

Jefferson County Schools Technology Plan 2005-2008

Mission Statement

Challenging individuals to achieve excellence

Doug Moody, Director of Schools
Faye Humbard, Director of Technology

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1. Stakeholder Involvement in Planning

Stakeholders were asked to brainstorm, develop, write, and/or approve a comprehensive district technology plan that would prepare our students to become technology literate and be able to use technology in career goals. The stakeholders were charged with setting district-wide goals and coming up with a plan aligned with state and national academic and technology standards that would be both attainable and visionary.

Jefferson County Schools' Technology Planning Team Include:

Dandridge Elementary School Technology Team

Sandra W. Austin Member	Principal	County Steering Committee
Richard Green	Assistant Principal	
Darla Lewis	Second Grade Teacher	
Barbara Bull	Kindergarten Teacher	
Lisa Ulrich	Third Grade Teacher	
Shannon Key	Exceptional Children Teacher	
Jean Jarnigan	Fourth Grade Teacher	
Susan Price Member	Fifth Grade Teacher	County Steering Committee

Jefferson Middle School Technology Team

Mike McClane	Principal	
Melissa Hensley	Classroom/Technology Teacher	
Donna Jordan Member	Classroom/technology teacher	County Steering Committee
Rebecca Gunter	Art Teacher	
Robyn Beck	Media Specialist	
Tim Landefeld	Middle School Math Teacher	

Jefferson County High School Technology Team

Dale Schneitman	Principal	
Jan Helton	Business Teacher	County Steering Committee Member
Jan Coley	Biology Teacher	County Steering Committee Member
Annette Loy	Art Teacher	
Melanie Hodge	English Teacher	
Ralph Holt	Math Teacher	

Jefferson Elementary School Technology Team

Steve Burns	Assistant Principal	
Karen Bazan	2nd Grade	
Mary Foster	3rd Grade	
Melissa Bibb	4th Grade	County Steering Committee Member
Carolyn Elder	5th Grade	

Maury Middle School Technology Team

Jim Hodge	Principal	County Steering Committee Member
Tim Collins	Assistant Principal	
Pat Layton	Math Teacher	
Carol Bradley	Social Studies Teacher	County Steering Committee Member
Betty Jo Leonard	Science Teacher	
Jeff Smith	Band Director	
Angela Rogers	Math Teacher	
Lea Anna Miller	Counselor	

New Market Elementary School Technology Team

Vickie Forgety	Principal	
Denna Stroud	Second Grade Teacher	
Ruth Pohlman	Literacy Coach	County Steering Committee Member
Carol Romines	Third Grade Teacher	
Steven Johnson	Exceptional Children Teacher	

Piedmont Elementary School Technology Team

Bertie French	Principal	
Katheryn Pless	Technology Facilitator	
Lynn Husen	School Counselor	County Steering Committee Member
Terry Sams	Fourth Grade Teacher	
JoAnn Whitley	Second Grade Teacher	

Rush Strong School Technology Team

Robert Berry	Principal	
Tammy Mull	Technology Assistant	
JoAnne Hodgson	Eighth Grade Math Teacher	County Steering Committee Member
Karen Burchfield	Third Grade Teacher	

Talbott Elementary School Technology Team

Jim Collins	Interim Principal	
David Goff	Librarian	County Steering Committee Member
Rachel Watson	1 st Grade Teacher	
Jennifer Tyrell	4 th Grade Teacher	
Peggy Moates	5 th Grade Teacher	
Michelle Strange	3 rd Grade Teacher	
Meredith Ziegenmier	Kindergarten Teacher	
Elaine McBride	4 th Grade Teacher	

White Pine School Technology Team

Diane Jones – Assistant Principal,	County Steering Committee Member
Jackie Collins – Elementary Teacher	County Steering Committee Member
Sherry Pewitt – Middle School Teacher	
Kelly Lemmons – Technology Facilitator	
Tracy Marra – Third Grade Teacher	

County-Wide Technology Steering Committee Members

Bill Nolen	Director of Federal Programs	County Steering Committee Member
Connie Campbell	Instructional Technology Specialist	County Steering Committee Member
Faye Humbard	Director of Technology	County Steering Committee Member
David Lockhart	School Board Member	County Steering Committee Member

2. Vision, Goals, Strategies

The mission of Jefferson County Schools District is to develop 21st century citizens who are well prepared socially, emotionally, physically, intellectually, and psychologically to live confidently in a technologically advanced, multi-cultural society. Such a citizen will be values-oriented, wellness-conscious, career-directed, competent in communications and problem-solving, skillful in creative and critical thinking, culturally sophisticated, and acutely aware of global interdependence. To accomplish this, our schools and community will unite as partners in the education process. Our schools will be responsible for providing all students with:

- Challenging learning opportunities through an integrated curriculum
- Hands-on experiences necessary for today's technically advanced society
- Resources necessary to set realistic career goals

Since education extends far beyond the four walls of the classroom, we see the community's role as:

- Parents and guardians actively involved in the development of their children's intellectual growth, citizenship skills, and physical and emotional well-being
- Business industry and government joining together in the teaching and learning process.
- Local government assuring the availability of critical resources to provide our students with a top-quality learning environment.

In this vision, Jefferson County will enhance its "Community of Learning" where the focus of education is extended to all community members.

Goals and Objectives: (Responsible Parties) The following goals are goals are aligned to state standards:

Administration/Faculty Goals

- A. Use technology to identify gaps in student learning and analyze assessment data. (Faye Humbard, Connie Campbell, and all Principals)
- B. Use technology that is developmentally appropriate to promote active learning and individualize instruction. (Faye Humbard, Connie Campbell, and all Principals)
- C. Ensure access to assistive technology for students with disabilities. (Debbie Berry and Faye Humbard)

Student Goals and Strategies

The following have been identified as a broad overview of K-12 goals. (Faye Humbard, Connie Campbell, and all Principals)

- A. Students will communicate through applications software.

Strategies:

- Create well-written documents, spreadsheets, and presentations.
 - Use computer-assisted design tools.
- B. Students will communicate visually, graphically, and artistically through multi-media presentations.

Strategy:

- Use a variety of technology (computers, projection devices, camcorders, video- editing equipment, scanners, calculators, copiers, laser discs, video and audio equipment, cameras).

C. Students will communicate through networks and telecommunications to increase access to online educational resources aimed at improving student achievement.

Strategy:

- Use computer networks and telecommunications (email, voice mail, video).

D. Students will access and retrieve electronic information.

Strategies:

- Use search strategies to retrieve information.
- Use on-site electronic resources (encyclopedias, catalogs, indexes, hand-held learning tools).
- Use networks to access information (on-line databases, libraries, electronic bulletin boards).

E. Students will interpret and evaluate information to support learning in all content areas.

Strategy:

- Prepare multimedia presentation and digital reports that integrate all content area learning.

F. Students will use technology to enhance their productivity.

Strategies:

- Use technology to develop learning and workplace skills.
- Develop strategies for problem solving, critical and creative thinking.
- Create high quality multi-media products.
- Develop creativity and innovation through the use of technology.

G. Students will demonstrate technology literacy and the ability to utilize technology resources by eighth grade.

Strategies:

- Focus on instructional practices that provide students an opportunity to use technology.
- Use technology to promote active learning and individualize instruction.
- Develop content-appropriate technology learning resources aligned with core content curriculum standards.
- Provide higher-thinking problem solving activities to challenge and utilize students' computer skills.

H. Our students will experience the following information problem-solving skills:

- Defining tasks
- Identifying information seeking strategies
- Locating and accessing information

- Determining information's relevance
- Organizing and communicating the results of the information problem-solving effort
- Evaluating the effectiveness and efficiency of the solution.

Strategies:

In requiring these skills of students, we will ensure that the opportunities made possible through the use of technology will be available to all students as they progress through school, regardless of personal or socioeconomic factors.

