

Technology at St. Andrew's School: A Five-Year Plan

The Technology Planning Committee

April 2009

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Vision

These things we believe:

- that our graduates should know how to use technology effectively and appropriately
- that appropriate integration of technology can effectively enrich and enhance curriculum
- that effective and appropriate use of technology is integral to the instructional skills of faculty
- that we are committed to providing training time and resources for the acquisition of skills and proficiencies that will ensure the appropriate and effective use of technology both by faculty and students

Background

In May of last year, Mrs. Nazro asked Jeff Ritter, a technology consultant from Educational Collaborators, to visit St. Andrew's in order to assess our technology program and help us plan for the future.

In his visit Mr. Ritter recognized our interest in making sure that "sound pedagogical reasons" guide our use of technology. He found well trained and qualified members of our technology faculty and staff, as well as teachers and administrators committed to working with them to integrate technology within the curriculum. He found an "effective and mature" laptop program at the Upper School and, throughout the school, a sound technology infrastructure with resources to support it.

With all these strengths in evidence, Mr. Ritter concluded that with clear articulation of vision and thoughtful planning, St. Andrew's could create the "scaffold[ing] by which teachers [w]ould build a 21st Century learning environment that uses technology as a tool to enhance student learning."

It was in response to Mr. Ritter's evaluation that the Technology Planning Committee was convened last fall and that it subsequently met regularly throughout the year to identify goals and to schedule their implementation.

The Five-Year Plan

Goals:

1. Development of a comprehensive, developmentally-appropriate technology curriculum to support student learning (1-12)
2. Faculty acquisition of leveled skills and proficiencies
3. Phased integration of technology, when appropriate, within curriculum and instruction

Steps for Implementation:

1. Year One

- a. The Instructional Technology Department will continue to develop for students a 1-12 technology curriculum, and steps will be made toward its implementation.
- b. At the start of the year, each faculty member will assess his or her own competencies in technology and draft goals and a plan of action for the up-coming year (See Addendum A). The plan of action will address how he/she will achieve these goals, what training will be needed, and how skills he/she learns will be applied during the course of the year.

Goals and plans of action will be submitted to the appropriate divisional technology coordinator or to the Instructional Technology Department chair.

Individual faculty technology goals will also be documented on annual goal sheets submitted, as is customary, to the Head of School.

1. In assessing competencies in technology, teachers will use two documents: “Level I: Basic Teacher Competencies” (Addendum B) and “Level II: Technology Integration in the Classroom” (Addendum C).
 2. Those teachers who recognize the need will target the mastery of some or all Level I competencies among their goals. (It may take two years to master all Level I competencies.)
It is likely that these same teachers will also choose to target Level II competencies which relate to the integration of technology in the classroom. “Level II: Suggested Resources” (Addendum D) will help them identify strategies and tools for doing this.
 3. Those teachers who have mastered Level I competencies will target Level II competencies which relate to integration of technology in the classroom. “Level II: Suggested Resources” (Addendum D) will help them identify strategies for doing this.
- c. All teachers will engage in training appropriate to their levels of competency by using support services that are listed below.
 - d. At the end of the year faculty will assess their progress with respect to their goals and plans of action.

2. Year Two and Subsequent Years

- a. The Instructional Technology Department will continue to develop and implement the 1-12 technology curriculum.
- b. Faculty members will set annual technology goals and draft plans of action, assessing progress at the end of each year.

- c. By the end of a second year, it is likely that all faculty will have mastered Level (basic teacher competencies) and that Level II (technology integration in the classroom) will thus be the focus of the continuing development of skills and proficiencies.
 - d. All teachers will engage in training appropriate to their levels of competencies by using support services that are listed below.
3. Teachers joining the St. Andrew's faculty will begin the five-year technology plan at the start of their first year of employment.
 4. This plan and its effects will be evaluated at the end of its fifth year of implementation. (2013-2014)

Support Services:

1. Division technology coordinators and the Instructional Technology Department chair
2. Technology coaches
3. Skilled and experienced volunteers from the faculty at large will provide training to their colleagues as requested and in continuing, one-on-one sessions
4. Mini-lessons at faculty meetings
Faculty volunteers, in addition to members of the Instructional Technology Department, will be encouraged to teach these lessons and/or share technology-related projects which have enriched their own curriculum and instruction.
5. On-line tutorials
6. Help desk support
7. In-service workshops
8. Summer workshops
9. Conferences

Addendum A

St. Andrew's Episcopal School Technology Goals and Plan of Action

Name: _____ Year: _____

Based on your self assessment, state goals and develop a plan of action for moving forward in mastering basic competencies and/or in integrating technology in the classroom.

