



Boston Renaissance

CHARTER PUBLIC SCHOOL

Boston Renaissance Charter Public School

Instructional Technology Plan

2009-2012

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Background

The Boston Renaissance Charter Public School is the largest elementary school in Boston, including all charter public and traditional public schools. Renaissance is a citywide public school for children in pre-kindergarten through grade six and is located in Hyde Park.

Vision

The Boston Renaissance Charter Public School will be known as a school that provides a viable educational choice for Boston parents. By exposing students to a rigorous academic curriculum coupled with vibrant enrichment activities that include dance, fine arts, music, physical education and technology, Renaissance staff will collaborate to develop student confidence and character, and teach children to respect themselves and others, enabling them to become productive citizens in a 21st century global society.

Mission Statement

The mission of Boston Renaissance Charter Public School is to develop children's academic, social, and emotional competence while building confidence, character, and citizenship in a nurturing, supportive environment.

Educational Philosophy

We believe that all children have the capacity to reach high levels of learning. We understand that each child is unique and we value diversity. We believe that our faculty and staff, our parents and the community at large have a responsibility to work cooperatively to create enriched learning experiences that will enable our children to reach their potential. Educators, parents, and community partners are unified in actualizing a shared vision for every student to become a proficient or advanced listener, speaker, reader, writer, mathematician, scientist, creative artist, and critical thinker.

Every student who enters Renaissance brings unique talents with diverse approaches to learning. Developing a student's entire being in the language, cognitive, social, emotional, physical, spiritual areas is central to the Renaissance educational philosophy. Perennial wisdom is integrated with teaching to encourage persistent, energetic, yet joyful learning. The Renaissance community of learners believes in the African Proverb "It Takes a Village to Raise a Child." We honor varied approaches to teaching and learning remaining consciously engaged in celebrating racial, cultural, linguistic, and ethnic diversity. To this end, Renaissance is an educational community committed to:

- Explicitly teaching academics, character development, creative and performing arts;
- Embedding and differentiating high quality professional development;
- Using scientifically researched assessment driven instruction and

management practices proven to positively impact student achievement in alignment with the Massachusetts Department of Education Curriculum Standards; and

- Implementing a rigorous accountability system for monitoring student achievement, teacher, and administrator and school performance standards.

Renaissance is already integrating technology into these endeavors and will continue to do so in order to meet the goals outlined in the accountability plan on file with the Massachusetts Department of Education.

The Mission and Vision of the Instructional Technology Department

Technology at the Boston Renaissance Charter Public School transforms our learning community into a global 21st century environment for both students and staff. The proper investment and planning of technology integration into the curriculum and administration supports the district's mission to remove all barriers to learning for students.

Our Mission

At BRCPS, we believe that the effective integration of technology into teaching and learning can:

1. raise student performance in core academic areas,
2. develop students' ability to think critically, creatively, analytically and collaboratively,
3. prepare students to be competitive in a technology-rich 21st century global workplace,
4. expand students' perspectives by connecting them to the community and the world outside of their classrooms, and
5. enrich our assessment practices to better monitor a wide range of student needs.

Our Vision

Project 21, (P21), is the Instructional Technology Department's three year plan to transform BRCPS into a 21st Century school.

Our vision of a 21st Century School includes but is not limited to:

- **1:1 Laptops for Teachers:** Every classroom teacher, curriculum coach, and selected support staff is issued a wireless laptop.
- **1:1 Access for Students:** Every child is guaranteed access to a computer to support their learning during the school day.
- **1:1 Mobile Lab:** Mobile carts of a class set of wireless laptops are available for 1:1 wireless computing in classrooms.

- **Global Classrooms:** Virtual guest speakers and field trips, special events and announcements, and international friendships and cultures, are delivered live and seamlessly into the classroom.
- **Multimedia Classrooms:** Every classroom is equipped with an audio/visual system, including a projector, speakers, and widescreen, to differentiate instruction through the use of digital media such as cable TV, DVD, and/or web TV.
- **Interactive Whiteboards:** Selected math and science classrooms are equipped with electronic whiteboards.
- **MLDs:** Mobile Learning Devices (MLD) such as smart phones are being used in a pilot after school science & service-learning program in Grades 5 and 6, and an iPod Learning Lab is available from our Media Center.
- **BRCPS TV:** Student and staff created videos, announcements, and visual information are shared and celebrated on BRCPS TV, including the 6th Grade graduation Eportfolios.
- **Ebooks:** The use of portable electronic reading devices to differentiate the learning experience is explored through a collaboration between the Library & Media Center and the Special Education department.
- **Social Media:** An internal web server provides wikis and blogs for online collaboration and communication between students and staff.

