

Facilities and Technology Bond Task Force

***Technology Initiatives Presentation
February 17, 2000***

***Prepared by:
PISD Technology Division
Curriculum and Technology Teams***

***Reviewed by:
PISD Technology Steering Committee
Superintendent's Cabinet***

**Educating Our Students
for the New Millennium**



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Bond Considerations for Fall 2000

Since the beginning of this school year staff members from schools, the curriculum department and the technology department have been studying and identifying possible technology needs to be addressed in an upcoming bond initiative. This document is designed to give you an overview of the projects that have been brought forward for consideration.

There is a critical and essential need to protect and maintain the investment made by previous technology bond funds (1990, 1996 and 1999). In particular, those bonds have enabled Plano ISD to create a wide area network (1990) and begin the replacement of that network with more capacity and capability (1999). Our elementary classrooms have a standard technology configuration throughout the entire district to integrate closely with our curriculum (1996). Many of our secondary classrooms received significant technology implementations via a curriculum-requested process on a case-by-case basis (1996). Others were not affected at all. The data networks within each campus have been and will continue to be upgraded to take advantage of Internet access and our new wide area network (1996, 1999). We've installed over 10,000 computers and 1,000s of TV/monitors, VCRs and laserdisc players as a result of the 1996 bond initiative to increase student achievement through technological improvements in the classroom. We believe that appropriately replacing and upgrading this equipment should be a high priority in the upcoming bond issue.

In addition, there is a need to continue the improvement in the PISD classroom environments in terms of technology access that our students use regularly in their learning activities. The districtwide technology initiatives and curriculum specific technology initiatives support and improve on those additions made as part of our previous technology bond investments.

This document is organized in the following fashion to assist with the discussion of the various initiatives to be presented for consideration:

- Summary of Technology Bond Initiatives Costs
- Replacement Plan
- Districtwide Technology Initiatives
- Curriculum Specific Technology Initiatives

Summary of Technology Bond Initiatives Cost

Item	Cost	Page #
Replacement Plan	\$16,931,475.00	6
Districtwide Technology Initiatives		
Video Broadcast Components	\$954,525.00	7
PC memory and operating systems upgrade	\$4,880,000.00	7
Middle School Classroom Configuration	\$7,636,450.00	8
High/Senior High School Classroom Configuration	\$2,005,799.00	9
Elementary and Middle School Reading Software	\$360,000.00	9
Elementary School Special Use Classrooms	included below	9
Digital Video Services	included in Learning Media Services	
Curriculum Specific Technology Initiatives		
Academic Decathlon (11-12)	\$18,468.00	10
Advertising Design (11-12)	\$63,510.00	12
Agricultural Science (9-12)	\$46,050.00	14
High School (9-10) Art	\$31,780.00	16
Senior High (11-12) School Art	\$28,710.00	19
Automotive Collision (11-12)	\$15,300.00	22
Automotive Technology (11-12)	\$15,300.00	24
Business and Information Technology (11-12)	\$259,756.00	26
Choral Music (K-12)	\$49,243.28	30
Computer Science (9-10)	\$322,915.00	33
Criminal Justice (11-12)	\$3,750.00	36
Drafting (11-12)	\$25,854.00	37
English (9-12)	\$633,539.04	39
ESOL (K-12)	\$245,811.60	42
Health (9-12)	\$177,960.00	45
Health Science Technology (9-12)	\$131,930.52	48
Journalism/Yearbook (9-12)	\$59,676.00	51
Learning Media Services (K-12)	\$653,500.00	54
Mathematics (9-12)	\$57,500.00	58
Musical Instruments (6-12)	\$1,000,000.00	replace as needed
PACE (K-8)	\$157,299.16	61
Reading (9-12)	\$11,155.00	63
ROTC (9-12)	\$32,948.00	67
Science (9-12)	\$535,130.00	69
Social Studies (9-12)	\$1,281,222.00	74
Special Education (K-12+)	\$149,207.00	76
Speech (9-12)	\$117,966.92	81
Technology Education (9-10)	\$161,885.00	87
Theater Arts (9-12)	\$16,705.00	89
Total	\$39,072,320.52	



Replacement Plan

Plano ISD and its community commit a significant portion of budget dollars to support and improve the use of technology in the district. In 1996 and 1999, the community approved a \$43 and \$21 million, respectively, bond package that provided the needed funding to enable a large portion of the strategic technology plan to be put into place. A combination of operating funds and 5-year equipment bonds will be needed to insure the plan can be implemented and maintained in an appropriate fashion. Due to the Chapter 41 legislative mandates that require the district to pay taxes on assessed valuation greater than \$295,000 to other school districts, the district must fund replacement costs in future bond packages while the operating budget should fund ongoing support of technology. A determination was made in the spring of 1999 by district administration and the Board of Trustees that a replacement fund for technology would become part of an ongoing bond program. The chart below gives the current thought as to those replacements that will be provided as part of the Fall 2000 bond initiative.

