

# THE MARTIN COUNTY SCHOOL DISTRICT



Technology Plan  
2006-2009

## 1. MISSION AND VISION

### MISSION

The students of the Martin County School District will be provided the tools and training necessary to compete on an equal basis in an increasingly technologically literate world. Teachers in the district will become proficient in using existing and emerging technology tools in their classrooms. Through the partnership of students, parents, school, and community, full integration of technology within a curriculum based on the Sunshine State Standards will improve the performance of all students.

### VISION

All students in the Martin County School District will learn in an environment that is motivating, engaging, and challenging through the use of multimedia tools. Technology will provide students and teachers with the ability to create, access, exchange, and analyze information. Through the skillful use of technology, students will function as productive members of the 21<sup>st</sup> century society.

## 2. BACKGROUND

**2.1 Profile** Martin County is a fast-growing area located on Florida's East Coast, about halfway between Daytona Beach and Miami. We are a diverse community featuring a variety of socioeconomic and ethnic groups. The majority of the county's population (140,000) is distributed among several communities along the coast, where incomes range from poverty level to upper class. The western portion of the county is composed of rural farms, ranches, and citrus groves. There is an influx of migrant workers that follow the harvest of the farms and groves. The student population is therefore a vast mixture of abilities and family backgrounds. This makes for unique situations in curriculum development and technology acquirement at the school sites.

**2.2 Planning Process** Through the Educational Technology Advisory Committee (ETAC), the District gathered information from teachers, staff, students, administration, parents, and the community to develop guidelines for our three-year Technology Plan. The collaboratively developed plan guides policy and practice. Planned technology use addresses higher order teaching and learning for all students, including ESOL, ESE, and at-risk students. In addition, the development of partnerships with community, business and industry is encouraged. During school year 2006-2007, each school site will use this plan as a guide to create their own individualized school technology plan. Emphasis on student success within the full integration of technology in all areas of the curriculum is the core component of each plan.

**2.3 Use** To maximize the use of available technologies for our learning community, the **Compass Learning System** is in place at our Applied Technology, Career Development, and Adult and Community Education Centers. Computer labs and media centers in the district are available for evening classes through the Indian River Community College.

### 3. NEEDS ASSESSMENT/GOALS

**3.1 Assessment** Each year, all stakeholders will participate in the *Florida Innovates* survey to assess district instructional and administrative telecommunications and technology needs. Teachers in the district are taking the *Inventory of Teacher Technology Skills* (ITTS) through the Department of Education, which is used to determine professional development requirements. A needs assessment tool, under development by the Instructional Technology Department, will be given to teachers and staff each spring to evaluate current use of technology, level of proficiency, the quantity of technology training received, and interest in future technology trainings. Communication is ongoing with The Exceptional Student Education Department to address assistive and adaptive needs. In addition to surveys, data from the Educational Technology (ET) department will be used to determine the present and future needs of the district in the area of voice, data, and other delivery systems. We will continue to implement strategies recommended by MGT of America, Inc. and have entered into a contract with *Energy Education, Inc.* to determine needs and offer strategies for energy conservation.

**3.2 Internal Connections and Internet Access** We will continue to maintain our high standards. All district locations are connected via Wide Area Network circuits ranging from fractional T-1 to 10-Gigabit Fiber. Minimum WAN connectivity for elementary schools is T-1 while middle and high schools have Gigabit fiber circuits. At every location the Local Area Network backbone is gigabit over multimode fiber. All workstations are connected using Cat5e or Cat6 copper cabling. Internet connectivity is provided by a 45MB DS-3 from FIRN and is shared by all locations in the district. All classrooms have multimedia capability and Internet access. Martin County Schools' network infrastructure is thoroughly documented using CAD and Visio drawings. The District applies for E-Rate dollars to help supplement the cost of the frame relay and data lines that were put in place at the sites. The network is monitored 24 hours a day with SNMP management utilities to provide proactive maintenance.

**Software and Tech Support** The District will continue the *Microsoft School Agreement* Licensing including the *Microsoft Office 2003 Suite* due to its cost effectiveness. This is installed on all PC's. The district currently employs 5 technicians, 1 network specialist, 1 network engineer and 1 systems administrator supporting over 6,300 computers and our wide area network. Outsource support for older PC's, laptops, Spectrum and Compass labs will be obtained as necessary. In accordance with the current system, new switches, routers, and hubs will be purchased with lifetime warranties.