- Determine high-needs schools through use of technology needs assessments and the online E-TOTE.
- Assess teacher training needs through district surveys.
- Explore the use of older technology through a Lynx terminal lab setting to provide students individualized technology access. Local funds will be used for wiring and upgrading needs.
- Increase Internet access through expanded band width in each school. Since the quality of Internet access is critical, broadband access will be the new standard. Slow, unreliable connections that cannot support interactivity or rich multimedia content will no longer be sufficient. To take advantage of access to technology for improved teaching and learning, it will become increasingly important to build and support network infrastructures-wired or wireless, desktop or handheld-that allow multiple devices to connect simultaneously to the Internet throughout every school building and community in the nation. Funding will be provided through SDE through ENA (Education Networks of America). ERATE funds will be used to improve bandwidth at Talbott Elementary School. This school was the only school that was not upgraded to a T1 line through ENA and ERATE funding. Local funding will be used for this one upgrade.
- Use assistive technology to ensure all students have access to general curriculum.
- Upgrade teacher and lab computers district-wide every three years. Funding will be provided through local monies.
- Continue to upgrade network software aligned with curriculum objectives and provide security through school networks and firewalls. Funding will be provided through local monies, Ed Tech Funds, and Title funds.
- Increase the number of computers for students to utilize in the classroom. Funding will be provided through local monies, Ed Tech Funds, and Title funds.
- Examine the technology needs assessment and evaluation of TerraNova test results to determine network software needs at all schools so that all students have access to programs that provide necessary skill practice and enrichment. Funding provided through local monies, Ed Tech Funds, and Title funds.

I. Students will participate in innovative content delivery methods.

Strategies:

- Enroll in Orchard math, science, and language arts software for elementary students.
- Use Plato at Jefferson County High School.

- Enroll high school AP students in online AP distance courses.
- J. Increase the number of technology literate teachers and administrators who use technology resources.

Strategies:

- Provide two days of technology training for newly hired teachers and administrators. (local monies)
- Offer after-school weekly technology sessions and summer technology workshops for all teachers to learn to integrate technology and maintain and update classroom websites. (local monies)
- Conduct technology workshops for administrators. (local monies)
- Provide teachers an opportunity to attend technology integration conferences. (local monies)
- Provide year-long technology based professional development projects aimed at integrating technology into the curriculum and creating online technology resources. (Ed Tech Funds)

3. Assessment

A local needs assessment was conducted through an online web-based survey available to all teachers and administrators. The results of the survey were used to determine effectiveness of staff development opportunities, technical support, hardware and software needs. Educators were also asked to evaluate barriers to the integration of technology. The findings were as follows:

Technology Needs Assessment Survey	Not a Barrier	Minor Barrier	Major Barrier
1. Not enough or limited access to computer.	28%	34%	38%
	67	81	90
2. Not enough computer software.	37%	41%	22%
	87	96	53
3. Lack of time in class schedule for projects involving technology.	17%	35%	47%
	41	83	111
4. Use of technology not integrated into teacher materials.	34%	53%	13%
	78	121	31
5. Too much down time when computer equipment malfunctions.	31%	43%	25%
	72	101	59
6. Not enough training opportunities for technology projects.	65%	30%	5%
	151	70	12
7. Lack of knowledge about ways to integrate technology into curriculum.	44%	44%	13%
	101	101	29
8. Lack of time to develop lessons utilizing technology.	20%	41%	40%
	44	92	89
9. Internet or other software speeds are too slow.	47%	37%	16%
	109	86	36
10. Lack of technical support for technology projects.	51%	37%	12%
	118	86	28
11. The reward structure does not recognize faculty for integrating computers for teaching and learning.	56%	30%	14%
	131	70	33

	Excellent	Adequate	Poor
1. Technician response time is	28%	49%	22%
	68	118	53
2. School network software is	25%	67%	8%
	59	155	18
3. Technology training opportunities in our system are	64%	33%	3%
	152	79	6
4. Online resources provided by our school district website are	71%	26%	4%
	166	60	9
5. Our computer upgrade policy is	11%	57%	32%
	26	133	76

The results of this survey were utilized by the Technology Steering Committee to determine the goals for this district technology plan and the school district five-year plan.

Based on E-TOTE survey the STaR Chart for Jefferson County School district was completed January 2005. The summaries follow:

I. Teaching and Learning

Number of Schools Reporting: 10

	Q.A	Q.B	Q.C	Q.D	Q.E	Q.F
Number of Schools <u>Early</u>	4	0	1	0	7	4
Number of Schools <u>Developing</u>	5	5	4	5	2	6
Number of Schools <u>Advanced</u>	1	5	5	4	0	0
Number of Schools <u>Target</u>	0	0	0	1	1	0

A: Impact of Technology on Teacher Role and Collaborative Learning.

B: Patterns of Teacher Use of Technology

C: Frequency/ Design of Instructional Setting Using Digital Content.

D: Curriculum Areas.

E: Technology Applications Assessment.

F: Patterns of Student Use of Technology.

II. Educator Preparation and Development

Number of Schools Reporting: 10

	Q.G	Q.H	Q.I	Q.J	Q.K	Q.L
Number of Schools <u>Early</u>	1	3	0	2	2	4
Number of Schools <u>Developing</u>	5	6	7	3	6	5
Number of Schools <u>Advanced</u>	4	1	2	5	2	1
Number of Schools <u>Target</u>	0	0	1	0	0	0

G: Content of Training.

H: Capabilities of Educators.

I: Leadership Capabilities of Administrators.

J: Models of Professional Development.

K: Levels of Understanding and Patterns of Use.

L: Technology Budget Allocated to Technology Professional Development.

III. Administration and Support Services

Number of Schools Reporting: 10

	Q.M	Q.N	Q.O	Q.P	Q.Q
Number of Schools <u>Early</u>	0	2	0	6	0
Number of Schools <u>Developing</u>	9	4	9	4	6
Number of Schools <u>Advanced</u>	1	3	0	0	4
Number of Schools <u>Target</u>	0	1	1	0	0

M: Vision and Planning.

N: Technical Support.

O: Instructional and Administrative

Staffing.

P: Budget.

Q: Funding.

IV. Infrastructure for Technology

Number of Schools Reporting: 10

	Q.R	Q.S	Q.T	Q.U	Q.V
Number of Schools <u>Early</u>	2	0	8	0	1
Number of Schools <u>Developing</u>	4	0	1	0	3
Number of Schools <u>Advanced</u>	4	0	1	10	6
Number of Schools <u>Target</u>	0	10	0	0	0

R: Students per Computer.

S: Internet Access Connectivity/Speed.

T: Distance Learning.

U: LAN/WAN.

V: Other Technologies.

The report is summarized as follows:

STaR Chart Keys Summary

	Teaching and Learning	Ed Prep and Dev	Admin and Sup	Infrastructure
Jefferson County Totals	Developing	Developing	Developing	Advanced
Tennessee Totals	Developing	Developing	Developing	Develop

4. Timeline, Technology Implementation - 2005-2008

Improvements will be made as funds become available.

	2005-06	2006-07	2007-08
Funding	<ul style="list-style-type: none"> • Apply for grants to supplement and fund technology plan • Request Board Supplemented Funds for Technology Replacement • Work with building level administrators in their planning and spending of school technology funds • Continue to apply for E-Rate and Title II Part D funds • Work with district level administrators in the development of and integration of technology into the consolidated plan 	<ul style="list-style-type: none"> • Apply for grants to supplement and fund technology plan • Request Board Supplemented Funds for Technology Replacement • Work with building level administrators in their planning and spending of school technology funds • Continue to apply for E-Rate and Title II Part D funds • Work with district level administrators in the development of and integration of technology into the consolidated plan 	<ul style="list-style-type: none"> • Apply for grants to supplement and fund technology plan • Request Board Supplemented Funds for Technology Replacement • Work with building level administrators in their planning and spending of school technology funds • Continue to apply for E-Rate and Title II Part D funds • Work with district level administrators in the development of and integration of technology into the consolidated plan
Infrastructure	<ul style="list-style-type: none"> • Identify new networking technologies to improve speed of delivery of content • Develop wireless networks for each school • Continue to provide an online database system for schools to report technical needs • Continue to upgrade firewall server • Network all new classrooms to WIN/NT and the Internet • Provide connectivity and technical support to Family Resource Center, Preschool Program, and Adult Literacy Program 	<ul style="list-style-type: none"> • Identify new networking technologies to improve speed of delivery of content • Develop wireless networks for each school • Continue to provide an online database system for schools to report technical needs • Continue to upgrade firewall server • Network all new classrooms to WIN/NT and the Internet • Provide connectivity and technical support to Family Resource Center, Preschool Program, and Adult Literacy Program 	<ul style="list-style-type: none"> • Identify new networking technologies to improve speed of delivery of content • Develop wireless networks for each school • Continue to provide an online database system for schools to report technical needs • Continue to upgrade firewall server • Network all new classrooms to WIN/NT and the Internet • Provide connectivity and technical support to Family Resource Center, Preschool Program, and Adult Literacy Program

