messages.
- Level 3, I organize my mail folders to save messages and delete those I no longer need.
- Level 4, I use email to request and send information for research.

## **8. Research/Information Searching**

- Level 1, I do not use electronic sources to find information.
- Level 2, I find information from electronic sources (World Book, Internet, CD's.)
- Level 3, I select, gather, and save information from multiple electronic sources to answer a question.
- Level 4, I analyze and evaluate the information I have gathered.

## **9. Desktop Publishing**

- Level 1, I do not use a publishing program.
- Level 2, I use templates or wizards to create a published document.
- Level 3, I create original publications from a blank page combining design elements such as columns, clip art, tables, word art, and captions.
- Level 4, I design original publications that communicate to others what I've learned.

## **10. Technology Presentations**

- Level 1, I do not use technology for presentations.
- Level 2, I use templates or wizards to create multimedia presentations.
- Level 3, I combine text with pictures imported from different sources to create original multimedia presentations.
- Level 4, I design multimedia presentations employing audio, video, and still graphics to share ideas.

## **11. Internet**

- Level 1, I do not use the Internet.
- Level 2, I visit Internet sites selected by my teacher and use navigation buttons to move between pages.
- Level 3, I use search tools efficiently to location information.
- Level 4, I create web pages for classroom projects.

**12. Responsible Use**

- Level 1, I do not understand what responsible use means.**
- Level 2, I take care of the equipment and leave it ready for the next user.**
- Level 3, I understand and follow District rules concerning harassment, language, passwords, copyright, privacy, appropriate use of resources, etc.**
- Level 4, I model responsible use and teach others.**

## **JPS Technology Plan 2002 Staff Use of Technology – Needs Assessment Tool**

Please judge your level of achievement in each of the following competencies. Check the number that best reflects your current level of skill. This tool is designed to help understand your current level of skills with computer technologies and to plan for professional development.

### **1. Basic Computer Use**

- Level 1, I do not use a computer.**
- Level 2, I use the computer to run a few specific, pre-loaded programs.**
- Level 3, I run two programs simultaneously and have several windows open at the same time.**
- Level 4, I troubleshoot successfully when basic problems with my computer or printer occur. I learn new programs on my own. I teach basic operations to my students.**

### **2. File Management**

- Level 1, I do not save any documents I create using the computer.**
- Level 2, I select, open, and save documents on different drives.**
- Level 3, I create my own folders to keep files organized and understand the importance of a back-up system.**
- Level 4, I move files between folders and drives, and I maintain my network storage size within acceptable limits. I teach students how to save and organize their files.**

### **3. Word Processing**

- Level 1, I do not use a word processing program.**
- Level 2, I occasionally use a word processing program for simple documents. I generally find it easier to handwrite most written work I do.**
- Level 3, I use a word processing program for nearly all my written professional work, i.e. memos, tests, worksheets, and home communication. I edit, spell-check, and change the format of a document.**
- Level 4, I teach students to use word processing programs for their written communications.**

#### **4. Spreadsheet**

- Level 1, I do not use a spreadsheet.**
- Level 2, I understand the use of a spreadsheet and can navigate within one. I create simple spreadsheets and charts.**
- Level 3, I use spreadsheets for a variety of record-keeping tasks. I use labels, formulas, cell references, and formatting tools in my spreadsheets. I choose charts that best represent my data.**
- Level 4, I teach students to use spreadsheets to improve their own data keeping and analysis skills.**

#### **5. Database**

- Level 1, I do not use a database.**
- Level 2, I understand the use of a database and locate information from a pre-made database such as Library Search.**
- Level 3, I create my own databases. I define the fields and choose a layout to organize information I have gathered. I use my database to answer questions about my information.**
- Level 4, I teach students to create and use databases to organize and analyze data.**

#### **6. Graphics**

- Level 1, I do not use graphics with my word process or presentations.**
- Level 2, I open, create, and place simple pictures into documents using drawing programs or clipart.**
- Level 3, I edit and create graphics, placing them in documents in order to help clarify or amplify my message.**
- Level 4, I promote student interpretation and display of visual data using a variety of tools and programs.**

#### **7. Email**

- Level 1, I have an email account, but rarely use it.**
- Level 2, I send messages using email, mostly to district colleagues, friends, and family. I check my email account on a regular basis and maintain my mail folders in an organized manner.**
- Level 3, I incorporate email use into classroom activities. I use email to access information from outside sources.**
- Level 4, I use email to request and send information for research.**

**8. Research/Information Searching**

- Level 1, I am unlikely to seek information when it is in electronic formats.
- Level 2, I conduct simple searches with the electronic encyclopedia and library software for major topics.
- Level 3, I have learned how to use a variety of search strategies on several information programs, including the use of Boolean (and/or/not) searches to help target the search.
- Level 4, I have incorporated logical search strategies into my work with students, showing them the power of such searches with various electronic sources to location information that relates to their questions.

