

**Comprehensive Technology Plan**  
for the  
**Macon County School System**  
**Reflecting State, Local, E-Rate & Title II**  
**Part D-EdTech Funding**

**A 3-Year Plan for**  
**School Years 2010-2012**  
(Beginning July 1, 2009 to June 30, 2012)

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Approved by Lisa Howard  
Tennessee State Department of Education  
on June 12, 2009

Approved by  
the Macon County Board of Education  
on June 30, 2009

## PROCESS ELEMENTS

### 1. **NEEDS ASSESSMENT:**

Each of Macon County's seven schools completed the *TESS Survey* which is on file with the System-Wide Technology Director. The information from the *TESS Survey* has been incorporated in this technology document. All schools provide a yearly *School Technology Document* to the System's Technology Director showing the needs of that school. The school technology document is prepared by the school principal, school technology contact, and a committee of teachers. The results of the school technology document are incorporated in this system-wide technology implementation document. During each school year, all teachers are asked to fill out a technology in-service needs assessment. This needs assessment is used to determine the topics of the technology professional development/in-service opportunities for all teachers.

### 2. **STAKEHOLDER INVOLVEMENT IN PLANNING:**

The Macon County School System's Technology Implementation Document is developed by a committee that includes the system-wide technology director, school principals, member(s) of the Macon County Board of Education, and a community leader with expertise in the area of technology. Other stakeholders include a committee from each school who provides a school level technology implementation document to the system-wide technology director. The school committee includes the school principal, school technology contact, and teachers.

### 3. **TIMELINE:**

This document is a three year projection of how technology should be implemented within the Macon County School System beginning July 1, 2009 through June 30, 2012. This document includes funding from State, Local, E-Rate, and Title II Part D. A percentage of the technology State & Local funds are distributed equally among each of the eight schools based on student population. Schools are funded for the purchase of equipment and the maintenance and repair of equipment. At the beginning of each school year, schools submit a school level technology implementation document that identifies the concentration of technology funds for that school and that school's technology needs. At the end of each school year, a spreadsheet is presented to the System-Wide Technology Director that identifies the purchases made from each school and the cost. Below is a type/cost plan based on prior years spending and the system-wide technology implementation plan. The costs are only estimated costs based on some of the expenses incurred in previous years. A Technology plan must be a 'living' document due to the nature of technology and unforeseen technical situations that could cause expenditures to be re-allocated to different item purchases.

| <b><i>School Year<br/>2009-2010</i></b>   | <b><i>School Year<br/>2010-2011</i></b>   | <b><i>School Year<br/>2011-2012</i></b>   |
|---|---|---|
| <p><b><u>Funding</u></b></p> <p>Submit the technology implementation document prior to July 1, 2009.</p> <p>Continue to apply for E-Rate Funds for Internet connectivity.</p> <p>Continue to plan a budget based on no less than the BEP funding received the previous year</p> <p>Continue to support each school with a percentage of the technology local and state funds based on the student population of each school.</p> <p>Work with school level technology contacts and principals to plan and spend the school technology funds.</p> <p>Apply for any technology grants that are available for our school system</p> <p>Allow teachers to apply for local system technology mini-grants</p> <p>Continue to provide a stipend for school technology contacts. Typically the stipend is \$1,000 per person. Currently, there are 10 technology contacts in the schools. These stipends need to be increased if funds are available</p> <p>Continue encouraging the addition of a system-wide technician for minor repairs.<br/>(continued...)</p> | <p><b><u>Funding</u></b></p> <p>Submit the technology implementation document prior to July 1, 2010.</p> <p>Continue to apply for E-Rate Funds for Internet connectivity.</p> <p>Continue to plan a budget based on no less than the BEP funding received the previous year</p> <p>Continue to support each school with a percentage of the technology local and state funds based on the student population of each school.</p> <p>Work with school level technology contacts and principals to plan and spend the school technology funds.</p> <p>Apply for any technology grants that are available for our school system</p> <p>Allow teachers to apply for local system technology mini-grants</p> <p>Continue to provide a stipend for school technology contacts. Typically the stipend is \$1,000 per person. Currently, there are 10 technology contacts in the schools. These stipends need to be increased if funds are available</p> <p>Continue encouraging the addition of a system-wide technician for minor repairs.<br/>(continued...)</p> | <p><b><u>Funding</u></b></p> <p>Submit the technology implementation document prior to July 1, 2011.</p> <p>Continue to apply for E-Rate Funds for Internet connectivity.</p> <p>Continue to plan a budget based on no less than the BEP funding received the previous year</p> <p>Continue to support each school with a percentage of the technology local and state funds based on the student population of each school.</p> <p>Work with school level technology contacts and principals to plan and spend the school technology funds.</p> <p>Apply for any technology grants that are available for our school system</p> <p>Allow teachers to apply for local system technology mini-grants</p> <p>Continue to provide a stipend for school technology contacts. Typically the stipend is \$1,000 per person. Currently, there are 10 technology contacts in the schools. These stipends need to be increased if funds are available</p> <p>Continue encouraging the addition of a system-wide technician for minor repairs.<br/>(continued...)</p> |

| <b>School Year<br/>2009-2010<br/>(continued...Funding)</b>   | <b>School Year<br/>2010-2011<br/>(continued...Funding)</b>   | <b>School Year<br/>2011-2012<br/>(continued...Funding)</b>   |
|--|--|--|
| <p>Continue to employ the District-wide SSMS/EIS clerical position at the Board of Education.</p>  | <p>Continue to employ the District-wide SSMS/EIS clerical position at the Board of Education.</p>  | <p>Continue to employ the District-wide SSMS/EIS clerical position at the Board of Education.</p>  |
| <p><b><u>Networks,<br/>Infrastructure,<br/>LAN's and WAN's,<br/>Connectivity</u></b></p> <p>Research the current Distance Learning opportunities that Macon County Schools may have to utilize the already present fiber optics termination at Macon County High School and the planned fiber optic County WAN. Due to the cost of Distance Learning classrooms, the only feasible way of funding would be through grant moneys. An effort needs to be made to seek grant moneys for this purpose.</p> <p>Upgrade all file servers on a three-to-four year rotation.</p> <p>Continue to upgrade and support the fiber optic network creating a 100 mbps fiber WAN between all schools in the county and the Board of Education. Upgrade the 15 mbps fiber egress as funds are available. Both are contracted through ENA.</p> <p><i>(continued...)</i></p> <p><b>School Year</b></p> | <p><b><u>Networks,<br/>Infrastructure,<br/>LAN's and WAN's,<br/>Connectivity</u></b></p> <p>Research the current Distance Learning opportunities that Macon County Schools may have to utilize the already present fiber optics termination at Macon County High School and the planned fiber optic County WAN. Due to the cost of Distance Learning classrooms, the only feasible way of funding would be through grant moneys. An effort needs to be made to seek grant moneys for this purpose.</p> <p>Upgrade all file servers on a three-to-four year rotation.</p> <p>Continue to upgrade and support the fiber optic network creating a 100 mbps fiber WAN between all schools in the county and the Board of Education. Upgrade the 15 mbps fiber egress as funds are available. Both are contracted through ENA.</p> <p><i>(continued...)</i></p> <p><b>School Year</b></p> | <p><b><u>Networks,<br/>Infrastructure,<br/>LAN's and WAN's,<br/>Connectivity</u></b></p> <p>Research the current Distance Learning opportunities that Macon County Schools may have to utilize the already present fiber optics termination at Macon County High School and the planned fiber optic County WAN. Due to the cost of Distance Learning classrooms, the only feasible way of funding would be through grant moneys. An effort needs to be made to seek grant moneys for this purpose.</p> <p>Upgrade all file servers on a three-to-four year rotation.</p> <p>Continue to upgrade and support the fiber optic network creating a 100 mbps fiber WAN between all schools in the county and the Board of Education. Upgrade the 15 mbps fiber egress as funds are available. Both are contracted through ENA.</p> <p><i>(continued...)</i></p> <p><b>School Year</b></p> |