Item	Current Inventory	# to Replace	Unit Cost	Total Cost	Year(s) to implement
Desktop PCs ¹	21,500	10,600	1,050	\$11,130,000	2000-02
Laptop computers ²	1,000	1,000	2,000	\$2,000,000	2000-01
Macintosh computers	977	977	1,050	\$1,025,850	2000-01
Laser printers	1,454	250	1,500	\$375,000	2000-03
Inkjet printers	622	300	300	\$90,000	2000-03
Network servers	180	76	8,100	\$615,600	2000-02
UPS systems	200	200	600	\$120,000	2000-01
TV/monitors	2,746	325	595	\$193,375	2000-03
VCRs	2,741	300	200	\$60,000	2000-03
Hi-resolution monitors	212	30	1,500	\$45,000	2000-03
Laserdisc players	1,851	200	900	\$180,000	2000-03
Flatbed scanners	184	184	400	\$73,600	2000-03
Scan converters	1,700	300	250	\$75,000	2000-03
VIDs	200	20	1,200	\$24,000	2000-03
Probeware	850	200	600	\$120,000	2000-03
Microscopes	778	277	750	\$207,750	2000-01
Telephone switch software	67	67	8,900	\$596,300	2001-03
Total replacement costs				\$16,931,475	

Notes:

¹ All PCs below 200Mhz will be replaced as part of this plan; current PCs will have an anticipated useful life of six years (50% replacement each cycle)

² Laptops have an anticipated useful life of three years (100% replacement each cycle)

Districtwide Technology Initiatives

Video Broadcast Components

A portable video production cart for each campus is necessary to take full advantage of the expanded capability of the district fiber network. This cart (often called a video "crash" cart) is comprised of a SVHS camera, 13" color monitor, wireless microphone kit, unidirectional dynamic microphone, tripod, production lighting kit, audio mixer, agile modulator, and storage console. Utilizing this equipment would allow a classroom production, demonstration lesson, or other event to be broadcast to any other classroom on the network. In addition to sharing excellent teaching, this system will also provide a means by which many of the technology TEKS can be demonstrated by students. The system can also assist in the implementation of distance learning in schools that do not have a special classroom set aside for that purpose.

Additional cable TV outlets will be needed in each classroom and other locations at each campus to allow appropriate connection points for this new system.

Item	Number to add	Unit Cost	Total Cost	Year(s) to implement
Video broadcast components	62	6,000	\$372,000	2000-01
Additional CATV outlets	2589	225	\$582,525	2000-01
Total bond funding request			\$954,525	

PC memory and operating system upgrades

Our current configuration of 64 megabytes of RAM supports Windows 95 adequately. We anticipate a need to upgrade to Windows 2000x in about 18 months which will require a minimum memory configuration of 128 megabytes to operate our software applications appropriately.

Item	Current Inventory	# to Upgrade	Unit Cost	Total Cost	Year(s) to implement
Memory upgrade (128)	21,500	21,500	120	\$2,580,000	2001-02
Windows 2000(x)	21,500	23,000	100	\$2,300,000	2001-02
Total bond funding request				\$4,880,000	

Middle school classroom technology configuration

The implementation of the new middle school curriculum will require an updated classroom environment in terms of technology, in a similar manner as the elementary curriculum required in the 1996 bond.