**9. Desktop Publishing**

- Level 1, I do not use a publishing program.
- Level 2, I use templates or wizards to create a published document.
- Level 3, I create original publications from a blank page combining design elements such as columns, clip art, tables, word art, and captions.
- Level 4, I design original publications that communicate to others what I have learned.

**10. Video Productions**

- Level 1, I do not use a video camera.
- Level 2, I create original videos for home or school projects.
- Level 3, I create original videos using editing equipment.
- Level 4, I use computer programs to edit video presentations and I teach my students to create and edit videos.

**11. Technology Presentations**

- Level 1, I do not use computer presentation programs.
- Level 2, I present my information to classes or groups in a single application program such as a word processor, a spreadsheet, or a publishing program.
- Level 3, I present my information and teach my class using presentation programs such as PowerPoint or SuperLink, incorporating various multimedia elements such as sound, video clips, and graphics.
- Level 4, I teach my students how to use presentation software. I facilitate my students' use of a variety of applications to persuasively present their research concerning a problem or area of focus in their learning.

**12. Internet**

- Level 1, I do not use Internet.
- Level 2, I access school and district websites to find information. I follow links from these sites to various Internet resources.
- Level 3, I use lists of Internet resources and make profitable use of Web search engines to explore educational resources.
- Level 4, I contribute to my school or district websites. I reach students how to effectively use the resources available on the Internet.

**13. Responsible Use/Ethics**

- Level 1, I am not aware of any ethical issues surrounding computer use.
- Level 2, I know that some copyright restrictions apply to computer software.
- Level 3, I understand district rules concerning student and adult use of email and Internet. I know the programs for which the district or my building holds a site license. I understand the School Committee policy on acceptable use.
- Level 4, I model ethical use of all software and let my students know my personal stand on this issue.

**14. Technology Integration**

- Level 1, I do not blend the use of computer-based technologies into my classroom learning activities.
- Level 2, I understand the district technology plan supports integration of technology into classroom activities, but I am still learning about what strategies will work and how to do it. I accept student work produced electronically, but do not require it.
- Level 3, From time to time, I encourage my students to employ computer-based technologies to support the communicating, data analysis, and problem solving outlined in the district technology plan.
- Level 4, I frequently model and teach my students to employ computer-based technologies for communication, data analysis, and problem solving as outlined in the district technology plan.

# *Johnston Public Schools*

*10 Memorial Avenue  
Johnston, Rhode Island 02919*

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## **Internet Use Policy**

Johnston Public Schools is pleased to offer all students in our district access to Internet services. Access to the Internet will enable our students, faculty, and staff to explore thousands of libraries, databases, and educational sites throughout the world. Families should be warned that some materials accessible via the Internet might contain items that are illegal, defamatory, inaccurate, or potentially offensive to some people. While our intent is to make Internet access available to support educational goals and objectives, students may access other materials as well. Johnston Public Schools will make every effort to monitor student use of the Internet, which includes the district's investment in a school-based filtering system which we implemented in January 2000. This filtering system includes a daily live update from CyberPatrol, one of the pioneering filtering softwares in the country. We believe the benefits to our students from access to the Internet, in the form of information resources and opportunities for collaboration, exceed any disadvantages. Parents and guardians of minors are responsible for setting and conveying the standards their children should follow when using media and information services. Johnston Public Schools supports and respects each family's right to decide whether or not to apply for access in our schools.

Students will be given the privilege to use the Internet along with the responsibility of using it properly by returning a completed "Internet Use Agreement" including a signature by a parent or guardian to his/her school principal. Access will be made available only during the hours that the school is open.

Internet access is coordinated through a complex association of government agencies, as well as regional and state networks. The smooth operation of the network relies upon the proper conduct of those who use it. In general, this requires efficient, ethical, and legal utilization of the network resources, as well as adherence to school and county codes of conduct. If a user violates any of these provisions, his or her privilege to use the Internet will be terminated and future access could possibly be denied. In a case where codes of conduct or laws are broken, further consequences may follow. Johnston Public Schools will cooperate fully with local, state, or federal officials in any investigation concerning or relating to illegal activities conducted through Johnston Public Schools' Network.

The signature(s) at the end of this document are legally binding and indicate that the parties who signed have read the terms and conditions carefully and understand their content.

