

# *Johnston Public Schools*

*Teaching, Learning, and Technology*

*Technology Plan 2006 – 2008*

<http://www.ri.net/johnston/downloads.htm>



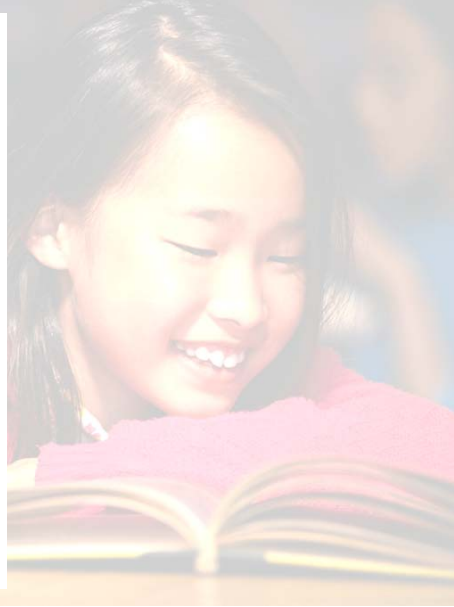
Adopted by The School Committee - January 24<sup>th</sup>, 2006

# Johnston Public Schools

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

## District Profile

- **December 1<sup>st</sup>, 2005 Enrollment: 3,318 Students**
- **304 Certified Employees**
- **206 Non-Certified Employees**
- **14 Administrators, 5 Non-Union Employees**
  
- **Free or reduced lunch program: 24.49%**
  
- **Number of schools in District: 9**
  - ✓ **1 early education center (221 students)**
  - ✓ **6 elementary schools (1,334 students)**
  - ✓ **1 middle school (831 students)**
  - ✓ **1 high school (932 students)**



## District Schools

### **Sarah Dyer Barnes School (203 students)**

24 Barnes Avenue  
Johnston, RI 02919  
401-231-8710

### **Brown Avenue School (208 students)**

14 Brown Avenue  
Johnston, RI 02919  
401-934-0270

### **George C. Calef School (152 students)**

7 Waveland Street  
Johnston, RI 02919  
401-831-2653

### **N.A. Ferri Middle School (831 students)**

10 Memorial Avenue  
Johnston, RI 02919  
401-231-8710

### **Graniteville School (170 students)**

6 Collins Avenue  
Johnston, RI 02919  
401-231-8790

### **Johnston Senior High School (932 students)**

345 Cherry Hill Road  
Johnston, RI 02919  
401-233-1920

### **Thornton School (222 students)**

4 School Street  
Johnston, RI 02919  
401-943-7369

### **Winsor Hill School (283 students)**

100 Theresa Street  
Johnston, RI 02919  
401-831-4619

### **Early Childhood Center (221 students)**

10 Memorial Avenue  
Johnston, RI 02919  
401-233-1920

### **Johnston's Virtual School (96 students)** (Out of District Placements)

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### **STATUS OF THE TECHNOLOGY PLAN 2002-2005**

The technology plan 2002-2005 created an implementation of curricular steps that were targeted on student learning and how student learning could be impacted through the integration of technology across the curriculum. Those steps never fully materialized and that focus never met with realization because of two primary considerations. Financial constraints hampered the upgrading of existing equipment and prohibited purchases of new equipment and technologies. These constraints, coupled with void in leadership within the Information Technology Department for over a year, left the implementation process floundering. The district now has a Director of Technology whose leadership, coupled with a modest 2005-2006 budget opportunity and some timely federal grant awards, will revisit the plan and match reality with available dollars for equipment and professional development training.

It is the duty of the Johnston Public Schools to deploy emerging technologies in all our classrooms and to provide the necessary professional development in order for teachers to use them to their best advantage. Additionally, we need to ensure that our high school students are competent in their ability to use technology as they embark to the post secondary arena, whether they enter the world of work or continue their formal education at a higher institution of learning.

### **EXECUTIVE SUMMARY**

The Johnston Public Schools will strive to choose technology policies and procedures that promote achievement by all students, including those with special needs, and carefully monitor the effectiveness of technology use throughout the education system. We will endeavor to coordinate technology with state and district content standards to help the students attain high academic achievement. The plan will integrate technology and curriculum.

