

INSTRUCTIONAL TECHNOLOGY

<u>Staff</u>	<u>Students</u>	<u>Budget</u>	<u>Cost Per Student</u>
1.4	5,659	\$582,589	\$103

District support of Instructional Technology initiatives this year have resulted in significant growth and increased integration of technology tools in the teaching and learning process. Upgrades to existing computer and instructional equipment, as well as the purchase of new equipment to replace outdated equipment and supplement areas that were previously under equipped, have occurred in all buildings and departments throughout the district. New technologies including digital document projectors for projecting and saving images of three dimensional objects, interactive whiteboards, and increase use of digital projectors have also occurred as part of the growth spurred by the District's support of Instructional Technology as an integral part of instruction. Increases in the Districtwide bandwidth has enabled increased use of both the Internet and intranet throughout the District. This modification responds to difficulties encountered using special education IEP reporting software, video streaming projects and allowed for the adoption of a full featured student management system providing period-by-period attendance, grade reporting and access from any Internet accessible location.

The District Technology Steering Committee worked this year to develop and propose a sustainable plan for technology acquisition and use. The committee investigated a variety of new instructional tools which led to adoption of SMART Boards, digital object projectors and increased application of digital projectors for the 2006-2007 school year. The committee began a review of the District Technology Plan which will need to be revised next year to reflect the multiple new uses of instructional technology for both instruction and data collection throughout the District.

To assist with the dissemination and communication of new resources, needs and ideas, building level turn-key trainer positions were created to serve as a ready resource to aid in the implementation and use of instructional technology resources as well as conduit for suggestions and requests back to the Media Specialist. Developing these resource individuals will encourage increased use of technology in the classrooms and provide an increased stream of ideas and resources which will be developed and made available for use by all. It is likely that this network will also highlight the areas where new staff development training is needed and potential peer trainers.

A new administrative structure has been adopted and will be implemented beginning July 1, 2006. Oversight and management of both the instructional and administrative technology resources will be combined under one unified department. This will result in a much more effective use of resources and insure that hardware and software concerns are addressed in a timely manner.

INSTRUCTIONAL TECHNOLOGY (cont.)

Staff Development

Staff development opportunities continue to be an important component of our instructional technology program. In-service courses are offered after school hours for teachers. This year, technology related courses included:

- OSX
- PowerPoint in the Classroom
- Streaming Video
- Visualizing Mathematics K-8
- Digital Imaging
- Appleworks
- NCCS Intranet
- iMovie

Eighty-two participants took part in the district sponsored staff development programs for the 2005-06 school year.

Instructional Use of Technology

Instructional technology has become an integrated portion of the school day for both faculty and students. We are moving well beyond using computers for power point presentations and exploiting the power this technology provides to enable research well beyond local resources and access to primary source information previously inaccessible. The ability to communicate using text, sound, and video has empowered learners and educators creating lessons and projects that provide vivid, accurate and current representations of content. From the elementary classrooms where a student created reenactment of the Revolutionary War can now be used as a teaching tool in classrooms throughout the District; to the junior high school where librarians have created an interactive instructional website based on President Roosevelt which is available for use in any classroom and is being used at the Roosevelt Presidential Library; to the high school where technology has become an integral part of the learning in all instructional areas.

The expansion of our intranet has allowed for an increase in the sharing of teacher plans and activities at all levels in the district. Examples of utilization include: social studies DBQ's, organizers, differentiated instruction for mathematics, report card inserts, virtual field trips, instructional scavenger hunts, power point presentations, web quests, model lessons in social studies and mathematics, and summer workshop lessons and materials. In addition teachers frequently request video or other commercially prepared resources to be posted on the site. Over 125 requested resources have been posted on the site. The possibility of adding a search tool to the site has been researched. This

INSTRUCTIONAL TECHNOLOGY (cont.)

would require the site be assigned an Internet domain name. While this modification is not practical at this point, it may be considered at a later date.

At the High School, the new Macintosh computers placed in C205 have allowed both the Art and Technology departments to utilize new software and newer versions of previous software as a result of increased processor and system speed. The Mobile Laptop lab provided for the English department has been used by the college composition classes and others to complete research and writing assignments. The mobile lab was also used by the communications classes this spring to complete presentation projects.

A number of our buildings were experiencing difficulty accessing both the Internet and our intranet as a result of limited bandwidth available to accommodate a growing demand. A variety of provider solutions were considered, and a significant increase has been made to bandwidth both within the District and out to our service provider by contracting with Time Warner Communications. This modification required some upgrading of our networking hardware but provides significantly better performance in a cost effective manner.

An inventory of the classroom computer equipment was conducted at the Junior and Senior High School to ensure that all classrooms have access to Instructional Technology resources and to prepare for the implementation of the period-by-period class attendance feature of the new Infinite Campus student management system. Additional equipment was added and existing equipment was serviced providing access from all locations. Action is being taken to determine what can still be used effectively. Mr. Cimorelli worked with building administrators to plan for staff training for Infinite Campus and Mrs. Schafer developed revised digital image to be used for reformatting all presentation and lab computers at the junior and senior high schools. The computers located in the elementary school labs were also re-formatted. Mrs. Scriven developed new digital images to be deployed on all new Dell computers ordered. These images will be maintained by Dell and used to format computers we order. As a result, new equipment is delivered formatted with our software and settings, ready to use out of the box. The development of these digital images will serve as a tremendous time saver, both this summer and in the future, ensuring that equipment is back in service as quickly as possible.

Providing sufficient local and centralized printing access in the elementary buildings has been an ongoing concern. A variety of approaches were discussed this year, and a discussion was made to order a total of forty-two printers to be distributed as needed in the elementary buildings.

INSTRUCTIONAL TECHNOLOGY (cont.)

Due to increasing demand for large format digital projection technology in classrooms, we have ordered additional mobile projection units in this year's budget. The Library/AV department has also provided additional large TVs for classrooms this year, which has been well received by the instructors who note that it has given them the ability to project content for the entire class. Demonstrations on new technologies including the SMART boards, pocket and tablet PCs and pod-casting were also provided for the Technology Steering Committee to aid in planning for future instructional technology program developments.

Interest was expressed by a number of faculty members in having access to SMART Board technology in their classrooms. Six SMART Boards were purchased for the 2006-2007 school year. These boards can be mobile and shared or permanently mounted in classrooms. One will be placed in the mezzanine at the high school to allow staff training and to provide the resources for staff development trainers. Three boards will be based at the high school where the greatest amount of interest has been to date. The junior high school currently has one interactive whiteboard and will receive one of the new ones resulting in one in each computer lab in the building. Mr. Cimorelli will determine where the one additional board will be located. In concert with the SMART Boards, a grant was submitted to NEC Corporation to receive a discounted price on LCD projectors. This provided considerable savings for the Instructional Technology budget.

This year has provided an opportunity to reflect and review our district resources and how those resources are being used. The results of that reflection and planning can be seen in all aspects of the program from staff development to infusion of the use of technology resources in the classroom. Use of instructional technology has become as common in the classroom as chalk and textbooks used to be. However, the depth of resources made available have allowed our students to reach new levels of content mastery and skill application which could previously only be imagined. The future will continue to challenge us to keep up and pioneer new use of our resources, and the North Colonie learning community will strive to continue to meet that challenge.