### 3.3 District Technology Goals:

#### Short term:

- Inventory computers and develop an equity plan to establish a 5:1 student to computer ratio across the district
- Refresh all district workstations on a four year cycle
- Standardize instructional technology equipment
- Continue to implement VoIP Enterprise Phone solution district-wide
- Connect Pinewood Elementary, Indiantown Middle, and Warfield Elementary with Gigabit fiber circuits
- All new school sites will have Gigabit fiber circuits. All existing sites will be considered and prioritized after evaluating practicability

- Update and revise each school's three year technology plan
- Continue our efforts to place 100% of county forms on the server for electronic access
- Continue to expand the use of technology in reading and math until 100% of all students have some form of instruction in this format
- Prepare interested National Board Certified Teachers to become "Tech Trainers" and offer them guidance and support. Using a *train the trainer* model, NBCTs will coach teachers in developing technology proficiency
- Post technology training handouts on *Outlook Public Folders* for electronic access.
- Publish a newsletter to advertise training opportunities
- Encourage teachers to establish classroom websites and offer training in *FrontPage*
- Purchase web-based resources for teacher and staff training, including Atomic Learning and United Streaming webinars
- Utilize area consortiums (PAEC and NEFEC) that offer on-line coursework and training through Florida Education Network
- Continue and expand the partnership with Indian River Community College to employ teachers as adjuncts to offer coursework in technology at individual school sites
- Participate in *Sunshine Connections* when it becomes available
- Ensure that every media center is an active *Sunlink* partner
- Update the software for the media circulation and cataloguing system
- Train all media specialists in the Florida Electronic Library
- Purchase a district license for video streaming of educational videos
- Investigate, evaluate, and purchase a student and bus tracking system that utilizes GPS technology and digital transmission services
- Expand the 21<sup>st</sup> Century Teacher training program
- Develop Technology Tuesdays lunchtime training for District administration and staff
- Distribute fully equipped multimedia carts district wide to address equity and ensure integration of technology in the curriculum

**Long Term:**

- Improve the ratio of technicians to computers
- Develop a plan to implement distance learning through a variety of technologies
- Employ a teacher on assignment for technology training
- Investigate thin client computing for possible implementation
- Install ceiling-mounted data projectors in every media center
- Ensure that every teacher in the District has access to a data projector and document camera
- Standardize instructional software to provide better support
- Adopt the National Educational Technology Standards for Students and Teachers

**4. FUNDING PLAN**

**4.1 Recurring** The annual District budget is the primary source of funding. In school year 2006-2007, nearly 1% of the total budget is earmarked for technology. In addition, 6.3

million in Capital Outlay has been allocated for technology. For school years 2007-2008 and 2008-2009, a similar percentage will be allocated specifically for technology.

**Nonrecurring** State provided funds are currently distributed to each site based on its FTE count. Each school's spending plan must be in compliance with the District's technology plan. In addition, *Enhancing Education Through Technology* entitlement funds for school year 2006-2007 were over \$24,000. Schools are encouraged to write grants and pursue partnership funding with organizations.

**4.2 Budget** The operating budget of the Educational Technology Department, which includes both administrative and instructional technology departments is almost \$2 million for school year 2006-2007. This amount is used for personnel, hardware, software, professional/curriculum development, repair and other services necessary for the operation of the ET department. This amount should stay consistent for the next several years.

**4.3 EETT** The District uses 100% of EETT funding for teacher training. Although categorical funding for *Public School Technology Funds* (PSTF) has been eliminated, the District continues to allocate a percentage to each school site based on FTE. Some of these funds are set aside to pay for college classes in technology for teachers. The remaining funds are used to implement and integrate their school's technology plan. Funds can be used for hardware and software acquisitions.

## **5. TECHNOLOGY ACQUISITION PLAN**

**5.1 Identification** Using the tools identified in section 3.1 and through input from the Educational Technology Advisory Committee, identification of appropriate technologies to meet District goals will be accomplished.

All school sites have a Technology Committee to assess, recommend, and improve their short and long-range plans. This committee will suggest ways to improve the technology components and software for curriculum enhancement and improved instruction. All decisions that impact the school should have the students' needs as the primary focus.