Instructional Technology Department Staff

The school will employ a full time Director of Instructional Technology, a full time Instructional Technology Specialist, a full time Technology Assistant, a full time Librarian & Media Center Specialist, and a full time Media Center Assistant.

Technology Advisory Committee

We have established a Technology Advisory Committee (TAC) to serve as an advisory team that can monitor the implementation of this technology plan, provide insight for future technology initiatives, and evaluate the plan's effectiveness. The Chief Operations Officer and the Director of Instructional Technology will co-chair the committee that meets weekly. A representative from our technology support provider and our Board of Trustees will also serve on the committee.

Technology Support Team

BRCPS will continue to hire an outside company to provide technical support. Copley Global Services, Inc. has been contracted for another year. Copley Group will provide one full-time on-site technician and a high level support person 10 hours per month. Additionally, 3-5 on-site part-time support staff have been contracted. In addition to technical issues and projects identified by the Technology Advisory Committee, communication between staff and our technicians about technical difficulties in the classroom takes place through the use of an online Work Order system called SchoolDude.

Technology Leadership Teams (TLT)

TLTs are Technology Lead Teachers who are core curriculum teachers selected from each grade level to be mentors to their colleagues in technology integration. The TLT mentor program will be a stipended, application-based, year-long program.

TLTs will:

- (a) meet monthly with the IT Director & IT Specialist to assess professional development needs, develop curriculum resources, and attend trainings
- (b) plan an end of year Technology Showcase
- (c) attend relevant workshops and conferences
- (d) pilot emerging technologies and curricula in their classrooms
- (e) support, promote, and share knowledge about the use of technology in the classroom with their colleagues.

Staff Needs Assessment

Teachers will take the Technology Self Assessment for Teachers (TSAT) available on the Massachusetts Department of Education's Education Technology portal, MassONE. The results will help the TLT team and Instructional Technology Department determine the appropriate groupings and needs for technology trainings. Throughout the course of the year, as professional development is provided, the quality of and participation in technology trainings will be assessed through the use of participant evaluations, classroom observations of the application of the acquired skills and knowledge, and informal discussions at grade level and individual meetings. Additionally, online surveys about specific hardware, software, support and training at BRCPS are given to staff in an effort to assess our teachers' technology usage and needs.

Formalized Staff Development and Assessment

- Offer content-specific training programs in alignment with our strategic planning priorities and emphasize a level of technology proficiency.
- Continue professional development trainings to move from proficiency to the integration level.
- Design and provide training in technology-based administrative tools for new teachers.
- Track the content and participation in technology trainings.
- Assess technology-training activities upon completion using participant evaluations.

Technology Integration

Technology integration will be grounded in our strategic planning priorities and accountability plan. We are committed to supporting our teachers to integrate technology:

- **In a three-tiered literacy model.** This includes the use of Lexia Early Reading, Lexia Primary Reading, Lexia Strategies for Older Students, Read Naturally, and the Harcourt Publishers Learning Site.
- **In a three-tiered math model.** This includes the use of the Scott Foresman/Pearson Successnet and online math tutoring programs.
- **In promoting emerging technologies in standards-based curricula.** Teachers will learn how to use Web 2.0 technologies in their instruction and in their curriculum. We will also continue to explore other sources of digital content, such as video streaming, mobile learning devices, audio books, and ebooks, to differentiate instruction and address the Massachusetts Curriculum Frameworks.
- **In strengthening our parental and community partner involvement in the school.** Our web site's content and structure will be redesigned to make family resources (such as school policies, lunch menus, applications, and bus routes) readily accessible and informative. Parents will have the opportunity to gain access to their student's data and correspond with teachers using an online portal called iParent.
- **In progress monitoring and assessment.** We administer computer-based benchmark assessments three times a year in reading, math, and science. TestWiz software will be used to manage and manipulate student performance data for GRADE, DIBELS, and MCAS.
- **In becoming effective and efficient in completing administrative responsibilities.** This includes training in email communication, electronic grade entry, electronic attendance, and submitting discipline referrals through our new student management system, iPass. School leaders will also receive specific technology training to address the applications of technology in communication, collaboration, and data analysis.
- **In areas of need identified through the TSAT.** As our students' needs change over time, so will our teachers' needs. Regular administration of the TSAT and other surveys using SurveyMonkey .com will help us identify any other professional development needs and gain feedback on existing offerings from our staff.