| <b>2009-2010</b><br><b>(continued...)</b><br><b>Networks, LANs, WANs...</b>  | <b>2010-2011</b><br><b>(continued...)</b><br><b>Networks, LANs, WANs...</b>   | <b>2011-2012</b><br><b>(continued...)</b><br><b>Networks, LANs, WANs...</b>   |
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| <p>Through the TCSPP initiative, the participants have determined that a fiber network between schools can and will help us utilize the A+ software more effectively county wide if a dedicated fileserver is used to run the software from one location. The group has also agreed on other software packages that will benefit students in Macon County if done in a similar way.</p> <p>Maintain the dedicated fileserver located at the Board of Education to accommodate software shared on the fiber optic network and upgrade every three-to-four years within the school fileserver rotation.</p> <p>Continue to contract with ENA for firewall services.</p> <p>Add to our System's infrastructure any new technologies that help increase the speed of our networks (replacing any older switches, etc.) for faster Internet access. Support the addition of wireless networks in the schools.</p> <p>Continue supporting the addition of wireless labs in the schools. The wireless labs are used in schools that do not have an available room to lend to a computer lab.</p> <p><i>(continued...)</i></p> | <p>Continue to support software run on the dedicated fileserver and to seek other research based software to be used county-wide in order to utility the 100mpbs Fiber Network to its potential.</p> <p>Maintain the dedicated fileserver located at the Board of Education to accommodate software shared on the fiber optic network and upgrade every three-to-four years within the school fileserver rotation.</p> <p>Continue to contract with ENA for firewall services.</p> <p>Add to our System's infrastructure any new technologies that help increase the speed of our networks (replacing any older switches, etc.) for faster Internet access. Support the addition of wireless networks in the schools.</p> <p>Continue supporting the addition of wireless labs in the schools. The wireless labs are used in schools that do not have an available room to lend to a computer lab.</p> <p><i>(continued...)</i></p> | <p>Continue to support software run on the dedicated fileserver and to seek other research based software to be used county-wide in order to utility the 100mpbs Fiber Network to its potential.</p> <p>Maintain the dedicated fileserver located at the Board of Education to accommodate software shared on the fiber optic network and upgrade every three-to-four years within the school fileserver rotation.</p> <p>Continue to contract with ENA for firewall services.</p> <p>Add to our System's infrastructure any new technologies that help increase the speed of our networks (replacing any older switcher, etc.) for faster Internet access. Support the addition of wireless networks in the schools.</p> <p>Continue supporting the addition of wireless labs in the schools. The wireless labs are used in schools that do not have an available room to lend to a computer lab.</p> <p><i>(continued...)</i></p> |
| <p><b>School Year</b></p>  | <p><b>School Year</b></p>   | <p><b>School Year</b></p>   |

| <b>2009-2010</b><br>(...continued Networks, LANs, WANs...)   | <b>2010-2011</b><br>(...continued Networks, LANs, WANs...)   | <b>2011-2012</b><br>(...continued Networks, LANs, WANs...)   |
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| <p>Continue to support the current System and School websites which includes such items as hosting expenses, domain expenses, training webmasters, software upgrades, purchase of equipment for webmasters to use in building the websites on a 3 year rotation upgrade. Consider a stipend to those who are building and maintaining the school websites.</p> <p>Add additional hardware and software to our networks as needed for security and upgrades.</p> <p>Continue purchasing anti-virus software to be pushed down to each computer connected to the network. The cost increases with the number of computers connected to the LAN.</p> <p>Continue to support and upgrade the NAS that was installed during SY 05-06. This is an off site backup of each fileserver that is a safeguard against the loss of data in case of a disaster or fileserver failure.</p> | <p>Continue to support the current System and School websites which includes such items as hosting expenses, domain expenses, training webmasters, software upgrades, purchase of equipment for webmasters to use in building the websites on a 3 year rotation upgrade. Consider a stipend to those who are building and maintaining the school websites.</p> <p>Add additional hardware and software to our networks as needed for security and upgrades.</p> <p>Continue purchasing anti-virus software to be pushed down to each computer connected to the network. The cost increases with the number of computers connected to the LAN.</p> <p>Continue to support and upgrade the NAS that was installed during SY 05-06. This is an off site backup of each fileserver that is a safeguard against the loss of data in case of a disaster or fileserver failure.</p> | <p>Continue to support the current System and School websites which includes such items as hosting expenses, domain expenses, training webmasters, software upgrades, purchase of equipment for webmasters to use in building the websites on a 3 year rotation upgrade. Consider a stipend to those who are building and maintaining the school websites.</p> <p>Add additional hardware and software to our networks as needed for security and upgrades.</p> <p>Continue purchasing anti-virus software to be pushed down to each computer connected to the network. The cost increases with the number of computers connected to the LAN.</p> <p>Continue to support and upgrade the NAS that was installed during SY 05-06. This is an off site backup of each fileserver that is a safeguard against the loss of data in case of a disaster or fileserver failure.</p> |
| <p><b><u>Hardware &amp; Software:</u></b></p> <p>Continue to add computers system-wide in the classrooms to maintain a school level 3:1 student:computer ratio of mid/high capacity computers in each school. (TESS)</p> <p><i>(continued...)</i></p>  | <p><b><u>Hardware &amp; Software:</u></b></p> <p>Continue to add computers system-wide in the classrooms to maintain a school level 3:1 student:computer ratio of mid/high capacity computers in each school. (TESS or appropriate State Survey)</p> <p><i>(continued...)</i></p>  | <p><b><u>Hardware &amp; Software:</u></b></p> <p>Continue to add computers system-wide in the classrooms to maintain a school level 3:1 student:computer ratio of mid/high capacity computers in each school. (TESS or appropriate State Survey)</p> <p><i>(continued...)</i></p>  |