The Johnston Public Schools will work toward a vision in which all teachers will strive to use technology (when available) fluently and seamlessly to support student-focused learning rather than teacher driven instruction. The 2006- 2008 technology plan will enhance technology integration with the district's curriculums and provide the necessary professional development so that all classroom participants will have the skills and the tools necessary to achieve their goals. The infusion of technology outlined in this plan will expose teachers to integrating technology in their instructional delivery and help them to recognize how technology can improve student learning. The key is to start with curriculum goals and then match them with appropriate technology tools to support and meet student learning objectives.

The 2006-2008 technology plan presents a wonderful opportunity for teachers to revisit and question "how they teach". Their roles as instructors can evolve into a facilitator's role, collaborating with students in achieving high standards with technology supporting instructional practices and serving an ancillary conduit for instructional delivery.

### **IT INITIATIVES ON THE HORIZON**

- Offering PDI Classes to Faculty and Administrators on Technology Integration Winter/Spring 2006
- Implementing student reading diagnostics capability using hand-held devices with our elementary teachers servicing grades one through three Winter 2006 -
- Formulate a planning committee for the new Student Information System (SchoolMax) Winter 2006 -
- Work with high school faculty advising on instituting an Academy of Technology Spring 2006 -
- Continue Professional Development Training to high school faculty on an e-portfolio application assisted by a successful grant award Winter 2006
- Anticipating a successful grant award to provide Literacy Initiative Training to elementary teachers Summer 2006
- Anticipating a successful grant award to provide a Model Classroom Initiative to Middle and high school teachers Summer 2006
- Implementing a new Student Information System with associated application training for staff Late Summer 2006 -
- Establish technology benchmarks imbedded in the District's curriculum Fall 2006
- Continue SIS application training for faculty and administration Fall 2006 -
- Establishing the district's own mail server to alleviate dependent from RINET and control internally owned e-mail accounts (i.e. [teachername@jps.org](mailto:teachername@jps.org)) Fall 2007 -
- Establishing the district's own web server to alleviate dependent from RINET and control the district's internet presence regarding school web sites Fall 2008 -

**TECHNOLOGY PLAN 2006-2008 REVIEWERS**

Brown Avenue Elementary      Ms. Karen Lepore

Calef Elementary              Ms. Cheryl Arnold

Nicholas Ferri Middle School      Dr. Joan Fagnoli  
Mr. Barry Spadea

Graniteville Elementary          Ms. Rhonda Siner

Johnston Senior High School      Mr. Steve Pickens

Thornton Elementary              Ms. Kathy Francis

Central Administration              Mr. Michael Neubauer, IT Director  
Mr. Paul Bzowski, IT Manager  
Mr. Kevin Longo, Technology Specialist  
Ms. Christine Murphy, Lead Math Teacher

## **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.

In October/November 2005, the task before us is to revise the 2002-2005 technology plan. This 2006-2008 technology plan, while keeping in the mind the National Education Technology Plan 2004 will guide us with benchmarks as the technology committee annually revisit the plan to ascertain our progress and revise accordingly.

### **NATIONAL EDUCATION TECHNOLOGY PLAN 2004**

In January 2005, the United States Department of Education reported out on their vision and recommendations for a National Education Technology Plan. In revising the Johnston Public Schools 2002-2005 Technology Plan the following tenets will be kept in mind as the 2006-2008 plan is formulated:

Specifically;

- Strengthen Leadership
- Consider Innovative Budgeting
- Improve Teacher Training
- Support E-Learning and Virtual Schools
- Encourage Broadband Access
- Move Toward Digital Content
- Integrate Data Systems

## **INFORMATION TECHNOLOGY DEPARTMENT**

IT staff consist of a full time IT director, a full-time network manager, a part-time District Technology Specialist as well as four computer aides that service our six elementary schools supporting a district of 3,340 students with 524 school employees. Nine school buildings house approximately the following equipment: 866 desktop computers, including 40 laptop computers and related peripherals.