Instructional Technology Standards for Students

Technology is and will continue to be an essential part of every child's experience at the Renaissance School. Every student in grades K2-6 will participate in a technology integrated class that addresses the Massachusetts Technology Literacy Standards and Expectations and that is interwoven with the 21st Century Themes and Standards provided by the Partnership for 21st Century Skills.

In a culminating event, BRCPS sixth grade students will present an electronic portfolio that demonstrates their achievement of 21st century technology skills and knowledge.

In addition to the formative assessments of core content on state and school-based exams, Publishing Parties and Share Fairs in each classroom will also provide students with the opportunity to showcase their achievements in technology and the general curriculum, which also serves as a reflection of the teacher's competence in technology integration.

Elementary students in Grades 4-6 will be able to apply to participate in year-long advanced technology studies in the after school *TechSperts* program. These lead students will be trained in Internet safety skills and knowledge using NetSmartz.org materials provided by the National Center for Missing and Exploited Children, and will provide Cyber Safety tips and technical support to their classrooms. *TechSperts* will learn programming skills and knowledge through the learning of Scratch, and participate in an end of year showcase at M.I.T. called International Scratch Day.

Renaissance will continue to use the recommended Instructional Technology Standards provided by the Massachusetts Department of Education.

Standard 1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

PreK-4 Performance Indicators

1.1 Develop basic skills for using hardware and applications (e.g., open/close a file, navigate using scroll bars, arrow keys, special keys, and mouse).

1.2 Use correct terminology for basic components of a computer system (e.g., monitor, keyboard, disk, printer, mouse), and develop understanding of their basic functions.

1.3 At district and teacher's discretion explore and develop keyboarding skills. (The district determines whether students will learn touch typing or simply become familiar with the keyboard functions.)

1.4 Explore basic formatting features of a word processing program (at teacher's discretion).

- 1.5 Explore and understand the basic function and purpose of a database.
- 1.6 Explore and understand the basic function and purpose of a spreadsheet.
- 1.7 Collaborate with classmates to use teacher-selected Web sites.
- 1.8 Collaborate with classmates and teacher to send a class e-mail message (at discretion of district and teacher).
- 1.9 Collaborate with classmates and teacher to create a slide presentation with existing template.
- 1.10 Explore the use of drawing and painting applications for class projects (at teacher's discretion).

Grades 5-6 Performance Indicators

- 1.11 Identify components of a computer system, understand their functions, and use appropriate terminology in speaking about them (e.g., operating system, hard drive, memory, window).
- 1.12 Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create folders on local hard drive).
- 1.13 Save a file to the desktop, the hard drive, and external storage spaces (e.g., floppy disk, CDROM, virtual electronic space).
- 1.14 Select a printer and print a document with appropriate page setup and orientation.
- 1.15 Operate peripheral equipment (e.g., scanner, digital camera, camcorder).
- 1.16 Develop efficient keyboarding technique.
- 1.17 Identify and use editing and formatting features of a word processing program (e.g., centering, line spacing, margins, cut and paste, fonts, styles, spelling, page numbers).
- 1.18 Insert images (e.g., graphics, clip art, tables) from other files into word-processed document.
- 1.19 Describe structure and function of database and identify components (e.g., record, field).
- 1.20 Create an original database, defining field formats and adding new

records.

1.21 Perform simple operations in a database (e.g., browse, sort, search, delete, add data).

1.22 Describe structure and function of spreadsheet (e.g., cells, rows, columns, formulas) and apply formatting features.

1.23 Create an original spreadsheet, entering simple formulas.

1.24 Produce simple charts from spreadsheet.

1.25 Identify and use navigation features of browser (e.g., “go,” “back,” “forward”).

1.26 Using a browser, “bookmark” a Web site for future reference.

1.27 Identify basic elements of a Web site (e.g., URL, hyperlinks, site map, etc.).

1.28 Copy an image from a Web site into a file on the desktop; write a correct citation caption in keeping with copyright law.

1.29 Using e-mail, create and send a message. (Student use of e-mail is determined by district policy and may be a class-wide activity if students do not have individual accounts.)

1.30 Open an e-mail attachment and save it to the desktop. (District discretion applies.)

1.31 Use correct terminology in speaking about electronic communications (e.g., browser, search engine, online).

1.32 Create a slide presentation using appropriate applications.

1.33 Identify and use drawing and painting applications as appropriate for class projects.

1.34 Identify appropriate applications for a classroom project.

Standard 2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.