| <b>School Year<br/>2009-2010<br/>(continued...Hardware &amp;<br/>Software)</b>   | <b>School Year<br/>2010-2011<br/>(continued...Hardware &amp;<br/>Software)</b>   | <b>School Year<br/>2011-2012<br/>(continued...Hardware &amp;<br/>Software)</b>   |
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| <p>Add the latest version of Windows XP Professional to each computer purchased</p> <p>Add the latest version of Microsoft Office to each computer purchased.</p> <p>Continue to purchase new software that correlates with any new textbook for the academic computer labs.</p> <p>Install teacher workstations which could be in the form of a laptop in each school to achieve a 1:1 teacher to classroom computer ratio (CTC). Teachers are keeping gradebooks, lesson plans, test, etc. on their computers which should be used for teacher access only. Eventually, teachers will have to keep daily/hourly attendance on computers, so we need to be planning for that.</p> <p>Continue to provide connectivity to the school network for all classrooms</p> <p>Continue to install and Update Multi-media centers in each school library. Some of the Multi-media centers are becoming outdated and need to be replaced on a cycle.</p> <p>Continue to provide at least one mid/high capacity computer per classroom. Make an effort to provide multiple computers in the elementary classroom to better utilize the A+ software.<br/>(continued...)</p> | <p>Add the latest version of Windows XP Professional to each computer purchased</p> <p>Add the latest version of Microsoft Office to each computer purchased.</p> <p>Continue to purchase new software that correlates with any new textbook for the academic computer labs.</p> <p>Install teacher workstations which could be in the form of a laptop in each school to achieve a 1:1 teacher to classroom computer ratio (CTC). Teachers are keeping gradebooks, lesson plans, test, etc. on their computers which should be used for teacher access only. Eventually, teachers will have to keep daily/hourly attendance on computers, so we need to be planning for that.</p> <p>Continue to provide connectivity to the school network for all classrooms</p> <p>Continue to install and Update Multi-media centers in each school library. Some of the Multi-media centers are becoming outdated and need to be replaced on a cycle.</p> <p>Continue to provide at least one mid/high capacity computer per classroom. Make an effort to provide multiple computers in the elementary classroom to better utilize the A+ software.<br/>(continued...)</p> | <p>Add the latest version of Windows XP Professional to each computer purchased</p> <p>Add the latest version of Microsoft Office to each computer purchased.</p> <p>Continue to purchase new software that correlates with any new textbook for the academic computer labs.</p> <p>Install teacher workstations which could be in the form of a laptop in each school to achieve a 1:1 teacher to classroom computer ratio (CTC). Teachers are keeping gradebooks, lesson plans, test, etc. on their computers which should be used for teacher access only. Eventually, teachers will have to keep daily/hourly attendance on computers, so we need to be planning for that.</p> <p>Continue to provide connectivity to the school network for all classrooms</p> <p>Continue to install and Update Multi-media centers in each school library. Some of the Multi-media centers are becoming outdated and need to be replaced on a cycle.</p> <p>Continue to provide at least one mid/high capacity computer per classroom. Make an effort to provide multiple computers in the elementary classroom to better utilize the A+ software.<br/>(continued...)</p> |
| <b>School Year</b>   |  |  |

| <b>School Year<br/>                     2009-2010<br/>                     (continued...Hardware &amp;<br/>                     Software)</b>   | <b>2010-2011<br/>                     (continued...Hardware &amp;<br/>                     Software)</b>  | <b>School Year<br/>                     2011-2012<br/>                     (continued...Hardware &amp;<br/>                     Software)</b>   |
|---|---|---|
| <p>Continue to support the State Department of Education’s student management software package—Star_Student and EIS or purchase local student management software if the State decides not to continue this purchase for the LEA.</p> <p>Keep all SSMS/EIS equipment and connectivity working properly and upgrade as necessary. This includes placing faster laser printers in each SSMS secretary’s office for the purpose of printing report cards and other necessary reports from both Star_Student and EIS.</p> <p>Continue to train the SSMS/EIS secretaries and staff in the use of the software package and in how to use the TN State SSMS/EIS on-line system</p> <p>Purchase new hardware for administrators and Office secretaries as needed and as funds are available. SSMS/EIS secretaries should be updated every three years.</p> <p>Continue to maintain and upgrade existing school labs adding both hardware and software where/when needed.</p> <p>Continue to increase the number of computer projection devices in the classrooms. This will include TV’s, LCD Projection devices, SmartBoards, etc.</p> <p>Continue to provide maintenance and repair for all equipment in <i>(continued)</i></p> | <p>Continue to support the State Department of Education’s student management software package—Star_Student and EIS or purchase local student management software if the State decides not to continue this purchase for the LEA.</p> <p>Keep all SSMS/EIS equipment and connectivity working properly and upgrade as necessary. This includes placing faster laser printers in each SSMS secretary’s office for the purpose of printing report cards and other necessary reports from both Star_Student and EIS.</p> <p>Continue to train the SSMS/EIS secretaries and staff in the use of the software package and in how to use the TN State SSMS/EIS on-line system</p> <p>Purchase new hardware for administrators and Office secretaries as needed and as funds are available. SSMS/EIS secretaries should be updated every three years.</p> <p>Continue to maintain and upgrade existing school labs adding both hardware and software where/when needed.</p> <p>Continue to increase the number of computer projection devices in the classrooms. This will include TV’s, LCD Projection devices, SmartBoards, etc.</p> <p>Continue to provide maintenance and repair for all equipment in <i>(continued)</i></p> <p><b>School Year</b></p> | <p>Continue to support the State Department of Education’s student management software package—Star_Student and EIS or purchase local student management software if the State decides not to continue this purchase for the LEA.</p> <p>Keep all SSMS/EIS equipment and connectivity working properly and upgrade as necessary. This includes placing faster laser printers in each SSMS secretary’s office for the purpose of printing report cards and other necessary reports from both Star_Student and EIS.</p> <p>Continue to train the SSMS/EIS secretaries and staff in the use of the software package and in how to use the TN State SSMS/EIS on-line system</p> <p>Purchase new hardware for administrators and Office secretaries as needed and as funds are available. SSMS/EIS secretaries should be updated every three years.</p> <p>Continue to maintain and upgrade existing school labs adding both hardware and software where/when needed.</p> <p>Continue to increase the number of computer projection devices in the classrooms. This will include TV’s, LCD Projection devices, SmartBoards, etc.</p> <p>Continue to provide maintenance and repair for all equipment in <i>(continued)</i></p> |