<p>Hardware and Software</p>	<ul style="list-style-type: none"> • Upgrade lab computers district wide every three years • Continue to provide Internet integration resources through Science Online, Social Studies Online, Tech Update and Day by Day websites • Continue to provide a web server for teacher, ESL, Family Resource, 4-H, Regional Literacy Council, and Adult Literacy websites • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Upgrade computer hardware for school administrators, faculty, and attendance staff • Provide all new K-12 classrooms with a teacher workstation (CPU, printer, 32 inch projection TV, and cart) • Upgrade network software servers for each school as needed • Provide each school with one technology lab per 400 students 	<ul style="list-style-type: none"> • Upgrade lab computers district wide every three years • Continue to provide Internet integration resources through Jefferson County Schools' Curriculum, Tech Update and Day by Day websites • Continue to provide a web server for teacher, ESL, Family Resource, 4-H, Regional Literacy Council, and Adult Literacy websites • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Upgrade computer hardware for school administrators, faculty, and attendance staff • Provide all new K-12 classrooms with a teacher workstation (CPU, printer, 32 inch projection TV, and cart) • Upgrade network software servers for each school as needed • Upgrade each school's technology lab 	<ul style="list-style-type: none"> • Upgrade lab computers district wide every three years • Continue to provide Internet integration resources through Jefferson County Schools' Curriculum, Tech Update and Day by Day websites • Continue to provide a web server for teacher, ESL, Family Resource, 4-H, Regional Literacy Council, and Adult Literacy websites • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Upgrade computer hardware for school administrators, faculty, and attendance staff • Provide all new K-12 classrooms with a teacher workstation (CPU, printer, 32 inch projection TV, and cart) • Upgrade network software servers for each school as needed • Upgrade each school's technology lab
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<p>Staff Training</p>	<ul style="list-style-type: none"> • Provide district-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the E-TOTE and Jefferson County online assessment tools • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from a technology training survey and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer online training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Continue to provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified by TerraNova tests • Update online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Continue to provide training and opportunity for a school representative to update the individual school website monthly • Continue to provide two days of technology training for new certified personnel • Purchase school subscription and provide training in the utilization of netTrekker and United Streaming • Provide teachers with training to maintain classroom websites 	<ul style="list-style-type: none"> • Provide district-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the E-TOTE and Jefferson County online assessment tools • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from a technology training survey and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer online training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Continue to provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified by TerraNova tests • Update online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Continue to provide training and opportunity for a school representative to update the individual school website monthly • Continue to provide two days of technology training for new certified personnel • Purchase school subscription and provide training in the utilization of netTrekker and United Streaming • Provide teachers with training to maintain classroom websites 	<ul style="list-style-type: none"> • Provide district-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the E-TOTE and Jefferson County online assessment tools • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from a technology training survey and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer online training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Continue to provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified by TerraNova tests • Update online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Continue to provide training and opportunity for a school representative to update the individual school website monthly • Continue to provide two days of technology training for new certified personnel • Purchase school subscription and provide training in the utilization of netTrekker and United Streaming as funding permits • Provide teachers with training to maintain classroom websites
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<p>Assessment</p>	<ul style="list-style-type: none"> • Analyze E-TOTE data • Evaluate System and School Report of Standardized & State Testing to determine changes in student achievement and address technology integration strategies. • Aggregate TerraNova data through the utilization of Clarity Testmate software to determine learner progress and instructor efficiency 	<ul style="list-style-type: none"> • Evaluate the Jefferson County Schools technology department through an online Technology Assessment Survey • Analyze E-TOTE data • Evaluate System and School Report of Standardized & State Testing to determine changes in student achievement and address technology integration strategies. • Aggregate TerraNova data through the utilization of Clarity Testmate software to determine learner progress and instructor efficiency 	<ul style="list-style-type: none"> • Evaluate the Jefferson County Schools technology department through an online Technology Assessment Survey • Analyze E-TOTE data • Evaluate System and School Report of Standardized & State Testing to determine changes in student achievement and address technology integration strategies. • Aggregate TerraNova data through the utilization of Clarity Testmate software to determine learner progress and instructor efficiency
<p>Student Learning</p>	<ul style="list-style-type: none"> • Provide students technology based learning through staff development projects • Provide student resources for mastery of objectives (Tech Update, Basic Skills, Interactive Websites) • Prepare students through group and individual technology integration activities for mastery of E-TOTE student technology literacy skills based on ISTE standards • Evaluate student testing data completed district wide, TCAP, Gateway, ACT, and SAT data to access student achievement • Provide student management software based on NETS•S and state curriculum standards through the school networks • Utilize Untied Streaming for online assessment • Investigate the feasibility of distance learning resources • Continue to support distance learning at the high school level 	<ul style="list-style-type: none"> • Provide students technology based learning through staff development projects • Provide student resources for mastery of objectives (Tech Update, Basic Skills, Interactive Websites) • Prepare students through group and individual technology integration activities for mastery of E-TOTE student technology literacy skills based on ISTE standards • Evaluate student testing data completed district wide, TCAP, Gateway, ACT, and SAT data to access student achievement • Provide student management software based on NETS•S and state curriculum standards through the school networks • Utilize Untied Streaming for online assessment • Investigate the feasibility of distance learning resources • Continue to support distance learning at the high school level 	<ul style="list-style-type: none"> • Provide students technology based learning through staff development projects • Provide student resources for mastery of objectives (Tech Update, Basic Skills, Interactive Websites) • Prepare students through group and individual technology integration activities for mastery of E-TOTE student technology literacy skills based on ISTE standards • Evaluate student testing data completed district wide, TCAP, Gateway, ACT, and SAT data to access student achievement • Provide student management software based on NETS•S and state curriculum standards through the school networks • Utilize Untied Streaming for online assessment if funding permits • Investigate the feasibility of distance learning resources • Continue to support distance learning at the high school level
<p>Staffing</p>	<ul style="list-style-type: none"> • Continue to provide additional technicians as funding and equipment needs require. 	<ul style="list-style-type: none"> • Seek grant funding to secure a certified technology coach • Continue to provide additional technicians as funding and equipment needs require. 	<ul style="list-style-type: none"> • Seek grant funding to secure a certified technology coach • Continue to provide additional technicians as funding and equipment needs require.

5. Responsible Parties

All Stakeholders are responsible to see that the goals and objectives are met.

6. Collaboration

A description of how the program will be developed, where applicable, in collaboration with adult literacy services providers.

1. Jefferson County currently collaborates with businesses throughout the county. Local businesses and industries are involved with the schools in Job Shadowing programs, Career Fairs, and career visits. Many of our students have work release time in which they earn credit for job related activities.
2. Jefferson County works with the Mossy Creek Literacy Council in the development of curriculum resources and maintains and hosts their website.
3. A member of the technology department serves on the Jefferson County Literacy Committee.
4. Email and newsletters will be used for parental communication. A school personnel email directory is provided online to enable parent communication. Invitations to the family technology showcase will be sent to parents and community.
5. Orchard School-to-Home license provides the Orchard Skills software for student home usage for remediation and practice.
6. Online multimedia skill activities, provided through the Jefferson County Schools website, provide home practice for students.
7. Jefferson County has partnered with the area colleges and universities to involve our teachers and community members attend class after the school day. Often, these courses include the use of technology in our buildings.
8. The Jefferson County Adult Education Center offers technology classes at night for community members.
9. Administrators from Jefferson County participated in the Administrator's Technology Academy in East Tennessee for administrators all across the state to earn TASL credit and technology information.
10. Technology will continue to be used to communicate with parents and the community at large by and or with: Websites both at the school and district level, desktop published newsletters, news articles, and handouts, parent nights where technology is the center piece of the meeting, student produced e-books and projects, e-mail, and planned parent meeting where e-mail is used to invite and remind parents to attend.
11. JCS plans to continue and enhance our on-line workshops and handouts. These materials are posted on our website for teachers, students, and community members to use and or print. <http://jc-schools.net/tech/>
12. The Office of Technology plans to work with Pre-School and Adult Basic Education in an effort to help maintain their equipment and assist with the loading and training of all software titles.
13. The Office of Technology plans to help and support our Family Resource Center throughout the school year and with all summer programs.
14. The Office of Technology plans to assist Adult Basic Education and our Federal Projects Director in the administration of the federally required Para-Pro testing, which will be taken on-line.