2000 Bond Planning - Middle School

	Total	Cost	Total Cost
Campuses	12		
Classrooms (All)	754		
Art Tablets (Intuos)	56	150.00	8,400.00
Camcorder/tripod	22	615.00	13,530.00
CD/Cassette Recorder	11	103.40	1,137.40
Computers	1660	1,050.00	1,743,000.00
Computers-"Enhanced"	56	1,791.00	100,296.00
Additional Network Electronics			200,000.00
Digital Cameras	100	639.00	63,900.00
Flex Camera	11	1,000.00	11,000.00
Headphones	3308	13.68	45,253.44
Internal CD Drive	237	85.00	20,145.00
Jet Direct Box	106	249.00	26,394.00
Laptops	56	2,500.00	140,000.00
Laserdisc Player	56	785.00	43,960.00
LCD Projectors (video)	600	4,000.00	2,400,000.00
Microphones	1967	10.00	19,670.00
Printer - 4050 Laser	214	1,384.00	296,176.00
Printer - 895 Cxi DeskJet	14	530.00	7,420.00
Scanner	59	389.00	22,951.00
TI Graphing Calculators	990	82.00	81,180.00
TI Overhead Graphing Calculators	33	270.00	8,910.00
TV/Scan-It	200	595.00	119,000.00
VCR	789	135.00	106,515.00
VCR-Stereo	11	250.00	2,750.00
Video Prestenters, Elmo, 15ft cable, RCA	256	565.00	144,640.00
JCK-JCK Barrel Adapter			
Drops	2459	250.00	614,750.00
Electrical (Quad)	2558	250.00	639,500.00
Electrical (Duplex for mounted monitors)	225	200.00	45,000.00
Cart for Elmo	11	150.00	1,650.00
Tables	1949	45.00	87,705.00
Chairs	1935	15.00	29,025.00
Classroom Furniture (for space needs)	2250	60.00	135,000.00
List software here			
Adobe Photoshop	56	163.00	9,128.00
Ellis	36	1,600.00	57,600.00
Grammar Study Software	12	3,200.00	38,400.00
Internet, To Be Determined	891	250.00	222,750.00
Lexia (Dyslexia software)	12	500.00	6,000.00
Mimi Software - 6th grade	7	6,245.00	43,715.00
Scanner Software	70	80.00	5,600.00
Talking Walls	12	3,000.00	36,000.00
Vocabulary Study software	12	3,200.00	38,400.00
TOTALS			\$7,636,450.84

High school/senior high school classroom technology configuration

Proposals under consideration would provide for the existing teacher classroom computer to have a connection to a large screen monitor or video projection device for presentation, VCR access, video network connection, and student computers as necessary according to each content area.

2000 Bond Planning
High School and Senior High School

	Total	Cost	Total Cost
Campuses	8		
Classrooms (All)	790		
Digital Cameras	80	639.00	51,120.00
LCD Projectors (video)	385	4,000.00	1,540,000.00
Printer - 1120 DeskJet	0	689.00	0.00
Printer - 2100 Laser	0	950.00	0.00
Printer - 4050 Laser	120	1,384.00	166,080.00
Printer - 895 Cxi DeskJet	0	530.00	0.00
Scanner	16	389.00	6,224.00
TV/Scan-It	320	595.00	190,400.00
VCR	385	135.00	51,975.00
TOTALS			2,005,799.00

Elementary and Middle School Reading Software

This initiative will allow the installation of a specialized reading software package titled Fast Forward at four elementary schools and two middle schools where the identified student population will benefit from these new strategies. Each school license will cost \$60,000 for a total project cost of \$360,000.

Elementary school special use classroom technology configuration

Proposals under consideration include installing AV bundles in special use classrooms such as music, PACE and art for those campuses that do not have this standard elementary classroom configuration. These components and costs are listed in the individual curriculum sections.

Digital video capability for broadcast via Learning Media Services

Proposals under consideration to take advantage of the increased capacity of the new fiber optic network include the use of digital video. Currently, videotapes are played in the classrooms by individual videotape players or accessed from a head-in system in the school library. With the fiber network installed, the capability exists of transmitting both analog and digital video signals originated from the Shiloh Center. This will provide greater flexibility for teachers to access titles from a central library, eliminating the need to check the tape out and transport it to the individual schools. Additionally, the use of digital video will enable students and teachers to access the programming through the computer or a large screen monitor. It means that one "streamed" video can be accessed by many viewers under the direct control of each and every viewer.



Curriculum Specific Technology Initiatives

Teamwork for Excellence



PLANO

Independent School District

Academic Decathlon (11-12)

Subject Area/Level	Plano East Senior High School, Plano Senior High School, Plano West Senior High School Academic Decathlon programs 11-12
Submitted by	Florence Simpson/Academic Competitions Coordinator David Hitt/Instructional Technology Specialist
Curriculum and Technology Team Members	David Hitt, Florence Simpson, Terri Fargason, Jerry Grizzle, Sheila Kolb, Bill Borowicz, Amy Eckler
Planning Meetings (include schedules and members attending)	<p>9/22/99 Terri Fargason, Florence Simpson</p> <p>9/29/99 David Hitt, Amy Eckler, Sheila Kolb, Terri Fargason, Florence Simpson</p> <p>10/13/99 Florence Simpson, Sheila Kolb, Bill Borowicz</p> <p>10/16/99 Florence Simpson, Jerry Grizzle, Sheila Kolb, Bill Borowicz, Pam Chaney, Terri Fargason, Amy Eckler</p> <p>10/25/99 David Hitt, Florence Simpson</p> <p>11/09/99 Amy Eckler, Florence Simpson</p> <p>12/08/99 David Hitt, Florence Simpson</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>1 Laptop and 2 computers per each senior high school Academic Decathlon classroom/program for a total of 9 computers.</p> <p>3 carrying cases for laptops</p> <p>Network drops and electrical for computers</p>
Staff Training Needs	Training has been and will be provided by Instructional Technology.