IT services include but are not limited to:

- Project management support for SIS, the district's student information system
- Managing e-mail accounts for 500+ faculty/staff
- Routine/emergency end-user district technical support with classroom and office environments
- Rhode Island Department of Education (DOE) student enrollment data quarterly reporting
- Software license management
- Maintaining district computer inventories
- Fiscal management responsibilities (i.e. Purchase Ordering, advising on instructional software expenditures, Budget Reviews)
- Participating in various district leadership committees
- Constantly on alert for emerging technology that gives the learning community access to the latest technology innovations with budget constraints
- Provide accountability from the Print Center operation to afford efficiency of printing and supply resources

### **DISTRICT PRINT CENTER**

The IT office provides reproduction services for all staff in our district, with volume in excess of 6,000,000 copies per year, which translates to approximately 600,000 copies per month. Two full-time clerks operate the Print Center. The Print Center has two large digital copiers, one black and white with both copiers networked and on-line providing web-based and WAN access to our district staff.

Print services to our staff include reproducing classroom materials, paper sizes, weights, booklets, letterhead, business cards, note cards, lunch menus, or any print request needed if we can accommodate size.

The Print Center offers enlargement and reduction services, black and white copying, disk storage of large handbooks and documents, district forms, in order for print requests that can be completed with on-line digital quality.

There are two runs per day per school, with pickups and deliveries made with every visit in providing materials to school personnel.

An ancillary service the Print Center provides is special print requests for visually impaired students within the school system to accommodate reading lists, and curriculum guides enlarged to an appropriate font.

Additionally, the print center staff is charged with taking inventory of all hardware utilized throughout the district which requires labeling and recording serial numbers.

As each new school year approaches, Print Center staff are producing “opening year” documents for all of our schools; specifically, emergency cards, health cards, registration forms, and student handbooks are produced and posted on-line.

### **SERVER ENVIRONMENT – 2005**

The District employs Compaq DL580R rack servers, operating Windows 2000 Server, running Citrix MetaFrame 1.8. Servers include a Primary Domain Controller (PDC), a Backup Domain Controller (BDC), five terminal servers, one ParentConnect server, a SASI District Integration Server (DI) on a Compaq DL380, a Task server for SASI , an AntiVirus server, a Ghost server, a HP-UX server, a Data server for Administration, and a firewall console with a web blocker server. The IT staff set up a “test server” environment in order to test all software applications, patches, and upgrades before placing them on the production servers. In January 2005, an HP Storage Works Super DLT back up drive was installed to ensure critical data backup reliability. RINET, our internet partner and provider, awarded Cox Communications as our DS-3 carrier. With this increased bandwidth and throughput, the district needed to upgrade each router at the elementary schools installed June 2005. A new MUX was installed by Cox to replace the existing Verizon unit at the Head End MDR in March 2005. Increased bandwidth within the district has been requested through RINET to increase the bandwidth to 10 Mbps capacity for years 2006-2007.

All LAN servers at individual schools are Windows 2000 Server and domain managed. All curriculum software applications are loaded out on the LAN server at each elementary school.

### **FIREWALL SECURITY/INTERNET FILTERING**

Internet safety is defined as protection against access through computers with Internet access to visual depictions that are obscene in nature with protection from illicit intrusion. We have firewall security and Internet filtering, at the district level and updated Internet filtering at the RINET level as recently as December 2004 as well as a web blocker database that is updates weekly.

**CLASSROOM COMPUTERS**

<b>Schools</b>	<b>PC by Operating System</b>			<b>Student/Computer Ratio</b>
<b>Barnes Elementary</b>	<u>Win95</u> 40	<u>Win98</u> 35	<u>WinXP</u> 13	<b>2.5:1</b>
<b>Brown Elementary</b>	<u>Win95</u> 54	<u>Win98</u> 7	<u>Win2K</u> 2	<b>3.3:1</b>
<b>Calef Elementary</b>	<u>Win95</u> 48	<u>Win98</u> 10	<u>WinXP</u> 25	<b>1.8:1</b>
<b>Early Childhood Center</b>	<u>Win95</u> 15	<u>Win98</u> 5	<u>Win2K</u> 6	<b>8.7:1</b>
<b>Ferri Middle School</b>	<u>Win95</u> 173	<u>Win98</u> 10	<u>Win2K</u> 13	<b>4.2:1</b>
<b>Graniteville Elementary</b>	<u>Win95</u> 23	<u>Win98</u> 16	<u>WinXP</u> 0	<b>4.5:1</b>
<b>Johnston High School</b>	<u>Win95</u> 100	<u>Win98</u> 45	<u>Win2K</u> 33 <u>WinXP</u> 24	<b>4.5:1</b>
<b>Thornton Elementary</b>	<u>Win95</u> 78	<u>Win98</u> 16	<u>WinXP</u> 10	<b>2.2:1</b>
<b>Winsor Hill Elementary</b>	<u>Win95</u> 44	<u>Win98</u> 2	<u>WinXP</u> 19	<b>4.4:1</b>
<b>Totals:</b>	<b>575</b>	<b>146</b>	<b>145</b>	<b>866</b>
<b>Note: Over 65 % of classroom computers are Win 95 machines</b>				

The district has approximately 866 desktops/laptop computers purchased and donated for instructional use. Most computers in the district are seven years old or younger. 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.

