

# Mountain Brook City Schools

## Technology Plan 2005 - 2007

Period of coverage: July 1, 2006 - June 30, 2007

**Goal:** Effectively integrate the use of technology into all instructional and support programs.

### *System Information:*

**System:** Mountain Brook City

**Superintendent:** Charles G. Mason

**Technology Coordinator:** Donna Williamson

**Chief Financial Officer:** Karen Lusk-Smith

**System Code:** 175

**Email:** [masonc@mtnbrook.k12.al.us](mailto:masonc@mtnbrook.k12.al.us)

**Email:** [wild@mtnbrook.k12.al.us](mailto:wild@mtnbrook.k12.al.us)

**Email:** [lusk@mtnbrook.k12.al.us](mailto:lusk@mtnbrook.k12.al.us)

**Central Office: Voice:** 205-871-4608

**Technology Office: Voice:** 205-877-8304

**Address:** 3 Church Street

Mountain Brook, AL 35213

**Fax:** 205-877-8303

**Fax:** 205-877-8317

### *Personnel Counts:*

**Teachers:** 333.5

**Counselors:** 12

**Instructional Assistants:** 48.5

**Certified Other:** 21.1

**Librarians:** 7

**Administrators:** 26

**Support Staff:** 111

**Nurses:** 4

### *Enrollment as of 40-Day Report 2005:*

	BWF	CB	CES	MBE	MBJH	MBHS	Total
<b>Enrollment</b>	491	520	705	608	1019	986	4269
<b>ADM</b>	491.3	519.8	702.2	605.3	1014.6	983.3	4316.425

### *Enrollment as of August 30, 2006*

	BWF	CB	CES	MBE	MBJH	MBHS	Total
<b>Enrollment</b>	488	517	705	593	981	1013	4297

## ***Technology Committee:***

<b>Name</b>	<b>Position</b>	<b>School/Other</b>
Dr. Charles Mason	Superintendent	Central Office
Lynn Lloyd	Board Member	Community
Bill Long	Community Member	Community
Jay Higgenbotham	Parent	SportsNet
Pam Stembridge	Director of Child Nutrition	Central Office
Jackie Simons	Director of Curriculum and Instruction	Central Office
Karen Lusk Smith	Director of Finance	Central Office
Sylvia Harper	Director of Special Education	Central Office
Dale Wisely	Director of Student Services	Central Office
Donna Williamson	District Technology Coordinator	Central Office
Ken Key	Director of Facilities	Central Office
Erika Ponder	1 <sup>st</sup> Grade Teacher	Brookwood Forest Elementary
Emily Mann	5 <sup>th</sup> Grade Teacher	Brookwood Forest Elementary
Yvette Faught	Principal	Brookwood Forest Elementary
Sharon Mumm	Technology Coordinator	Brookwood Forest Elementary
Carol Frazer	4 <sup>th</sup> Grade Teacher	Cherokee Bend Elementary
Natasha Flowers	3 <sup>rd</sup> Grade Teacher	Cherokee Bend Elementary
Kathryn Pittman	Kindergarten Teacher	Cherokee Bend Elementary
Paula Mitchell	Principal	Cherokee Bend Elementary
Kenneth Camp	Technology Coordinator	Cherokee Bend Elementary
Wrenn Bretz	5 <sup>th</sup> Grade Teacher	Crestline Elementary
Bill Garner	6 <sup>th</sup> Grade Teacher	Crestline Elementary
Mike Melvin	Principal	Crestline Elementary
Janet McBrayer	Special Education Teacher	Crestline Elementary
Lynne Colley	Technology Coordinator	Crestline Elementary
Julie Tuck	2 <sup>nd</sup> Grade Teacher	Mountain Brook Elementary
Kate Long	6 <sup>th</sup> Grade Teacher	Mountain Brook Elementary
Belinda Treadwell	Principal	Mountain Brook Elementary
Paula Stanbridge	Technology Coordinator	Mountain Brook Elementary
Chris Yeager	Athletics	Mountain Brook High School
Connie Shaw	Channel 14	Mountain Brook High School
Brandi Caldwell	English	Mountain Brook High School
Rodney Kornegay	Math	Mountain Brook High School
Diane Roberts	Media Specialist	Mountain Brook High School
Joy Boozer	Office	Mountain Brook High School
Dickey Barlow	Principal	Mountain Brook High School
Jan Rogers	Technology Coordinator	Mountain Brook High School
Ron Seitel	Video Technologies	Mountain Brook High School
Mary Reynolds	English	Mountain Brook Junior High
Garry Rickard	Principal	Mountain Brook Junior High
Marissa Burns	Science	Mountain Brook Junior High
Paul Hnizdil	Social Studies	Mountain Brook Junior High
Joani Kay	Technology Coordinator	Mountain Brook Junior High
Ken Hyatt	Technician	Technology Office
Dennis Marceau	Technician	Technology Office
Patsy Combs	Data Specialist	Technology Office

\*Local School Technology Committees

\*Current Year Curriculum Committees

## ***Planning Process:***

### **School Planning**

Annual planning involves interrelated processes. Included are goal identifications specifically describing the role of technology in the school climate, planning, staff development, curriculum and instruction, and communication. The total document is called the Local School Improvement Plan.

The District technology committee gives final approval for all major technology related decisions that affect the school. Each proposal states:

- the goals, objectives, rationale, strategies, timelines, indicators, benchmarks, and sources of evidence/data collection methods;
- the professional development related to the above goals;
- an analysis of the hardware, software, training, and maintenance that the proposed technology will require;
- the manner in which existing technologies will be maintained and new technologies will be used to upgrade, to replace, and/or to expand existing technologies;
- the cost of the proposed expansion and/or updates;
- the potential sources of funding including the use of district funds, local funds, PTA funds, grants, etc.; and
- the evaluation method(s) used to determine the effectiveness of the acquired technologies.

The district technology coordinator held local school meetings in April and May of 2005. All teachers were invited to attend and discuss specific technology needs and integration ideas during their planning period. Teacher comments played an integral part in the technology planning for 2005-2007. Teacher, student, and parent survey data is analyzed and the results applied when developing each year's technology plan update.

### **System-Wide Planning**

Each school's local technology plans are reflected in the district plan and play a major role in the total planning for the system. The requests made in the local plans are reflected in the budget of the system-wide plan. The district technology budget is developed to reflect the needs of the district and is evaluated to ensure that the funding is in line with district expectations. Likewise, the district technology plan outlines the amounts and variety of technologies that will be received at the school level.

The district-level Technology Advisory Committee or a subset of the committee reviews the local school technology plans:

- to ensure compatibility with system-level goals,
- to promote awareness among the schools of others' efforts,
- to identify areas of commonality to help coordinate purchasing, training, maintenance and support,
- to ensure system-level support in these areas, and to recommend a level of financial support from the Board of Education for the up-coming year.

### **Curriculum and Instruction Planning**

Because technology is an integral part of our educational philosophy, our technology plan is directly tied to curriculum standards. As all curricular guides are written or revised, technology components are added. Curriculum guides are then evaluated using a rating scale from one to five. Every Alabama Course of Study currently in use addresses the integration of technology into the curriculum.

When weaknesses in our students' achievement are identified according to the SAT 10 and other state assessments, teachers utilize technology resources as one of the tools for addressing and correcting these weaknesses. We believe the integration of technology into all curriculum areas improves student performance; furthers our goal to make learning more effective, challenging, and engaging; and enables our students to meet the National Education Goals more effectively.

### **Special Education Planning**

All students, including those with disabilities, enjoy access to all available technologies. When students who have difficulty using the standard workstation configuration are identified, the IEP team works with the local school technology coordinator to determine any hardware or software modifications. In our technology planning processes, plans are made to accommodate that child's needs for the following year when necessary. We stress focusing on the desired results not specific hardware when developing IEPs noting that the LEA representative is responsible for the purchase of specific hardware listed in the IEP. The Special Education Director also budgets for adaptive devices. The Technology Department works closely with all special agencies.

### **Federal Programs Planning**

The Mountain Brook School System does not participate in the federal lunch program. Mountain Brook Schools chose not to accept the formula allocation for EETT in the amount of \$626.00 for school year 2005-2006 and do not qualify for the EETT Competitive funds.

## *Description of Current Status & Future Plans in Infrastructure:*

### **Local Area Networks (LANs)**

**Current LAN configuration.** There is a total of six Local Area Networks (LANs) providing network connectivity for all six schools and other Mountain Brook City Schools' facilities including the Central Office, Student Services building, and Maintenance building. The Central Office currently connects to the Crestline Elementary network via fiber.

One hundred percent of Mountain Brook classrooms, offices, and media centers are wired with CAT5E or fiber. Classrooms have the ability to connect approximately five network computers and/or other network devices. Media centers are currently wired for 10 to 30 network devices with additional wiring at circulation desks. All other areas are wired for a minimum of two network devices. All instructional areas and administrative areas also utilize an additional CAT5 cable for a speaker telephone and one coax cable for commercial cable; the local school broadcasting channel, Channel 2; and the community channel, Channel 14.

New construction or renovation wiring since fall 1999 is configured in one of the following ways depending on the current wiring in the building or wing of the building:

- a) a minimum of two strands of fiber to each classroom with an 8-port 100MB Cisco 2940 switch in the classroom and a 100 MB or 1 GB fiber uplink to the IDF or MDF, or
- b) a minimum of six Category 5E cables capable of utilizing GB speed but currently connected to a Cisco 2950 or Cisco 3550 switch in the IDF or MDF at a speed of 100 MB each.

In 2004-2005, Mountain Brook City Schools determined that wireless technologies would be used for portability within the school buildings; specifically, for pocket PCs and traveling laptops but would not be a solution for primary classroom or office computers. Wireless connectivity does not extend to the connectivity between the buildings with the exception of outlying athletic buildings. By mid-year 2004-2005, Mountain Brook Junior High and Mountain Brook High School had wireless access in 100 percent of the buildings. By mid-year 2005-2006, Mountain Brook Elementary and Crestline Elementary had wireless access for the sixth grade classrooms.

Wiring decisions are based on the most cost effective solution that will provide adequate bandwidth for desired services in the specific location while maintaining consistency and the integrity of the overall LANs and WAN.

### **Future LAN improvements.**

**New for 2006-2007:** The new Central Office will be wired with Category 6 but new construction for 2006-2007 at Crestline, MBHS Competition Gym, Cherokee Bend Elementary, and Mountain Brook Elementary will be consistent with the existing Category 5E cabling. Fall 2006, the all fourth, fifth and sixth grade areas in the four elementary schools will have wireless capabilities.

- MBE Fall 2006—Purchase, install and configure equipment to provide wireless connectivity in the fourth grade wing.
- MBE Fall 2006—wire six new classrooms and split classroom using the 2006-2007 “new construction” classroom construction configuration below.
- CES Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in the fourth and fifth grade wings.
- CES 2006-2007—Wire nine new classrooms at Crestline using the 2006-2007 “new construction” configuration below.
- CES 2006-2007—Move 0 X 32 Norstar to new location, move MDF for coax to new location, rerun fiber that connects the IDFs to MDF to the new MDF location, run two CAT5e cables for POS and three CAT5e cables for computer, phone, and printer in lunchroom, wire new counselor’s office with four CAT5e cables (3 data, 1 voice) and one coax.
- CES 2006-2007—Wire technology coordinator’s office per technology coordinator’s diagram.
- CB Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in the fourth, fifth and sixth grade areas.
- CB Fall 2006—Wire six new classrooms and split classroom using the 2006-2007 “new construction” classroom construction configuration below.
- BWF Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in major “large round” at Brookwood Forest Elementary.
- MBHS Baseball Field House—Contact Charter to run coax from pole into baseball field house and relocate wireless equipment currently located on top of maintenance building prior to removal of maintenance building.
- MBHS—Add spare Cisco 1100 access point to improve coverage in room 500 in the science hall.
- MBHS Competition Gym—purchase, install, and configure equipment to provide a minimum of four network jacks and one coax in each office and/or meeting room—three data/one voice. Pull one hundred pair (100) from main building to competition guy for voice and twelve (12) strands of fiber in four (4) inch conduit.
- Central Office—The new Central Office and Staff Development Center is currently under instruction. This building will require all new network equipment since the central office is currently sharing network equipment that will remain at Crestline Elementary. Due to the magnitude of this project, a separate description of the infrastructure and equipment needs of this building is currently under revision. All WAN infrastructure and Channel 14 equipment will be moved from Crestline Elementary to the new Central Office Building

### ***2006-2007 “new construction” classroom configuration***

<i>6 for classroom computers--will need 1" conduit</i>
<i>1 coax to the audio visual area</i>
<i>2 jacks near teacher desk--1 voice/1 data</i>

*Experience has taught us that we should upgrade the Cisco 1100 series 802.11g access points with single MPC1 radio and internal antennas to the Cisco 1200 series 802.11g access points.*

#### **In Summary...**

- All Mountain Brook schools have a 100 percent switched network.
- All schools have a GB fiber backbone. Crestline Elementary is the current hub of the Mountain Brook Schools’ voice/data WAN. The hub will be moved to the new Central Office location in May 2007.
- Cisco switches are configured with trunk ports and switches are segmented.
- A Cisco 3550G is installed in each MDF to collapse the backbone.
- Cisco 2950G switches are used for all copper connectivity in wiring closets and Cisco 3550 fiber switches are used for fiber connectivity.
- CAT5e cable is terminated in a 4” box with 6-jack gang plate.
- If fiber is used, two strands of fiber are pulled to the classroom and a Cisco 2940 switch is used. Remaining ATI switches in Mountain Brook High School social studies classrooms, that currently support one computer in each room, will be removed fall 2006 and a fiber NIC card used in the individual computer in lieu of a switch per classroom.
- All IDFs are connected to the MDF via GB fiber and 1000Base-SX short-haul or long-haul GBICs.

Mountain Brook Junior High and Mountain Brook High School are also completely wireless environments. Cisco 802.11g (Air-AP1121G-A-K9) access points with single MPC1 radio and internal antennas are positioned throughout each building for use with wireless handhelds and wireless laptops. Power injectors are also part of the installation. CAT5 cable is pulled to each wireless access point location. Currently all elementary schools have a minimum of one wireless access location. Two elementary schools have wireless access in fifth and sixth grade wings, and by Fall 2006, all elementary schools will have wireless access for fourth, fifth, and sixth grade classrooms.

#### **Wide-Area- Network (WAN )**

**Current WAN configuration.** One hundred percent of Mountain Brook City School facilities including six schools, the Central Office, Student Services which includes the Alternative School, Community Education, Maintenance Building, field houses, and all gymnasiums including the Competition Gym are connected using a 100 MB fiber backbone that is now a full mesh instead of the traditional star. The district technology office, located at Crestline Elementary School, houses the main hub equipment. The new fiber network provided by Charter is used to form the Mountain Brook City Schools' Data and Voice Wide Area Network (WAN).

The fiber installation completed August 2005 provided a sixty percent increase in speed between the schools. The WAN infrastructure was upgraded from T1 lines to 100MB fiber.

**Design:** Lit fiber comes into MDF at Crestline. The fiber goes into a media converter with fiber coming out one end and copper the other end (RJ45). Media fiber goes into an IP mux. The mux is capable of “handing-off” PRI to phone system in anticipation of implementing caller ID and pinpoint 911 when Meridian telephone system is upgraded. The IP Muxs encapsulate traditional voice into the IP protocol to allow voice to travel across the high speed WAN. TSUs (five at CES and one at each school for a total of ten) were eliminated. Cisco 2500 routers were eliminated at each location (six 2500 routers and one 3550). No additional cabling was required. The Meridian Option 11 PBX required a software upgrade.