15. The Office of Technology will develop district-wide standards for security networks to be used in every school.

7. Promotion of Curricula and Teaching Strategies that Integrate Technology

To ensure that students are prepared for their future we will: include technology and information literacy into our state and local standards for what students should know and be able to do; ensure students use technology appropriately and responsibly; and develop new student assessment tools.

To meet the higher student achievement expectations, teachers need to deepen their content knowledge and learn new methods of teaching. They need more time to work with colleagues, to critically examine the new standards being proposed, and to revise curriculum. They need opportunities to develop, master and reflect on new approaches to working with children. All of these activities fall under the general heading of professional development.

- Provide an online curriculum web site and Internet resources designed to increase the use of integrated technology.
- Expand classroom tools for teaching and learning.
- Provide for the integration of multiple resources for existing and emerging curriculum.
- Enable learning communities to communicate more effectively, access and process information, and work productively.
- Link the classroom with educational resources within the building, community and worldwide.
- Create a collaborative environment for project-oriented activities.
- Encourage the use of multimedia tools enabling students to become active and experiential learners.

The Software & Information Industry Association (SIIA) today released the "2000 Report on the Effectiveness of Technology in Schools," a 135-page report highlighting the results of more than 300 recent surveys on education technology from professional journals, doctoral dissertations and other qualified sources.

The report revealed that education technology has improved student achievement, advanced student self-concept and attitude about learning, and enhanced interaction involving educators and students in the learning environment. The report also tackles the challenges involved with technology integration and training in the educational environment.

The latest research and evaluation studies show that school improvement programs that utilize technology for teaching and learning produce positive results for students and teachers. Since many schools and classrooms have only accessed technology for teaching and learning recently, the positive outcomes of these studies suggest that a long-term commitment to harnessing technology for education will yield a brighter future. With sufficient access and support, teachers will be better able to lead students to comprehending complex concepts and becoming involved in learning. Through this

training, teachers can provide their students with access to information and resources and meet individual student needs.

Key factors for public schools success are the high standards set for student academic achievement and conduct. Teachers are instructional leaders who must have access to and provide students with adequate resources. A school climate must contribute to both teaching and learning.

The need to prepare students with the skills they need to be successful in our ever changing technological society should become a major priority. To assure all our children become proficient information and technology users, we have developed a unified approach to providing students with the skills they will need for their futures.

Latest findings in educational technology research studies:

Perspectives on Technology and Education Research: Lessons from the Past and Present (1999)

<http://www.ed.gov/Technology/TechConf/1999/whitepapers/paper1.html>

Margaret Honey, Katherine McMillan Culp, and Fred Carrig This paper offers a perspective that grows out of what staffers at EDC's Center for Children and Technology have learned from nearly three decades of research on educational technology. Rather than providing a detailed account of what we now know about the impact of technology on learning, the authors discuss where the research field is heading and review what may be the most promising direction for technology's role in education.

Report of the President's Committee of Advisors on Science and Technology Panel on Educational Technology (1997)

<http://www.ostp.gov/PCAST/k-12ed.html>

This paper presents a good, introductory synthesis of knowledge about technology and student learning, technology and teacher practice, research, and policy. Sections on hardware, policy, and access may be outdated, however.

Who's Wired And Who's Not (2000)

<http://www.gse.uci.edu/doehome/DeptInfo/Faculty/Becker/packard/saveall.html#top>

Henry Jay Becker

A recent study detailing American schools' attainment on eight measures of full technological access, and socioeconomic correlation to full "access" at home and at school.

Difference in Software Use in Low and High Achieving Classes (2000)

<http://WWW.CRITO.UCI.EDU/TLC/FINDINGS/snapshot8/>

UC Irvine Center for Research on Information Technology and Organizations

This snapshot study is based on survey data and reports on differing use of software applications based on student ability level.

Subject and Teacher Objectives for Computer-Using Classes by School Socio-Economic Status (2000)

<http://www.crito.uci.edu/tlc/findings/snapshot7/>

UC Irvine Center for Research on Information Technology and Organizations

Socio-economic status may not affect the amount of computer use in school, but it has much to do with the type of computer use and the learning objectives for students, a snapshot survey reports.

Are We There Yet? Research and Guidelines on Schools' Use of the Internet (2002)

<http://www.nsf.gov/therayet/fulltext.htm>

This study of more than 811 school district technology coordinators projects the growth of Internet-based instruction, the characteristics of leading-edge districts, and the quality of tech support available in districts across the country.

Technology Support: Its Breadth, Depth, and Impact in America's Schools (2000)

<http://www.crito.uci.edu/tlc/findings/technology-support/>

Amy M. Ronnkvist, Sara L. Dexter and Ronald E. Anderson

This study uses data from school administrators, technology coordinators, and teachers to examine the presence of different types of technology support in American schools; and it correlates the presence of high-quality technology support with teachers' uses of educational technology.

The Beliefs, Practices, and Computer Usage of Teacher-Leaders (2000)

<http://www.crito.uci.edu/tlc/findings/aera/>

Margaret Riel and Hank Becker

This report identifies characteristics of exemplary leaders and examines technology integration of teacher-leaders vs. the general teacher population, through a survey study of 4,000 American educators.

Teacher Use of Computers and the Internet in Public Schools (2000)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000090>

National Center for Education Statistics

This Statistics in Brief discusses public school teachers use of computers and the Internet and their feelings of preparedness to do so. The Brief examines teachers own applications of these tools as well as the assignments they give their students to use computers or the Internet. The Brief examines these issues in the context of teachers' experience, teachers' professional development, school level, and school poverty level.

8. Increasing Accessibility

Presently, all teachers in Jefferson County have Internet access in the classroom. All elementary schools and all middle and high schools have computer labs. As outlined in the Timeline, we are planning to add labs at many of our schools throughout the next few years. It is also our plan to add and upgrade computers each school year to ensure strong hardware support in each classroom. (The addition of new computers is based on funding opportunities.) We will provide a Community site accessible from our district website (<http://jc-schools.net/community>). Ed Tech funds will be used to help students in high-poverty and high-needs schools by providing computer-based learning activities and Internet educational resources to improve academic achievement.

9. Equity

We have integrated a code which translates our website and all links from our site into 8 foreign languages to make the information and resources we provide more accessible to our growing ELL population

In Jefferson County we plan to:

- Provide minimum standards of hardware and software for all students, staff, and sites.
- Implement grade level technology goals identified to ensure equity of delivery to all students (see Learning Goals).
- Expand and enhance communications to provide parents/community greater access to school information and staff.
- Enable students/parents/community, via telecommunications, access to school learning resources, classroom lessons/assignments and school information 24 hours a day.
- Promote and encourage an active partnership between schools, businesses, homes and the community.
- Provide a multilingual website for our ELL population.
- Provide a teacher station that is comprised of: computer, laser printer, 32" TV monitor, Microsoft Office Suite, and movable cart for every classroom teacher.

10. Professional Development

Long-term staff development projects will be provided to Jefferson County teachers aimed at the integration of technology into the curriculum. Journals and follow-up sessions and classroom visitations will provide the instructional technology trainer and the district technology director a means of assessing the success of technology integration.