PreK-4 Performance Indicators

2.1 Follow classroom rules for responsible use of computers.

2.2 Develop understanding of the school's rules for safe and ethical Internet use. (Use of Internet in this grade span is under close supervision and determined by district policy.)

2.3 Explore practices for evaluating Web sites (District policy determines Internet use.)

2.4 Develop understanding of how the computer is a tool for learning.

2.5 Explore issues of ergonomics and safety in using computers.

Grades 5-6 Performance Indicators (Continue to address earlier skills as needed.)

2.6 Explain and demonstrate understanding of classroom rules regarding responsible use of computers (responsible behavior around equipment, respect for other people's work, and appropriate collaborative behavior).

2.7 Explain and demonstrate ethical and legal behavior in copying files, applications, and media.

2.8 Explain potential problem of computer viruses and exercise caution in opening e-mail attachments from unknown sources. (Use of e-mail is at district discretion.)

2.9 Explain safe practices for sharing personal information via e-mail and the Internet. (Use of e-mail is at district discretion.)

2.10 Explain proper e-mail etiquette. (Use of e-mail is at district discretion.)

2.11 Describe and demonstrate knowledge of the school's Acceptable Use Policy, and know the consequences of violating that policy.

2.12 Validate a Web site for authenticity (e.g., find site sponsor, author, and date the site was last updated).

2.13 Explain how media and technology can be misused to distort or exaggerate information.

2.14 Write correct citations for text and images gathered from electronic sources. Understand that use of materials is limited by the fair use rule of copyright law.

2.15 Develop an awareness of the issue of ergonomics (e.g., Repetitive Stress Injuries) and how to use equipment safely.

Standard 3. Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect,

and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

Pre-K-4 Performance Indicators

3.1 Explore and develop understanding of how to gather information from a variety of electronic sources, including teacher-selected Web sites, CD-ROM encyclopedias, and automated card catalog.

3.2 Explore the use of application programs (e.g., word processing, database, spreadsheet) for organizing information into charts, tables, and diagrams.

3.3 Explore the use of content-specific tools to enhance understanding of curriculum content (e.g., environmental probes, sensors, robotics, simulation software, and measuring devices).

3.4 Collaborate with classmates and teacher in creating a multimedia presentation to communicate learning with others.

3.5 Collaborate with classmates and teacher to exchange e-mail with another classroom (at discretion of district and teacher).

Grades 5-6 Performance Indicators

3.6 In keeping with the research process outlined in Standard 24 of the English Language Arts Curriculum Framework, identify electronic sources of information (e.g., Internet, CD-ROM, online periodical databases, and online catalogs).

3.7 Use search engines effectively to find relevant, unbiased, and current information on a subject. (Standard 2 performance indicators apply—i.e., evaluate Web sites and write correct citations for sources.)

3.8 Organize information that is collected using a variety of tools (e.g., spreadsheet, database, saved files).

3.9 Communicate results of research and learning with others using the most appropriate tools (e.g., desktop-published or word-processed report, multimedia presentation).

3.10 Manipulate data using charting tools and graphic organizers (e.g., concept mapping, flow charting, and outlining software) to connect ideas and organize information.

3.11 Under teacher's guidance, and at discretion of district, use e-mail to communicate with others (e.g., students in other classrooms, experts in a subject, teachers).

Three Year Plan

2009-2010

- Equipment
 - Wireless Laptops for Student Support staff
 - Color printer for Kindergarten
 - Lunch ID system
- Audio/Visual
 - Projector for FASST meetings
- Software & Subscriptions
 - AimsWeb Progress Monitoring Software
 - Student/Staff Management System
 - Health Office software
 - Library Management software (Destiny)
 - Upgrade of Exchange Server to version 2007
 - Upgrade of Office to 2003
- Networking & Security
 - Firewall upgrade
 - Increase of Building Bandwidth
 - Update of AntiVirus Server and Client systems
 - Upgrade of Domain/DHCP controller
- Programs & Partnerships
 - TechSperts Academy
 - Apple Eportfolio Showcase