**5.2 Software** Plans to acquire software and technology-based educational materials is a decision based upon input from teachers, the Exceptional Student Education Department, ESOL Department, and other stakeholders to ensure that students with the widest range of abilities interact with technology-based instructional programs in support of the Sunshine State Standards. In school year 2005-2006, *The Rosetta Stone* and *Destination Reading* became available at each school site for ESOL, primary students, and students with disabilities. The District will continue to purchase *Renaissance Learning* software for elementary and *Compass Learning Labs* and *Read 180* for middle and high school students. In addition, the *Performance Matters: Clear View* product has been implemented at each school site to drive instructional decisions. All new state adopted textbooks will have technology components built into their curriculum. Network-based applications must get approval from the ET department before purchase.

**5.3 Timetable** During school year 2005-2006, the equity plan was implemented, bringing the student to computer ratio to 5:1 at every school site. During school year 2006-2007, the refresh cycle will occur on an annual basis, replacing any computer that is four years old or older.

**5.4 Acquisition** Policies that are in place will continue to be distributed to each site-based ETAC member in the form of electronic updates.

- The District presently purchases HP computers. These units are interoperable with existing and planned technology delivery systems. In addition, computers are purchased with a three-year warranty.
- The District will consistently upgrade workstations and servers to current hardware and software standards.
- Each site will continue to have trained staff to troubleshoot level I problems. The help desk is available during the work day to assist staff beyond level I. The District will keep a supply of replacement parts.

**5.5 Technical Guidance** The District Educational Technology Advisory Committee will meet bimonthly or as often as necessary, to offer recommendations and receive updates and then disseminate this information to the school sites regarding technology purchases. The ET department approves technology purchases.

## **6. ACCESS**

### **6.1 Access Component:**

- Resources to support the Sunshine State Standards include cable TV in all classrooms. The District has a digital satellite dish attached to the state's transponder. The District will make videotapes when requested and distribute them via the internal pony to the schools. All classrooms have access to the Internet. Teachers and students have the capability to download many types of instructional materials and media.
- The District and all schools maintain web sites for public information. Teachers are encouraged to develop classroom web sites. Some media centers are open during the evening hours to encourage parents to participate in their child's education. High school technology facilities will continue to stay open to the community through the adult education program. The District computer training lab will open during evening and weekend hours for staff development when necessary.
- An electronic gradebook, *Pinnacle*, can be accessed from home and keeps parents informed of their child's progress and attendance.
- Grolier Encyclopedia, Destination Reading, Atomic Learning, How to Master, and Florida Electronic Library can be accessed from home.
- Exceptional Student Education provides a variety of technologies for classroom and home use. Software is provided for students with special needs, including adaptive technologies for students with exceptional needs.
- To provide curriculum access to homebound and home schooled students, cooperation with off-site correctional facilities, the Environmental Studies Center, Teen Parenting, Family Learning Center, and Work Force Development will be maintained.

- Teachers and administrators that are connected to the WAN will continue to be kept up-to-date on District policies and procedural updates through e-mail. ETAC members serve as information liaisons for each school site to assist with technology decision making.

**6.2 Acceptable Use Policy (AUP)** All personnel and students using the services of the District network must read the AUP statement. Yearly Internet and Network Security Awareness trainings, which include intellectual property rights and all copyright issues, will take place at every site.

- Martin County Schools will require that a database be maintained containing the software, and hardware that exists at each site. One required element within this database will be the software registration number for each single user, lab, or site license of any software.
- All District databases are housed on the District mainframe, application servers, file servers and are protected by the Logon ID. The ET department controls password information. A pop-up appears before log-in and user agrees to comply with AUP as a prerequisite to use.
- District policy states that any device that provides access to mainframe data be housed in a secure area or monitored at all times. In accordance with auditor requests, terminal devices have a 10-minute time-out implemented, so that the device will disconnect from the applications if this limit is reached.
- Access to the computing center is maintained by cipher lock doors with the code issued to ET personnel only. The code is changed twice a year and with each staff overturn.
- To comply with CIPA, the Acceptable Use Policy (AUP), the firewall (*Netscreen*), and filtering (*Web Security*) processes were presented to the School Board and the public for discussion, input and approval. Access by students to inappropriate sites or materials, is controlled by the firewall, filters, and policies that are in place. According to the terms of the AUP, students are not allowed to give out personal information about themselves or others. All computers attached to the LAN/WAN for student use are located in the media center, labs, or classrooms, these areas are monitored by teachers or staff members at all times. Proxy servers and anti-virus protection (*McAfee*) keep inappropriate material out of the system. Communication through the firewall using VPN (Virtual Private Network) is also available to a limited number of approved individuals through ET. The District has an Internet Access Committee that reviews requests to allow access to blocked sites for bona fide research or other lawful purposes for the duration of the project.