Technology integration workshops will also be held after school and during the summer months. Documentation of teacher participation will be recorded through sign-in forms and posted online at the county website (<http://jc-schools.net/techupdate/records.html>). Course objectives, an agenda, and a course handout will be provided. Lesson Plans, activities, and materials created through workshops will be posted online for usage by other teachers in the system or for any educator with Internet access. Journals and surveys will be conducted to determine staff development effectiveness. Jefferson County has a full time district Instructional Technology Specialist to providing ongoing faculty and administrator training in the following areas:

- Word processing
- E-mail, including attachments, use of e-mail for classroom projects
- Basic computer use and maintenance
- Electronic student management software
- Library circulation and cataloging software
- Desk-top publishing and teacher web pages
- Online resources such as free web quests, online videos, and Power Point activities
- Grant writing to provide technology integration

- Online lesson plans aligned with state standards
- Clarity to analyze state standardized test data
- Multimedia presentation
- Networked application software
- Database software
- Content area software
- Web-authoring software
- CareerScope and CSAS (IEP development) software
- Curriculum Designer (mapping and aligning curriculum)
- Skills Connection
- Accelerated Reader
- CPS system (Classroom Performance System)
- District Gradebook software
- Technology integration strategies
- NetTrekker
- United Streaming

A description of how the school district will provide **ongoing, sustained** professional development for all school professionals to further the effective use of educational technology follows:

- Provide an online curriculum web site and Internet resources designed to increase the use of integrated technology.
- Expand classroom tools for teaching and learning.
- Provide for the integration of multiple resources for existing and emerging curriculum.
- Enable learning communities to communicate more effectively, access and process information, and work productively.
- Link the classroom with educational resources within the building, community and worldwide.
- Create a collaborative environment for project-oriented activities.
- Encourage the use of multimedia tools enabling students to become active and experiential learners.
- Long-term staff development projects will be provided to Jefferson County teachers aimed at the integration of technology into the curriculum. Journals and follow-up sessions and classroom visitations will provide the instructional technology trainer and the district technology director a means of assessing the success of technology integration. Technology integration workshops will also be held after school and during the summer months. Documentation of teacher participation will be recorded through sign-in forms and posted online at the county website (<http://jc-schools.net/techupdate/records.html>). Course objectives, an agenda, and a course handout will be provided. Lesson Plans, activities, and materials created through workshops will be posted online for usage by other teachers in the system or for any educator with Internet access. Journals and surveys will be Dynamic Curriculum Team – A team of teacher representatives from each of our schools will attend monthly sessions to develop a dynamic curriculum for our district. These teachers will focus on the Blueprint for Learning skills developed by the Tennessee Department of Education

and develop teaching and learning resources that are aligned with each skill. Teachers will create multimedia lessons, learning activities, worksheets, lesson plans, and utilize United Streaming and netTrekker to locate related web resources. This curriculum will be hosted on our website to be utilized by Jefferson County Schools' teachers, teachers across the state, parents, and students. The goal of this project is to provide resources for teachers for the achievement of all learners.

- On-line course catalogs and tutorials are posted monthly on the Jefferson County School website.
- Additional professional staff development are provided to teachers, administrators, and technology staff through attendance at the Administrator's Technology Academy, Tennessee Educator's Technology Conference, and TETA Summer Institute.
- Each school has professional development assistance provided by a school-based technology contact, technology facilitator, or technician.
- On-line course catalog and tutorials are posted monthly on the Jefferson County School website.
- Additional professional staff development are provided to teachers, administrators, and technology staff through attendance at the Administrator's Technology Academy, Tennessee Educator's Technology Conference, and TETA Summer Institute.

11. Community and Family Involvement

The Jefferson County Schools website posts opportunities for parents and community involvement in workshops and school events. The website is translatable into eight languages to serve our growing ELL population. The website provides a special Community site which offers our stakeholders access to local resources.

12. Budget

See Appendix A, items subject to funding.

13. Interoperability

Infrastructure File Servers

Microsoft Windows NT and Microsoft Advance 2000 Server are all used throughout Jefferson County Schools. Shared applications and data reside on all servers throughout the district.

Printing Services

Networked print server devices are used with TCP/IP for some DEC/VMS remote print services. All computers have access to printing.

Other Services

- Ten-Nash provides e-mail in addition to SMTP gateway services. All new staff are provided an email account through Ten-Nash. ENA provides Internet caching services for Jefferson County High School.

- Domain Name Service (DNS) is provided via ENA servers. DNS files are maintained within the district.
- DHCP service is provided District-Wide.
- Library cataloging service is provided at all schools.
- Student records, fiscal and human resource databases reside at the local school on a server. Centralized data resides at the technology office on a Microsoft Windows NT server.
- The district maintains three district wide web servers. (jc-schools.net, classroom.jc-schools.net, and jchs.jc-schools.net)
- The district maintains one email server. (mail.jc-schools.net)
- Jefferson County Schools supports an Internet filtering server through ENA and through a Linux firewall.
- Linux firewall servers are provided at every school and the central office.
- Jefferson County supports over 8,500 users and 20 file servers, the Family Resource Center, Adult High School, and the LEA.

Microsoft Proxy Server and Linux firewalls are used to protect and manage our users' access to resources on the Internet. Trend Micro software is used to protect our email server from viral and spam attacks. McAfee Anti-virus and AVG is used to protect all of our servers and workstations from viruses. Fortress and Drive Shield are used to manage all workstations and control users' abilities to change workstation settings.

Internet Connection

Frame Relay

The district Internet connection is a frame relay, 1.544 megabit per second T-1 with a committed information rate of one-half T-1. The high school has two T1 connections. Internet services are provided by the Connect-TN provider for the State of Tennessee. Internet connection routers are physically located at the school sites and connect back to the Knoxville ENA tap.

Internet Service Provider

Connect-TN provides the district's with IP addresses. Maintenance and issuance of IP addresses and names assigned to the district are done by district technical staff.

Fully Networked

All PC compatible networked workstations are at least Intel or AMD CPU class computers. Computers in the district include Pentium and AMD quality. There are currently more than 1 computer to 3 students fully, networked workstations in the district.

VCR and Video Monitors on Carts

Each school has numerous VCRs and every classroom has 32" TV monitors on carts.

Wiring

New and renovated facilities will be equipped with Category 5 Unshielded Twisted Pair or subsequent high-speed wire standard certified to 622 Megabits per second. Every

classroom and administrative workspace has at least one outlet. All schools have fiber riser and backbone.

LAN Protocols

The district will adopt IP/IPV6, VPN , and NetBEUI and/or other high-bandwidth quality of service protocols as evolving standards certify them for use and common acceptance drives their price into affordable ranges.

Electrical Capacity

The district will continue applying electrical standards to its sites to provide adequate levels of service and to afford adequate protection of equipment. Planning for new construction and existing building renovations will include provisions for a comprehensive review of electrical capacity requirements to ensure that technology enhancements are considered and included in project engineering and design.

Software

The district will continue to maintain and update a standard set of contemporary software for educational, personal productivity and administrative uses. The Microsoft Office Professional suite is the district standard. Client software will be upgraded to keep pace with evolving Windows standards; server software will parallel this evolution. Hardware upgrades will be a continuing necessity to meet the ever increasing processor and memory requirements of more demanding client and server software implementations. All software will be maintained at a functional revision level.

The district workstation paradigm will also continue to evolve. The first notable shift will be away from a model that installs all software on a local hard drive to one that places more emphasis on server delivered applications. The emergence of Net PCs and Thin Client systems will necessitate a continuing review of software delivery methodologies as these technologies mature.

The Microsoft Office suite comprise the district's primary personal productivity software package. Netscape Composer is the district's primary web development software.

Grade K-8 schools are provided Orchard Student Management network software which addresses the curriculum standards for math and science, and Understanding Math software is available for grades 6-8 through the school network—upgraded with local and federal funds. The Plato Learning software, which provides personalized instruction and standards-driven assessment and accountability, is available through the high school network.

Hardware

The district provides a teacher station for each classroom which includes a computer, printer, cart, and TV for whole group display. The teacher station computer standard is a 1,000 MHz , 512 MB machine. As the teacher station is replaced by a newer machine that computer is placed in the classroom for student use.

Each school has a CPS system which provides review and remediation. The Classroom Performance System (CPS) is an easy-to-use IR response system that obtains immediate feedback from every student.

Each school has at least one computer lab of 22 or more computers. Most labs are maintained by a lab facilitator who works with the teacher to provide technology resources that enrich instruction. The high school has two portable wireless laptop labs.

14. Leadership

The Jefferson County Schools administrators will play an integral role in the effective integration of educational technology. The most effective way administrators can promote technology use is to, themselves be knowledgeable and effective users of technology. Administrators will be expected to follow the Technology Standards for School Administrators developed by the Collaborative for Technology Standards for School Administrators, (to view the complete list of standards, link to http://cnets.iste.org/tssa/view_standards.html). Administrators will be an advocate in the schools for research-based effective practices in use of technology. They will also support the district technology plan and administer its components in their local schools to achieve the plan's goals and objectives. Administrators in Jefferson County Schools also feel that modeling effective practices and uses of technology are an integral part of technology integration. Administrators will ensure that each staff member has the opportunity to engage in professional development to enhance their classroom instructional procedures.