**DISTRICT TECHNOLOGY**

<b>Classroom Level</b>	<b>Building Level</b>
------------------------	-----------------------

**All Elementary Schools:**

- Multimedia Computers, 1-2 PC's in every classroom with Internet access
  - Dell Optiplex GN
  - 233 MHz processor
  - 64 mg RAM
  - 3.5" floppy drive
  - CD Rom
  - 14, 17, 19" color monitors
  - LCI Classrooms contain three WinXP computers with B/W Laser printer
- 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
- InteGrade Pro Electronic Gradebook
- Access to web-based SASI student management software training
- Email Accounts for all staff
- Printers (most classrooms and shared production printers)
- Telephone with voicemail

**All Elementary Schools:**

- Network Server connection (LAN and WAN)
- Connectivity to information at classroom, building, and district levels
- 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
- Some Model Classroom Initiative sites
- Building e-mail listserves for staff communications
- Computer Lab with individual workstations to accommodate up to 25 students simultaneously in a instructional setting
- Technology Assistant staff position
- Instructional/curriculum and student management softwares
- Large laser printers networked for all staff in office
- Technology for special needs students
- Telephone with voicemail
- Fax capabilities
- Scanner(s) & CD Burning capabilities
- Projection Equipment
- TV & VCR
- Production Print Center with courier service to shuttle job requests and finished products with black/white & color copies available.

Classroom Level	Building Level
<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 with Internet access               <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>• Connectivity to Internet, providing information at classroom, building, and district 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>• Telephone with voicemail</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> </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, and district level</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 listserve for staff communications</li> <li>• Model Classroom Initiative classroom contain Three WinXP computers with B/W Laser Printer (FMS only)</li> <li>• Mobile Cart containing wireless WinXP laptops</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 – 3 computer labs; JHS – 3 computer labs, which includes a CAD lab 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, (i.e. Alpha Smarts)</li> <li>• Telephone with voicemail</li> <li>• Fax capabilities</li> <li>• Projection Equipment</li> </ul>

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**DISTRICT LEVEL:**

- 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.
- 900 plus computers district-wide.
- T1 network connectivity
- District level filtering through Watchguard Technologies with database updates from Cyberpatrol. State blocking and filters through RINET with 8e6 Technologies.
- Intranet site available 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.
- Johnston faculty members have taken full advantage of the Rhode Island Teachers and Technology Initiative (RITTI) offered by the Rhode Island Department of Education and the Bill and Melinda Gates Foundation.
- Defined technology procurement standards for all schools: infrastructure, hardware, software, Internet access, and acceptable use policy for all stakeholders
- 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.
- 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
- District-wide email listserve for staff communication.

## **FINANCIAL PLANNING**

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 IT department. Recommendations for technology acquisitions will be made to the Director of Administration and the Superintendent.

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 2005-2006. 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.

Additionally funding of technology capital outlays comes from Federal Grants. Johnston Public Schools was recently awarded approximately \$115,000 for a Literacy Classroom Initiative and \$29,000 for a Model Classroom Initiative Grant. The beneficiaries of these successful awards will be our elementary and middle school students respectively. In terms of hardware, 130 new WinXP machines and 33 laser printers were installed in classrooms through November 2005.