All locations are connected to the Internet through Crestline to the University of Alabama in Birmingham (UAB) via 10 MB fiber then from U.A.B. to the Alabama Supercomputer Authority (AREN). Mountain Brook City Schools provides its own DNS and utilizes the Alabama Supercomputer for their secondary DNS.

**Future WAN infrastructure improvements.** A major WAN infrastructure upgrade was completed August 2005 and there are no improvements between the schools planned for the immediate future with the exception of the moves required due to the location change of the technology offices.

- Spring 2006— AREN completed an upgrade from our previous 3 MB to 10 MB for access to the Internet. Mountain Brook City Schools disconnect their locally funded T1 August 2006.
- Fall 2006— Channel 14 will continue to be distributed from the district technology office but will be completely updated with the new CastNet system. This upgrade will utilize the 100 MB fiber connecting Mountain Brook High School and the video hub.
- Spring 2007—move voice, data, and video hubs to new Central Office location and add a 100 MB fiber link from Charter Business to connect Crestline to the new hub at the Central Office. Bell South PRI lines, termination of fiber connecting five schools and channel 14 feed will all be relocated.

## **Desktop And Network Security Measures Used To Protect System Information**

**Current Protection.** Mountain Brook Schools use a combination of methods to protect system information. Several of the most visible methods are described below. In addition, staff use passwords that are a combination of letters and numbers to access information. Data is stored on file servers designed with explicit network rights allowing only designated users to access specific information.

***LAN and WAN network security measures***--The Mountain Brook network is protected via a Cisco 550 PIX. The PIX is monitored by TekLinks and is password protected. A DMZ is used for the STI District and STI SETSWeb servers. No access to the internal network is allowed without explicit written requests and is allowed only with the use of access lists.

**Backups**—The local school Windows servers (8), Central Office Windows servers (2), are “backed-up” to an EqualLogic SAN (Storage Area Network) located in the district technology office. Snapshots of the data are taken at 6:00 a.m., 12:00 p.m., and 6:00 p.m. Fall 2006, a second SAN will be added in the Brookwood Forest Elementary MDF. The data on the primary SAN will be replicated to the BWF SAN. Currently backups of the STI daisi server are performed and stored on the server and also backed up off-site daily; the McAleer server is backed up to tape by the accounting staff daily. The web server is backed up off-site daily as well. Both the STI daisi server and the web server off-site backups are currently performed by Evault. The DPM server (1), and SMS server (1) are not backed up since they do not hold any actual data.

Beginning October 2006, the above mention data snapshots in addition to the Exchange e-mail data, STI daisi data and web server data will be also backed up to tape using an auto loader tape drive and Veritas Backup Exec software. These backups will be taken to the vault once per week.

Additional daily backups are also executed for specific software and data. The personnel responsible for these backups are as follows: lunchroom managers using zip disks for CNP data; media specialists performing a daily back-up of Athena/Sagebrush data, and local school designated office performing a daily back-up of the STI data, specifically the ssts2 folder.

**Desktop protection measures**--Computers are currently protected/restricted/managed using Microsoft group policies, a Data Protection Management (DPM) server, and a Utility server that “pushes out” Windows updates (WSUS) and runs SMS. User desktops are redirected to a standardized desktop based on groups.

**Virus protection measures and e-mail protection measures**--All workstations and fileservers in the Mountain Brook School System are protected from viruses using Computer Associates ETRUST desktop and fileserver software. In addition, a McAfee WebShield is used to filter all incoming and outgoing e-mail for viruses, content, and spam. The complete list of inappropriate content being filtered is available upon request. McAfee filtered categories include anti-spam; anti-virus; content scanner (sex, nudity, profanity, drugs, gambling, bombs and explosives, and violence); and mail size (over 100,000 KB).

**Future plans for improvements in protection.** During the 2005-2006 school year, the Mountain Brook Schools migrated from Novell 6.0 fileservers to Windows 2003 fileservers and migrated from GroupWise 6.5 email to Microsoft Exchange email. As a part of the overall plan, desktop security and fileserver security were evaluated and modified for the new network environment. To further enhance security and protection of data, the new plan included steps to add two SANs to the wide area network, one during Fall 2005 and the second during Fall 2006.

- Summer 2006—install existing ETRUST anti-virus software on newly configured servers and ghosted workstations and laptops.

- Fall 2006—purchase, configure, and install second EqualLogic SAN completing eliminating need for local school ArcServe backups. Tape back-ups of the primary SAN, at the district office will be implemented using Veritas Backup Exec and Microsoft email data will be added to the list of other data currently being backed up daily.
- Fall 2006—review, revise, and consolidate Mountain Brook Schools “Disaster Recovery/Severe Weather” and “Back-Up Plans and Procedures” into one document—Mountain Brook Schools’ Preparedness Plan.
- On-going—monitor e-mail traffic for spam, content, and viruses using McAfee Webshield.
- On-going—monitor and maintain Cisco 550 Pix.

### **Internet Access**

**Current Internet access:** All workstations in the Mountain Brook School System connect to a Cisco switch at a minimum of 100 MB. All main switches in IDFs connect to the Cisco 3550 switch in the MDF at 1GB. All Cisco 3550 switches in MDFs connect back to Crestline via fiber at 100 MB. Crestline connects to the Internet at 10 MB.

- Current Bandwidth: 10.0 MB
- CIPA Requirements: The Mountain Brook School System has met all CIPA requirements including content filtering, implementation of Internet Safety Policies, and an Acceptable Use Policy.
- Internet Filter: Mountain Brook City Schools use the R3000 Internet filter and Reporter from 8e6 Technologies. The following categories are filtered and access monitored for the protection of our users and to ensure our resources are used wisely: Malicious Code--Spyware---Viruses---Terrorist--- Peer-To-Peer and File Sharing---Personals---Public Proxies--- R-Rated --- Weapons. Instructional information can be found in these areas; but they are the areas that are closely monitored. Principals are responsible for handling any local school inappropriate use of technology resources.

**Future plans for improvement in Internet access:** During the first 7 months of the 2005-2006 school year, bandwidth was completely saturated at various times during the workday. With teachers incorporating streaming video into foreign language courses, social studies courses, science courses and English courses and the learning materials for the K-6 Technology Education framework being delivered on-line, the need for additional bandwidth became critical. We were unable to utilize the learning materials provided by United Streaming due to lack of Internet bandwidth.

April 2006, the Mountain Brook Schools 10MB fiber Internet connection to the state network was completed. This increase in bandwidth is part of a state initiative called “ACCESS.” Due to the increase in bandwidth, teachers were introduced to United Streaming resources (downloading after peak school hours only), blogging, wikis, and podcasting during the Summer Technology Conference.

As of Fall 2005, Mountain Brook Schools license their 8e6 Technologies R3000 filter (\$4000 value) through the Alabama Super Computer at no charge to the school system. Fall 2005,

the school system purchased the ER3.0 Enterprise Reporter for \$2398 year one with a reoccurring cost of \$595 for consecutive years to better monitor use and bandwidth.

### ***Availability of Technology to Students***

**Current availability.** Mountain Brook Schools believe that grade level and curriculum appropriate technologies should be provided to all students and staff. We believe by standardizing equipment as much as possible, we can improve support and provide quality training. The equipment listed below is available at all schools and is maintained at the same level at all locations. The local PTA organizations supplement the core technologies in accordance with the District Technology Plan.

Technology in Mountain Brook Schools goes beyond the multi-media Windows 2000 or Windows XP Pentium; Internet enabled computers in every instructional or administrative area and multiple computer labs in each school. At a minimum, students and staff also have access to the following:

#### ***Computer Related Technologies***

- at least one computer for every five students and one staff computer per instructional and/or office area;
- wireless laptop labs in all schools;
- wireless connectivity in all schools and administrative buildings;
- high speed Internet access 100 MB from desktop→10 Internet bandwidth;
- networked laser printers (black and white and color);
- flatbed scanners;
- mounted data projectors in all Grade 5 through Grade 12 core subject classrooms;
- digital document cameras in all Grade 5 through Grade 12 English and science classrooms;
- classroom sets of hand held computers (Danas, AlphaSmarts, Pocket PCs, Palms)in all schools;

#### ***Communication Technologies***

- computers with video editing capabilities—imovie or movie maker;
- digital still cameras and digital video cameras;
- a cable feed and TV or data projector in every classroom;
- a VCR or DVD player in every classroom where applicable;
- a school-wide TV broadcast channel at five of six schools (Cherokee Bend Elementary elected to not have a TV broadcast channel); and
- a citywide public service cable channel;

#### ***Voice Technologies***

- a speaker telephone in every classroom that is used for in-school announcements, out-going calls, and in-coming messages;
- forty-six voice mailboxes available per elementary school and unlimited voice mail available at each secondary schools; and
- telephones and headsets at the Alternative School to provide real-time classroom instruction from the primary teacher

### ***Communication Technologies continued***

- district, local school, and individual teacher web pages with In10sity;
- Microsoft Exchange/Outlook e-mail accessible from school or any location with Internet access;
- W.A.R.N calling network; and
- Eboard, an on-line bulletin board service;

### ***Miscellaneous Technologies***

- closed circuit security surveillance system—*secondary only*;
- graphing calculators—*secondary classrooms where applicable*;
- video microscopes—*where applicable*;
- tablet PCs—*for individuals usually purchased with department funds for piloting*;
- Student Response Systems—*Crestline Elementary, Brookwood Forest, Mountain Brook Elementary, Mountain Brook Junior High, and Mountain Brook High School*
- interactive wireless tablets; and
- assistive devices—*for students with physical or mental disabilities*.

**Future plans for improvement in availability:** To determine our direction for the next three (3) years, the technology committee used multiple sources of data:

- minutes from teacher, supervisor, and administrator meetings,
- reviews of new curriculum material,
- teacher, graduate, parent, and student surveys, and
- current trends in the way students learn and in available technologies.

There were several concepts that were confirmed by the data or through pilot programs.

- It was confirmed that the three-year computer replacement plan is helping to achieve a ratio of one computer for every five-student users and a one to one ratio for class management and administrative tasks.
- It was confirmed that technologies such as wireless laptops must be provided at a ratio of approximately one portable lab for every five classrooms or at a minimum one portable lab per area of the building.
- It was confirmed that digital document cameras allow teachers to be spontaneous and fully utilize data projectors.
- It was confirmed that data projectors are better utilized when mounted in the classroom.
- It was confirmed that mounted data projectors and document cameras should be installed in all fourth grade classrooms during the 2006-2007 school year.
- It was confirmed that the projection needs of kindergarten through third grade classroom should be carefully reviewed during the 2006-2007 school year.

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2006-2007 Goals**

- Indicates in progress
- ✓ Indicates completed

***1. Provide timely access to instructional information in 100 percent of classrooms and lab settings for 100 percent students on at least once per week.***

- Purchase and install 20 data projectors and digital document cameras for fourth grade classrooms.
- Purchase, configure and install 102 laptops, 22 Macs, and 318 desktop computers to meet the requirements set-forth in each school and central office location's "Minimum Required Computers Plan and 3-Year Replacement Schedule" \**Spreadsheets do not include locally funded computers or laptops. The Minimum Required Computer Plan and computer budget for district and local plans are included in the appendices.*
- Purchase laptop and other devices for student checkout to meet the needs of special education students.
- Purchase new desktops for Mountain Brook High School (MBHS) Business Lab Spring 2007 rotating existing business machines to Career Tech (Lewis Caldwell's Room) at Mountain Brook Junior High (MBJH).
- Purchase cross-shredder for each school and place in special education area to ensure complete confidentiality when disposing of documents containing student names and other information.
- Investigate the purchase and installation of a new foreign language lab at MBHS—proposal on file.

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2006-2007 Goals**

- Indicates in progress
- ✓ Indicates completed

**2. Improve and Secure 100 percent of Local Area Networks and the Wide Area Networks.**

- Purchase and install appropriate infrastructure for existing and new facilities to meet the requirements for all instructional programs.
  - MBE Fall 2006—Purchase, install and configure equipment to provide wireless connectivity in the fourth grade wing.
  - MBE Fall 2006—wire six new classrooms and split classroom using the 2006-2007 “new construction” classroom construction configuration below.
  - CES Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in the fourth and fifth grade wings.
  - CES 2006-2007—Wire nine new classrooms at Crestline using the 2006-2007 “new construction” configuration below.
  - CES 2006-2007—Move 0 X 32 Norstar to new location, move MDF for coax to new location, rerun fiber that connects the IDFs to MDF to the new MDF location, run two CAT5e cables for POS and three CAT5e cables for computer, phone, and printer in lunchroom, wire new counselor’s office with four CAT5e cables (3 data, 1 voice) and one coax.
  - CES 2006-2007—Wire technology coordinator’s office per technology coordinator’s diagram.
  - CB Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in the fourth, fifth and sixth grade areas.
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  - BWF Fall 2006— Purchase, install and configure equipment to provide wireless connectivity in major “large round” at Brookwood Forest Elementary. Add three Cisco 2950 switches to accommodate additional classroom computers.
  - MBHS Baseball Field House—Contact Charter to run coax from pole into baseball field house and relocate wireless equipment currently located on top of maintenance building prior to removal of maintenance building.
  - MBHS—Add spare Cisco 1100 access point to improve coverage in room 500 in the science hall.
  - MBHS Competition Gym—purchase, install, and configure equipment to provide a minimum of four network jacks and one coax in each office and/or meeting room—three data/one voice. Pull one hundred pair (100) from main building to competition guy for voice and twelve (12) strands of fiber in four (4) inch conduit.

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2006-2007 Goals**

- Indicates in progress
- ✓ Indicates completed

**7. *Improve and Secure 100 percent of Local Area Networks and the Wide Area Networks.***

- Central Office—The new Central Office Building/Staff Development Center is currently under instruction. This building will require all new network equipment since the central office is currently sharing network equipment that will remain at Crestline Elementary. Due to the magnitude of this project, a separate description of the infrastructure and equipment needs of this building is currently under revision. All WAN infrastructure and Channel 14 equipment will be moved from Crestline Elementary to the new Central Office Building
- Purchase, configure, and install second EqualLogic SAN completing the migration away from local school ArcServe server backups.
- Perform tape back-ups of the primary SAN, at the district office using Veritas Backup Exec.
- Add the Microsoft email data to the list of other data currently being backed up daily.
- Review, revise, and consolidate Mountain Brook Schools “Disaster Recovery/Severe Weather” and “Back-Up Plans and Procedures” into one document—Mountain Brook Schools’ Preparedness Plan.

**8. *Provide training for 100 percent of staff in using technology using multiple formats at varied times to enhance instruction and promote meaningful learning to maintain and support academic achievement and growth for all students.***

- Plan and provide technology related professional development during grade level meetings, after school, and/or release time.
- Provide substitutes for teachers attending professional development during release time.
- Provide professional development during June/July Summer Technology Conference.
- Provide handouts communicated to staff via web pages and through email.
- Train staff in documenting, viewing, and scheduling STI Professional Development Module (STI PD).

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2006-2007 Goals**

- Indicates in progress
- ✓ Indicates completed

**4. Increase and improve access to instructional and administrative electronic content for 100 percent of applicable users.**

- Purchase K-6 Language Arts software—(Accelerated Reader/STAR) Renaissance Enterprise.
- Complete migration to database driven (In10sity) web-pages system-wide.
- Purchase and implement system-wide on-line calendars for all school activities, applicable facilities, and central office departments.
- Review proposal for foreign language lab update for Mountain Brook High School during Fine Arts Curriculum development process and investigate funding sources.