## 7. USER SUPPORT PLAN

**7.1 Network Management** The management of the network is done through the Educational Technology Department using software to manage switches, routers, servers, and desktops. To speed up the support procedure for end users, all workstations will continue to be diagnosed for failure and management problems. Many can be corrected from the central office.

## 7.2 **Support** LAN/WAN support will consist of a three-tier approach:

- **Tier one:** The ETAC member, who is usually the media specialist, will do initial troubleshooting of onsite problem and coordinate with the Help Desk for additional support and service.
- **Tier two:** Hardware technicians, software support and network specialists will support the site-based person as needed. This team will visit the site to troubleshoot problems or seek out other resources.
- **Tier three:** Network engineers and technical experts in the area of voice and data will be deployed by ET when necessary.

The District will continue to maintain an inventory of parts for older equipment for service and repair. New equipment will be purchased with a minimum of a three year warranty. The business partnership between the District's Instructional Technology Department and Adelpia Cable will maintain cabling for TV and video. The repair of other technical equipment such as hubs, routers, satellite dishes, and video equipment will be outsourced due to the cost effectiveness.

## 8. PROFESSIONAL DEVELOPMENT PLAN

### 8.1 **Provisions**

- Develop and acquire new programs and software that promote the integration of technology into everyday curricular needs.
- Technology will be a meaningful component within all curriculum training using research-based instructional methods. These methods will be modeled and widely implemented as best practices.
- Maintain the Educational Technology Learning Lab and upgrade A/V equipment. Lab can be used for modeling, coaching, and training.
- Identify and obtain technology-based professional development delivery systems that minimize teacher time away from the classroom and deliver training in the most cost-effective manner.
- Adoption of the National Educational Technology Standards for Teachers and monitoring of how teachers are meeting performance indicators through observation and documentation in lesson plans.

**8.2 Training** Staff development is coordinated through the District office and accomplished through a variety of strategies.

Web resources:

- *United Streaming* webinars
- *Atomic Learning*
- *Sunshine Connections*
- *Florida On-line Reading*

- Florida Education Channel: *Tuesday Teacher Training*
- *21<sup>st</sup> Century Teacher Training Program: How to Master Technology Tuesdays*

Other strategies:

- District staff offers training in *Destination Reading, Performance Matters, Pinnacle, Rosetta Stone*, and other software programs.
- Utilize National Board Certified Teachers as Tech Trainers: Train-the-Trainer model.
- Partnership with Indian River Community College: technology adjuncts are available at each school site to offer customized training and classes. District pays the tuition for teachers to earn re-certification credit.
- Publication of *Tech Times* sent via e-mail four times a year. Newsletter contains links to on-line training, resources, and helpful technology hints.
- Pursue funding for a technology specialist, who will do on-site coaching and training.
- Hand-outs of step-by-step instructions for *Outlook, FrontPage, PowerPoint*, and more are posted in the *Outlook* Public Folders and will be constantly updated and added to.
- Teachers are encouraged to engage in other professional development activities such as National Board Certification, pursuing advanced degrees, and participating in consortium offerings.

## 9. PROGRAM EVALUATION

**9.1 Measurement** The impact of technology throughout the District will be measured using a variety of tools:

- Annual Needs Assessment survey, currently under development, will evaluate the use of technology, level of proficiency, and the quantity of technology training received.
- Comparison of *Florida Innovates* profile data from year to year will indicate usage of technology.
- Documentation of technology integration into the curriculum will be seen in lesson plans.
- An increased number of computer-generated reports or technology-centered student assignments will reflect growth in the use of technology.
- All schools will be encouraged to include a technology goal in their school improvement plan.

- Student academic achievement will improve as progress is made toward meeting the educational goals of the Sunshine State Standards and technology is fully integrated into the curriculum.
- Data driven decisions through the use of *Clear View* software, enables teachers to monitor, analyze, and manage student progress.

**9.2 Mid-course Corrections** The Educational Technology Advisory Committee meets on a regular basis in order to stay informed of new developments and to make recommendations for change as they seem appropriate throughout the year. The ET staff meets weekly to coordinate District efforts to develop, maintain, and implement technology resources.