### **Responsibilities of Students**

- Learn and follow the guidelines set forth in this Internet Use Policy.
- Return permission form signed by the student and a parent/guardian stating that they agree that student will adhere to all guidelines and assume responsibility for their own actions.
- Report any Internet or network contacts that are defamatory, obscene, racially or sexually oriented or which may contain illegal materials, to your teacher or principal.

### **Responsibilities of Staff Members**

It is expected that staff and faculty members in Johnston Public Schools will use the Internet for research and/or instructional purposes. Staff and faculty members should maintain the highest ethical behavior in using the Internet and faculty members should promote that behavior among students. Employee violations of the Internet Use Policy will be handled in accordance with law, school policy, or collective bargaining agreements, as applicable.

- Learn and follow the guidelines set forth in this Internet Use Policy.
- Make every attempt to maintain the curricular focus of Internet use by locating and directing students toward educational sites on the Internet.
- Supervise student use.
- Ensure that all student users have signed permission slips from a parent/guardian.
- Model and provide instruction in the ethical and appropriate use of the Internet in a proper school setting as provided in the following guidelines.
- Agree not to share access codes, accounts or passwords with any student.
- Report incidences of computer network misuse and abuse to the Information Services Office.

### **Guidelines for Internet Use**

Johnston Public Schools' networks are to be used in a responsible, efficient, and legal manner and must be in support of the educational goals and objectives of Johnston Public Schools and the State of Rhode Island. Transmission of any material in violation of any federal or state regulation is prohibited.

- ***All rules of the Johnston Public Schools' Student Code of Conduct apply, but are not limited to, the following:***
  - ✓ Violating copyright laws.
  - ✓ Sending or displaying offensive messages or pictures.
  - ✓ Sending threatening, harassing, or obscene materials.
  - ✓ Distributing materials for commercial purposes.
  - ✓ Providing political or campaign information.
  - ✓ Trespassing in another's folders, works or files.
  - ✓ Damaging computers, computer systems or computer networks.

- **Netiquette Rules.** Users must abide by network etiquette rules:
  - ✓ Be polite.
  - ✓ Use appropriate language. Swearing, using vulgarities, or any other abusive language is inappropriate.
  - ✓ Never reveal your personal address or telephone number or those of anyone else.
  - ✓ Never agree to meet with anyone with whom you have contacted over the Internet without the express written consent of your parent/guardian.
  - ✓ Never reveal credit or checking account information or social security number across the Internet.
  - ✓ Do not disrupt the use of the network.
  - ✓ Do not attempt to gain unauthorized access to system programs or computer equipment.
  
- **Privileges.** The use of the Internet at Johnston Public Schools is a privilege, not a right. Inappropriate use will result in limitation or cancellation of user privileges and possible school disciplinary action.
  
- **Vandalism.** Vandalism will result in cancellation of user privileges and school disciplinary action. Vandalism is defined as any malicious attempt to harm or destroy equipment programs, and or data of anyone connected to the servers and/or the Internet. This includes, but is not limited to, uploading, creating, or transmitting computer viruses.
  
- **Security.** Security on any computer system is a high priority, especially when the system involves many users. Attempts to login to the system as any other user or to share a password will result in cancellation of user privileges. If a security problem is identified by you, notify the system administrator at your school. Do not demonstrate the problem to other users.
  
- **Privacy.** System administrators may review files and communications to maintain system integrity and insure that users are using the system responsibly.
  
- **Disclaimer.** Johnston Public Schools will not be responsible for any damages suffered, including loss of data resulting from delays, non-deliveries, service interruptions, or inaccurate information.

*Application & Signature*

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❖ **User: I understand and will abide by Johnston Public Schools' Internet Use Policy. I further understand that any violation of this policy may constitute disciplinary action or criminal offense.**

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User's Full Name (Please print) \_\_\_\_\_

Home Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Home Phone \_\_\_\_\_

User's Signature \_\_\_\_\_ Date \_\_\_\_\_

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❖ **Parent/Guardian: if you are under the age of 18, a parent/guardian must also read and sign this agreement:**

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As the parent/guardian of this student, I have read the Internet Use Policy for Johnston Public Schools. I understand that this access is designed for educational purposes only. I also recognize that it is impossible to restrict access to all inappropriate materials and I will not hold Johnston Public Schools responsible for materials acquired on the network. I accept full responsibility for my child's compliance with the Internet Use Policy and hereby give my permission for his/her use of Johnston Public Schools Network.

Parent/Guardian Full Name (Please print) \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_

# *Johnston Public Schools*

*10 Memorial Avenue  
Johnston, Rhode Island 02919*



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## *Internet Publication Permission Form*

Johnston Public Schools recognizes that as telecommunications and other new technology shifts the ways that information may be accessed, communicated and transferred by members of the society, those changes may also alter instruction and student learning.