**5. Improve security at 100 percent of Mountain Brook secondary schools twenty-four hours a day, seven days a week.**

- Provide access to Mountain Brook Junior High and Mountain Brook High School surveillance systems from district technology office and designated police department computers.

**6. Improve communications to 100 percent of our customers.**

- Purchase and install new voice communications system.
- Relocate two PRI lines and termination point for all WAN infrastructure to new technology offices.
- Implement revised WARN calling system and communicate procedures to staff and parents.
- Develop and implement plan for enhancing school, district, and city communications using Channel 14.

**7. Seek national recognition for effectively integrating the use of technology into all instructional and support programs.**

## ***Current Availability By School (August 2006)***

### **Brookwood Forest Elementary**

- **Computer student ratio = 1:3**
- a minimum of 2 computers per classroom
- a minimum of 1 networked computer in all special subject classrooms
- 25 computers in computer lab
- 1 wireless laptop cart of 25 --to be purchased fall 2006
- 20 computers in Reading/Writing Computer Lab
- 12 computers available for student use in media center
- 30 Palms housed on a rechargeable cart
- 30 AlphaSmart keyboards and cart
- 12 data projectors
- 9 Interwrite pads
- student response system—1 classroom set
- 1 eMac and 1 Powerbook for video editing that can burn movies to DVDs
- **Computer Lab Scheduling**
  - Classes schedule computer lab times once a week with open lab times available for sign up time each week,
  - The Reading/Writing lab schedule is open so that teachers schedule this lab when they need it. Teachers utilize this lab to work on projects, during their process writing time or during reading class.
  - The fall 2006 wireless laptops will use flexible scheduling

### **Cherokee Bend Elementary**

- **Computer student ratio = 1:3**
- a minimum of 2 computers per classroom
- a minimum of 1 networked computer in all special subject classrooms
- 1 wireless laptop cart of 25 --to be purchased fall 2006
- 2 computer labs housing 46 computers (22 and 23 respectively)
- 12 accessible workstations in the media center
- 30 AlphaSmart keyboards and cart
- 2 carts of 30 wireless Danas
- 11 data projectors
- 8 document cameras
- 1 Interwrite pad
- 12" Powerbook for video editing, both of which will burn DVDs
- **Computer Lab Scheduling**
  - K-3 Upstairs Lab – fixed schedule with each class in the lab a minimum of one time per week for 50 minutes.
  - 4-6 Downstairs Lab – fixed schedule with each Thursday and Friday open for flexible scheduling.
  - Alpha Smart and Dana carts – checked out to the classroom by request
  - The fall 2006 wireless laptops will use flexible scheduling 5<sup>th</sup> and 6<sup>th</sup> grades.

### **Crestline Elementary**

- **Computer student ratio = 1:3**
- a minimum of 2 computers per classroom
- a minimum of 1 networked computer in all special subject classrooms
- 1 computer lab containing 24 computers
- 1 wireless laptop cart of 25 for 6th grade
- 1 wireless laptop cart of 25 for 4<sup>th</sup> and 5<sup>th</sup> grades
- 12 computers for student access in media center
- 15 data projectors
- 10 document cameras
- 1 AlphaSmart cart
- 1 Dana cart
- 6 Interwrite pads
- student response system—2 classroom sets
- **Computer Lab Scheduling**
  - Grades K-4 schedule lab times once a week, with open lab times available for sign up time each week. Teachers submit first, second, and third choice for scheduled times.
  - Wireless laptops carts are schedule within the appropriate grade levels by the teachers
  - One teacher houses the AlphaSmart and one teacher houses the Dana cart. Other teacher schedules use with the teacher stores the cart in his/her room.

### **Mountain Brook Elementary**

- **Computer student ratio = 1:3**
- a minimum of 2 computers per classroom
- a minimum of 1 networked computer in all special subject classrooms
- 24 workstations in computer lab
- 1 cart of 25 wireless laptops
- 1 wireless laptop cart of 25 for 4<sup>th</sup> and 5<sup>th</sup> grades--to be purchased spring 2007
- 12 workstations in the media center primarily used for searching and by classes during their scheduled library time.
- 1 cart that houses 25 Danas
- 3 iMac computers for video editing. One is on a cart and is available for checkout by teachers. One is housed in the Broadcast room and the other is housed in the PAGE classroom.
- digital cameras, still video cameras, and data projectors available for checkout
- 5 Danas housed with the Special Education teachers for use with their special needs students
- 15 data projectors
- 9 document cameras
- student response system—1 classroom set
- assistive technologies such as switches, a specialized mouse, Intellikeys, and other equipment as requested in student IEPs.

- **Scheduling**
  - Grades K-4 computer lab usage is on a set schedule. Each teacher brings his/her class to the lab at the same time each week.
  - Teachers check out the class set of Danas and other technology equipment to use in their room on a first-come-first-serve basis.
  - Wireless laptops carts are schedule within the appropriate grade levels by the teachers

### **Mountain Brook Junior High**

- **Computer student ratio = 1:3**
- minimum of 1 computer in each classroom
- 1 additional computer in classroom for student use upon teacher request
- 51 computers in double lab (equals 2 labs)
- 22 computer keyboarding lab which also houses the computer REP classes
- 11 computer video/broadcasting classroom
- 27 computers in media center lab
- 18 computers and assistive technologies available for special education and academic support
- 3 wireless laptop carts with a 4th one being added Fall 2006--one for each wing of the building (100 wireless laptops)
- digital still and video cameras and laptops available for teacher checkout
- graphing calculators provided for the most part by student purchase, but also available for checkout
- wireless connectivity throughout the school
- 1 cart of handheld computers (Axim Pocket PC) for student use
- handhelds (Axim Pocket PC) for all teachers upon request
- 100 percent (100%) of core curriculum classrooms have mounted data projectors--
- **Scheduling**
  - The library is open for student use from 7 AM until 4 PM Monday through Thursday and is open until 3 PM on Friday. Teachers may signup for their classes to use the library computers and students may come to the library to use computers during their “off” period.
  - The computer lab is open for student use from 7:30 AM until 3:30 PM Monday through Friday. Teachers may sign up their classes on a first come first serve basis. Students may also come to the lab during open periods. Scheduling is available on-line.
  - Laptop labs are available during the school day on a first come first serve basis. Individual computers can also be used from these labs.

### **Mountain Brook High School**

- **Computer student ratio = 1:3**
- 1 computer available in every classroom
- 23 student workstations and 3 Athena search stations in media center
- 2 multi-media general-purpose labs with 24 workstations in each of them

- 20 computers in the Business Education lab used for Business Essentials, and Accounting
  - 17 computers (Apple) in the multimedia lab, with software for video editing and graphic design
  - 50 wireless laptops in 2 mobile labs
  - 4 computers in all special education and academic support classrooms
  - 15 offline computers connected to scientific probes used to analyze data
  - Over 200 TI calculators used by science and math departments with TI Navigator being used in 1 math classroom
  - 3 carts of hand held computers (Axim Pocket PCs) for teacher and student use
- **Scheduling**
- The library is open for student use from 7 AM until 4 PM Monday through Thursday and is open until 3 PM on Friday. Teachers may signup for their classes to use the library computers and students may come to the library to use computers during his or her “off” period.
  - Teachers may signup for general-purpose lab time using the schedule posted on the web.
  - Students may use the general-purpose labs during any “off” period they may have.
  - The technology aide schedules the labs, laptops, pocket PCs, scanners, digital cameras, and external hard drives and flash drives for checkout

## *Integration of Technologies into the Curriculum*

### **Current examples of the integration of technology into the curriculum**

**E-Mail Interview:** Jani Jones

**Curriculum Area:** 6th<sup>th</sup> Grade Math

**School:** Crestline Elementary

#### **Purpose of the activity:**

The Alabama Stock Market Simulation reviews the use of fractions, decimals, and percents in real life situations. Students in my sixth grade math class participate for 10 weeks in the Alabama Stock Market Simulation. This is done on the Internet with 18 to 20 teams each investing \$100,000 in the stock market.

Math becomes an important tool as students figure the percent of increase or decrease for their stocks prices. When I hear students discussing their stocks in the halls, I know that this project has made math and technology part of my students' everyday life!

#### **Technology used and how it is used by the students/teacher:**

- Students use the computer to buy, sell, look up, and to print stock purchase confirmation forms and account details.
- Students are shown how to use Excel so that they can create a graph showing how their stock performed during the 10-week period.

#### **How does/did professional development and support help you to successfully teach this technology-enriched project?**

Mountain Brook professional development classes on the use of Excel enabled me to share my knowledge with my classes. In addition, Mrs. Lynne Colley, the Coordinator of Technology at Crestline, is always available to lend a helping hand with technology-enriched projects such as the Stock Market Simulation.

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**E-Mail Interview:** Wren Bretz

**Curriculum Area:** 5<sup>th</sup> Grade Science

**School:** Crestline Elementary

#### **Purpose of the activity:**

We use the computers for research. My "Sources of Energy" module is based on technology. Students research an energy source (solar, geothermal, nuclear, etc.) then they prepare a presentation to the class based on the information they get from the provided websites. They like to present using PowerPoint presentations. This activity teaches students to read the material and find key points, and to present the information in an interesting and appealing way.

In our "Light" module, students use the internet to find out about certain inventions that use light and lenses.(microscope, telescope, eyeglasses, etc.) They also prefer to present this to the class with PowerPoint. There aren't books available in our library that will provide this type of information.

In our “Microworlds” module, students use the Internet to research different diseases (the causes, symptoms, treatment, etc.) and present this to the class. The internet is much more up-to-date than books that are available.

**Technology used and how it is used:**

- Assignments are posted daily for students that are sick. Parents can access this to find out what is going on in class.
- Students use Excel to make graphs of data gathered in experiments.
- Students type reports using Microsoft Word
- Study Guides for tests are posted on the teacher’s website so if students lose their copy, there is a copy they can print.
- Using websites such as Science News and National Geographic, I have questions that can be answered for bonus points. This is posted on my webpage and the links are posted there also.

**How does professional development and support help you:**

Without professional development I would never have been able to make my webpage so user friendly. It is really there for current information and useful links. Professional Development in science allows me to plan with other teachers and to get fresh ideas to incorporate into my curriculum. This time is valuable and beneficial, and then I see the results when I teach the modules.

I would also like to mention the use of the Document Camera. It enables students to better see graphing examples, student work samples, and pictures out of a book, and makes the lesson flow more smoothly.

This camera benefits the students because they grasp concepts more quickly and don’t experience the frustration that comes with not understanding directions.

I love my camera!

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**E-Mail Interview:** Rodney Kornegay  
**Curriculum Area:** Math  
**School:** Mountain Brook High School

**Purpose of the activity:**

The TI-Navigators enable me to use assessment as a learning tool in teaching Geometry and Algebra II. The technology offers immediate feedback on a wide variety of curriculum skills.

**Technology used and how it is used by the students/teacher:**

The TI-Navigators link the students’ calculators together in the classroom. It enables me to send data, programs, and work that has been written to the student calculators. Once they receive the work, they can work it on the calculator and answer the questions. At that point the program can be used for the students to self-check their work, or it can be collected back to the computer for scoring. The scoring is immediate. Through this feedback I can tell which students missed which problems so that I can re-teach the information if needed.

The Navigator system also has the capability to project a slide show of the problems and the number of people who got it correct and incorrect. *It's an awesome tool for learning!*

**How does/did professional development and support help you successfully teach this technology-enriched project?**

I was introduced to this product at the T-cubed conference in Nashville year before last. This professional development opportunity has led to something I feel is beneficial for our students. I was also permitted to attend the T-cubed conference last year where I attended sessions on how to better use the TI-Navigator system in the classroom. Without a great administration, technology staff and professional development staff this opportunity would never have been realized.

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**E-Mail Interview:** Susie Davis

**Curriculum Area:** Art

**School:** Mountain Brook High School

**Purpose of the activity:**

Students met visual art design objectives by creating projects dealing with graphic design and with works of fine art. They created well balanced artworks using elements of texture and pattern. They also created “eye-catching Jewels” in the form of DVD cover designs. The technology offers immediate feedback on a wide variety of curriculum skills.

**Technology used and how it is used by the students/teacher:**

Some students scanned and saved their own original drawings while others created a 3-D scanner collage of beads, cloth, and jewelry on the scanner. All the students focused on balance in design and catching the potential buyer’s attention by manipulating these scanned images using **Fireworks** software. Some advanced students used **Photoshop** to finalize their projects. The students learned the basic principles of graphic design in advertising and had fun while achieving visual art objectives. Students used USB Flash drives to store and move their work. Examples of student CD covers were incorporated into a PowerPoint presentation called “Eye-Catching Jewels”.

**How does/did professional development and support help you successfully teach this technology-enriched project?**

Thanks to the technology we had available to us, students were able to learn skills that they will be able to take with them to college. At that point the program can be used for the students to self-check their work, or it can be collected back to the computer for scoring. The scoring is immediate. I attended a workshop using digital imagining and used the techniques that I had learned to design and implement this project. I presented those ideas in two presentations at AETC 2006 in June.

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**E-Mail Interview:** Emily Mann  
**Curriculum Area:** 5<sup>th</sup> Grade Social Studies  
**School:** Brookwood Forest Elementary

**Purpose of the activity:** I use this activity to demonstrate and engage the students in discussions about propaganda from the Revolutionary War.

**Technology used and how it is used by the students/teacher:**

- We began with a digital picture of the Boston Massacre illustrated by Paul Revere then used the Interwrite pad (along with the projector) to highlight and circle elements of the picture that were exaggerated to make the Patriots seem innocent.
  - Using a single computer and the mounted data projector, the class was able to view and compare several different pictures from another website of the same event to Paul Revere's picture. This exercise helped the students understand the propaganda from the Revolutionary War.
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**E-Mail Interview:** Eric Lambert  
**Curriculum Areas:** Physics  
**School:** Mountain Brook High School

**Purpose of the activity:**

Areas of Physics include Mechanics (the study of motion), Light, Sound, Electricity, and Magnetism, just to name a few. Performing experiments helps students learn how to solve problems and to make predictions that test their understanding of how the physical world operates.

**Technology used and how it is used by the students/teacher:**

- Laboratory activities in physics utilize PASCO interfaces and laptop computers in order to collect and analyze data. We use a variety of probe ware including motion sensors, photogates, sound sensors, temperature sensors, voltage probes, current probes, and rotary motion sensors.
- Data Studio software is used to organize and interpret the measurements and help students connect physics theory with observation. Data Studio also includes powerful graphing tools that enable students to see graphical solutions to problems and curve fit data.
- The physics classrooms (2) share a set of 20 laptop computers, a set of dynamics carts and tracks, and various probes for making measurements. Students typically learn how to use the software and the various functions while performing labs within the first couple of weeks of school and continue throughout year.

**How does/did professional development and support help you successfully teach this technology-enriched project?**

The change from desktop computers to laptops has made it very easy to setup lab stations within the classroom for use with probe ware. The physics classrooms (2) share a set of 20 laptops. Training in the use of Data Studio has also been very beneficial in the development of technology rich lesson plans. Each laptop has Data Studio and Office 2003 installed.

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**E-Mail Interview:** Jan Rogers, technology coordinator  
at Mountain Brook High School concerning  
Brandi Caldwell, Language Arts teacher  
**Curriculum Area:** Language Arts  
**School:** Mountain Brook High School

**Purpose of the activity:**

Allow students to explore Pocket PCs and develop better instructions for their use.  
Provide another technology option for computing in the classroom that did not require laptops.  
Explore the tools included in the equipment to see what other curriculum objectives could be accomplished.