2010-2011

- Equipment
 - Wireless laptops for all teachers, coaches and select support staff
 - Mobile Macbook lab for the Elementary School
 - Upgrade of K-3 computer lab
 - iPod Learning Lab
 - Migration to Apple computers in Grades 4-6, the Visual and Performing Arts classes, and the Media Center
 - LCD monitors replaced all CRT monitors
 - Replacement of telephone system with VOIP
 - Replaced office printers for student support and administration
- Audio/Visual
 - Mounted projectors and speakers in every classroom
 - Interactive white boards in selected classrooms
 - VBRICK video management system
 - TANDBERG video conferencing, streaming and storage system
 - Digital signage
 - Enhanced audio system for announcements and auditorium
 - Auditorium projection system with multiple point sourcing
- Software & Subscriptions
 - Migration of HR's employee management system into iStaff

- Migration to Windows 7 building-wide
- Increase of Microsoft Office licenses
- Upgrade of Adobe Photoshop Elements software
- Upgrade of Inspiration software
- Networking & Security
 - School-wide wireless-N access
 - Increase of building bandwidth and internet bandwidth
 - Server migration and consolidation with performance enhancements
- Programs & Partnerships
 - TechSperts Academy
 - Apple Eportfolio Showcase
 - School-wide end-of-year Technology Showcase
 - Verizon & M.I.T. Community Science Investigators
 - WGBH Teacher's Domain
 - TLT Program
 - Harvard University Grad School of Education TIE internships

2011-2012

- Equipment
 - iPad Mobile Lab in the Media Center
- Audio/Visual
 - Document camera in the Media Center
 - Green Screen technology in the Visual and Performing Arts
 - Flip Video cameras and BRCPS TV
 - CISCO mobile videoconferencing cart for the Chinese Program
 - Expansion of interactive white board integration
- Software & Subscriptions
 - Atomic Learning online courses
 - Upgrade of United Streaming Discovery Education web video content
- Networking & Security
 - ID card scanner system integrated with iPass
- Programs & Partnerships
 - TechSperts Academy
 - Apple Eportfolio Showcase
 - School-wide end-of-year Technology Showcase
 - Verizon & M.I.T. Community Science Investigators
 - WGBH Teacher's Domain
 - TLT Program
 - Harvard University Grad School of Education TIE internships
 - BRCPS TV

Budget

A detailed budget is available upon request.

Fixed Inventory Assets List

DESKTOP MACHINES		
Quantity	Description	Details
135	HP Desktop	DC8000SFF Elite, 3GHz speed, 4GB RAM, Windows 7 Pro, LCD screen
17	20" iMacs	
27	Mac Mini Desktops	Apple # MB138LL/A, 1.83GHz speed, 2GB RAM, Snow Leopard 10.6
3	Mac Mini Desktops	2.53 GHz speed, 4GH RAM, Snow Leopard 10.6

LAPTOP COMPUTERS		
Quantity	Description	Details
211	Lenovo	SL410, 2.1 GHz speed dual processor, 4GB RAM, Windows 7 Pro
30	13" Macbook	2.26 GHz, 2GB RAM, 250 GB, Snow Leopard 10.6
115	13" Macbook	2.4 GHz, 2GB RAM, 250 GB, Snow Leopard 10.6
4	13" Macbook	2.4 GHz, 4GB RAM, 500 GB, Snow Leopard 10.6
1	15" Macbook Pro	2.53 GHz, 4G RAM, 500GB, Snow Leopard 10.6

Software Inventory	School Administrative Software
<ul style="list-style-type: none"> ▪ Adobe Acrobat Reader ▪ Adobe Acrobat ▪ Adobe Photoshop Elements ▪ iLife Creative Suite ▪ iWork Suite ▪ Inspiration 9 ▪ Kid Pix ▪ Lexia v7.0 Early Reading ▪ Lexia v7.0 Primary Reading ▪ Lexia v7.0 Strategies for Older Students ▪ Microsoft Office 2008 ▪ Read Naturally ▪ Scott Foresman Successnet ▪ United Streaming by Discovery Education 	<ul style="list-style-type: none"> ▪ AccuFund ▪ AimsWeb Progress Monitoring ▪ ADP ▪ BASC ▪ BASC-2 ▪ Card Access ▪ Card 5 ▪ Destiny Library Manager by Follett Software ▪ iPass Suite: iPass, iTeacher, iStaff, iParent, iHealth ▪ Guard Plus ▪ Health Pro ▪ Integral ▪ Lexia Manager ▪ Microsoft Office 2008 ▪ Quickbooks ▪ Testwiz ▪ PAR ▪ Scholastic Reading Inventory ▪ Scott Foresman Math Test Generator ▪ WISC-IV Writer ▪ School Dude ▪ Woodcock Johnson III