Johnston Public Schools supports access by students to rich information services and the acquisition of appropriate skills to analyze such resources. Johnston Public Schools has acknowledged the benefits of connecting students and teachers to the Internet for educational purposes. It is also our belief that students in Johnston Public Schools and the community at large benefit when students publish their work on the JPS Web Site.

Please fill out the form below concerning permission to publish your child's work on the web server:

- I give permission for my child's first name to appear with his/her work.
- I give permission for a recognizable photo of my child to appear on the web page. No name will be associated with a photo. All photos will be of project-related activities.
- I give permission for my child to appear in a video clip. The video clips will be short and directly related to your child's curriculum. No names at all will be associated with a video.
- I do not wish my child to participate in web projects at all.

*School Name* \_\_\_\_\_

*Child's Name* \_\_\_\_\_ *Teacher* \_\_\_\_\_

*Parent/Guardian Signature* \_\_\_\_\_ *Date* \_\_\_\_\_

*(Signature required here to be valid)*

## TECHNICAL TERM GLOSSARY

- **Application** - A specific task to be performed by a computer program or a set of programs.
- **Automated Library** - Libraries with computerized cataloging, indexing, circulation systems and online databases with links to other library facilities.
- **Backup** - A copy of the information stored on the computer system, usually made either a tape or a diskette.
- **CD-ROM** - Compact Disc-Read Only Memory: A variant of the familiar audio compact disk. A medium to store extremely large amounts of data, including text, graphics animation, sound, and video, for use by a computer.
- **Citrix** – enables client devices of all types to shift application processing from the individual device to the server, resulting in centralized application management.
- **Client (Client/Server)** - In a client/server network, computers acting as servers provide information or capabilities (files, printer access, CD-ROM access) to client machines over the network.
- **Computer Virus** - A program that hides itself (usually on a floppy disk) and copies itself from computer system to computer system. Frequently causes damage to the information on the computer.
- **CPU** - Central Processing Unit of a computer. Often refers to the computer chip around which the entire computer is built.
- **CSU/DSU** - Channel Service Unit/Data Service Unit: A networking device for interconnecting, for example, leased transmission lines in a wide area network.
- **Curriculum Integration** - The use of computers and computer software to advance instructional objectives in the classroom.
- **DAT** - Digital Audio Tape: A high capacity digital magnetic tape medium for storage of large volumes of digital data. Often used for backing up computer data.
- **Data** - A formalized representation of information that can be processed by a computer, consisting of numbers, letters, and symbols to describe an object, idea, fact, or concept.
- **Database** - An organized set of information that can be searched, manipulated, and reported in a variety of ways by using the computer. It is like a large file cabinet that can be quickly rearranged on command.
- **Desktop Publishing** - The use of computer software to integrate text, charts, and pictures to design, display, and print high quality documents comparable to typeset print.
- **Digital Data** - Information and data represented by discrete values such as 0's and 1's.
- **Disk** - A round, flat magnetic medium used to store information.
- **Distance Learning** - Providing educational programs from one site to another using transmissions devices such as modems, phone lines, and satellites.
- **Email** - The process of sending, receiving, storing, and forwarding messages in digital form over telecommunications facilities from one computer to another.
- **Ethernet** - A particular local area network technology with a transmission speed of 10 MBPS (mega bits per second.)