**Johnston Public Schools Technology funds from various sources for 2006 through 2010**

Note: All dollars in thousands

		<u>Funding Years</u>				
Salaries	Funding Sources	2006-2007	2007-2008	2008-2009	2009-2010	
IT Staff	Local \$\$	170	*210	217	226	* New Hire
Print Center Staff		66	69	72	75	
Fringe Benefits		2006-2007	2007-2008	2008-2009	2009-2010	
All Staff	Local \$\$	32	42	44	45	
Purchased Services	Funding Sources	2006-2007	2007-2008	2008-2009	2009-2010	
Telecommunications	E-Rate (48%)	75	80	85	90	
	Local \$\$/E-Rate (48%)					
Internet Access		21	24	27	30	
Network/Wiring/Services	Local \$\$	11	14	17	20	
Student Information System	Local \$\$	0	32	32	32	
Staff Development for SIS	Local \$\$	5	4	3	2	
Copier Leasing	Local \$\$	125	125	125	125	
Technology Contracts	Local \$\$	75	75	75	75	
Supplies Materials		2006-2007	2007-2008	2008-2009	2009-2010	
Copy Paper	Local \$\$	35	35	35	35	
General Computer Supplies	Local \$\$	15	15	15	15	
Software/Licensing	Local \$\$	14	14	14	14	
Equipment Purchases		2006-2007	2007-2008	2008-2009	2009-2010	
Computers/Printers/Palms	Local \$\$/Grants	260	187	104	60	
Intelligent Switches		75	45	0	0	
Projection Devices		2	2	2	2	
Other		2006-2007	2007-2008	2008-2009	2009-2010	
PD for Teachers	Local \$\$/Title 2D	5	7	9	10	
On-Line Course Tuition for HS Students	Local \$\$/Grants		8	8	8	
IT Travel Expenses	Local \$\$	0.5	1	1	1	
<b>Total Budget Amounts</b>		986.5	779	885	865	
<b>Approx. Breakdown</b>						
	Local \$\$	846.5	665	772	753	
	E-Rate (48%)	35	35	35	35	
	Federal Grants	100	75	75	35	
	Title 2D	5	4	3	2	

## TACTIC 4A: We will promote the use of technology to support student learning Through out the district

### ACTION PLAN

**RESULT 1:** Evaluate the present state of hardware and software utilized for instructional purposes throughout the district.

<i><b>ACTION STEP</b></i>	<i><b>RESPONSIBILITY</b></i>	<i><b>FUND</b></i>	<i><b>TIME FRAME</b></i>	<i><b>DATA</b></i>	<i><b>RIDE CO</b></i>
4A.1a. Establish a baseline as to how hardware/software is being deployed for instructional purposes throughout the district	Technology Director	-0-	01/2006-06/2006	Results from polling department heads and lead teachers throughout the district	
4A.1b. Form a Technology Advisory Committee, a subset of the Technology Committee to assess the on-going progress of the District's Technology Plan	Technology Director	-0-	01/2006 -	Technology Review Committee Established	
4A.1c. Develop a hardware replenishment plan to cycle out dated hardware throughout the district	Technology Director	-0-	01/2006 -	Current computer inventory 2005	
4A.1d. Explore establishing Technology Integration Specialists positions throughout the District to assist/support teachers in the classroom	Technology Committee	JPS Budget	09/2006	Poll Computer Aides to capture evidence of integrated tech lessons	

**COMPUTER REPLACEMENT CYCLE 2006 -2010**

	FY 06-07	FY 07-08	FY 08-09	FY 09-10		FY 06-07	FY 07-08	FY 08-09	FY 09-10
<b>JHS</b>					<b>Elementary Schools</b>				
Administration			3		Administration	5			
Classrooms	40	25			Classrooms				
Clerks/Support		15			Clerks/Support				
Library					Library				
Photography Lab				15	Computer Labs:				
Tech Ed Lab				20	Barnes		25		
Upper Library Lab	30				Brown			25	
Writing Lab	15				Calef			25	
Finance Academy				25	Graniteville		25		
Computer Literacy		25			Thornton			25	
					Winsor Hill		25		
Miscellaneous		6	5		ECC	15			
Teacher Support	6				<b>Total</b>	20	75	75	
						<b>FY 06-07</b>	<b>FY 07-08</b>	<b>FY 08-09</b>	<b>FY 09-10</b>
Guidance Area			5		<b>Central Office</b>				
					Administration				10
<b>Total</b>	91	71	13	60	Clerks/Support			12	
					<b>Total</b>	0		12	10
						<b>FY 06-07</b>	<b>FY 07-08</b>	<b>FY 08-09</b>	<b>FY 09-10</b>
<b>FMS</b>					<b>Special Ed</b>				
Administration				3	Administration	1			
Classrooms	35	35			Clerks/Support		2		
Clerks/Support		3			Specialist/Resource	25			
Library		20			<b>Total</b>	26	2		
Computer Literacy		25				<b>FY 06-07</b>	<b>FY 07-08</b>	<b>FY 08-09</b>	<b>FY 09-10</b>
Computer Lab (General)			30		<b>IT Department</b>				
Miscellaneous					Administration		2		
Teacher Support	5				Tech Support	5			
CAD	25				<b>Total</b>	5	2		
						<b>FY 06-07</b>	<b>FY 07-08</b>	<b>FY 08-09</b>	<b>FY 09-10</b>
Guidance Area				2	<b>Food Services</b>				
					Clerks/Support	2			
<b>Totals</b>	65	83	30	5	<b>Totals</b>	33	4	12	10
<b>Secondary Schools</b>	156	154	43	65					
<b>Elementary Schools</b>	20	75	75						
<b>Building Totals:</b>	176	229	118	65					
<b>Non-Instructional</b>	33	4	12	10					
<b>Grand Totals</b>	<b>209</b>	<b>233</b>	<b>130</b>	<b>75</b>					