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| <p><b>School Year<br/>2009-2010<br/>(continued...Hardware &amp; Software)</b></p> <hr/> <p>the schools. The number of computers is growing and the numbers of older computer which are out of warranty are growing. There is a need for the amount of maintenance and repair to be increased yearly.</p> <p>Begin upgrading the older computers in the Technology Learning Center. This center is used by teachers for professional development purposes and for teachers to make computer related items to use in their classrooms.</p> <p>Purchase updated software for the Technology Learning Center for the purpose of teacher training.</p> <p>Consider installing a Macintosh/Apple labs to expand technology to a multi-platform. Currently all computers purchased are PCs.</p> <p>Continue to replace equipment that is damaged and/or out of date.</p> <p>Continue to purchase yearly subscriptions to the following on-line services for teachers and students: netTrekker, BrainPOP, BrainPOP Jr., BrainPOP Espanol, Learn 360 &amp; Atomic Learning.</p> <p>Purchase Gaggles through ENA. This will allow students to safely use email and chat rooms educationally.</p> <hr/> | <p><b>2010-2011<br/>(continued...Hardware &amp; Software)</b></p> <hr/> <p>the schools. The number of computers is growing and the numbers of older computer which are out of warranty are growing. There is a need for the amount of maintenance and repair to be increased yearly.</p> <p>Begin upgrading the older computers in the Technology Learning Center. This center is used by teachers for professional development purposes and for teachers to make computer related items to use in their classrooms.</p> <p>Purchase updated software for the Technology Learning Center for the purpose of teacher training.</p> <p>Consider installing a Macintosh/Apple labs to expand technology to a multi-platform. Currently all computers purchased are PCs.</p> <p>Continue to replace equipment that is damaged and/or out of date.</p> <p>Continue to purchase yearly subscriptions to the following on-line services for teachers and students: netTrekker, BrainPOP, BrainPOP Jr., BrainPOP Espanol, Learn 360 &amp; Atomic Learning.</p> <p>Purchase Gaggles through ENA. This will allow students to safely use email and chat rooms educationally.</p> <hr/> | <p><b>School Year<br/>2011-2012<br/>(continued...Hardware &amp; Software)</b></p> <hr/> <p>the schools. The number of computers is growing and the numbers of older computer which are out of warranty are growing. There is a need for the amount of maintenance and repair to be increased yearly.</p> <p>Begin upgrading the older computers in the Technology Learning Center. This center is used by teachers for professional development purposes and for teachers to make computer related items to use in their classrooms.</p> <p>Purchase updated software for the Technology Learning Center for the purpose of teacher training.</p> <p>Consider installing a Macintosh/Apple labs to expand technology to a multi-platform. Currently all computers purchased are PCs.</p> <p>Continue to replace equipment that is damaged and/or out of date.</p> <p>Continue to purchase yearly subscriptions to the following on-line services for teachers and students: netTrekker, BrainPOP, BrainPOP Jr., BrainPOP Espanol, Learn 360 &amp; Atomic Learning.</p> <p>Purchase Gaggles through ENA. This will allow students to safely use email and chat rooms educationally.</p> <hr/> |
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| <b><u>Staff Training - Professional Development – In-Service - Administrator Training</u></b>  | <b><u>Staff Training - Professional Development - In-Service - Administrator Training</u></b>  | <b><u>Staff Training - Professional Development - In-Service - Administrator Training</u></b>  |
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| <p>Study the TESS (or the current State sponsored Technology survey) surveys to develop a better understanding of the level of technology that is present in the school system</p>   | <p>Study the TESS (or the current State sponsored Technology survey) surveys to develop a better understanding of the level of technology that is present in the school system</p>   | <p>Study the TESS (or the current State sponsored Technology survey) surveys to develop a better understanding of the level of technology that is present in the school system</p>   |
| <p>Develop training sessions that will enhance the deficiencies made apparent through the study of TESS (or the current State sponsored Technology survey)</p>   | <p>Develop training sessions that will enhance the deficiencies made apparent through the study of TESS (or the current State sponsored Technology survey)</p>   | <p>Develop training sessions that will enhance the deficiencies made apparent through the study of TESS (or the current State sponsored Technology survey)</p>   |
| <p>System-Wide Technology in-service training schedule is posted on the county school systems website at:<br/> <a href="http://maconcountyschools.com">http://maconcountyschools.com</a> for easy and continuous access by each teacher.</p> | <p>System-Wide Technology in-service training schedule is posted on the county school systems website at:<br/> <a href="http://maconcountyschools.com">http://maconcountyschools.com</a> for easy and continuous access by each teacher.</p> | <p>System-Wide Technology in-service training schedule is posted on the county school systems website at:<br/> <a href="http://maconcountyschools.com">http://maconcountyschools.com</a> for easy and continuous access by each teacher.</p> |
| <p>System-Wide technology in-service is developed according to the technology in-service needs assessment that each teacher is asked to fill out in conjunction with a system-wide in-service committee.</p>                                 | <p>System-Wide technology in-service is developed according to the technology in-service needs assessment that each teacher is asked to fill out in conjunction with a system-wide in-service committee.</p>                                 | <p>System-Wide technology in-service is developed according to the technology in-service needs assessment that each teacher is asked to fill out in conjunction with a system-wide in-service committee.</p>                                 |
| <p>All teachers using the Internet in the classroom must participate in 6 hours of <i>Internet in the Classroom</i> in-service training (local Board requirement)</p>  | <p>All teachers using the Internet in the classroom must participate in 6 hours of <i>Internet in the Classroom</i> in-service training (local Board requirement)</p>  | <p>All teachers using the Internet in the classroom must participate in 6 hours of <i>Internet in the Classroom</i> in-service training (local Board requirement)</p>  |
| <p>All teachers using email on the school network must participate in at least 3 hours of <i>email</i> in-service training (local Board requirement)</p>   | <p>All teachers using email on the school network must participate in at least 3 hours of <i>email</i> in-service training (local Board requirement)</p>   | <p>All teachers using email on the school network must participate in at least 3 hours of <i>email</i> in-service training (local Board requirement)</p>   |
| <p>(continued...)</p>  | <p>(continued...)</p>  | <p>(continued...)</p>  |

| <b>School Year<br/>                     2009-2010<br/>                     (continued...Professional<br/>                     Development, ...)</b>  | <b>School Year<br/>                     2010-2011<br/>                     (continued...Professional<br/>                     Development, ...)</b>  | <b>School Year<br/>                     2011-2012<br/>                     (continued...Professional<br/>                     Development, ...)</b>  |
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| <p>Attend state technology conferences to develop an awareness of the current and new technologies offered for the classroom – both hardware and software</p> <p>Encourage teacher participation in on-line technology classes that increase teacher abilities to use productivity software and integrate technology in the classroom.</p> | <p>Attend state technology conferences to develop an awareness of the current and new technologies offered for the classroom – both hardware and software</p> <p>Encourage teacher participation in on-line technology classes that increase teacher abilities to use productivity software and integrate technology in the classroom.</p> | <p>Attend state technology conferences to develop an awareness of the current and new technologies offered for the classroom – both hardware and software</p> <p>Encourage teacher participation in on-line technology classes that increase teacher abilities to use productivity software and integrate technology in the classroom.</p> |
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| These budgets are only a cost estimate and are pending funding.  | These budgets are only a cost estimate and are pending funding.  | These budgets are only a cost estimate and are pending funding.  |
| <b>Hardware/Software Instruction:</b><br>\$185,000 (BEP)<br>\$30,000 (E-Rate Local Telco Discount)   | <b>Hardware/Software Instruction:</b><br>\$195,000 (BEP)<br>\$30,000 (E-Rate Local Telco Discount)   | <b>Hardware/Software Instruction:</b><br>\$205,000 (BEP)<br>\$30,000 (E-Rate Local Telco Discount)   |
| <b>School Technology Contacts:</b><br>\$12,000   | <b>School Technology Contacts:</b><br>\$15,000   | <b>School Technology Contacts:</b><br>\$18,000   |
| <b>Repair &amp; Maintenance:</b><br>\$65,000   | <b>Repair &amp; Maintenance:</b><br>\$70,000   | <b>Repair &amp; Maintenance:</b><br>\$75,000   |
| <b>ENA Supporting Network and Incremental upgrades—Local Portion of the cost:</b><br>\$67,000  | <b>ENA Supporting Network and Incremental upgrades—Local Portion of the cost:</b><br>\$67,000  | <b>ENA Supporting Network and Incremental upgrades—Local Portion of the cost:</b><br>\$67,000  |
| <b>Support for equipment and teacher staff development:</b><br>\$15,000 (BEP)<br>\$8,200 (Title IID)<br>\$20,000 (Title IID Stimulus)<br>\$3,000 (E-Rate-Local Telco Discount)     | <b>Support for equipment and teacher staff development:</b><br>\$15,000 (BEP)<br>\$8,200 (Title IID)<br>\$3,000 (E-Rate-Local Telco Discount)                                      | <b>Support for equipment and teacher staff development:</b><br>\$15,000 (BEP)<br>\$8,200 (Title IID)<br>\$3,000 (E-Rate-Local Telco Discount)                                      |
| <b>Attendance Equipment:</b><br>\$15,000   | <b>Attendance Equipment:</b><br>\$15,000   | <b>Attendance Equipment:</b><br>\$15,000   |
| <b>Total: \$420,200</b>  | <b>Total: \$418,200</b>  | <b>Total: \$436,200</b>  |
| <i>*Note—An itemized “Division of Funds for Technology” has been submitted to the State Department of Education with the Consolidated Application for the current school year.</i> | <i>*Note—An itemized “Division of Funds for Technology” has been submitted to the State Department of Education with the Consolidated Application for the current school year.</i> | <i>*Note—An itemized “Division of Funds for Technology” has been submitted to the State Department of Education with the Consolidated Application for the current school year.</i> |

**4. RESPONSIBLE PARTIES:**

The Macon County School System Technology Comprehensive Plan is to be overseen by the Director of Schools, Darrel Law, and the Technology Director, Patricia Ferguson. The individual schools’ technology plan is to be overseen by the school technology contact and the school principal. A copy of each individual school’s plan is submitted to the Technology Director.