- **File Server** - A high capacity computer used to store and distribute files and programs to other computers, and to control other networked devices such as printers.
- **FTP - File Transfer Protocol:** A software application used to transfer files from one computer to another over TCP/IP-based networks.
- **Gateway** - A device that connects two systems or two networks, especially if the two systems or networks use different protocols.
- **Hub** - Networking equipment, normally placed in wiring closets, which terminates the wires forming, for example, a building's local area network.
- **Inkjet** - A particular technology used in some of today's printers. It is a non-impact mechanism for printing, using the concept of ink spraying.
- **Internet** - A collection of computer networks connected via gateways.
- **IP - Internal Protocol:** One of the communication protocols that is part of the TCP/IP suit of protocols.
- **IPX** - A particular internetworking communication protocol developed and used by Novell Corporation.
- **LAN - Local Area Network.** A communication network that provides interconnection of a variety of devices (e.g., computers, printers, modems, terminals) within a small area.
- **Laptop computer** - A small, lightweight, battery operated portable computer.
- **Laser-disc** - A storage medium written and read by laser.
- **LCD projection panel** - Liquid Crystal Display projection panel: A device that can be put on a standard overhead projector to display computer generated information on a screen for viewing by an audience.
- **Server** - A very expensive, very large capacity, centralized computer, designed for use in large organizations with hundreds of people using large quantities of data.
- **Modem** - Transforms a digital bit stream (generated by a computer, for example) into an analog signal at the sender (modulator), transmits the analog signal over some transmission medium (phone line for example), and converts the signal back to digital form at the receiver (demodulator). In another words, an electronic device that allows computer data to be sent over telephone lines to other computers.
- **Multimedia** - A computing environment that incorporates different media - text, graphics, sound, animation, and video - in an engaging and intuitive format. It includes a computer, peripherals (e.g., videodisc player, CD-ROM drive), and software work together to enhance learning or to increase the impact of presentation.
- **Network** - Links multiple computers and other technology resources together whether they are in the same room, or in multiple rooms or buildings, across town, across the country, or across the globe. Networks allow computers to communicate with one another, permit computers to share printers or other peripherals, and provide multiple computers access to centralized collections of software programs or databases.
- **Network Operating System** - Software that runs on the clients and servers in a computer network that allows them to exchange information.

- **Operating System** - Software that controls execution of programs and the basic operations of a computer system.
- **Optical Fiber** - A thin filament of glass or other transparent material through which a signal encoded light beam may be transmitted.
- **Packet Switching** - A method of transmitting messages through a communications network, in which long messages are subdivided into short segments, called packets. The packets are then transmitted from the source to the destination through a computer network.
- **Password** - A string or characters used to authenticate a user to a computer system. The user must type in these characters after identifying himself/herself before gaining access to files.
- **Peripheral Device** - A device attached to a computer to expand its capabilities (e.g., printer, modem, CD-ROM drive, laser-disc player.)
- **Platform** - A computer's hardware and/or operating system configuration, such as Macintosh, DOS, and UNIX.
- **Protocol** - A set of rules governing the exchange of data between two entities. A specification that represents an agreement between two pieces of computer equipment on how data is to be transferred.
- **RAM** - Random Access Memory: Part of the computer memory available to programs and data that the computer reads from the disk. The contents of the RAM are lost when the computer is turned off.
- **RINET** - Rhode Island Network. An organization begun by members of various Rhode Island educational technology support institutions, including the Rhode Island Department of Education, University of Rhode Island, and Brown University. RINET provides Internet service to most Rhode Island K-12 schools.
- **ROM** - Read Only Memory: Information in ROM can be read but not changed. It is placed in the computer when the computer is manufactured and is not erased when the computer is turned off.
- **Router** - A device used to link two or more networks.
- **Scanner** - A device used to translate printed material into computer data so that a document can be viewed and manipulated via a computer.
- **Software** - All instructions and data associated with operation of a computer system. Programs or instructions that tell a computer what to do.
- **Spreadsheet** - A computer program that consists of row and columns of cells into which numbers and other data can be entered and then manipulated by formulas available to the operator.
- **Network Manager** - Person responsible for server management, operating system operation, disaster recovery plan, backup management.
- **T1** - A particular type of point-to-point digital transmission line provided by local telephone companies. Transmission rate is approximately 1.5 mega-bits per second.
- **TCP/IP** - Transmission Control Protocol/Internal Protocol: A particular (and a very popular) suit of network protocols for interconnecting computers and networks of all sizes. It is the heart of the global Internet.

- **Technology Equipment** - Items such as (but not limited to) computers, laser-discs, CD-ROM drives, telephones, FAX machines, TVs, DVDs, camcorders, etc.
- **Telecommunications** - The transfer of data and information from one place to another via communication units.
- **Telnet** - A member of the TCP/IP family of protocols that lets you connect your computer to another computer over TCP/IP cabled computer networks.
- **UNIX** - A particular type of computer operating system originally designed for multi-user, scientific, and research.
- **UTP - Unshielded Twisted Pair:** A particular type of copper wiring used in telephone and computer networks.
- **VCR - Video Cassette Recorder.**
- **WAN - Wide Area Network:** A communication network that provides interconnection of a variety of devices (e.g., computers, printers, modems, terminals, LANs) within a large area and/or between multiple buildings.
- **Windows** - A graphical user interface often used with DOS operating system on IBM and IBM compatible computers.
- **Wiring Closet** - A specially designed closet used for wiring data and voice communication networks. The closet serves as a concentration point for the cabling that interconnects devices, and as a patching facility for adding and deleting devices from the network.
- **Workstation** - A desktop computer system, such as an IBM PC compatible, an Apple Macintosh, or a UNIX-based desktop computer.