**Technology used and how it is used by the students/teacher:**

Pocket PCs, bluetooth keyboards, wireless Internet connection, SD cards, a document camera, and an LCD projector were used.  
An online blog was created so that students were able to conduct only discourse about the uses of Pocket PCs. The blog is located at <http://247pocketpc.blogspot.com>.  
An online wiki was used to store the working instruction manula created by students. The wiki is located at <http://mtnbrookseniors06.wikispaces.com/>  
Pocket PCs were assigned to each student in the first period class. They were given the task of creating a working user's manual. Using the constructivist method, Jan Rogers (Technology Coordinator) and I gave very little instruction with the purpose of them finding their own answers. Eventually a working user's manual evolved on the wiki, and students from each group presented their findings.

**How does/did professional development and support help you successfully teach this technology-enriched project?**

The technology coordinator provided support with the initial class and was helpful in answering all of my questions. She also helped many of the students that got frustrated and could not get WiFi to connect. A wireless access point was moved closer to my classroom to provide better access for the equipment.

**How does/did professional development and support help you successfully to this technology-enriched project?**

After learning how to use the Interwrite pad through a WebX training session, I could easily pull up the website and draw over the pictures so the entire class could see the illustration.

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**E-Mail Interview:** Karen Jackson  
**Curriculum Areas:** 5<sup>th</sup> Grade Language Arts  
**School:** Brookwood Forest Elementary

**Purpose of the activity:** Working on Descriptive Writing in Language Arts  
We have completed some descriptive web pages in our writing class. For this activity--"Tour of Our School," students had to visit locations around our school, write a description of this location, take a digital picture of the place, and publish this information on a web page. This activity took a lot of pre-planning on our part and a lot of time on the students' part but the instructional benefits were worth the effort. Students had to write, create, interview, take pictures, and create a webpage in Dreamweaver and import their picture in Fireworks.

**Technology used and how it is used by the students/teacher:**

- Students used Microsoft word to type their descriptive essays.
- To take pictures, they used a digital camera and Fireworks to import the pictures.
- Finally, they transferred all of the information into Dreamweaver to create a webpage about their location.

**How does/did professional development and support help you successfully to this technology-enriched project?**

"I had attended a few workshops on Dreamweaver, Fireworks, and taking digital pictures in the classroom. These workshops helped me for this project. Also, our technology coordinator visited our classroom giving mini-lessons on how to take a digital picture, how to use Fireworks and Dreamweaver. By collaborating with each other, this project was a success and one that I will use in years to come!" Karen Jackson

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**E-Mail Interview:** Erika Ponder  
**Curriculum Area:** 1<sup>st</sup> Grade  
**School:** Brookwood Forest Elementary

**Purpose of the activity:**

Our overall objective is to share information about penguins and to expand the students' writing from just paper to other forms. We will be doing descriptive writing, first grade style.

**Technology used and how it is used by the students/teacher:**

- Power Point
- large computer hooked up to TV for presentations

**How does/did professional development and support help you successfully to this technology-enriched project?**

I have known how to use PowerPoint for a while now, but the availability of the large presentation equipment allows for so much more. Also, the instruction on how to set up templates has really helped. It gives the children a starting place and some structure. They need this support at the first grade level.

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**E-Mail Interview with:** Linda Mason  
**Curriculum Area:** 2<sup>nd</sup> Grade Math  
**School:** Brookwood Forest

**Purpose of the activity:**

This activity is used to strengthen introduced skills and to reinforce basic math facts in order to increase each student's speed and accuracy.

**Technology used and how it is used by the students/teacher:**

- Each week, I have been introducing a new game/activity from the on-line Everyday Math software that corresponds to the skills introduced.
- This helps to reinforce the skill and is a fun way to practice.
- After they have successfully completed the activity, they may go to one of the other games/activities to strengthen basic math facts.

**How does/did professional development and support help you to successfully teach this technology-enriched project?** During our professional development time I was able to review this software and actually do some of the activities. I was able to help my students choose appropriate games for their level.

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**E-Mail Interview with:** Debbie Rakes  
**Curriculum Area:** Music  
**School:** Brookwood Forest

**Purpose of the activity:**

This activity is used to help students learn more about different elements of music and to allow them to explore and create sounds on a piano keyboard.

**Technology used and how it is used by the students/teacher:**

- I do 'centers' much like the classroom teacher and two of the centers use technology.
- One is the computer where we use Midisaurus to learn about different elements of music, rhythm, melody form note values, high and low, etc.
- There are 3 computers with this program and the students rotate through the different centers. While others are playing music bingo or one of the other centers I can work with those students as they learn about music on the computer.
- Another center is the piano keyboard. We use headphones and everyone can play and create their own style of music or create a song of their own.
- They can also listen to songs stored on the keyboard and play along with them.

**How does/did professional development and support help you to successfully teach this technology-enriched project?**

Staying up with current trends in technology helps tremendously. At conferences I attend there is always a session on using technology in the music room. The new text book adoption this year will have some wonderful ways to do lesson plans on line and to view an electronic

textbook. Having the computer connected to the television helps when I need to show the students the words to a song and I don't have time to make copies (it also saves on paper). I have added many new links on my web page that will help when we work in the lab so that we can all go to the same site easily. Thanks for showing us how to update our web pages easily. I love having technology professional development here at school and at conferences.

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**E-Mail Interview:** Bill Andrews

**Curriculum Area:** Social Studies, Science, Math, Reading, Writing

**School:** Mountain Brook Elementary

**Purpose of the activity:**

This activity is used when students research historic trails of the United States and present their history and what life was like on the trail via a power point presentation. Each teacher is responsible for teaching about a certain aspect of the project to be added to the power point and portfolio. For example: science-diseases and their remedies, English-journal writing, math-distance and time, social studies-history and power point technical stuff.

**Technology used and how it is used by the students/teacher:**

- We use the internet for research, scanners for scanning pictures.
- Laptops enable every fifth grade student to have access to a computer.
- Ceiling mounted projectors (and cart mounted projectors for those who do not have projectors yet) are used to present the show to the students as well as display the shows in a looping format to the parents during the MBE Spring Fling.

**How does/did professional development and support help you to successfully teach this technology-enriched project?**

We met with Paula, during our in school DEAL time to go over ideas of how to best integrate the different subjects and coordinate the four teachers working together. We have also used this time to learn more about Excel and Access.

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**E-Mail Interview:** Shannon Millhouse

**Curriculum Area:** 6<sup>th</sup> grade Math

**School:** Mountain Brook Elementary

**Purpose of Activity:** The purpose of the "Shopping Project" is to teach students how to use spreadsheets to organize and analyze data.

**Technology and how it is used:**

- We use the programs Excel and NetOP.
- Students use Excel to make spreadsheets and graphs.
- I use NetOp to manage the lesson.

**Professional Development:** Paula has taught me to use NetOp and has helped expand my knowledge of spreadsheets.

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**E-Mail Interview:** Kate Long  
**Curriculum Area:** 6th grade Social Studies  
**School:** Mountain Brook Elementary

**Purpose of the activity:**

The purpose of this activity is to engage students in discussions concerning forms of historical documents from 1930's and Infer meaning.

**Technology used and how it is used by the students/teacher:**

Diaries, magazines, and advertisements are shown to kids using the Samsung Digital Presenter. Many of these materials could not be handled by students because of their delicate nature and age (ex. crumbling pages). This activity will be repeated with artifacts from WWII veterans.

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**E-Mail Interview:** Findley Townsend

**Curriculum Area:** Art

**School:** Mountain Brook Elementary

**Purpose of the activity:** To introduce fourth grade students to digital manipulation of multiple pictures using Fireworks.

**Technology used and how it is used by the students/teacher:**

- I started by finding pictures of different flowers on the internet and created a file for students to access for the project.
- Then I took the students pictures with a digital camera and created a file for each class.
- The students started in firework by opening the flower folder and open the flower they wanted for their picture.
- After minimizing the flower the students then open their picture from their class file and lassoed their face and copied it.
- They then open the flower they picked and pasted their face on the flower.
- The students then learned how to export the picture to a .jpg save and then they printed the finished picture.

**How does/did professional development and support help you to successfully teach this technology-enriched project?** I took the workshop on fireworks last summer that helped me with the skills needed to teach this project.

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**E-Mail Interview:** Tammy Tolleson  
**Curriculum Area:** English/History  
**School:** Mountain Brook Elementary

**Purpose of the activity:** The students write a five paragraph report about World War II. They learn how/why to create an outline, as well as how to site sources. They use the Internet for research. They will also use Athena to look for books on specific topics.

**Technology used and how it is used by the students/teacher:** With the laptops, the students use Word to create the outline, report, and bibliography. I use the data projector, and computer to model for the students.

**How does/did professional development and support help you to successfully teach this technology-enriched project?** Profession development in the area of technology has been very helpful. Paula is wonderful resource; anytime there is a problem, she is on it.

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**E-Mail Interview:** Nathan Pitner  
**Curriculum Area:** 3<sup>rd</sup> grade English  
**School:** MBE

**Purpose of Activity:** In the past, the third grade has read a non-fiction story and then developed a poster about their subject matter. This year, we read our non-fiction books as partners and then developed fliers on the computer rather than posters. I liked the activity because it accomplished the same purpose of organizing knowledge and summarizing a given subject matter, but did so more efficiently through the Publisher software. The kids chose their own format, collected pictures and clip art, and manipulated text boxes to include the most relevant information.

**Technology used and how it is used by the students/teacher:**

- We've used technology in a variety of ways for a number of lessons, but I was particularly pleased with this project because it meant using technology to make our daily work both easier and more impressive than our previous efforts.
  - We were able to share and display our fliers created using Microsoft Publisher which led to not only a discussion of the subject matter but the way that each individual project was created.
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**E-Mail Interview:** Nancy Brooks  
**Curriculum Area:** 6<sup>th</sup> Grade Science  
**School:** Crestline Elementary

**Purpose of the activity:**

This activity is used to review information about shadows, lunar phases, and eclipses. However, similar activities allow me to review daily/weekly my students' comprehension of other science content. The tools listed below assist me to efficiently and effectively determine the level of student understanding and to re-teach or provide additional hands-on activities when necessary. The reported system is an excellent component of this program.

**Technology used and how it is used by the students/teacher:**

To begin this activity and similar activities I develop a series of questions and insert pictures for clarification of the concepts I want to present. These are projected to a screen using a mounted data projector. The questions are in a PowerPoint format. Turning Point 2006 clickers or response pads are used by students to answer the questions. The computer program that accompanies the "clickers" records each student's responses and provides a report listing. The report is a list of each student's responses and is recorded by the student name. I provide each student a printout of questions, and their answers (correct and incorrect.) The students receive immediate feed back to their work.

I find that students are more engaged in projects when visuals are used. For many of the hands-on activities, students use digital cameras to capture images, the Internet for research, and software such as the Starry Night CD which allows students to study shadows anywhere in the world and at anytime.

Technology is an integral part of the science class at Crestline Elementary.

**How does/did professional development and support help you to successfully teach this technology-enriched project?**

Multiple hands-on professional development opportunities were provided. I was able to observe teachers presenting lessons with this technology. Last year, eager teachers were given leadership roles to explore new technologies and help others. As a result, we have formed/joined technology and academic networks. This is not just within one school, but across the district.

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**E-Mail Interview:** Mary Reynolds  
**Curriculum Area:** English  
**Curriculum Area:** Advanced English 8  
**School:** Mountain Brook Junior High

**Purpose of the activity:**

Our blog allows my students to communicate on a less formal level about things that are on their minds and about what is happening in class and in their outside readings. I wanted a safe space that allowed students to participate in an “academic” setting, not just a random “talking” setting. I wanted advanced English students to really think about what they are writing. I wanted to use the blog to educate students about what they should and should not “say” online.

**Technology used and how it is used by the students/teacher:**

- Learnersblogs.org website
- Teacher posts ideas, questions, students respond. Later, students will be able to post questions, ideas as the blog.
- Internet access, document camera, projectors, screen, and classroom computer

**How does/did professional development and support help you successfully teach this technology-enriched project?**

The students have easy access to the internet. The document camera and projector/screen that I have in my room allow me to go through the steps of “blogging” easily and answer questions from the students as we practice. It also allows us to look at new postings together when the posting has universal appeal and is worthy of discussion. Joani Kay arranged for a day out of my class last spring to set the blog up and get it started. That really gave me the incentive to go ahead with the blog. I really wanted to do it, but it was hard to find the time to go through the initial steps. Once I got started, I was more motivated to get the permission letters out, sign up the students, and start the process for real. A workshop over an internet hookup last spring helped peak my interest in the process and the ways it could be used. I hope to branch out this year from the initial activity.

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**E-Mail Interview: Katie Brewer**

**Curriculum Area:** Math (9<sup>th</sup> grade Geometry)

**School:** Mountain Brook Junior High

**Purpose of the activity:**

*Ode to the Pythagorean* (developed by Karen Wyatt)

Students will learn how to use the Geometer's Sketchpad computer program for the first time. Students investigate properties of the Pythagorean Theorem using Geometer's Sketchpad. Students will discover that the Pythagorean Theorem holds for any figure that they choose to design and construct on the sides of a right triangle.

**Technology used and how it is used by the students/teacher:**

- The teacher will demonstrate how the aspects of this project before the students begin. This will require use of the Geometer's Sketchpad Program and the computer projector.
- Geometer's Sketchpad will be used for the duration of this project. Since this is the first time students will work with this program, this project will serve as an introduction and allow the students to become comfortable using the program.
- Students will use the program to first construct a right triangle and then to design a figure to place on the sides of the triangle. Their final step will be to use GSP to calculate the area of their three figures on the triangle sides and to show that the two smaller areas always sum to the larger area even when the triangle size is adjusted. Students discover that this holds true for any figure that *they design* and place on the sides of a right triangle.
- GSP will work to reinforce what the students are learning in the classroom and will allow the students to further apply the properties and theorems that we discuss. It is a very useful tool in allowing geometry students to see theorems and properties actually work in hands-on activities.

**How does/did professional development and support help you successfully teach this technology-enriched project?**

To begin this program, students need to open an already existing GSP file. I attended a new web page workshop this summer to learn how to create my new webpage. During this workshop Joani Kay taught me how to create a link to this GSP file for my students to access. I will use this tool throughout the year for the other projects we complete. We have also been provided with time as a math department to improve upon this project and others that we have created for the students to use Geometer's Sketchpad. It is wonderful to have the access to this technology. The availability of the computer lab for my classes allows me to take geometry out of the classroom and link it to technology throughout the year.

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**E-Mail Interview:** Paul Hnizdil  
**Curriculum Area:** World History  
**Curriculum Area:** Social Studies  
**School:** Mountain Brook Junior High

**Purpose of the activity:**

The creation of a web page based on an original political cartoon introduces students to the technical skills involved in creating webpages and using picture/photo editing software as they discuss the meaning behind published political cartoons.

**Technology used and how it is used by the students/teacher:**

- Scanner: Scan political cartoons to be used on the web pages
- Fireworks: Resize and edit cartoons so that they be better viewed on the internet
- Dreamweaver: Create a web site that has at least 3 "pages" and links to other information sites.
- Wireless network: Laptop lab in the classroom

**How does/did professional development and support help you successfully teach this technology-enriched project?**

Using Dreamweaver and Fireworks for my own web page helped with understanding the software students would use. Tech support helped with the saving and posting on the net. Furthermore, Joani Kay was instrumental in working out the myriad of technical kinks that accompany such a grand scale project.