**TACTIC 4B: We will revise and/or develop curricula to reflect National Educational Standards (NETS) in appropriate areas**

**RESULT 1:** Provide a voice on all district curriculum committees to ensure the development of a set of profiles describing technology literate students that will support their learning in the core content areas.

<i><b>ACTION STEP</b></i>	<i><b>RESPONSIBILITY</b></i>	<i><b>FUND</b></i>	<i><b>TIME FRAME</b></i>	<i><b>DATA</b></i>	
4B.1a. Review profiles for technology literate students to ascertain performance indicators describing the technology competence student across all grade levels	Technology Committee Co-Chairs	-0-	09/2006 – 01/2007	National Technology Standards for Students as delineated by the International Society for Technology Education (ISTE)	
4B.1b. Reconvene Technology Committee to share the frameworks and associated standards at all grade level meetings, (K-12)	Technology Committee	-0-	02/2007 – 05/2007		
4B.1c. Provide Professional Development Training via the Professional Development Institute (PDI) to explore how technology integration can be infused into the curriculum	Technology Committee Co-Chairs	PDI Budget	01/2006 –	PDI Courses offered to Faculty	
4B.1d. Monitor and provide continuing support to faculty with their technology integration efforts	Technology Committee & Faculty	-0-	On-going		

## **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.

**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)

With the Rhode Island Department of Education revamping the graduating requirements for the class of 2008, technology structures are absolutely essential to meet the level of proficiency successful Johnston High School students will have to master in order to compete in a post-secondary environment.

#### Educational Technology Standards and Performance Indicators for All Teachers

The six standards areas with performance indicators listed below are designed to be general enough to be customized to fit Johnston's school district guidelines and yet specific enough to define the scope of the topic. Performance indicators for each standard provide specific outcomes to be measured when developing a set of assessment tools. The standards and the performance indicators also provide guidelines for teachers currently in the classroom.

#### **1 TECHNOLOGY OPERATIONS AND CONCEPTS.**

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

- demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students)
- Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

## **2 PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.**

Teachers plan and design effective learning environments and experiences supported by technology.

Teachers:

- design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- apply current research on teaching and learning with technology when planning learning environments and experiences.
- identify and locate technology resources and evaluate them for accuracy and suitability.
- plan for the management of technology resources within the context of learning activities.
- plan strategies to manage student learning in a technology-enhanced environment.

## **3 TEACHING, LEARNING, AND THE CURRICULUM.**

Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:

facilitate technology-enhanced experiences that address content standards and student technology standards.

use technology to support learner-centered strategies that address the diverse needs of students.

apply technology to develop students' higher order skills and creativity.

manage student learning activities in a technology-enhanced environment.

## **4 ASSESSMENT AND EVALUATION.**

Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:

apply technology in assessing student learning of subject matter using a variety of assessment techniques.

use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

## **5 PRODUCTIVITY AND PROFESSIONAL PRACTICE.**

Teachers use technology to enhance their productivity and professional practice. Teachers:

use technology resources to engage in ongoing professional development and lifelong learning.

continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.

apply technology to increase productivity.

use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

## **6 SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.**

Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

model and teach legal and ethical practice related to technology use.

apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.

identify and use technology resources that affirm diversity

promote safe and healthy use of technology resources.

facilitate equitable access to technology resources for all students.