Goals (check one or more category)

- Level I: Basic Teacher Competencies
- Level II: Integrating Technology in the Classroom

State your goals:

Plan of Action

1. Level I: Mastering Basic Teacher Competencies

Use the following support services or personnel for training:

- Division technology coordinators and the Instructional Technology Department chair
- Technology Coaches
- On-line tutorials (*Atomic Learning*) <http://sasteachertechcompetencies.pbworks.com>
- In-service workshops
- Summer workshops
- Conferences (Texas Computer Education Association Conference in Austin—Feb. 2010)

Schedule time for training and practice ___ weekly or ___ monthly

2. Level II: Integrating Technology in the Classroom

- Collaborate with the Chair of Instructional Technology and/or my division's Coordinator as needed
- Design one lesson per ___ week/ ___ month that incorporates technology at a level appropriate to instructional skills and to curricular objectives
- Describe further components of action plan on the back of this page

Addendum B

Level I: Basic Teacher Competencies

<http://sasteachertechcompetencies.pbworks.com> for specific tutorial resources

Name: _____

Basic Operations and Concepts

- Operate computer system and peripherals
 - Use correct startup/shut down procedures according to computer
 - Operate peripherals (i.e., printer, scanner, CD-Rom)
 - Add a network printer
 - Trouble shoot
 - Frozen screen / lock-up
 - Delete print job

- Navigate Documents
 - Point, click, double-click, click and drag with mouse
 - Maximize and minimize using the Windows Operating system
 - Use pull-down and expanded pull-down menus
 - Select, open, and move an icon
 - Select, open, move, and close a window
 - Resize a window
 - Scroll up/down, left/right within a window

- Start an application and create a file from school-supported software
- Manage Files
 - Name a file
 - Save a file using both the Save and Save As Commands
 - Save/back up files to a USB drive or H: drive
 - Locate a file from any storage device (i.e., floppy disk, hard drive, network directory, CD-Rom) using Windows Explorer or My Computer
 - Rename a file
 - Copy/move file between hard disk, floppy disk, and network drive
 - Save, open, place files inside subdirectories/folders
 - Create and name/rename folders

- Use print options
 - Use print preview
 - Select options from printer window (i.e., portrait vs. landscape, grayscale)

- Add a network printer
- Insert, run, and eject a CD-ROM and DVD
- Open and work with more than one application simultaneously
- Understand potential damage from and how to enable protection against computer viruses
- Understand how to procure technical assistance

Social, Ethical, and Human Issues

- Comply with copyright and educational fair use laws, particularly as they relate to electronic media
- Abide by the St. Andrew's Acceptable Use Policy
- Apply safe use of the Internet with students

Technology Communications Tools

- Networking
 - Use a file server (H:) drive
 - Connect/log on to the school's network
 - Open a program or file located on the
 - Save a file to a specified network directory
 - Share files with others on a network
- Be familiar with network-related terms such as local area network, wide area network, access rights, security passwords, file server.
- Connect to the Internet
 - Use school server to connect to the Internet while at school
 - Be aware of commercial providers and their service for Internet connection outside of school
- Use electronic mail in First Class (compose, send, retrieve, read, respond)
 - Compose new e-mail (address, subject, priority, and body of message)
 - Send e-mail (concepts of carbon copy [cc] and blind carbon copy [bcc])
 - Open and read e-mail
 - Reply to sender and forward e-mail
 - Save, print, and delete e-mail (and empty mail trash folder)
 - Send a file and send as an e-mail attachment
 - Understand how viruses are transmitted via e-mail

Technology Research Tools

- Access and use resources on Internet and World Wide Web
 - Use browser software

- Access a specific web site by entering the appropriate URL
- Perform a specific web search using a search engine

- Access and use basic search functions to locate information in:
 - The Internet using search engine such as Google
 - The school library using the library's online catalog
 - The library's subscription databases to find articles for professional use

- Demonstrate appropriate bibliographic format to cite sources of electronically gathered information when publishing documents for students, parents, or colleagues

Technology Productivity Tools with Microsoft Office

Word Processing using Microsoft Word

- Create a new document and open an existing document
- Use Save As and Save
- Change the font, size, and apply formats such as italics or bold
- Enter and edit text; copy and cut (move) selected text
- Change text format and style; set margins, line spacing, tabs, bullets, numbering
- Check spelling, grammar, word usage using Spell Check and Thesaurus
- Use the drawing toolbar
- Insert graphics into a document

Spreadsheet using Microsoft Excel

- Interpret and communicate information in an existing spreadsheet
 - Understand the concept of a spreadsheet
 - Given a spreadsheet, interpret the information

- Enter data in an existing spreadsheet
 - Enter data into a cell
 - Use the entry bar
 - Print a spreadsheet

- Create a spreadsheet with rows, columns, and headings
 - Insert / delete columns
 - Insert / delete rows
- Create/copy formulas and functions to perform simple calculations (AVERAGE, SUM, COUNT)