## CONTENT ELEMENTS

### 5. **VISION:**

Since technology is the inescapable companion of the 21st century and since the Macon County School System is dedicated to preparing students for the future, our vision is to develop a technology infrastructure that will allow all students and teachers to be equipped with the tools of technology to assimilate information, develop lifelong learning skills, share resources, be productive citizens and communicate in a global society.

### 6. **GOALS AND OBJECTIVES:**

- A. Since all schools and all classrooms are currently networked and connected to the Internet (accomplished by end of 1999-2000 school year), the Macon County School System (MCSS) has continued to connect each new classroom built and each growth classroom that was not established prior to the 1999-2000 school year. This remains a goal for our county. It is our intention to make sure each classroom has Internet and LAN capabilities.
- B. Ed Tech funds and E-Rate funds will target high poverty and high needs schools as described in each section listed under **Item #6 Goals and Objectives**. Since Title I targets high poverty schools, special emphasis will be given to high needs schools and preparing those teachers through in-service training, professional development and other technology activities to integrate technology into the curriculum. Currently all schools except one in the Macon County School System are School-Wide Title I schools.
- C. Recognize the TESS survey as integral parts in the assessment and planning technology needs. Recognize the yearly technology needs survey as an integral part of technology professional development planning.
- D. Since all classrooms in each school have at least one Internet capable computer, it is the intention of the MCSS to continue to install an Internet capable computer in each new classroom built and in each growth classroom and to add multiple Internet capable computers to classrooms as funding is available.
- E. Maintain the file servers in each school and the Central Office and update the file servers every three-to-four years on a staggered schedule.
- F. Install student workstations in each school to achieve a 3:1 student to computer ratio in *each* school.
- G. Install teacher workstations in each school to continue achieving a 1:1 teacher to computer ratio in *each* school.
- H. Maintain the established wide-area-network (WAN) for the purpose of sharing all types of information/communication between the schools and the central office. Our goal to upgrade the existing T1 WAN between schools and the Board of Education to a 100 mbps Fiber Optic Network was met during SY 2007-08. And we extended this goal in 2008-09 to upgrade the connectivity egress to the Internet “cloud” from 5-T1 lines at 7 mbps to a 15 mbps Fiber Optic egress. Plans are to continue to increase the Fiber egress as funds are available.

- I. Since the purchase of A+ Anywhere Learning System System-Wide and the implementation of other research based software, there is a need for a central location to store this software thus a faster more efficient way of accessing the program data. During SY 2007-08, a dedicated centralized fileserver was purchased and installed at the Macon County Board of Education and an upgrade to a centralized version of the A+ Anywhere Learning System was purchased during 2008-09.
  
- J. Provide more computer teacher centers (CTC) to classrooms teachers.
  - 1. In previous years, a CTC included a computer workstation, a printer, 32"+ TV with cart, a connection to the school LAN for software sharing and Internet access, and a large screen projection device for appropriate classrooms. Projection devices may also include large screen projectors and/or SmartBoards. During 2007-08 and 2008-09, the installation of SmartBoards in the classroom has opened new avenues for teachers to engage student learning. The SmartBoards are replacing the 32" TV and carts as part of the CTC. The document camera is also becoming a part of the CTC as the teachers are seeing a need to be able to project images to the SmartBoard to be used interactively by both students and teachers.
  - 2. Currently, all classroom teachers have a computer with Internet access, but not a complete CTC.
  - 3. A CTC is used by a classroom teacher to enhance instruction and increase teacher productivity.
  - 4. A CTC in a classroom is also available for student use, increasing student access to computers as well as teacher access to computers.
  
- K. Support and encourage mini-grants funded locally for teachers employed by the Macon County Board of Education.
  - 1. This process will provide teachers the opportunity to request and receive technology that is unique to a specific classroom need.
  - 2. The mini-grant process will allow teachers the opportunity to display to the local education agency (LEA) a plan for using technology in the classroom.
  - 3. And encourage teachers to seek other grant opportunities outside the LEA.
  
- L. Continue installing and updating Multimedia Centers in each school library.
  - 1. The multimedia center will have available a digital camera, camcorder, scanner, printer, and other devices along with appropriate system software to create multimedia projects.
  - 2. Equip each school library with a multimedia center consisting of at least five multimedia telecommunication workstations to provide students with the necessary components to create authentic assessment projects, access the resources of the Internet and utilize any available electronic card catalogs.
  - 3. Workstations will provide equity of access for students needing unscheduled use of technology.
  - 4. The multimedia center can double as a school site technology teaching and learning center for the purpose of training and support of teachers to integrate technology into the curriculum.
  - 5. The installation of Library multimedia centers should be an ongoing process and upgraded every 5 years to keep current technology available. The upgrade is at the discretion of the School's technology committee.
  - 6. Help to maintain and upgrade each school library circulation software and circulation computer stations so library information can be shared across the School System LAN's and WAN to each classroom and ultimately to each teacher and student. All schools are

currently using a library circulation software and technology is providing the software support cost and technology is providing and upgrading the library circulation hardware/computer. The process mentioned above will take an upgrade of the current library circulation software and a centralized location to store the information.

- M. Recognize professional development as an integral part of incorporating technology into the curriculum.
1. During the 1997-98 school year, the MCSS was awarded an \$81,000+ Goals 2000 grant for a Technology Learning Center for teacher professional development. This Technology Center has allowed the school system to support technology professional development for Macon County teachers. The original 20 station Technology Learning Center was relocated during SY 2005-06 and the number of computers (because of space) was reduced to 14 learning stations and one teacher station. This 15 station Technology Learning Center should be upgraded every 3-5 years to keep current technology training available for all teachers.
    - a. Teachers are given a technology training needs assessment to allow them to voice their individual training needs. Training sessions are scheduled around the needs assessments.
    - b. After each training session, teachers are given an evaluation sheet to fill out concerning the training session that they just completed. Teachers are able to voice their opinion about the training facility, the trainer, and if the training session met their needs as a classroom teacher. Teachers are also given the opportunity to suggest other beneficial training sessions.
    - c. Teacher training for in-service credit will be provided during the summer months and throughout the school year to teachers, administrators, supervisors, and teacher assistants in the following areas:
      - 1) Operating Systems (Windows XP) and the general use of individual school computer labs
      - 2) Teachers Productivity (Microsoft Office: Word, Excel, PowerPoint, Access, etc.) These sessions show teachers how to integrate the Office software programs with their teaching needs.
      - 3) Software Applications that may be unique to an individual group of teachers or an individual school. These sessions are prepared upon request.
      - 4) Telecollaborative projects
      - 5) WebQuest Internet site
      - 6) Teaching with the Web—how to use the Internet in the classroom
      - 7) Virtual field trips
      - 8) The one computer classroom
      - 9) PhotoShop
      - 10) How to Create a DVD Presentation
      - 11) Elementary Reading Using the Internet
      - 12) Internet I & II which includes Internet Safety, local Internet and website policies, Acceptable Use Policies for Employees and Students, etc.
      - 13) PrintShop
      - 14) How to use scanners, digital cameras, flexcams, etc.
      - 15) Kidspiration
      - 16) JumpStart Typing and JumpStart Spanish
      - 17) Networked Software (Accelerated Reader, Accelerated Math, and Library circulation software, A+ Software, etc.)