**E-Mail Interview:** Dr. Greg Odrezin  
**Curriculum Area:** 6th Grade Math  
**School:** Cherokee Bend Elementary

**Purpose of the activity:**

To better understand and practice the skills of data collection and data analysis, including the process of organizing data, correlating fractions of a whole, decimals of a whole, and percentages of a whole, comparing and contrasting the various measures of central tendency (mean, median, mode), looking at the effects of outliers and range variations on measures of central tendency, follow-up application of the EasyTech lessons involving Spreadsheet Basics and Graphing in Spreadsheets. The activity and materials have been developed to work with m&m's, Smarties, and most recently Sweethearts around Valentines Day.

**Technology used and how it is used by the students/teacher:**

The technology of calculator usage is heavily utilized in the more "manual" components of the activity (determining means), followed by students heavily utilizing Excel to create simple spreadsheets and then the associated Chart Wizard to graph the data in the form of a double vertical bar graph and a pie chart. The ceiling mounted LCD projectors in both the classroom and computer lab are utilized to help instruct students in the various steps involved in the spreadsheet and graphing activities.

**How does/did professional development and support help you to successfully teach this technology-enriched project?**

Without the training assistance from the EasyTech lessons on [www.learning.com](http://www.learning.com) and the availability of up-to-date software such as Excel, computer lab availability, color printers, and ceiling mounted projectors, the teacher and students would not be able to accomplish and achieve these goals. I developed the activities from a “seed” planted at a professional development meeting many years ago and have let it evolve to utilize more and more technology as it has become available. The technology has made the activity significantly more engaging to the students.

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**E-Mail Interview:** Mrs. Amy Gladden

**Curriculum Area:** 5<sup>th</sup> Grade Language Arts

**School:** Cherokee Bend Elementary

**Purpose of the activity:**

Teach Vocabulary Skills daily through the Word of the Day program.

**Technology used and how it is used by the students/teacher:**

- Document Camera and Overhead Projector
- Word of the Day cartoon is projected onto the screen through the document camera
- Students use information daily from document camera / projector to complete the Word of the Day activities

**How does/did professional development and support help you to successfully teach this technology-enriched project?**

Through professional development and one-on-one help, I have been able to use the document camera in class daily. The students are excited about learning and look forward to doing a routine daily activity using the camera. Without onsite help when needed, learning to use the new technology would have been more difficult.

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## **Technology Literacy Testing Guidelines**

The technology coordinator at Mountain Brook Junior High administers the test in January. Mountain Brook Junior High counselors notify students of the results and setup additional testing dates as needed. Tutoring sessions are offered during class time.

The technology coordinator at Mountain Brook Junior High administers the test again to students who did not pass the first test or that were absent on the first testing date in March.

Counselors notify students of results.

The technology coordinator at Mountain Brook Junior High administers the test for a third and final time in April or early May.

In May, Mountain Brook Junior High mails letters to all students notifying them of their pass/fail status and of available options offered at Mountain Brook High School

Mountain Brook Junior High personnel add the appropriate information to the transcripts of students who passed the test.

A complete list of students and their pass/fail status is sent to Mountain Brook High School. Mountain Brook High School will add the appropriate Information to the student transcripts.

## **Technology Literacy Basic Facts**

- The test is given the first time to all ninth (9<sup>th</sup>) grade students.
- There are forty-nine (49) questions on the test.
- Seventy percent (70%) is considered passing
- There are seven (7) major areas covered by the on-line test. They are as follows:
  - 6 questions      Systems and Fundamentals
  - 6 questions      Social and Ethical
  - 7 questions      Word Processing
  - 7 questions      Spreadsheets
  - 11 questions     Multimedia and Presentations
  - 6 questions      Telecommunications and Internet
  - 6 questions      Database

## **Spring 06 Results of Ninth (9<sup>th</sup>) Grade Test**

- Using the 70% mark, MBJH reported 77% passing and fifty (50) students or 23% not passing.

### **Future plans to increase/improve integration of technology into the curriculum**

We believe the addition of peripheral technologies into the classroom and increased and/or continued replacement of the computers will increase and improve the integration of technology into the curriculum.

We believe if we select and purchase technologies driven by the curriculum, we will increase and improve the integration of technology into the curriculum.

We believe with continued professional development throughout the school year and during the summer technology conference, we will increase and improve the integration of technology into the curriculum.

We believe by continuing to maintain and upgrade our network infrastructure so we meet the demands of our users, we will increase and improve the integration of technology into the curriculum.

We believe by providing adequate support for all staff, we will increase and improve the integration of technology into the curriculum.

### ***Status Of Current Distance Learning Activities***

**Current status of distance learning activities.** At the present time the students in Mountain Brook Schools have limited participation in distance learning activities.

**Future plans for an increase in distance learning activities.** Representatives from the Mountain Brook School System will continue to attend information sessions provided by the State Department of Education and investigate the use of ACCESS as well as provide instruction from our schools.

***Technology Professional Development Plan  
May 2005-May 2006***

<b>Title</b>	<b>Subject</b>	<b>Length Hrs.</b>	<b>Participants</b>	<b>Contact Hours</b>
BWF starting the year off right	Introduction	1	50	50
BWF Internet Safety	Internet	1	50	50
BWF Outlook Web Access	Access	1	4	4
BWF Interwrite Pad WebX		1	3	3
BWF STI Instruction		1	25	25
BWF Web Page Update	Web Pages	1	2	2
Dell Presentation SDC	Presentation	3	15	45
CB DreamWeaver and Fireworks	Web Pages	3	13	39
MBJH Handhelds	Palms	1	12	12
MBJH Migration Plans		1	60	60
MBJH STI Classroom and Web Access	Web Page	1	59	59
MBJH Update Web Page Folder	Web Pages	1	51	51
Handheld Basics	Palms	3	58	174
Handheld Classroom Integration		3	35	105
Technology in the K-2 Curriculum	Curriculum	3	12	36
Technology in the 3-6 Curriculum	Curriculum	3	19	57
Publishing with Pizzazz		6	20	120
Video Editing with iMovie- Beginning	Editing	6	13	78
Hand Held Classroom Integration for the Palm OS	Palms and Danas	3	9	27
Copyright and Plagerism		3	4	12
The Quia Web-oultion		3	16	48
Dabble with Danas	Danas	3	7	21
Excel Basics	Excel	3	15	45
GoKnow for Handhelds	Palms	3	23	69
WebQuests		6	4	24
Video editing with iMovie – Intermediate		6	8	48
Pocket PC Primer	Palm	3	11	33
Picture This-A Look at Digital Imaging		3	15	45
Jump start Your School Year	Instruction	3	15	45
<b>Page Sub-Total</b>		<b>78</b>	<b>628</b>	<b>1387</b>

***Technology Professional Development Plan  
May 2005-May 2006***

<b>Title</b>	<b>Subject</b>	<b>Length</b>	<b>Participants</b>	<b>Contact Hours</b>
Pocket PC Projects:	A Basic Look at Lesson Planning	3	6	18
What you need to Succeed	An Overview of Available Technologies	3	3	9
Word Basics	Word Processing in the Classroom	3	9	27
Word with Attitude	Advanced Word Processing Skills	6	4	24
Video Editing with iMove-Begining	Video Editing	6	7	42
PowerPoint Basics	Using PowerPoint with Students	3	7	21
Rest Easy with Dreamweaver	Creating Web Pages	3	26	78
Online Resources	Using the Internet to Gather Information	3	3	9
Access Basics	Teaching the Basic Database Skills	3	6	18
Having a Blast with Fireworks	Editing Pictures with Fireworks	3	19	57
Peripheral Vision	Using Various Peripherals in the Classroom	3	10	30
Video Editing with iMovie Intermediate	Video Editing	6	11	66
Tech Shop	Extra Time with the Techs	18	3	54
Web Page Update (CB)	Updating Web Pages	6	6	36
Web Page Update (BWF)	Updating Web Pages	6	3	18
Web Page Update (MBHS)	Updating Web Pages	6	11	66
Web Page Update (MBJH)	Updating Web Pages	6	8	48
Web Page Update (MBHS)	Updating Web Pages	6	12	72
Web Page Update (MBJH)	Updating Web Pages	6	21	126
Web Page Update (CES)	Updating Web Pages	6	24	144
Web Page Update (MBE)	Updating Web Pages	6	8	48
<b>Page Total</b>		<b>111</b>	<b>207</b>	<b>1011</b>
<b>Grand Total</b>		<b>190</b>	<b>835</b>	<b>2398</b>

## Evaluation of Benchmarks

*In addition to the Profiler Pro survey, Mountain Brook Schools use a variety of additional assessment tools including but not limited to the following:  
See actual survey results and EasyTech Summaries in appendices.*

- Yearly student surveys (Grades 3-12)
- Student Skills Check Evaluation
- Teacher surveys (every 3 years—last survey 2003)
- Parent surveys (every 3 years—last survey 2003)
- Support staff surveys (every 3 years—last survey 2003)
- Graduate surveys (every year)
- Computer Lab reports
- EasyTech Reports
- Observations
- Achievement scores
- Portfolios
- Face-to-Face Teacher interviews
- Committee meetings
- ProfilerPro—204 of approximately 272 surveys returned or 75% (Profiler Pro survey was sent to core teachers only)

Results from Profiler were calculated as follows:

Step 1: Exported data into Excel used PDAT tool; reviewed Teacher Factor Analysis tab in spreadsheet, which lists “Occasionally” and “Routinely” and added the two together for a combined percentage.

Step 2: Reviewed the Impact Report to determine which questions were correlated to which benchmarks. The results of all questions relative for each benchmark were added together then divided by the number of questions for final percent. *All percentages were rounded.*

*Based on a requirement by the State Department of Education, Office of Technology Initiatives, Mountain Brook Schools are no longer able to use the above assessment tools when reporting the status of the benchmarks below. However, we do use the above data sources to evaluate plans and goals at the system level, determine our strategies for this plan, and to make data driven decisions in all technology related areas. The data from the assessments listed above are compared with the percentages from the State’s approved Profiler assessment tool to determine if any modifications in planning are necessary. Also note that “Last Year Status” percentages listed below were based on data gathered using the assessment tools listed above and a locally developed survey.*

\*Mountain Brook Schools declined EETT Formula Funds in the sum of \$\$626.00

# Review of Mountain Brook City Schools' Technology Goal and Objectives

**Goal:** Effectively integrate the use of technology into all instructional and support programs.

**Learning Objective:** Encourage learning that is challenging, effective, and engaging through the use of technology.

***Rationale:*** *If technology is used effectively as a tool, students can be more autonomous, collaborative and reflective than in classrooms where technology is not present or merely used for drill and practice. New technology will engage students in real-life applications of academics and encourage students to be more independent and responsible for their own learning. In a knowledge-based society, it is important that students have the self-confidence, knowledge base, technology fluency, and cooperative skills that enable them to continue to learn throughout their lives. Technology facilitates the study of the academics within the context of meaningful and authentic applications.*

**Technology Integration Objective:** Align the use of technology with local, state, and national content standards and curricula to enhance and enrich learning.

***Rationale:*** *Standards are broad statements that describe student knowledge, skills, and abilities, establishing a target for learning across grade levels and content areas. Aligning technology use in the curriculum to standards insures that each learner obtains the greatest educational benefit, preparation for real-world experiences.*

**Professional Development Objective:** Provide professional development that enables the staff to become and remain proficient in the use of technology to improve learning.

***Rationale:*** *Successful technology use depends on professional development that is substantial, systematic (just in time) and sustained (ongoing). Comprehensive professional development for technology includes not only the development of technical skills and knowledge, but also strategies for integrating technology into the learning environment.*

**Environment Objective:** Cultivate lifelong learning communities in which the tools of technology support learning.

***Rationale:*** *Technology's effectiveness is dependent on the learning environment. The learning environment includes more than physical space; it is the overall school climate as fostered by the administrators and staff. Technology should be integrated throughout the curriculum regardless of location and equitably distributed.*

**Access Objective:** Provide every learner with current technological tools to access and process information.

***Rationale:*** *Technology provides teaching and learning opportunities that were previously unavailable. The learner must have access to technology tools in order to process information and connect to the World Wide Web. Connecting learners to the world beyond the classroom brings relevant, real-life context to the study of basic skills, work skills, and critical thinking. This connection provides an important link between home and school and school and the community. Opportunities for students to access information resources, communicate with experts and peers, and make contributions to knowledge bases through electronic communications is essential. We believe technology is a valuable tool for creating challenging, effective, and engaging work for all learners.*

**Cost of Ownership Objective:** Fund technical support, maintenance, and emerging technologies to improve learning.

***Rationale:*** *The successful infusion of technology in the curriculum depends on several factors: hardware, software, staff development, adequate staffing, appropriate facilities, ongoing maintenance, and timely upgrades. Technology must be reliable for teachers to embrace and use daily. Help and support in the classroom is a critical consideration.*

The Mountain Brook City Schools Technology Committee believes that technology, in its present and future forms, presents students, teachers, leaders, and the community with powerful means to those aspirations we hold in common. Specifically, we believe technology can support our broad academic goals by:

- providing timely, unlimited access to data and information
- engaging and challenging users
- facilitating individual learning and teaching to maximize student success
- providing diverse modes of communication
- promoting higher-level thinking skills to solve authentic problems
- promoting learning of basic skills and content
- providing efficient and cost effective use of time and resources for management, teaching, and learning
- facilitating the development, organization, and presentation of ideas to achieve intended purposes
- promoting the integration of curriculum, disciplines, instruction, and modes of learning, and
- promoting adult, parent, and community learning, communication and involvement.

**Objective 1****Learning Objective:** Encourage learning that is relevant and authentic through the use of technology.**Benchmark: 1.1****Benchmark Status:** Current**Target Benchmark:** Students (100%) use technology to complete inquiry-based learning projects that reflect personal significance and/or societal importance during the academic year.**Needs Assessment for Percentages:** Profiler Pro questions 4 and 5

<b>Benchmark 1.1</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
5. I plan and implement technology-based learning activities that promote student engagement in higher-level thinking and creation of original products.	2.94%	45.59%	51.47%	97.06%
<b>Average</b>				<b>95.59%</b>

**05-06 Status:** 96%**04-05 Status:** 95%**03-04 Status:** 94%**Strategies:**

1. Clarify survey terminology “inquiry based,” “personal significance,” and “societal importance.”
2. Provide professional development that assists teachers in developing age appropriate assignments that are inquiry-based using web quests, Athena searches, AVL, etc.