15. Review of Policies and Procedures

Each year Board policy as it relates to the use of technology and the Internet is reviewed and updated as necessary. Jefferson County Schools has an acceptable use of technology and the Internet policy for students and teachers. Jefferson County Schools also provides ENA blocking and filtering of Internet sites. Jefferson County Schools is in compliance with the Child Internet Protection Act (CIPA) See Appendix C.

16. Evaluation

Administrators, teachers, and students will complete an online, self-evaluation rubric based on the Mankato Scale, developed by Mankato (Minnesota) Public Schools and adapted by Bellingham (Washington) Public Schools, for a sample see <http://www.bham.wednet.edu/tcomp.htm>. The results will be used to plan further district in-services and school-wide professional development activities. The district technology steering committee will meet yearly to evaluate progress and update district plan based on needs assessment. The school technology team will develop school site plans and make recommendations and/or request to the system director of technology and/or the district technology steering committee.

Ed Tech Professional Development Evaluation

TCAP scores will be evaluated to determine academic achievement. A technology staff development project will be developed to address the integration of technology into the curriculum to address these needs. Through technology, students will be exposed to a variety of strategies and teachers will be introduced to instructional technology activities aimed at achievement improvement. The project will offer multiple alternative instructional approaches to address unique individual learning styles in students.

Participating teachers will attend professional development workshops to locate and/or develop resources aimed at increasing student achievement through technology. New strategies which integrates technology will be explored as a means of reaching the goal of improving student skills. Through follow-up sessions classroom teachers will report on the implementation of these strategies with their students.

Teachers will complete a final evaluation of the project. The final evaluation will determine teacher's attitude changes toward implementation of technology into instruction. A monthly sign-in form will document teacher participation in the training.

Teachers in the project will receive classroom computers to be used to follow through with the goals of the project. Labs and software in their schools will be upgraded to meet the standards established in the project using local and E-rate funds in conjunction with Ed Tech funds.

17. Children's Internet Protection Act (CIPA) Compliance

LEA assures that CIPA compliance has been met.

Children's Internet Protection Act in JCS is monitored and enforced throughout the entire district. E-rate form 479 has been filed with the SLD and filtering and monitoring software is used and monitored each day by the Office of Technology Staff.

Refer to Appendix C to view a copy of JCS 479 for the 2004-05 SY.

Appendix A 2005-2006 TECHNOLOGY BUDGET

Area	
New Technology (Teacher/Software)	137,498
Software Maintenance	10000
Travel/TETC	8000
Inservice Materials	2000
Technology Center	20000
Network Upgrades	22502
Maintenance	35000
Administrative Upgrades	15000
Total Local Funds	250000
Special Projects Replace Labs	400000
250 days professional leave	12716
Horizon Maintenance	23972
Total Local Budget	686688
ERATE 2005-2006	
Connectivity ENA	41857
Computers	49053
Servers	10000
Total E-rate Spending	100,910

*

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*additional connection speeds
**classroom and labs

Ed Tech Professional Development Evaluation (Title II Part D) Budget

1. Dynamic Curriculum				
	Number of Teachers	Number of Days	Substitute Daily Salary	Total Cost
Professional Leave Days	21	8	\$ 50.86	\$ 8,545
Software/Hardware	Item info	Unit Price	Quantity	Total
Computer Upgrades	Computer	875	16	14000
Software Upgrades	Understanding Math	7	684	4717
Total				27262

Appendix A 2006-2007 TECHNOLOGY BUDGET

Area	
New Technology (Teacher/Software)	137498
Software Maintenance	10000
Travel/TETC	8000
Inservice Materials	2000
Technology Center	20000
Network Upgrades	22502
Maintenance	35000
Administrative Upgrades	15000
Total Local Funds	250000
250 days professional leave	12716
Horizon Maintenance	23972
Total Local Budget	286688
ERATE 2006-2007	
Connectivity ENA	41857
Computer	49053
Servers	10000
Total E-rate Spending	100,910

**

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*additional connection speeds
 **classroom and labs

Ed Tech Professional Development Evaluation (Title II Part D) Budget

1. Dynamic Curriculum

	Number of Teachers	Number of Days	Substitute Daily Salary	Total Cost
Professional Leave Days	21	8	\$ 50.86	\$ 8,545
Software/Hardware	Item info	Unit Price	Quantity	Total
Computers	Computer	875	16	14000
Software Upgrades	Orchard	1000	7	7000
Total				29545

Appendix A 2007-2008 TECHNOLOGY BUDGET

Area	
New Technology (Teacher/Software)	164498
Software Maintenance	25000
Travel/TETC	8000
Inservice Materials	2000
Technology Center	5000
Network Upgrades	22502
Maintenance	35000
Administrative Upgrades	15000
Total Local Funds	275000
250 days professional leave	12716
Total Local Budget	287716
ERATE 2007-2008	
Connectivity ENA	41857
Computers	49053
Servers	10000
Total E-rate Spending	100910

**

*

*additional connection speeds
 **classroom and labs

Ed Tech Professional Development Evaluation (Title II Part D) Budget

1. Dynamic Curriculum				
	Number of Teachers	Number of Days	Substitute Daily Salary	Total Cost
Professional Leave Days	21	8	\$ 50.86	\$ 8,545
Software/Hardware	Item info	Unit Price	Quantity	Total
Computers	Computer	900	15	\$ 13500
Software Upgrades	Orchard	1500	5	7500
Total				29545

Appendix B

Learn Goals by Grade Level

Technology Objectives By Grade Level, K-12

Technology Standards (1-6)

- | | |
|--------------------------------------|---|
| 1- Basic Operations and Concepts | 4- Technology Communication Tools |
| 2- Social, Ethical, and Human Issues | 5- Technology Research Tools |
| 3- Technology Productivity Tools | 6- Technology Problem-Solving and Decision-Making Tools |

	Grade	Subject	Skill Category	Standard(s) 1-6	Skill
1	K	All Subjects	Keyboarding	1	Familiar with keyboard
2	K	All Subjects	Word Processing	1	Familiar with menu and can compose
3	K	All Subjects	Word Processing	3	Can add graphic
4	K	All Subjects	Word Processing	1	Can print
1	1	All Subjects	Keyboarding	1	Types with both hands
2	1	All Subjects	Word Processing	1	Can operate File menu (open, save, print)
3	1	All Subjects	Word Processing	1	Can use mouse to insert cursor
4	1	All Subjects	Word Processing	1	Familiar with delete, return and arrow keys
1	2	All Subjects	Keyboarding	3	Knows home row hand position and can type 5 words per minute with 50% accuracy
2	2	All Subjects	Word Processing	3	Can operate File menu (open, save, print)
3	2	All Subjects	Word Processing	1	Can use mouse to insert cursor
4	2	All Subjects	Word Processing	1	Familiar with delete, return and arrow keys
5	2	All Subjects	Desktop Publishing	3	Type text
6	2	All Subjects	Desktop Publishing	3	Choose graphic
7	2	All Subjects	Desktop Publishing	3	Edit and print
1	3	All Subjects	Keyboarding	1 & 3	Knows all letter keys, shift, space bar and punctuation
2	3	All Subjects	Keyboarding	3	Types 10 words per minute with 80% accuracy
3	3	All Subjects	Word Processing	1	File menu: New, open, close, save as (title of document), print preview and print
4	3	All Subjects	Word Processing	1	Edit menu: undo
5	3	All Subjects	Word Processing	3	Document menu: spelling and thesaurus
6	3	All Subjects	Word Processing	3	Tab key
7	3	All Subjects	Word Processing	1	Select alternate printer when networked
8	3	All Subjects	Desktop Publishing	3	File menu: New, open, close, save as, print preview and print
9	3	All Subjects	Desktop Publishing	3	Edit menu: undo
10	3	All Subjects	Desktop Publishing	3	Reference menu: spelling and thesaurus
11	3	All Subjects	Desktop Publishing	3	Picture menu: add graphics
12	3	All Subjects	Desktop Publishing	3	Text menu: size
1	4	All Subjects	Keyboarding	3	Left/right hand position, home row hand position
2	4	All Subjects	Keyboarding	3	15 words per minute with 85% accuracy