- Understand the three basic types of cells (label, value, and formula)
- Use fill down and fill across
- Create a graph/chart from spreadsheet data
 - Know the three basic types of graphs (bar, pie, line) and their uses
 - Use a previously created spreadsheet to select a range of data and choose the appropriate graph
 - Print a graph
- Understand terms such as spreadsheet, cell, data entry bar, formula, function

Multimedia using Microsoft Publisher and PowerPoint

- Produce print-based products (i.e., newsletter, brochure, flyer) using Microsoft Publisher
 - Use basic layout functions
 - Create, place, format, & position text
 - Locate clipart or images
 - Create graphic objects using drawing tools
 - Place graphic elements
 - Resize and position objects
- Produce electronic slides/overheads using PowerPoint
 - Select slide layout
 - Use color
 - Position & format text
 - Understand concept of file compression
 - Insert graphics
 - Insert hyperlinks
 - Add sound and video
 - Organize slides for slide show using transitions
 - Insert appropriate animations
 - Run and/or edit slide show
 - Use print options
- Connect a video input/output device to computer or large screen display

Administrative Productivity Tools

Teacher Web Page Construction Using FirstClass RWD

Class/course web pages are developed by each teacher. The class/course web page should meet the following criteria and be kept up to date:

- A minimum of 2 means of contact (For ex. telephone, room number, e-mail, etc.) included on the main page.
- The teacher's name and the class subject(s) somewhere on the main class page.
- Teacher's conference periods
- Assignments and due dates

- Class information – syllabus for example
- Grading policy

Grade book using Faculty Access

- Login to Faculty Access
- Set up grade book
- Set up categories
- Copy class categories/assignments
- Enter assignments
- Create grading scales
- Enter grades
- Create progress reports (if required by Division)
- Post grades

Curriculum Mapping using Atlas Rubicon

- Login and change password
- Use basic navigation
- Use Atlas Resources (references, information)
- Develop curriculum map using unit calendar
- Add new units of instruction
- Add links and upload documents
- Edit units of instruction
- View curriculum maps

Grade Alerts using Inform (Upper School only)

- Login
- Choose student or advisee
- Enter data and notes
- Send
- Check status

Addendum C

Level II: Technology Integration in the Classroom

Focus Area:	Instructional Design	Content Area Connections	Online Learning
Levels of progress:			
Beginning Technology Integration	When appropriate, I occasionally use technology to supplement or reinforce instruction in my classroom, library, or lab and present teacher-centered lectures.	My students use technology for basic tasks such as taking notes using a word processor, but use little or no technology to learn the subject-area content for my course. Content is typically learned through lecture and reading from texts.	I have used a few web-based learning activities with my students.
Developing Technology Integration	When appropriate, I use technology to direct instruction, improve productivity, model technology skills, and direct students in the use of applications for technology integration. My students use technology to communicate and present information. My students have regular access and use of technology and digital resources for curriculum activities in my classroom, library, or lab.	My students use technology to learn subject-area content objectives.	I have customized several web-based lessons which include online content, resources, and learning activities that support learning objectives.
Advanced Technology Integration	When appropriate, I use technology in teacher-led, as well as some student-centered, learning experiences to develop higher order thinking skills and provide opportunities for collaboration with content experts, peers, parents, and community. My students evaluate information and analyze data and content to solve problems. My students have regular access and use of technology and digital resources in various instructional settings such as in my classroom, library, or lab.	My students use technology as a collaborative tool, integrating technology in my subject area, and as a means for supporting the development of higher-order thinking skills.	I have created many web-based lessons which include online content, resources, learning activities, and interactive communications that support learning objectives.
Comprehensive Technology Integration	My classroom is a student-centered learning environment where technology is seamlessly and appropriately integrated to solve real world problems in collaboration with business, industry, and higher education.	My students and I seamlessly apply technology across all subject areas to provide learning opportunities beyond the classroom that are not possible without the technology.	I have created and integrated web-based lessons which include online content, resources, learning activities, and interactive communications that support learning objectives throughout the curriculum.

	<p>Learning is transformed as my students propose, assess, and implement solutions to problems. My students and I have on-demand access to all appropriate technology and digital resources anytime/anywhere for technology-integrated curriculum activities on the campus, in the district, at home, or in the community.</p>		
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Addendum D

Level II: Technology Integration in the Classroom Suggested Resources

See the Chair of Instructional Technology or your division Technology Coordinator for ideas and assistance in choosing and using the best resource for your instructional unit.

<http://sasteachertechcompetencies.pbworks.com/> for specific resources

Categories:

Audio and Podcasting

Blogs

Drawing, Charting, and Mapping Tools

Photo and Photo Sharing Tools

Presentation Tools

Quiz and Polling Tools

RSS, Newsfeeds, and Aggregators

Social Bookmark Tools

Video Tools and VideoSharing

Wikis

Word Processing and Productivity Tools