**Benchmark: 1.2****Benchmark Status:** Current**Target Benchmark:** Teachers (100%) assess student-based projects using well-designed scoring guides.**Needs Assessment for Percentages:** Profiler Pro questions 1, 2, 4, and 23

<b>Benchmark 1.2</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
1. I develop and use criteria for evaluation of technology-based student products and the process used to create those products.	8.82%	53.92%	37.25%	91.17%
2. I use various strategies to determine students' technology proficiency in content area learning.	7.84%	55.39%	36.76%	92.15%
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
23. I evaluate and improve instructional technology practices in the classroom using information from student feedback, observations, student assessment data, etc.	8.33%	51.47%	40.20%	91.67%
<b>Average</b>				<b>92.28%</b>

**05-06 Status:** 92%**04-05 Status:** 91%**03-04 Status:** 71 %**Strategy:** Work with curriculum director, assistant principals and professional development coordinators to offer teachers examples of rubrics used for technology project assessment.<http://rubistar.4teachers.org>

**Benchmark: 1.4a****Benchmark Status:** Current**Target Benchmark:** Students (100%) use productivity tools such as spreadsheets, databases, presentation software, and Internet resources to solve problems and make decisions.**Needs Assessment for Percentages:** Profiler Pro questions 13, 14, 17, and 18

<b>Benchmark 1.4a</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
14. I teach students to use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	14.71%	51.47%	33.82%	85.29%
17. I teach students to use technology tools to process data and report results.	27.45%	50.00%	22.55%	72.55%
18. I teach students to use technology to locate, evaluate, and collect information from a variety of sources.	9.31%	43.63%	47.06%	90.69%
<b>Average</b>				<b>84.56%</b>

**05-06 Status:** 85%**04-05 Status:** 82%**03-04 Status:** 92%**Strategies:**

1. Provide professional development by grade level/subject area to review the productivity tools skills assigned in the Mountain Brook City Schools' Technology Education Framework.
2. Provide professional development to ensure that assignments incorporate appropriate use of skills. Example: Elementary level—Easy Tech activities and discussions.
3. Review sample projects turned in during the 2005-2006 academic year to department heads at secondary level and offer professional development or one-on-one assistance when requested.
4. Provide professional development "Technology Tips" via the Technology Staff Development webpage, Help Sheets, videos, e-mails, etc. to review productivity tool use.

**Benchmark: 1.4b****Benchmark Status:** Current**Target Benchmark:** Teachers (100%) use productivity tools such as spreadsheets, databases, presentation software, and Internet resources to solve problems and make decisions.**Needs Assessment for Percentages:** Profiler Pro questions 10, 27, 28, and 29

<b>Benchmark 1.4b</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
10. I apply technology productivity tools for student assessment and reporting purposes.	8.82%	42.16%	49.02%	91.18%
27. I use technology to locate, evaluate and collect information from a variety of sources.	0.00%	5.88%	94.12%	100.00%
28. I use suitable productivity tools (e. g., word processing, databases, spreadsheets, communication tools, graphic programs) to complete personal, educational, and professional tasks.	0.98%	10.78%	88.24%	99.02%
29. I use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	3.92%	17.16%	78.92%	96.08%
<b>Average</b>				<b>96.57%</b>

**05-06 Status:** 97%**04-05 Status:** 96%**03-04 Status:** 94%**Strategies:**

1. Provide professional development by grade level/subject area to review the productivity tools skills assigned in the Mountain Brook City Schools' Technology Education Framework.
2. Provide professional development to ensure that assignments incorporate appropriate use of skills. Example: Elementary level—Easy Tech activities and discussions.
3. Review sample projects turned in during 05-06 school year to department heads at secondary level and offer professional development or one-on-one assistance where requested.
4. Provide professional development “Technology Tips” via the Technology Staff Development webpage, videos, e-mails, etc. to review productivity tool use.

**Benchmark: 1.4c**

**Benchmark Status:** Completed-Ongoing

**Target Benchmark:** Administrators (100%) use productivity tools such as spreadsheets, databases, presentation software, and Internet resources to solve problems and make decisions.

**Needs Assessment for Percentages:** Observation and products

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Strategies:**

1. Continue professional development as one-on-one training with technology staff.
2. Continue dissemination of training materials.
3. Encourage appropriate administrative staff to attend relevant conferences such as the STI User Conference, NSBA Conference, AETA conference, AETE conference, and regional meetings where technology skills are discussed/taught/reviewed.

**Benchmark: 1.5**

**Benchmark Status:** Current

**Target Benchmark:** Student (100%) use a product that contains a data analysis component using productivity tools such as spreadsheets, graphing packages, and/or databases.

**Needs Assessment for Percentages:** Profiler Pro questions 13, 14, 17, 18, and 37

<b>Benchmark 1.5</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
12. I teach students to troubleshoot routine hardware and software problems.	23.04%	48.53%	28.43%	76.96%
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
16. I teach student to use computers, printers, and other peripheral devices (e.g., scanners, digital cameras).	12.75%	32.35%	54.90%	87.25%
17. I teach students to use technology tools to process data and report results.	27.45%	50.00%	22.55%	72.55%
37. I have sufficient professional development to allow me to successfully integrate technology in the classroom.	0.98%	14.71%	84.31%	99.02%
<b>Average</b>				<b>85.09%</b>

**05-06 Status:** 85%

**04-05 Status:** 83%

**03-04 Status:** 80%

**Strategies:**

1. Provide opportunities and examples of the use of technology to analyze data.
2. Determine the existing software packages at each school and at each grade designed to perform data analysis.
3. Ensure that 6-12 teachers are aware of graphing packages, how to use Access, and/or Excel and lessons that integrate into their existing curriculum frameworks.

**Benchmark: 1.6****Benchmark Status:** Current**Target Benchmark:** Teachers (100%) collect and analyze data to make adjustments to their operational curriculum (i.e., classroom).**Needs Assessment for Percentages:** Profiler Pro questions 23 and 27

<b>Benchmark 1.6</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
23. I evaluate and improve instructional technology practices in the classroom using information from student feedback, observations, student assessment data, etc.	8.33%	51.47%	40.20%	91.67%
27. I use technology to locate, evaluate and collect information from a variety of sources.	0.00%	5.88%	94.12%	100.00%
<b>Average</b>				<b>95.83%</b>

**05-06 Status:** 96%**04-05 Status:** 94%**03-04 Status:** 78%**Strategies:**

1. Continue introducing and assisting administrative team with new and emerging technologies. Provide opportunities and examples of the use of technology to analyze data.
2. Ensure that 7-12 teachers are aware of graphing packages, how to use Access, and/or Excel. Provide professional development for Easy Tech grade reports K-6.
3. Provide professional development for STI Gradebook.
4. Principals will review technology survey data with teachers.
5. Lead Teachers/Assistant Principals and Reading Coaches will review procedures for analyzing STAR data.

**Benchmark: 1.7****Benchmark Status:** Completed-Ongoing**Target Benchmark:** Administrators (100%) collect and analyze data to make decisions that affect the operation of the school.**Needs Assessment for Percentages:** Observation and products**05-06 Status:** 100%**04-05 Status:** 100%**03-04 Status:** 100%**Strategy:** Continue professional development.

**Benchmark: 1.8a**

**Benchmark Status:** Current

**Target Benchmark:** Students (100%) select appropriate technology-based resources such as the Internet, real-time probes, hand-held devices, and the Alabama Virtual Library (AVL) based on intended purpose.

**Needs Assessment for Percentages:** Profiler Pro questions 6 and 11

<b>Benchmark 1.8a</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
6. I design, manage, and facilitate learning experiences using technology that is sensitive to the diversity of learners.	4.90%	45.59%	49.51%	95.10%
11. I teach students to use technology resources in collaborative ways to solve authentic problems in the subject area(s).	10.29%	52.94%	36.76%	89.70%
<b>Average</b>				<b>92.40%</b>

**05-06 Status:** 92%

**04-05 Status:** 90%

**03-04 Status:** 77%

**Strategies:**

1. Technology Coordinators will provide lists of available technologies and directions for utilizing technologies with students.
2. Media specialist will assist students with AVL resources.

**Benchmark: 1.8b****Benchmark Status:** Current

**Target Benchmark:** Teachers (100%) select appropriate technology-based resources such as the Internet, real-time probes, hand-held devices, and the Alabama Virtual Library (AVL) based on intended purpose.

**Needs Assessment for Percentages:** Profiler Pro questions 11, 13, 18, 25, and 27

<b>Benchmark 1.8b</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
11. I teach students to use technology resources in collaborative ways to solve authentic problems in the subject area(s).	10.29%	52.94%	36.76%	89.70%
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
18. I teach students to use technology to locate, evaluate, and collect information from a variety of sources.	9.31%	43.63%	47.06%	90.69%
25. I participate in online professional collaboration (email, listserv, chat rooms) with peers and experts to enhance technology expertise.	22.06%	38.24%	39.71%	77.95%
27. I use technology to locate, evaluate and collect information from a variety of sources.	0.00%	5.88%	94.12%	100.00%
<b>Average</b>				<b>89.61%</b>

**05-06 Status:** 90%**04-05 Status:** 88%**03-04 Status:** 100%**Strategies:**

1. Technology Coordinators will provide lists of available technologies and directions for use. The directions will be posted on the Technology web page under link—Teachers Corner.
2. Media specialist will review AVL resources at the beginning of academic year and work with teachers individually upon request.

**Benchmark: 1.9a****Benchmark Status:** Current**Target Benchmark:** Students (100%) use technology during the instructional day based on the local, state, and national standards.**Needs Assessment for Percentages:** Profiler Pro questions 4, 5

<b>Benchmark 1.9a</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
5. I plan and implement technology-based learning activities that promote student engagement in higher-level thinking and creation of original products.	2.94%	45.59%	51.47%	97.06%
<b>Average</b>				<b>95.59%</b>

**05-06 Status:** 96%**04-05 Status:** 95%**03-04 Status:** 90%**Strategies:**

1. Technologies such as wireless laptops, handheld computers (Danas, AlphaSmarts, graphing calculators, Palms, and Pocket PCs), data projectors mounted in classrooms, labs that provide for flexible scheduling, and computers that are always available in media centers will ensure all students access to technology during the day.
2. Mountain Brook teachers will continue to provide opportunities for students to use technology resources daily.

**Benchmark:** 1.9b

**Benchmark Status:** Current

**Target Benchmark:** Teachers (100%) use technology during the instructional day based on the local, state, and national standards.

**Needs Assessment for Percentages:** Profiler Pro questions 4, 20

<b>Benchmark 1.9b</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
20. I model safe and responsible use of technology and implement school and district technology acceptable use policies and data security plans.	1.47%	8.33%	90.20%	98.53%
<b>Average</b>				<b>96.32%</b>

**05-06 Status:** 96%

**04-05 Status:** 97%

**03-04 Status:** 97%

**Strategy:** Attend professional development opportunities with teachers during the summer prior to the new curriculum implementation year, especially professional development provided by textbook vendors that involve technology.

## Objective 2

**Technology Integration Objective:** Align the use of technology with local, state, and national content standards and curricula to enhance learning and enrich teaching.

### **Benchmark: 2.1**

**Benchmark Status:** Current

**Target Benchmark:** Teachers (100%) use multiple assessment strategies including performance-based assessments linked to state standards.

**Needs Assessment for Percentages:** Profiler Pro questions 1, 2, 10, 22, 23

<b>Benchmark 2.1</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
1. I develop and use criteria for evaluation of technology-based student products and the process used to create those products.	8.82%	53.92%	37.25%	91.17%
2. I use various strategies to determine students' technology proficiency in content area learning.	7.84%	55.39%	36.76%	92.15%
10. I apply technology productivity tools for student assessment and reporting purposes.	8.82%	42.16%	49.02%	91.18%
22. I plan and implement learning activities that use technology to enhance student academic achievement and technology proficiency.	2.45%	34.31%	63.24%	97.55%
23. I evaluate and improve instructional technology practices in the classroom using information from student feedback, observations, student assessment data, etc.	8.33%	51.47%	40.20%	91.67%
<b>Average</b>				<b>92.74%</b>

**Status 05-06:** 93%

**Status 04-05:** 91%

**Status 03-04:** 68%

#### **Strategies:**

1. Provide professional development concerning assessment instruments.
2. Preview projects with Curriculum Director, Principal, Assistant Principal(s), Lead Teacher, Reading Coach, and/or Professional Development Specialists to determine ways to assist teachers with assessment strategies.
3. Meet with grade level/subject area teachers on a regular basis or individual teachers upon request to investigate emerging tools available for assessing student work.
4. Request copies of technology strands in curriculum frameworks.

**Benchmark: 2.2**

**Benchmark Status:** Current

**Target Benchmark:** Teachers (100%) design learning activities using technology that focus on experiential learning and emphasize student action.

**Needs Assessment for Percentages:** Profiler Pro questions 1, 3, 4, 5, 8, 11, 15

<b>Benchmark 2.2</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
1. I develop and use criteria for evaluation of technology-based student products and the process used to create those products.	8.82%	53.92%	37.25%	91.17%
3. I design and implement learning experience that use assistive technologies to meet the special physical needs of students.	18.14%	51.96%	29.90%	81.86%
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	46.63%	94.12%
5. I plan and implement technology-based learning activities that promote student engagement in higher-level thinking and creation of original products.	2.94%	45.59%	51.47%	97.06%
8. I organize learning activities so that students work together using the tools of technology.	3.92%	55.88%	40.20%	96.08%
11. I teach students to use technology resources in collaborative ways to solve authentic problems in the subject area(s).	10.29%	52.94%	36.76%	89.70%
15. I teach students to participate in online collaboration or discussion as part of learning experiences.	68.63%	29.96%	4.41%	31.37%
<b>Average</b>				<b>83.05%</b>

**Status 05-06:** 83%

**Status 04-05:** 83%

**Status 03-04:** 88%

**Strategy:** Work with individuals, grade levels, and departments to assist in developing effective, challenging, engaging lessons that use technologies and integrate technology skills.

**Benchmark: 2.3****Benchmark Status: Current****Target Benchmark:** Students (100%) generate products and projects using extensive and diversified technology resources.**Needs Assessment for Percentages:** Profiler Pro questions 9, 13, 14, 18, 21

<b>Benchmark 2.3</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
9. I recognize students' talents in the use of technology and provide them with opportunities to share their expertise with their teachers, peers, and others.	5.88%	53.92%	40.20%	94.12%
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
14. I teach students to use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	14.71%	51.47%	33.82%	85.29%
18. I teach students to use technology to locate, evaluate, and collect information from a variety of sources.	9.31%	43.63%	47.06%	90.69%
21. I manage available technology resources to provide equitable access for all students.	2.45%	18.63%	78.92%	97.55%
<b>Average</b>				<b>91.47%</b>

**Status 05-06:** 92%**Status 04-05:** 89%**Status 03-04:** 73%**Strategies:**

1. Continue professional development on the use of extensive and diversified technologies.
2. Provide verbal and written assistance on the use of new and existing technologies.

**Benchmark: 2.4**

**Benchmark Status:** Current

**Target Benchmark:** Teachers (100%) assign real-world activities using technology that emphasize collaboration, communication and decision-making.

**Needs Assessment for Percentages:** Profiler Pro questions 8, 11, 13, 14, 15

<b>Benchmark 2.4</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
8. I organize learning activities so that students work together using the tools of technology.	3.92%	55.88%	40.20%	96.08%
11. I teach students to use technology resources in collaborative ways to solve authentic problems in the subject area(s).	10.29%	52.94%	36.76%	89.70%
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
14. I teach students to use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	14.71%	51.47%	33.82%	85.29%
15. I teach students to participate in online collaboration or discussion as part of learning experiences.	68.63%	26.96%	4.41%	31.37%
<b>Average</b>				<b>78.43%</b>

**Status 05-06:** 78%

**Status 04-05:**78%

**Status 03-04:** 77%

**Strategies:**

1. Provide professional development for individuals, grade levels, and/or departments to assist in developing effective, challenging, engaging lessons that use technologies and integrate technology skills.

**Benchmark: 2.5**

**Benchmark Status: Current**

**Target Benchmark:** Teachers (100%) make use of appropriate technology commensurate with the targeted content standards and level of student cognition.