- 18) E-Mail, Internet, Teaching with the Web, Gateway to the Web (related to Gateway Testing), Make and Take Technology Workshops, TestMate/Clarity, MarcoPolo, netTrekker, Atomic Learning, BrainPOP, Teaching Social Studies Using the Internet, 3-D Science, A+, etc.
  - 19) SmartBoards in the Elementary Classroom, SmartBoards in the junior high and high school classrooms, and basics of how to use the SmartBoard
  - 20) Make and Take Technology to help teachers prepare classroom materials and work individually.
  - 21) A group of 8 or more teachers can request a technology in-service for professional development anytime during the school year.
2. Provide teachers with the tools required to become effective participants in the Communication Age.
  3. Recognize that teachers are role models for their students and integrate the use of technology into the instructional program.
  4. Provide necessary training to allow teachers to be effective in the use of technology in the classroom
  5. Make teachers aware of and comfortable with new technology.
  6. Opportunities for teachers and staff to attend conferences and workshops pertaining to technology such as TETC, Accelerated Reader conferences, local college/university technology workshops, etc.
  7. Continue supporting a school/building level technology contact person for each school. This person is to support teachers and staff locally by doing minor troubleshooting, installing software, ordering new equipment, keeping inventories, and forwarding work orders. This technology contact should give teachers immediate support with technology technical problems and software support. Technology contacts should be added to the schools as school population and school technology grows.
  8. Continue providing troubleshooting training opportunities for the school level technology contacts. This will help reduce the cost of repair and maintenance of the computer.
  9. Continue to provide training for school webmasters and to provide the school webmasters with the best possible software to design the school website. Training includes how to use the web design software, laws concerning student privacy on the web, release time to design and update the website, and how to publish the websites to the specific web hosting company.
  10. Continue to provide on-going and sustained training for all teachers throughout the school system who are using the research based A+ software. Initial training for teachers who are new hires and follow up training for teachers who have been using the software with the students but want to learn more about the features of the software.
  11. Begin to introduce technology coaches into each school to be on-site support for teachers using technology in the classroom.
- N. Provide a computer lab that will accommodate the SDE maximum classroom size. For example, grades 4-6 have a SDE maximum classroom size of 25; therefore, a computer lab should have a minimum of 25 workstations. All schools currently have at least one lab and some schools have two labs. These labs should be updated every 3-5 years to keep the technology up to date and usable for the students. Currently all schools have access to a computer lab that is not used as a classroom. Because of space, we have opted to use wireless laptop labs in some schools.

- O. Provide a portable wireless laptop lab at each school to be checked out to properly trained teachers to use as a temporary lab in the classroom. Some schools already have this kind of lab in place, but we plan to continue the installation of these wireless laptop labs.
- P. Provide wireless connectivity points in the schools to support the wireless laptop labs.
- Q. A NAS Backup system for the entire School System was put in place during the 2005-06 school year. This will allow all of our fileserver data to be backed up to remote sites for security purposes. We plan to continue adding additional storage devices to each school for added data security.
- R. Currently, all technician services for repair and maintenance are out-sourced locally with Artis Networks. The School System is currently supporting 1,200+ computers, 8 networks and file servers, multiple wireless network, and a growing number of labs and wireless labs. It would be in the best interest of the school system as a whole to begin looking into hiring at least one technician for the School System to take care of minor repairs. Currently, the System Wide Technology Director has no one on staff to support her efforts in technology, not even clerical personnel. With the growth of the school system in number of students and teachers and in number of computers, it is time to begin the process of developing an Office of Technology to better support the technology efforts system-wide.
- S. Work toward installing and utilizing distance learning equipment in order to share curriculum, events, and activities between our schools, other schools, colleges, universities, and other instructional/educational institutions. Currently one school, Macon County High School, has fiber optics terminated within one classroom in the building. Distance learning classrooms are expensive and our only chance of funding this kind of classroom would be through a grant process. The availability of a distance learning classroom for our rural county could open the door of opportunity for additional classes for student achievement.
- T. Support the Education Information System that is required by the State Department of Education and the State Department of Education's SSMS/Star\_Student initiatives.
  - a. Macon County has been a leader in the State of Tennessee's initial implementation of SSMS by Piloting the Star\_Student software and participating in Phase I of the program. We will continue to participate in the State's SSMS/EIS initiatives.
  - b. This also includes keeping all computers and printers that are used by the SSMS/EIS secretaries in each school and the central office up-to-date and functioning properly.
  - c. If for some reason the State no longer offers this software to our LEA, we will have to look into purchasing a student management software package for our county.
- U. Provide for maintenance and repair of all equipment in the school system.
- V. Update and replace equipment as needed and as funding is available.
- W. Provide instructional software for each school site.

Providing the appropriate software for use with technological equipment is one of the most important aspects of incorporating technology into the curriculum. It is vital that the appropriate grade level and subject area software be provided to teachers. During School Year 2004-05, the Macon County School System through a joint effort between Technology, Special Education, and Title Programs purchased the **A+ Anywhere Learning Software** for all schools in the County. The **A+** software is research based and

correlates to the Tennessee State Standards in teaching the curriculum to all students. It also has features that will allow for high school credit recovery and Gateway remediation. As part of the initiative, all teachers were trained to use the software. During School Year 2005-06, teachers were provided follow-up training for A+ and initial-beginning training for teachers who are new hires.

- a. We plan to continue the support of this research based software and continue offering training for teachers as we believe that teachers' ability to manipulate the software program is the key to student learning.
- b. An upgrade of A+ was purchased during SY 2008-09 which included the new State Curriculum Framework Standards and other titles that were not available when we purchased the original software. The purchase was split between Special Education, Title I and Title II-D funding.

## **7. COLLABORATION AMONG EDUCATORS:**

Since July 2000, there has been a school level technology contact who oversees the technology activities at that school. Each school has a school technology committee that includes teachers, librarians, and the principal of the school. This team works collaboratively to develop a school technology implementation document and to set educational goals and objectives for the school. The school technology contact works directly with the system-wide technology director to implement technology in the schools. The school technology contacts are provided special professional development activities in the area of technology and encouraged to attend technology activities outside those offered within the county school system such as Tennessee Education Technology Conference. Macon County School System has worked with adjoining counties to help train teachers in technology and other areas of the curriculum, and has allowed surrounding counties to use the technology learning center for in-service training and/or professional development. Special Education, Vocational, and Title I departments have used the technology learning center to train their teachers in all areas of technology to help make their teachers more proficient in the use of technology for their classroom or for teacher productivity.