3	4	All Subjects	Word Processing	3	File menu: New, open, close, save as (title of document), print preview and print
4	4	All Subjects	Word Processing	3	Edit menu: undo, copy, paste, select all
5	4	All Subjects	Word Processing	3	Document menu: spelling and thesaurus
6	4	All Subjects	Word Processing	3	Tab key
7	4	All Subjects	Word Processing	1	Select alternate printer when networked
8	4	All Subjects	Word Processing	1	Access template
9	4	All Subjects	Word Processing	3	Justification and style, font type and size
10	4	All Subjects	Desktop Publishing	1	Can access template
11	4	All Subjects	Desktop Publishing	3	Text menu: alignment and style
12	4	All Subjects	Desktop Publishing	3 & 4	Produce a class newspaper
13	4	All Subjects	Telecommunications	2 & 5	Access resource through signing on and off
14	4	All Subjects	Telecommunications	4	Learn acceptable use of communication
15	4	All Subjects	Telecommunications	1 & 3	Knowledge of individual software
16	4	All Subjects	Multimedia	3 & 4	Learn to organize and arrange information for multimedia presentation
17	4	All Subjects	Multimedia	3 & 4	Learn how to create and import imagery from a variety of sources
18	4	All Subjects	Multimedia	3 & 4	Learn how to create and import sound
19	4	All Subjects	Multimedia	3	Knowledge of individual software
1	5	All Subjects	Keyboarding	3	20 words per minute with 90% accuracy
2	5	All Subjects	Word Processing	3	File, edit and document menus
3	5	All Subjects	Word Processing	3	Justification and style, font type and size
4	5	All Subjects	Word Processing	3	Set margins and tabs
5	5	All Subjects	Word Processing	1	Create folders and classify own documents
6	5	All Subjects	Word Processing	1	Select alternate printer when networked
7	5	All Subjects	Word Processing	3 & 4	Use the computer to compose, edit and publish a creative writing story
8	5	All Subjects	Desktop Publishing	3	Set margins and tabs
9	5	All Subjects	Desktop Publishing	5	Individual project based on research topics, including electronic resources from science, social studies or school theme
10	5	All Subjects	Telecommunications	2 & 5	Access resource through signing on and off
11	5	All Subjects	Telecommunications	2 & 5	Learn acceptable use of communication
12	5	All Subjects	Telecommunications	3	Knowledge of individual software
13	5	All Subjects	Multimedia	1	Learn to organize and arrange information for multimedia presentation
14	5	All Subjects	Multimedia	3 & 4	Learn how to create and import imagery from a variety of sources
15	5	All Subjects	Multimedia	3 & 4	Learn how to create and import sound
16	5	All Subjects	Multimedia	3	Knowledge of individual software
1	6	All Subjects	Keyboarding	3	30 words per minute with 90%

					accuracy
2	6	All Subjects	Word Processing	1	Master the use of system commands or a computer program to control a technological system
3	6	All Subjects	Word Processing	3	Master such word processing skills as entering, storing, editing, formatting and revising text
4	6	All Subjects	Word Processing	3	Master the use of tabs and columns within a report
1	7	All Subjects	Keyboarding	3	40 words per minute with 90% accuracy
2	7	All Subjects	Multimedia	3	Used as a tool for organizing, arranging and storing information by creating buttons, fields, cards and stacks
3	7	All Subjects	Multimedia	3 & 6	Introduce technology media (computer, video discs, telecommunications, still and live video to effectively search, collect, process and store information
4	7	All Subjects	Multimedia	6	Apply technologies to interpret, analyze, synthesize and evaluate data information
5	7	All Subjects	Multimedia	4 & 6	Use information technologies as tools for creative expression and communication of idea
1	8	All Subjects	Keyboarding	3	40 words per minute with 90% accuracy
2	8	All Subjects	Database & Spreadsheets	3 & 6	Master the more advanced features of database computer applications in hands-on problem solving
3	8	All Subjects	Database & Spreadsheets	3 & 6	Introduce spreadsheet/computer applications and use learning activities to answer "what if" questions by manipulating numeric data formulas
4	8	All Subjects	Database & Spreadsheets	3 & 5 & 6	Use pre-existing databases to collect research
5	8	All Subjects	Telecommunications	3 & 5 & 6	Develop researching strategies: brainstorming topics, strategy for keyword searches, evaluating search results for accuracy, producing a product using online sources combined with other resources
6	8	All Subjects	Telecommunications	2 & 3 & 5 & 6	Improve online communications: learn to evaluate a web site, become familiar with Internet procedure, practice email skills, learn ethical, legal and responsible behavior in the online community
1	High	English	Word Processing	3	Well-written, visually-pleasing documents using basic word processing skills
2	High	English	Word Processing	3	Reports created on a computer with title page, outline, text, works cited, and parenthetical referencing
3	High	English	Word Processing	3	Indenting, use of a variety of sizes and fonts, centering text, setting margins, spell check, thesaurus, tabs and tab stops, pagination, spacing

4	High	English	Multimedia	3 & 4	Compose, communicate, illustrate and illuminate their ideas
5	High	English	Multimedia	2 & 5	Research, interpret and communicate concepts and ideas
6	High	English	Multimedia	3 & 6	Compose meaningful images, video and sound
7	High	English	Multimedia	3 & 4 & 6	Demonstrate and understanding of various techniques used to create a multimedia presentation
8	High	English	Applications	3	Word Processing, spell check, thesaurus and grammar checking software used in the writing process
9	High	English	Applications	3 & 6	Database and telecommunications for research
10	High	English	Applications	3 & 6	Outline/brainstorm software for writing
11	High	English	Applications	3, 4, 5, & 6	Multimedia projects with graphics, text and sound
12	High	English	Applications	3, 4, 5, & 6	Creation of timelines of events
13	High	English	Applications	3, 4, 5, & 6	Desktop publishing of newspaper and yearbook on computer
14	High	English	Applications	3	Enhance photographs
15	High	English	Applications	1, 2, 3, 4, 5, & 6	Video productions in a TV production class
1	High	Science	Database & Spreadsheets	3,4,5,& 6	Learn to place actual lab data in a compatible spreadsheet and use charting and presentation features to produce a presentation-level document
2	High	Science	Database & Spreadsheets	3,4,5,& 6	Use advanced graphing to produce graphical regressions
3	High	Science	Database & Spreadsheets	1, 2, 3, 4, 5, & 6	Learn to navigate a university-based information system to gain access to current data and information
4	High	Science	Database & Spreadsheets	1, 2, 3, 4, 5, & 6	Contribute to high school level data gathering services and extract compiled results
5	High	Science	Applications	1, 2, 3, 4, 5, & 6	Database and telecommunications for research
6	High	Science	Applications	1, 2, 3, 4, 5, & 6	Multimedia projects with graphics, text and sound
7	High	Science	Applications	1, 3, 4, 5, & 6	Computer probes for measurement/analysis
8	High	Science	Applications	1, 2, 3, 4, 5, & 6	Optical technologies for research and analysis
9	High	Science	Applications	1, 2, 3, 4, 5, & 6	Computer interface with lab instruments
10	High	Science	Applications	1, 2, 3, 4, 5, & 6	Gravity, projectile motion or other simulation
11	High	Science	Applications	1, 2, 3, 4, 5, & 6	Download and analyze data from weather satellite
12	High	Science	Applications	1, 2, 3, 4, 5, & 6	Nationwide collaboration via telecommunications
1	High	Math	Programming	1, 3, 4, 5, & 6	Enter programs and use mathematics to analyze the program.
2	High	Math	Programming	1, 3, 4, 5, & 6	Design, write and run similar programs to solve mathematical problems.