**Needs Assessment for Percentages:** Profiler Pro questions 4, 6

<b>Benchmark 2.5</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
6. I design, manage, and facilitate learning experiences using technology that is sensitive to the diversity of learners.	4.90%	45.59%	49.51%	95.10%
<b>Average</b>				<b>94.61%</b>

**Status 05-06:** 95%

**Status 04-05:**93%

**Status 03-04:** 97%

**Strategy:**

1. Provide professional development for individuals, grade levels, and/or departments to assist in developing effective, challenging, engaging lessons that use technologies and integrate technology skills.

**Benchmark: 2.6**

**Benchmark Status: Current**

**Target Benchmark:** Teachers (100%) use technology to collect data and monitor student progress.

**Needs Assessment for Percentages:** Profiler Pro question 10

<b>Benchmark 2.6</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
10. I apply technology productivity tools for student assessment and reporting purposes.	8.82%	42.16%	49.02%	91.18%
<b>Average</b>				<b>91.18%</b>

**Status 05-06:** 91%

**Status 04-05:**88%

**Status 03-04:** 78%

**Strategy:**

1. Provide professional development on the use of STI Gradebook.

**Benchmark: 2.7**

**Benchmark Status:** Completed-Ongoing

**Target Benchmark:** Administrators (100%) use technology to collect data to assess instructional effectiveness and monitor student progress.

**Needs Assessment for Percentages:** Observation and Requests for information and assistance

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

**Strategy:** Schedule STI User Group meetings to provide professional development and dialogue on the use of STI Office for local school administrators, STI District Workstation for Central Office Administrators, STI SETSWeb for Special Education Director, and STI Professional Development for all administrators and supervisors.

### Objective 3

**Professional Development Objective:** Provide professional development that enables the staff to become and remain proficient in the use of technology to improve learning.

#### Benchmark: 3.1

**Benchmark Status:** Current

**Target Benchmark:** Faculty and staff (100%) are proficient, knowledgeable, and current in contemporary technology.

**Needs Assessment for Percentages:** Profiler Pro questions 25 and 26

<b>Benchmark 3.1</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
25. I participate in online professional collaboration (email, listserv, chat rooms) with peers and experts to enhance technology expertise.	22.06%	38.24%	39.71%	77.95%
26. I use computers, printers, and other peripheral devices (e.g., scanners, digital cameras).	0.00%	3.43%	96.57%	100.00%
<b>Average</b>				<b>88.97%</b>

**Status 05-06:** 89%

**Status 04-05:**88%

**Status 03-04:** 70%

#### **Strategies:**

1. Provide professional development opportunities during grade level and/or department meetings.
2. Provide substitutes for 1/2 training opportunities during the school day.
3. Continue and expand Mountain Brook Technology Conference first piloted June 2005.

**Benchmark: 3.2**

**Benchmark Status:** Completed-Ongoing

**Target Benchmark:** Administrators (100%) are able to conduct clinical observations of classroom teachers to determine the current and/or desired level of technology implementation.

**Needs Assessment for Percentages:** Observation and Results

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

**Strategies:**

1. Review samples of student projects with designated administrator or professional development specialist.
2. Make administrators aware of [Alabama Technology Standards for Administrators](#).
3. Make administrators aware of [Alabama Technology Standards for Teachers](#).

**Benchmark: 3.3a**

**Benchmark Status:** Current

**Target Benchmark:** Faculty (100%) meets local, state and national standards for integration of technology into the classroom.

**Needs Assessment for Percentages:** Profiler Pro questions 3 and 19

<b>Benchmark 3.3a</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
3. I design and implement learning experience that use assistive technologies to meet the special physical needs of students.	18.14%	51.96%	29.90%	81.86%
19. I identify technology resources and technical assistance available within the school and districts.	2.94%	35.78%	61.27%	97.05%
<b>Average</b>				<b>89.45%</b>

**Status 05-06:**89%

**Status 04-05:**86%

**Status 03-04:** 97%

**Strategy:**

1. Continue communications with faculty and administrators concerning standards and professional development opportunities.

**Benchmark:** 3.3b

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Administrators (100%) meet local, state and national standards for integration of technology into the classroom.

**Needs Assessment for Percentages:** Profiler Pro question 10

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

**Strategies:**

1. Review samples of student projects with designated administrator or professional development specialist.
2. Make administrators aware of [Alabama Technology Standards for Administrators](#).
3. Make administrators aware of [Alabama Technology Standards for Teachers](#).

**Benchmark:** 3.4

**Benchmark Status:** Current

**Target Benchmark:** Professional development for all curriculum areas (100%) models technology integration.

**Needs Assessment for Percentages:** Profiler Pro question 37

<b>Benchmark 3.4</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
37. I have sufficient professional development to allow me to successfully integrate technology in the classroom.	0.98%	14.71%	84.31%	99.02%
<b>Average</b>				<b>99.02%</b>

**Status 05-06:** 99%

**Status 04-05:**98%

**Status 03-04:** 100%

**Strategies:**

1. Continue Curriculum development model currently in place.
2. Have a technology coordinator present at all curriculum professional development.

**Benchmark: 3.5****Benchmark Status:** Current**Target Benchmark:** Faculty (100%) match appropriate technology tools to instructional objectives.**Needs Assessment for Percentages:** Profiler Pro question 28

<b>Benchmark 3.5</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
28. I use suitable productivity tools (e. g., word processing, databases, spreadsheets, communication tools, graphic programs) to complete personal, educational, and professional tasks.	0.98%	10.78%	88.24%	99.02%
<b>Average</b>				<b>99.02%</b>

**Status 05-06:** 99%**Status 04-05:**100%**Status 03-04:** 100%**Strategy:**

1. Continue providing professional development and communicating information concerning existing, new, and emerging technologies to all faculties.

**Benchmark: 3.6a****Benchmark Status:** Current**Target Benchmark:** Professional development activities (98%) are offered on-site to address the technology needs of staff.**Needs Assessment for Percentages:** Staff Development Offerings

<b>Benchmark 3.6a</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
37. I have sufficient professional development to allow me to successfully integrate technology in the classroom.	0.98%	14.71%	84.31%	99.02%
<b>Average</b>				<b>99.02%</b>

**Status 05-06:** 99%**Status 04-05:**98%**Status 03-04:** 99%**Strategy:**

1. Continue to offer on-going professional development in-house during the workday (1/2 day or 1 day with substitutes provided), during department meetings and/or grade level meetings, after school, and during the summer (with stipends).

**Benchmark: 3.6b**

**Benchmark Status: Current**

**Target Benchmark:** Professional development activities (1%) are offered off-site to address the technology needs of staff.

**Needs Assessment for Percentages:** Staff Development

**Current Status:** 1%

**Last Year Status:** 1%

**Percent Change:** 0%

**Strategies:**

1. Continue to offer payment of off-site professional development registration fees upon request.
2. Continue to send key technology leaders and users to off-site conferences and workshops.

**Benchmark: 3.6c**

**Benchmark Status: Current**

**Target Benchmark:** 1 percent of professional development activities are offered online to address the technology needs of staff.

**Needs Assessment for Percentages:** Staff development offerings and participation lists are our best indicator; however, teachers do participate in online collaboration. See below:

<b>Benchmark 3.6c</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
25. I participate in online professional collaboration (email, listserv, chat rooms) with peers and experts to enhance technology expertise.	22.06%	38.24%	39.71%	77.95%
<b>Average</b>				<b>77.95%</b>

**Status 05-06:** 78%

**Status 04-05:** 1%

**Status 03-04:** 1%

**Strategies:**

1. Continue posting professional development handouts on district and local websites.
2. Continue WEBX sessions, remote sessions, and web tutorials via the Internet, LAN, and/or WAN.
3. Continue providing Sexual Harassment training and Lee vs. Macon on-line.

## **Objective 4**

**Environment Objective: Cultivate lifelong learning communities in which the tools of technology support learning.**

### **Benchmark: 4.1**

**Benchmark Status:** Completed-Ongoing

**Target Benchmark:** Administrators (100%) routinely use technology to increase personal productivity during the workday.

**Needs Assessment for Percentages:** Observations and logs

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

#### **Strategies:**

1. Continue support of administrators' use of Palm and/or Pocket PC technologies.
2. Continue support and assistance of administrators' use of Word, e-mail including e-mail groups. Continue support and assistance of administrators' use of PowerPoint to present to faculty, parents, and the Board of Education on a consistent basis.
3. Continue support and assistance of administrators' use of STI District Workstation (district level) and STI Office (local school levels).

### **Benchmark: 4.2**

**Benchmark Status:** Completed-Ongoing

**Target Benchmark:** Administrators (100%) plan and design technology-enhanced learning venues that promote the application of technology in the classroom.

**Needs Assessment for Percentages:** Observations and Meetings

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

#### **Strategies:**

1. Continue meeting with administrators to determine the best methods for integration.
2. Continue presenting information to administrators that is obtained through email, from the meetings, from vendors, and from conferences.

**Benchmark: 4.3****Benchmark Status:** Current**Target Benchmark:** Faculty (100%) routinely use technology to increase personal productivity during the workday.**Needs Assessment for Percentages:** Profiler Pro questions 10, 28, 29, 31

<b>Benchmark 4.3</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
10. I apply technology productivity tools for student assessment and reporting purposes.	8.82%	42.16%	49.02%	91.18%
28. I use suitable productivity tools (e. g., word processing, databases, spreadsheets, communication tools, graphic programs) to complete personal, educational, and professional tasks.	0.98%	10.78%	88.24%	99.02%
29. I use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	3.92%	17.16%	78.92%	96.08%
31. I use technology to facilitate communication with parents/guardians of students.	0.49%	5.88%	93.63%	99.51%
<b>Average</b>				<b>96.44%</b>

**Status 05-06:** 96%**Status 04-05:**96%**Status 03-04:** 98%**Strategies:**

1. Technology Team, Curriculum Director, and local school administrators will collaborate to promote the integration of technology into the curriculum.
2. The technology team will continue offering professional development in the use of existing technologies and software.
3. The technology team will continue to investigate and present new and emerging technologies to all staff that will increase personal productivity.

**Benchmark: 4.4****Benchmark Status:** Current**Target Benchmark:** Faculty (100%) creates and maintains technology-enhanced learning venues.**Needs Assessment for Percentages:** Profiler Pro questions 3, 4, 5, 6, 9, 11, 14, 15, 16, 17, 18, 22

<b>Benchmark 4.4</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
3. I design and implement learning experience that use assistive technologies to meet the special physical needs of students.	18.14%	51.96%	29.90%	81.86%
4. I design, implement, and assess learner-centered lessons that are based on effective practices in teaching and learning with technology.	5.88%	50.49%	43.63%	94.12%
5. I plan and implement technology-based learning activities that promote student engagement in higher-level thinking and creation of original products.	2.94%	45.59%	51.47%	97.06%
6. I design, manage, and facilitate learning experiences using technology that is sensitive to the diversity of learners.	4.90%	45.59%	49.51%	95.10%
9. I recognize students' talents in the use of technology and provide them with opportunities to share their expertise with their teachers, peers, and others.	5.88%	53.92%	40.20%	94.12%

11. I teach students to use technology resources in collaborative ways to solve authentic problems in the subject area(s).	10.29%	52.94%	36.76%	89.70%
14. I teach students to use technology tools and resources for preparing publications and presentations, managing information, and interacting with various audiences.	14.71%	51.47%	33.82%	85.29%
15. I teach students to participate in online collaboration or discussion as part of learning experiences.	68.63%	29.96%	40.41%	31.37%
16. I teach student to use computers, printers, and other peripheral devices (e.g., scanners, digital cameras).	12.75%	32.35%	54.90%	87.25%
17. I teach students to use technology tools to process data and report results.	27.45%	50.00%	22.55%	72.55%
18. I teach students to use technology to locate, evaluate, and collect information from a variety of sources.	9.31%	43.63%	47.06%	90.69%
22. I plan and implement learning activities that use technology to enhance student academic achievement and technology proficiency.	2.45%	34.31%	63.24%	97.55%
<b>Average</b>				<b>84.72%</b>

**Status 05-06:** 85%

**Status 04-05:**84%

**Status 03-04:** 83%

**Strategies:**

1. Determine grade levels/subject areas that do not use technology to enhance teaching and learning or that are just beginning to understand the relevance and starting to experiment and partner them with other technology strong teachers in their grade level/subject area.
2. Offer grade level/subject specific professional development.
3. Offer one-on-one assistance or offer to model teach.

**Benchmark: 4.5**

**Benchmark Status:** Completed\_Ongoing

**Target Benchmark:** Schools (100%) establish and maintain community partnerships that focus on school technology use.

**Needs Assessment for Percentages:** Observation and local school financial data

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

**Strategies:**

1. Continue work with Mountain Brook Schools Foundations.
2. Continue to work with local school PTA groups and the PTA Council.

**Community Support**

The community is extremely supportive of the school’s technology goals as is demonstrated by its continued financial assistance in this area and in its formation of the Mountain Brook City Schools Foundation. The Mountain Brook Schools Foundation was formed by a group of concerned citizens to ensure that the schools in our city remain at a high level of excellence regardless of fluctuations in support through state and federal funding. Since its formation, the Mountain Brook Schools Foundation has contributed \$964,999 for laptop and desktop computers, portable word processing labs, data projectors, video broadcasting equipment, science probes, and wireless connectivity and more in addition to funding much of our summer staff development and has committed \$110,288 for 2005-2006.

**School Technology Use—Profiler Questions 1, 2, and 3**

<b>Benchmark 4.5</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
1. I develop and use criteria for evaluation of technology-based student products and the process used to create those products.	8.82%	53.92%	37.25%	91.17%
2. I use various strategies to determine students' technology proficiency in content area learning.	7.84%	55.39%	36.76%	92.15%
3. I design and implement learning experience that use assistive technologies to meet the special physical needs of students.	18.14%	51.96%	29.90%	81.86%
<b>Average</b>				<b>88.39%</b>

**Benchmark: 4.6**

**Benchmark Status: Current**

**Target Benchmark:** Students (100%) in grades 3-12 use technology resources beyond school hours either before school, after school, or weekends.

**Needs Assessment for Percentages:** Student Survey 2005

**Current Status:** 95%      **Last Year Status:** 97%

99% of students in grades 3-12 have a home computer.

97% of students in grades 3-12 have Internet access at home.

95% of secondary students use computers to do homework, class work, or research.

88% of secondary students send and receive e-mail.

**Strategies:**

1. Continue to promote access at the Mountain Brook Public Library.
2. Continue early lab and/or library hours when requested.
3. Improved and continue to update *Student and Staff Purchasing* link on Technology web page.

**Benchmark: 4.7**

**Benchmark Status: Current**

**Target Benchmark:** Students (100%) in grades 3-12 complete assignments using various types of technology.

**Needs Assessment for Percentages:** Profiler Questions 13 and 18

<b>Benchmark 4.7</b>	<b>Never</b>	<b>Occasionally</b>	<b>Routinely</b>	<b>Percentages (Occasionally &amp; Routinely)</b>
13. I teach students to select and apply suitable productivity tools (e.g., word processing, databases, spreadsheets, communication tools, graphics programs) to complete personal and educational tasks.	10.29%	43.14%	46.57%	89.71%
18. I teach students to use technology to locate, evaluate, and collect information from a variety of sources.	9.31%	43.63%	47.06%	90.69%
<b>Average</b>				<b>90.20%</b>

**Status 05-06:** 90%

**Status 04-05:**87%

**Status 03-04:** 95%

**Strategy:**

1. Continue communications with all faculty and parent groups concerning availability and use of applicable technologies.

## **Objective 5**

**Access Objective: Provide on an annual cycle, appropriate technologies that will enable teachers to create engaging work for students and staff to increase productivity.**

### **Benchmark: 5.1**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Classrooms, administrative offices, and other instructional spaces (100%) have high-speed Internet connections adequate to support learning.