## **8. COLLABORATION WITH COMMUNITY PARTNERS:**

- Each of the eight schools in the Macon County School System is maintaining a website to help promote the school and to keep the parents and community informed on school activities, etc.
- Links to all of the school websites can be found by accessing the Macon County School System's website at: <http://maconcountyschools.com>. With this opportunity to broadcast information via the world-wide-web, the schools have the ability to expand the amount of information shared with the community.
- NMT Incorporated (Charlie Myers and Leonard Berry) have worked collaboratively with the System-Wide Technology Director and all school webmasters to support our website efforts. During the 2002-2003 School Year, NMT Inc. donated \$2,500 to upgrade our FrontPage 2000 software to FrontPage 2002. This donation also upgraded the Technology Learning Center and Macon County High School's FrontPage software. They have truly been supporters in making our websites possible!
- The system-wide technology director has worked in the past with *Volunteer State Community College* and *Tennessee Technological University* to bring technology off campus classes and on-line class opportunities to the community and to teachers in Macon County. The on-line classes through Tennessee Technological University have been held annually during the Fall of 2002, 2003, 2004, 2005, 2006, 2007, & 2008. If this is offered again to our County

through TTU, we will continue offering a graduate on-line class to all teachers in Macon County free of charge entitled “Technology for Teachers.”

- Macon County Schools and Macon Bank and Trust Company have entered into a joint project called “Academy Banking.” Sponsored by Macon Bank and Trust Company but is located at Macon County High School. This joint venture will teach students banking procedures at school. The Macon County School System Technology Department purchased a computer to help begin this process and we will continue to support the Academy Banking program by upgrading equipment when needed.
- The Macon County School System plans to continue the Jett’s Kids and Adopt-A-School programs.
- The Macon County School System collaborates with businesses in the community through job shadowing, career days located at the schools, Service learning opportunities for students to be placed in job locations in the community for school credit during the regular school day.
- The system-wide technology director (who is also the Macon County School System’s webmaster) has supported and will continue to support Coordinated School Health Program by building and maintaining a website for the School Health Nurses to share information concerning Coordinated School Health. This website is found at: <http://maconcountyschools.com> and clicking on the School Nurses link.
- Macon County’s Adult Basic Education program maintains a separate technology lab that is used for technology training that is offered to members of the community.
- The System-Wide Technology Director is currently helping the Federal Projects Director in the administration of the federally required Para-Pro testing which is taken on-line in the Macon County School System’s Technology Learning Center.
- The System-Wide Technology Director has served and will continue if needed on Macon County’s 3-Star Education Committee.
- The System-Wide Technology Director has been asked to collaborate with the Macon County Chamber of Commerce Technology Committee as a representative of the school system.

## **9. CURRICULA AND TEACHING THAT INTEGRATE TECHNOLOGY:**

- A. With the purchase of the *A+ Anywhere Learning System software*, the Macon County School System is providing the appropriate software that will align with the Tennessee State Curriculum Standards. This is one of the most important aspects of incorporating technology into the curriculum. It is vital that the appropriate grade level and subject area software be provided to teachers. This software package is research based and meets the needs of the curriculum. (See Item #6 Goals & Objectives section V).
- B. In-service training/professional development session have been offered and will continue to be offered to all teachers that will address the integration of technology and the curriculum. Teachers are offered summer inservice training and after school inservice training for inservice credit or points to renew their teacher licenses. Training sessions are also offered to groups of teacher to have a specific request—upon their request. Professional development opportunities are offered based on a yearly technology needs assessment given to all teachers in the school system.
- C. Currently, the Macon County Schools website has links for teachers to help them located information concerning the integration of technology and the curriculum. Through these links, teachers locate the Tennessee State Curriculum Standards to support teachers in finding on-line lesson plans and Internet sites for students that support and enhance the curriculum. Internet links are available to help teachers locate support materials for the textbooks that they are currently using. And, links are provided for administrators to keep them aware of methods available to access technology integration of the curriculum.

- D. The Macon County Schools website is constantly be updated with new information and new Internet links to support teachers, administrators, supervisors, students, parents, and community.
- E. Technology has purchased netTrekker d.i., BrainPOP, BrainPOP Jr., BrainPOP Espanol, and Learn 360 for teachers and students in the school system. All of these are linked from the Macon County Schools website so the teachers can locate the link with ease. Also, teachers have been offered training on all of the educational sites.

**10. *INCREASING ACCESSIBILITY: (Also Discussed in Goals & Objectives)***

- A. Since all schools and all classrooms are currently networked and connected to the Internet (accomplished by end of 1999-2000 school year), it is the intention of the Macon County School System (MCSS) to continue to connect each new classroom built and each growth classroom that was not established prior to the 1999-2000 school year. Technology has continually and will continue to provide connectivity to each new classroom and support the growth of the school networks by adding switches to accommodate the increasing need of network expansion.
- B. Since all classrooms in each school have at least one Internet capable computer, it is the intention of the MCSS to continue to install an Internet capable computer in each new classroom built and in each growth classroom and to add multiple Internet capable computers to classroom as funding is available.
- C. Install student workstations in each school to achieve a 3:1 student to computer ratio in *each* school.
- D. Install teacher workstations in each school to continue achieving a 1:1 teacher to computer ratio in *each* school.
- X. Provide and support/upgrade a computer lab that will accommodate the SDE maximum classroom size. For example, grades 4-6 have a SDE maximum classroom size of 25; therefore, a computer lab should have a minimum of 25 workstations. These labs should be updated every 3-5 years to keep the technology up to date and usable for the students. Currently all schools have access to a computer lab that is not used as a classroom. Because of space, we have opted to use wireless laptop labs in two of our schools.
- E. Update and replace equipment as needed. Macon County Schools is currently developing a policy to target technology equipment that is in need for upgrade and begin a cycle for these upgrades.
- F. Support all computer labs as a priority need for upgrade and sharing and installing new equipment and software. Vocational funding has helped to support technology and the upgrade and addition of high school computer labs.
- G. Provide for maintenance and repair of all technology equipment in the school system.
- H. Continue to increase the band width of the schools' networks for faster access to the Internet.
- I. Continue to purchase firewall protection for our networks through ENA.

- J. Maintain the fiber WAN between schools and the Board of Education and the fiber egress to the Internet cloud.
- K. Maintain the purchase of the dedicated fileserver housed at the Board of Education which is connected to the fiber WAN and used to store software used county-wide.
- L. During SY 2005-06, a NAS backup solution was added to the network for security of our data. We will continue to add individual NAS backup solutions at each school and keep the present NAS backup system upgraded.
- M. Continue to install SmartBoards in each classroom in the school system.
- N. Continue installing and updating Multimedia Centers in each school library. (See #6(k) Goals and Objectives)
  - 1. The multimedia center will have available a digital camera, scanner, printer, and appropriate system software to create multimedia projects.
  - 2. Equip each school library with a multimedia center consisting of at least five multimedia telecommunication workstations to provide students with the necessary components to create authentic assessment projects, access the resources of the Internet and utilize any available electronic card catalogs.
  - 3. Workstations will provide equity of access for students needing unscheduled use of technology.

## **11. EQUITY: (Also Discussed in Goals & Objectives)**

- A. The Macon County School System plans to continue installing computers in the individual schools to achieve a 3:1 student to computer mid/high capacity computer ratio in EACH school.
- B. Each school has a library media center with a group of computers for student access. The school system will continue to support this and upgrade the computers.
- C. Provide a computer lab that will accommodate the SDE maximum classroom size. For example, grades 4-6 have a SDE maximum classroom size of 25; therefore, a computer lab should have a minimum of 25 workstations. These labs should be updated every 3-5 years to keep the technology up to date and usable for the students. Currently all schools have access to a computer lab that is not used as a classroom. Because of space, we have opted to use wireless laptop labs in two of our schools.