4	High	Math	Programming / Geometry	1, 3, 4, 5, & 6	Master the use of IF-THEN statement to make decisions about which procedures to follow
5	High	Math	Programming / Algebra	1, 3, 4, 5, & 6	Master the use of the DEF FN command. Modify programs to achieve desired changes in the program's output
6	High	Math	Programming / Functions, Stats, & Trig	1, 3, 4, 5, & 6	Master FOR-NEXT loop with advanced equations, and RND (1) function
7	High	Math	Programming / Precalculus, Discrete Math	1, 3, 4, 5, & 6	Master PRINT options to produce output in well organized charts. Analyze when programming is an efficient way of problem solving
8	High	Math	Spreadsheet / Algebra	1, 3, 4, 5, & 6	Master formatting of cells and editing and clearing of cells. Use formulas to perform calculations. Enter and correct data in a spreadsheet. Format cells
9	High	Math	Spreadsheet / Geometry	1, 3, 4, 5, & 6	Master formula writing with multiple cells. Display answers in a variety of ways. Master formulas using many cells. Copy formulas using FILL DOWN
10	High	Math	Spreadsheet / Algebra	1, 3, 4, 5, & 6	Master the PMT function to calculate the periodic payments for an installment loan when given the interest rate, number of payments to be made and the amount of the loan. Format cells for dollar amounts. Produce an amortization table displaying interest, principal, and payments
11	High	Math	Spreadsheet / Functions, Stats, & Trig	1, 3, 4, 5, & 6	Master graphing functions for the spreadsheet. Create pie charts, line graphs and bar charts to represent data
12	High	Math	Spreadsheet / Precalculus, Discrete Math	1, 3, 4, 5, & 6	Master the VLOOKUP function. Create spreadsheets to solve complicated mathematical situations
1	High	Social Studies	Research & Telecommunications	1, 3, 4, 5, & 6	Search for information online
2	High	Social Studies	Research & Telecommunications	1, 3, 4, 5, & 6	Publish documents online
3	High	Social Studies	Research & Telecommunications	1, 2, 3, 4, 5, & 6	Establish online conferences with remote sites
4	High	Social Studies	Research & Telecommunications	1, 2, 3, 4, 5, & 6	Demonstrate legal, ethical and responsible behaviors online
5	High	Social Studies	Research & Telecommunications	1, 2, 3, 4, 5, & 6	Use electronic mail, Remember the CIPA
6	High	Social Studies	Research & Telecommunications	1, 2, 3, 4, 5, & 6	Demonstrate the ability to access and filter information resources
7	High	Social Studies	Application Ideas	1, 2, 3, 4, 5, & 6	Atlas/map making
8	High	Social Studies	Application Ideas	1, 2, 3, 4, 5, & 6	Telecommunications to use online resources
9	High	Social Studies	Application Ideas	1, 2, 3, 4, 5, & 6	Multimedia projects with graphics, text and sound
10	High	Social Studies	Application Ideas	1, 2, 3, 4, 5, & 6	Simulations

Appendix C

Copy of JCS, CIPA 479 for the 2004-05 SY

FCC Form Approval by OMB 3060-0853		479
Schools and Libraries Universal Service Certification by Administrative Authority to Billed Entity of Compliance with the Children's Internet Protection Act Please read instructions before completing. Estimated Average Burden Hours For First Submission: 15.0 hours For Subsequent Submissions: 1.5 hours		
Administrative Authority's Form Identifier: JCS Yr 8 479 .	(To be completed by the Administrative Authority and provided to your Billed Entity)	
Block 1: Administrative Authority Information		
1. Name of Administrative Authority Jefferson County Schools	2. Funding Year Year 8	
3. Mailing Address and Contact Information for Administrative Authority		
Street Address, P. O. Box or Route Number City State Zip Code 101 South Main Street, Suite 501 Clinton TN 37716		
Name of Contact Person 10-Digit Telephone Number Fax Number E-mail Address V. L. Stonecipher 865-463-2800 865-457-9157 vstoneci@JCS.ac		
<p>This form is applicable only for funding years beginning July 1, 2001 or later. Persons willfully making false statements on this form can be punished by fine or forfeiture, under the Communications Act, 47 U.S.C. Secs. 502, 503(b), or fine or imprisonment under Title 18 of the United States Code, 18 U.S.C. Sec. 1001. NOTICE: The collection of information stems from the Commission's authority under Section 254 of the Communications Act of 1934, as amended, 47 U.S.C. § 254. The data in the form will be used to inform the Billed Entity of the status of compliance with the Children's Internet Protection Act. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The FCC is authorized under the Communications Act of 1934, as amended, to collect the information requested in this form. The information you provide will be used to determine whether approving the application of your Billed Entity is in the public interest. If we believe there may be a violation or potential violation of an FCC statute, regulation, rule or order, your form may be referred to the federal, state, or local agency responsible for investigating, prosecuting, enforcing or implementing the statute, rule, regulation or order. In certain cases, the information in your form may be disclosed to the Department of Justice or a court or adjudicative body when (a) the FCC; or (b) any employee of the FCC; or (c) the United States Government, is a party in a proceeding before the body or has an interest in the proceeding. In addition, consistent with the Communications Act of 1934, FCC regulations and orders, the Freedom of Information Act, 5 U.S.C. § 552, or other applicable law, information provided in or submitted with this form or in response to subsequent inquiries may be disclosed to the public. If you do not provide the information requested on the form, the Billed Entity will be unable to complete the FCC Form 486. The foregoing Notice is required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13, 44 U.S.C. § 3501, <i>et seq.</i> Public reporting burden for this collection of information is estimated to average 15.0 hours for the first submission and 1.5 hours for subsequent submissions, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing, and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the reporting burden, to the Federal Communications Commission, Performance Evaluation and Records Management, Washington, D.C. 20554.</p>		

Name of Administrative Authority Jefferson County Schools Administrative Authority's Form Identifier JCS 2005	
Name of Contact Person Faye Humbar Telephone Number <u>865-397-6235</u>	
Block 2: Certifications and Signature	
4. I am the Administrative Authority for one or more schools or libraries for which Universal Service Support Mechanism discounts have been requested or approved for eligible services. The Administrative Authority must make the required certification(s) for the purposes of the Children's Internet Protection Act (CIPA) in order to receive discounted services. 5. I recognize that I may be audited pursuant to this form and will retain for five years any and all records that I rely upon to complete this form. 6. I certify that as of the date of the start of discounted services: a X the recipient(s) of service under my administrative authority and represented in the Funding Request Number(s) for which you have requested or received Funding Commitments has (have) complied with the requirements of the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l). b pursuant to the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l), the recipient(s) of service under my administrative authority and represented in the Funding Request Number(s) for which you have requested or received Funding Commitments: (FOR SCHOOLS and FOR LIBRARIES IN THE FIRST FUNDING YEAR FOR PURPOSES OF CIPA) is (are) undertaking such actions, including any necessary procurement procedures, to comply with the requirements of CIPA for the next funding year, but has (have) not completed all requirements of CIPA for this funding year. (FOR FUNDING YEAR 2003 ONLY: FOR LIBRARIES IN THE SECOND OR THIRD FUNDING YEAR FOR PURPOSES OF CIPA) is (are) in compliance with the requirements of CIPA under at 47 U.S.C. § 254(l) and undertaking such actions, including any necessary procurement procedures, to comply with the requirements of CIPA under 47 U.S.C. § 254(h) for the next funding year. c the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l), does not apply because the recipient(s) of service under my administrative authority and represented in the Funding Request Number(s) for which you have requested or received Funding Commitments is (are) receiving discount services only for telecommunications services. CIPA Waiver. Check the box below if you are requesting a waiver of CIPA requirements for the Second Funding Year after April 20, 2001 in which the recipients of service under your administrative authority have applied for discounts: d I am providing notification that, as of the date of the start of discounted services, I am unable to make the certifications required by the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l), because my state or local procurement rules or regulations or competitive bidding requirements prevent the making of the certification(s) otherwise required. I certify that the recipient(s) of service under my administrative authority and represented in the Funding Request Number(s) for which you have requested or received Funding Commitments will be brought into compliance with the CIPA requirements before the start of the Third Funding Year after April 20, 2001 in which they apply for discounts. CIPA WAIVER FOR LIBRARIES FOR FUNDING YEAR 2004. Check the box below if you are requesting a waiver of CIPA requirements for the library(ies) under your administrative authority that have applied for discounts for Funding Year 2004: e I am providing notification that, as of the date of the start of discounted services in Funding Year 2004, I am unable to make the certifications required by the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l), because my state or local procurement rules or regulations or competitive bidding requirements prevent the making of the certification(s) otherwise required. I certify that the library(ies) under my administrative authority and represented in the Funding Request Number(s) for which you have requested or received Funding Commitments will be brought into compliance with the CIPA requirements before the start of Funding Year 2005. The certification language above is not intended to fully set forth or explain all the requirements of the statute.	
7. Signature of Authorized Person	8. Date December 28, 2004
9. Printed Name of Authorized Person Doug Moody	

10. Title or Position of Authorized Person Director of School
11. Telephone Number of Authorized Person 865-397-3194

Research References:

ISTE Standards, <http://cnets.iste.org/>
Standards for Students, Teachers, and Administrators

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<http://www.state.tn.us/education/ci/cicurframwkmain1.htm>

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