## **EDUCATIONAL TECHNOLOGY STANDARDS FOR ADMINISTRATORS**

### **I. LEADERSHIP AND VISION.**

Educational leaders inspire a shared vision for comprehensive integration of technology and foster an environment and culture conducive to the realization of that vision. Educational leaders:

- A. facilitate the shared development by all stakeholders of a vision for technology use and widely communicate that vision.
- B. maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range, and systemic technology plan to achieve the vision.
- C. foster and nurture a culture of responsible risk-taking and advocate policies promoting continuous innovation with technology.
- D. use data in making leadership decisions.
- E. advocate for research-based effective practices in use of technology.
- F. advocate on the state and national levels for policies, programs, and funding opportunities that support implementation of the district technology plan.

### **II. LEARNING AND TEACHING.**

Educational leaders ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching. Educational leaders:

identify, use, evaluate, and promote appropriate technologies to enhance and support instruction and standards-based curriculum leading to high levels of student achievement.

facilitate and support collaborative technology-enriched learning environments conducive to innovation for improved learning.

provide for learner-centered environments that use technology to meet the individual and diverse needs of learners.

facilitate the use of technologies to support and enhance instructional methods that develop higher-level thinking, decision-making, and problem-solving skills.

provide for and ensure that faculty and staff take advantage of quality professional learning opportunities for improved learning and teaching with technology.

### **III. PRODUCTIVITY AND PROFESSIONAL PRACTICE.**

Educational leaders apply technology to enhance their professional practice and to increase their own productivity and that of others. Educational leaders:

model the routine, intentional, and effective use of technology.

employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community.

create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity.

engage in sustained, job-related professional learning using technology resources.

maintain awareness of emerging technologies and their potential uses in education.

use technology to advance organizational improvement.

**IV. SUPPORT, MANAGEMENT, AND OPERATIONS.**

Educational leaders ensure the integration of technology to support productive systems for learning and administration. Educational leaders:

develop, implement, and monitor policies and guidelines to ensure compatibility of technologies.

implement and use integrated technology-based management and operations systems.

allocate financial and human resources to ensure complete and sustained implementation of the technology plan.

integrate strategic plans, technology plans, and other improvement plans and policies to align efforts and leverage resources.

implement procedures to drive continuous improvement of technology systems and to support technology replacement cycles.

**V. ASSESSMENT AND EVALUATION.**

Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation. Educational leaders:

use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.

use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.

assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.

use technology to assess, evaluate, and manage administrative and operational systems.

**VI. SOCIAL, LEGAL, AND ETHICAL ISSUES.**

Educational leaders understand the social, legal, and ethical issues related to technology and model responsible decision-making related to these issues. Educational leaders:

- A. ensure equity of access to technology resources that enable and empower all learners and educators.
- B. identify, communicate, model, and enforce social, legal, and ethical practices to promote responsible use of technology.
- C. promote and enforce privacy, security, and online safety related to the use of technology.
- D. promote and enforce environmentally safe and healthy practices in the use of technology.
- E. participate in the development of policies that clearly enforce copyright law and assign ownership of intellectual property developed with district resources.

**TACTIC 4C We will promote equitable access to learning technology as a community investment and encourage an active partnership among schools, business, and homes**

**RESULT 1:** Support the community at large by providing adult education offerings in technology, establish communication vehicles to keep stakeholders abreast of developments, and form business partnerships to support the district’s mission

<i>ACTION STEP</i>	<i>RESPONSIBILITY</i>	<i>FUNDING</i>	<i>TIME FRAME</i>	<i>DATA</i>	
4C.1a. Offer evening mini courses at the high school on technology topics that will enhance adults employability	Technology Committee	JPS Budget	9/2007 -		
4C.1b. Keep school websites current with relevant information about the district’s continuing progress	Building Webmasters	-0-	On-going		
4C.1c. Solicit local businesses to share goodwill with the school community by providing donated equipment, sponsor school events, provide meaningful work experiences for our students	Administration, Faculty & staff	-0-	On-going		

**District School Web site:** <http://www.ri.net/schools/johnston>

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.

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.

## JPS Technology Plan 2006

### 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.

#### 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 2006**

### **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

**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

**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

**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

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**

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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 expend 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