## **12. PROFESSIONAL DEVELOPMENT: (Also Discussed in Goals & Objectives)**

**Recognize professional development as an integral part of incorporating technology into the curriculum.**

During the 1997-98 school year, the MCSS was awarded an \$81,000 Goals 2000 grant for a Technology Learning Center for teacher professional development. This Technology Center has allowed the school system to support technology professional development for Macon County teachers. **This 20 station Technology Learning Center should be upgraded at least every 5 years to keep current technology training available for all teachers. New equipment should be added to help the teachers to become familiar with upcoming technology tools that will help them in the classroom.**

- A. Teachers are given a technology training needs assessment to allow them to voice their individual training needs. Training sessions are scheduled around the needs assessments.

- B. Teachers/administrators are given the opportunity to ask for special training on any technology related topic that will help them increase the use of technology in the classroom, for the curriculum, or for teacher productivity.
- C. After each training session, teachers are given an evaluation sheet to fill out concerning the training session that they just completed. Teachers are able to voice their opinion about the training facility, the trainer, and if the training session met their needs as a classroom teacher. Teachers are also given the opportunity to suggest other beneficial training sessions.
- D. Recognize the TESS survey as important and integral parts in planning for professional development.
- E. Teacher training for in-service credit will be provided during the summer months and throughout the school year to teachers, administrators, supervisors, and teacher assistants in the following areas:
  - 1. Operating Systems (Windows XP)
  - 2. Teachers Productivity (Microsoft Office: Word, Excel, PowerPoint, Access, etc.)
  - 3. Software Applications that may be unique to an individual group of teachers.
  - 4. Networked Software (Accelerated Reader, Accelerated Math, and Library circulation software and A+)
  - 5. E-Mail, Internet, Teaching with the Web, Web Design for Beginners with HTML, Gateway to the Web (related to Gateway Testing), Make and Take Technology Workshops, TestMate/Clarity, MarcoPolo, etc.
  - 6. Through the Training Center, the Technology Coordinator has helped 126 teachers to receive Technology Literacy 1999 grant awards, 15 teachers to receive Technology Literacy 2000 grant awards, and 2 schools participated in Technology Literacy 2001.
  - 7. Technology training will continue to be added as need for new sessions develop.
- F. Provides teachers with the tools required to become effective participants in the Communication Age.
- G. Recognize that teachers are role models for their students and integrate the use of technology into the instructional program.
- H. Provide necessary training to allow teachers to be effective in the use of technology in the classroom
- I. Make teachers aware of and comfortable with new technology.

### 13. **BUDGET:**

#### **Below are the items subject to funding.**

Technology has been funded by BEP (for Technology and Attendance), E-Rate, Vocational, Carl Perkins, Title II Part D, and grants. The BEP technology funds are distributed equally among each school based on student population. Schools are funded for the purchase of equipment and the maintenance and repair of equipment. Below are the items that are funded through the technology budget:

- A. Technology hardware to be used in the instructional program. The hardware includes computers, monitors, printers, scanners, digital cameras, digital camcorders, large screen projection devices, large monitor carts, multi-media presentation carts, Smart Boards, hubs, switches, fileserver upgrades, etc.
- B. Library circulation software and hardware
- C. Software to be used in individual classrooms, in the school computer labs, in the library media centers, or shared over the school networks
- D. Network/Incremental Upgrades to increase the bandwidth to each school site
- E. Education Information System upgrades and new computers and printers for school personnel involved in the process of SSMS/EIS
- F. Maintenance and Repair of equipment, networks, etc.

- G. Consulting and contracted services with NCCT and ENA
- H. School Technology Contacts stipends
- I. Wages for professional development
- J. Professional Development/In-Service training materials
- K. Professional Development/In-service training supplies
- L. Hardware upgrades to the Technology Learning Center used for Teacher Professional Development
- M. Software used in the support of training teachers in the Technology Learning Center.
- N. Registration fees, substitute teacher salaries, etc. for teachers attending conferences and technology workshops
- O. Technology hardware and software for school computer/technology labs
- P. Technology hardware and software for classroom teacher stations.
- Q. Wiring growth classrooms and additional equipment
- R. Adding network storage devices to individual schools to support the NAS
- S. Supporting the Upgrades of the A+ software

**14. INTEROPERABILITY:**

The system-wide technology director working with the school technology contacts and contracting with North Central Computer Technologies for repair, maintenance, & consulting make sure that all components (hardware and software) are compatible and operable.

**15. LEADERSHIP:**

The technology director for the school system has always assumed the role of the technology leader in the implementation of technology for the school system. School technology contacts assume the leadership in each school and work directly with the system technology director, the school principal, and the school library media specialist.

**16. REVIEW OF POLICIES AND PROCEDURES:**

The system's technology director wrote the "student's acceptable use policy" and the "employee's acceptable use policy" which were adopted by the Macon County Board of Education in 1998. Other technology related policies adopted by the Board of Education are: "web pages" and "use of the Internet" policies. The policies will be posted on the school system's website (<http://maconcountyschools.com>) click on Policies. The system technology director along with the school technology contact and the school principals are constantly monitoring the policies for review and updating. Content filtering software is provided to our school system through the TN State Department of Education's Connect-TEN project. Any breach of these policies is immediately reported to the system technology director and the school principal. Macon County is in compliance with the *Children's Internet Protection Act* (CIPA). Macon County has Acceptable Use Policies for both employees and students, Use of the Internet Policy, Web Pages Policy, content filtering software for all school sites and the Board of Education, a Firewall for added protection, a network attached storage device to backup each school's and the board of education's data remotely, and holds a technology/Internet hearing for the general public during the regularly scheduled Macon County Board of Education meeting in June of each year. The hearing is advertised in our local newspapers and will appear on the [maconcountyschools.com](http://maconcountyschools.com) website and addresses technology protection measures and Internet safety policies.

## 17. **EVALUATION:**

- A. This technology implementation document has been designed as a means to evaluate the current status of technology and to project the state of technology in the school system as we enter the 21<sup>st</sup> century. It is meant to be a flexible, workable, and upgradeable plan as education continues to evolve to meet the ever changing technology needs of our global society. It is a living document
- B. Because this document is a living document, evaluation is a vital part of the planning process. The effectiveness of the implementation document will be assessed by collecting feedback from staff, teachers, students and the community and presented to the system's technology committee and to the individual school's technology committee. Feedback will include teacher and student attitudes regarding the use of the technology, the impact it has made on teaching and learning and the need for improvements.
- Evaluation instruments will include:*
1. teacher in-service/professional development evaluation sheets given after each training session,
  2. teacher technology needs assessments for professional development,
  3. a comparison of student Terra Nova/TCAP scores,
  4. a comparison of student Gateway Test scores and end of course tests
  5. a comparison of student State Writing Assessment results.
  6. A special needs assessment will be designed for school principals and supervisors to evaluate and plan unique training sessions to meet the needs of these administrators.
  7. Another needs assessment will be designed for school technology contacts and school webmasters to meet the needs of this unique group of teachers and administrators.
- C. The school system's technology committee, made up of the system-wide technology director, school principals, a member of the local Board of Education, and a community partner will meet periodically to study the implementation of the document's goals, evaluate the document based on a variety of influencing factors, and restructure the document accordingly. In the future, more members will be added to the School System's Technology Committee in an effort to broaden the scope of implementing technology to the highest degree.
- D. Each school, based on the school improvement plan which addresses technology, and the TESS survey may make recommendations to the previously mentioned technology committee. The school technology committee is made up of school technology contacts, school principal, school librarian, and classroom teachers.
- E. The desired outcome is to incorporate the most current technologies into the school system in a way to positively influence instructional or administrative programs. These efforts are made to insure that the students of the Macon County School System enjoy a richer, more challenging, and rewarding educational experience.