**Needs Assessment for Percentages:** Calculated from Inventory Classroom Computer Count Section.

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

#### **Strategies:**

1. Continue financial support of 3-year replacement plan.
2. Increase current bandwidth for Internet connectivity from 3MB to 10MB.

### **Benchmark: 5.2**

**Benchmark Status:** Current

**Target Benchmark:** Students and staff (100%) have access to Internet-enabled computers five or less years of age (3:1 ratio).

**Needs Assessment for Percentages:** Calculated from Inventory Classroom Computer Count Section.

**05-06 Status:** 3:1

**04-05 Status:** 3.35:1

**03-04 Status:** 4:1

#### **Strategies:**

1. Continue financial support of 3-year replacement plan.

### **Benchmark: 5.3a**

**Benchmark Status:** Current

**Target Benchmark:** Students and staff (100%) have access to digital cameras (100:1 ratio).

**Needs Assessment for Percentages:** Calculated from Inventory.

**05-06 Status:** 81:1

**04-05 Status:** 66:1

**03-04 Status:** No Data

#### **Strategies:**

1. Continued local school funding for digital media devices.
2. Current minimum is one per grade level at the elementary level and digital cameras for checkout at the secondary level.
3. Investigate class set (10) of digital cameras per school.
4. Fund replacement video equipment for each elementary school for 05-06 (MBCS Foundation funds).

### **Benchmark: 5.3b**

**Benchmark Status:** Current

**Target Benchmark:** Students and staff (100%) have access to digitizing technologies such as scanners (200:1 ratio).

**Needs Assessment for Percentages:** Calculated from Inventory.

**05-06 Status:** 96:1

**04-05 Status:** 92:1

**03-04 Status:** No Data

#### **Strategies:**

1. Continued local school funding for scanners.
2. Investigate use of document cameras as an alternative digitizing device.
3. Provide additional storage and better management for digitized content.

**Benchmark: 5.3c**

**Benchmark Status:** Current

**Target Benchmark:** Students and staff (100%) have access to network laser printers (100:1 ratio).

**Needs Assessment for Percentages:** Calculated from Inventory.

**Current Status:** 41:1      **Last Year Status:** 50:1      **Change:** NA

**Strategies:**

1. Continued local school funding for networked printers.
2. Discontinue district support of local printers for classrooms.
3. Provide support for local printers used for confidential data such as special education offices, administrative offices, and counselors.

**Benchmark: 5.3d**

**Benchmark Status:** Current

**Target Benchmark:** Students and staff (100%) have access to projection devices (1:1 projection device to classroom ratio or 25:1 student to projection device ratio).

**Needs Assessment for Percentages:** Calculated from Inventory.

**Current Status:** 25:1      **Last Year Status:** 25:1      **Percent Change:** 0%

**Strategies:**

1. Mount data projectors in all 5-12 core curriculum classrooms.
2. Provide converters for Computer→TV viewing in classrooms without data projectors.
3. Provide data projectors for checkout.
4. Investigate the type of projection device best suited for in K-4 classrooms.

**Benchmark: 5.3e**

**Benchmark Status:** Current

**Target Benchmark:** Students with special needs (100%) have access to needed assistive devices.

**Needs Assessment for Percentages:** meetings with special education director

**Current Status:** 100%      **Last Year Status:** 100%      **Percent Change:** 0%

**Strategies:**

1. Meet with special education personnel to discuss working of IEPs to focus on desired outcome, not specific information.
2. Meet with special education personal and other administrators to communicate responsibilities for purchasing.

**Benchmark: 5.4**

**Benchmark Status:** Current

**Target Benchmark:** Learners (100%) have access to needed distance and online learning.

**Needs Assessment for Percentages:** Profiler question 15

**05-06 Status:** 31%

**04-05 Status:** 38%

**03-04 Status:** no data

**Strategies:**

1. Continue making on-line courses available to students via the Internet.
2. Attend meetings for “ACCESS”.
3. Meet with teachers and administrators about “ACCESS”.

\*Students have access to online learning upon request by school. 100 percent (100%) of students in Grades K-6 use an on-line program called EasyTech by Learning.com for instruction and reinforcement of skills outlined in the Technology Education Framework.

**Benchmark: 5.5**

**Benchmark Status:** Current

**Target Benchmark:** Media centers (100%) have at least a 75:1 student-to-computer ratio of modern Internet enabled computers.

**Needs Assessment for Percentages:** Computer Inventory

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Average Ratio:** 1:40

**Strategies:**

1. Continue district three-year replacement plan.
2. Continue local school funding of computers for media centers.
3. Review current ratios with individual schools.

**Benchmark: 5.6**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Media centers (100%) use administrative software (Sagebrush) to manage their collections.

**Needs Assessment for Percentages:** software inventory

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Strategies:**

1. Continue use of Sagebrush in all schools and accessibility from all classrooms.
2. Purchase server, install, and pilot new web based InfoCentre product.

**Benchmark: 5.7**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Students and staff (100%) have access to email.

**Needs Assessment for Percentages:** Software inventory

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

1. Staff (100%) have e-mail accounts including home access.
2. Classes are given e-mail accounts when requested. Individual e-mail accounts are not given to students in general but have been provided in special cases. Over ninety percent (87%) of our secondary students use email. Home accounts are allowed at school. All student e-mail needs are met.

**Benchmark: 5.8**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Local school/district administrators and school faculties (100%) use technology to communicate with parents (progress reports, report cards, newsletters, email).

**Needs Assessment for Percentages:** Observation

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Strategies:**

1. Update Channel 14 equipment and software to allow for remote access to messages.
2. Continue to update and maintain current web server and provide ready access to database driven web pages for staff using In10sity.
3. Continue to update and maintain e-mail server
4. Continue STI Home at MJBH and STI Home Deluxe at MBHS.
5. Continue support of parent e-mail groups.
6. Implement new emergency calling system (W.A.R.N.) with the ability to make non-emergency calls and send non-emergency e-mails.
7. Investigate emergency lines for local schools and central office with remote capabilities for updating messages.
8. Prepare multiple auto-attendant messages for use for inclement weather messages and other situations beyond the “normal” school day schedule.

**Benchmark: 5.9**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** School administrators and faculty (100%) and District use web pages to communicate within and outside the Mountain Brook learning community.

**Needs Assessment for Percentages:** Observation and evaluation of web pages

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Strategies:**

1. Evaluate/refine all main web pages.
2. Provide all administrative and instructional staff with the ability to use templates and database driven web page software.

**Benchmark: 5.10**

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** Media Centers (100%) provide learners with electronic search capabilities in the classroom.

**Needs Assessment for Percentages:** observation and evaluation of web pages

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

**Strategy:**

1. Evaluate web based product (InfoCentr) at MBHS location.

**Benchmark:** 5.11

**Benchmark Status:** Completed Ongoing

**Target Benchmark:** District has at least a 1:1 administrator computer ratio of modern Internet-enabled computers and technology tools.

**Needs Assessment for Percentages:** computer inventory

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

1. Replace all central office administrative computers—completed 05-06 as part of three-year replacement plan.
2. Replace CNP computers—completed 05-06.
3. Purchase and install five wireless laptops for training purposes in the finance department—completed 05-06.
4. Replace all principal and assistant principal computers on 3-year replacement plan.

## Objective 6

**Cost of Ownership Objective: Fund technical support, maintenance, and emerging technologies to improve learning.**

### **Benchmark: 6.1**

**Benchmark Status:** Current

**Target Benchmarks:** Support persons (1 to 100 staff user ratio) available 12 months a year.  
One full-time Local School Coordinator housed at each school (1:50 staff user ratio).  
Technicians (1:500 computer ratio) dispatched from the district office.

**05-06 Status:** 100%

**04-05 Status:** 100%

**03-04 Status:** 100%

### **Strategies:**

1. Provide at least 1-support person for every 50 staff users.
2. *Our goal is to allow our local school coordinators to spend more time assisting users and monitoring the network and less time troubleshooting PCs.*
3. Centralize network support.
4. Migrate to a Windows network with Exchange e-mail, two SANS (one installed 05-06 and one 06-07).
5. Investigate the use of SIF to reduce workloads.
6. Centralize backups.
7. Hire a 3<sup>rd</sup> technician—2005-2006.
8. Increase part-time position currently for Web Master/Research and Development/Network Administrator to full-time Data Collections Specialist and District WebMaster—Summer 2006.

### **Benchmark: 6.2**

**Benchmark Status:** Current

**Target Benchmark:** One full-time technical support person for every 200 computers.

### **Needs Assessment for Percentages:**

- \*1300 computers divided by 3 technicians,
- \*680 telephone utilizing same technicians.
- \*12 file servers utilizing same technicians. and
- \*106 network printers utilizing same technicians.

**05-06 Status:** 1:530

**04-05 Status:** 1:795

**03-04 Status:** 1:795

### **Strategies:**

1. Hire a 3<sup>rd</sup> technician Fall 2005
2. Redesign workload for all technology staff both technology coordinators and technicians.
3. Centralize as many technical processes as possible.
4. Stay on three-year computer replacement for parts.
5. Contract services when needed.

**Benchmark: 6.3**

**Benchmark Status: On-going**

**Target Benchmark:** The technology budget represents at least four percent (4%) of the district's total budget and includes professional development, hardware, software, retrofitting, support, replacement costs, and connectivity.

**Needs Assessment for Percentages:** Technology Budget Summary

**Current Status:** 4.4%      **05-06 Status:** 4.4%      **04-05 Status:** 4%

**Strategies:** Continue level of funding.

**Benchmark: 6.4**

**Benchmark Status: On-going**

**Target Benchmark:** The technology budget includes twelve percent (12%) for professional development and emerging technologies.

**Needs Assessment for Percentages:** Technology Budget Summary

**Current Status:** 12%

**Strategies:**

1. Continue funding professional development including conference registrations, travel, substitutes, staff, and summer stipends.
2. Continue funding the piloting and implementing of emerging technologies.

**Technology Budget 2006-2007:**

4.4% of total school system budget is spent for technology.

Total technology budget-\$1,976,227

Technology district coordinator's budget: \$1,041,595.00

Technology salaries: \$ 858,437.00

Reflected in other budgets: \$ 76,195.00

Total: \$1,976,227.00

**Funding Sources for Technology Budget Managed by Technology Director:**

State: \$136,630.00 plus the \$35,690.00 for technology position-- \$ 172,320.00

MBCS Foundation funds- \$178,110.00

E-rate received for 2005-2006: \$7,219.00

General Funds: \$1,526,373.00

\$1,884,022.00

\*E-rate funded in Wave 10 for 2005-2006: \$19,680.00; paid to date \$7219.18

\*Additional MBCS Foundation funds for Summer Professional Development stipends not included above: Estimated \$25,000

\*Mountain Brook Schools declined EETT Formula Funds in the sum of \$626.00

\*Technology funding per student, excluding local school and PTA funds: \$600

**State Breakdown:**

BWF--\$16,100.00

CB--\$16,800.00

CES--\$20,737.50

MBE--\$18,130.00

MBJH--\$29,470.00

MBHS--\$35,392.00

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2005-2006 Accomplishments**

■ Indicates in progress

✓ Indicates completed

**1. Provide timely access to instructional information in 100 percent of classrooms and lab settings for 100 percent students on at least once per week.**

- ✓ Purchase and install 37 data projectors and install 5 existing data projectors
- ✓ Purchase, configure and install 92 laptops, 6 iMacs, and 292 desktop computers to meet the requirements set-forth in each school and central office location's "Minimum Required Computers Plan and 3-Year Replacement Schedule" \**Spreadsheets do not include locally funded computers or laptops. The Minimum Required Computer Plan and computer budget for district and local plans are included in the appendices.*
- ✓ Pilot peripheral technologies including but not limited to a document camera or visual presenter, InterWrite SchoolPad 400 with USB Bluetooth Hub, data projector, student response system in sixth grade Crestline Elementary classroom to configure a "true" interactive classroom. (local school funds and district technology funds)
- ✓ Purchase and mount data projectors in remaining sixth grade Crestline classrooms. (local funds for projectors and mounts, district funds for wiring)
- ✓ Mount existing data projectors in all Mountain Brook Junior High math classrooms. (local school funds)
- ✓ Purchase and mount a minimum of five data projectors in Mountain Brook High School designated classrooms. (local school funds)
- ✓ Purchase and mount data projector for special education/student services conference room. (Special Education and Student Services funds)
- ✓ Purchase laptops, projectors, and printers for designated elementary special education departments. (Special Education funds)
- ✓ Purchase laptop for Student Services building for use with mounted data projector. (Special Education and Student Services funds)
- ✓ Upgrade video technologies such as digital video cameras, video mixers, audio mixers, CD duplicators, etc. at elementary schools. (MBCS Foundation funds)
- ✓ Upgrade Internet connectivity to 10 MB of bandwidth to be shared by 100 percent of networked workstations.

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2005-2006 Accomplishments**

- ☐ Indicates in progress
- ✓ Indicates completed

**2. *Improve and Secure 100 percent of Local Area Networks and the Wide Area Networks.***

- ✓ Migrate to a 100 percent Windows 2003 network environment in 100 percent of schools.
- ☐ Complete and disseminate back-up and disaster recovery plan.
- ✓ Increase Internet bandwidth from 3 MB to 10 MB.

**3. *Offer quality technology related professional development in multiple formats at varied times for 100 percent of staff.***

- ✓ Plan and provide technology related professional development during grade level meetings, after school, and/or release time.
- ✓ Provide substitutes for teachers attending professional development during release time.
- ✓ Provide professional development during June Summer Technology Conference.
- ✓ Provide on-line handouts.
- ✓ Implement STI Professional Development Module (STI PD) for documenting and scheduling technology related professional development.

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2005-2006 Accomplishments**

- ☐ Indicates in progress
- ✓ Indicates completed

**4. Increase and improve access to instructional and administrative electronic content for 100 percent of applicable users.**

- ✓ Standardize logins and passwords.
  - \_ Logins (Network/E-mail)
  - \_ STI Server logins (MBJH and MBHS)
  - \_ STI SETs server and program logins
  - \_ FTP logins
  - \_ Voice Mail
- ✓ Create and maintain user information in centralized database for 100 percent of Mountain Brook staff.
- ✓ Purchase K-6 Math Games software as part of curriculum materials.
- ✓ Purchase and install GPS software and science probes for MBJH Pocket PCs for use in science and social studies curriculum. *Science Probes/software was substituted for GPS software per teachers' request.*
- ☐ Purchase K-6 Language Arts software—Accelerated Reader/STAR Enterprise.
- ☐ Purchase and configure on-line system for easy web-page creation and maintenance.
- ✓ Implement on-line PCS PayPams system, which allows parents to deposit money into their child's lunchroom account using credit cards, debt cards, and electronic checks. (CNP funds)

**GOAL 3: EFFECTIVELY INTEGRATE THE USE OF TECHNOLOGY INTO ALL INSTRUCTIONAL AND SUPPORT PROGRAMS.**

**2005-2006 Accomplishments**

- ☐ Indicates in progress
- ✓ Indicates completed

**5. *Improve security at Mountain Brook Junior High.***

- ☐ Purchase and implement plan for the installation of surveillance system at Mountain Brook Junior High.

**6. *Improve communications to 100 percent of our customers.***

- ✓ Purchase and implement WARN calling system.
- ☐ Develop and implement plan for enhancing school, district, and city communications using Channel 14.

**7. *Seek national recognition for effectively integrating the use of technology into all instructional and support programs.***