Rationale for Initiative	Materials provided by the United Academic Decathlon program and all providers for the course of study each year have moved heavily into technology. In order for the teams to be competitive and receive the most benefit for the cost invested into materials each year, technological tools are essential. Laptops provide the portability teams need in preparation for each years' levels of competitions. Technology tool access that is readily available is essential in keeping abreast in the latest information published on the Academic Decathlon website. The machines are needed for all research materials, including web based and CD based testing. Each school program draws from a wide talent pool of 30-40 students and narrows to the final nine second semester.
Supporting Research (documenting improved student achievement – attach articles of reference)	Will not have documented data until the completion of 99/00competition year. Coaches will then have the opportunity to access the impact of USAD technology implementation tools on student performance
Site Visits to Examine Existing Models	Discussed model at Coppell S\High School: contact: Mike Farish
Suggested Timeline for Implementation	Fall 2001

2000 Bond Planning
Senior High School - Academic
Decathlon

	Academic Decathlon	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Computers	6	6	1,050.00	6,300.00
Laptops	3	3	2,500.00	7,500.00
Drops	9	9	250.00	2,250.00
Electrical (Quad)	9	9	250.00	2,250.00
Targus Laptop Cases	3	3	56.00	168.00
TOTALS				18,468.00





Advertising Design (11-12)

Subject Area/Level	Advertising Design (11-12) PSHS
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Jan Short, East Cluster Coordinator, Instructional Technology Ron Winkelmann, Director, Career Education
Planning Meetings (include schedules and members attending)	9/2/99 Steve Minnerly, Al Ayars, Terry Wright, Wes Pippard
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Adobe software 2-HP 1120 printer/plotters 20 enhanced computers Student chairs and tables
Staff Training Needs	Provided by Auto Desk
Rationale for Initiative	
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	PSHS
Suggested Timeline for Implementation	2000-2001

2000 Bond Planning
Senior High School - Advertising
Design

	Advertising Design	Total	Cost	Total Cost
Campuses	1	1		
Classrooms	1	1		
Computers	20	20	1,791.00	35,820.00
Monitors - 19"	20	20	245.00	4,900.00
Printer - 1120 Cxi DeskJet printer	2	2	689.00	1,378.00
Drops	22	22	250.00	5,500.00
Electrical (Quad)	22	22	250.00	5,500.00
Tables	22	22	46.00	1,012.00
Chairs	20	20	15.00	300.00
List software here				
Adobe Software	20	20	700.00	14,000.00
	TOTALS			63,510.00



Agricultural Science (9-12)

Subject Area/Level	<p>Agricultural Science 9-12 Clark, Jasper, Shepton, Vines, Williams, Plano Senior High, Plano East Senior High, Plano West Senior High</p> <p>Canine Science 9-10 Clark, Jasper, Shepton, Vines, Williams</p>
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	<p>Dick Thedford, Career Education Coordinator</p> <p>Jan Short, East Cluster Coordinator, Industrial Technology</p> <p>Ron Winkelmann, Director, Career Education</p>
Planning Meetings (include schedules and members attending)	<p>9/2/99 Admin bldg. initial meeting, Ron Winkelmann, Jan Short</p> <p>9/13/99 planning meeting, Hugh Gibson, Dennis Palmer, David Ryon, Terry Combs, Gary Woody, Tim Wyatt, Charles Casada, Glen Tice</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>Pentium computers</p> <p>Microscope camera</p>
Staff Training Needs	
Rationale for Initiative	
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	
Suggested Timeline for Implementation	Summer, 2001

2000 Bond Planning
High School - Agricultural and Canine
Science

	Agricultural and Canine Science	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	5	5		
Computers	5	5	1,050.00	5,250.00
Microscope Camera	5	5	1,300.00	6,500.00
Network drops	5	5	250.00	1,250.00
Electrical (quad)	5	5	250.00	1,250.00
TOTALS				14,250.00

2000 Bond Planning
Senior High School - Agricultural Science

	Agricultural Science	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Computers	18	18	1,050.00	18,900.00
Microscope Camera	3	3	1,300.00	3,900.00
Network drops	18	18	250.00	4,500.00
Electrical (quad)	18	18	250.00	4,500.00
TOTALS				31,800.00



PLANO

Independent School District

High School (9-10) Art

Subject Area/Level	Art I, II, and Pre-Advanced Placement Art at 9th and 10th grade schools
Submitted by	Janice Truitt and Jim Long
Curriculum and Technology Team Members	Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel, Anita Hilborn, and Jeanne Lowenthal
Planning Meetings (include schedules and members attending)	<p>9/20 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p> <p>11/18 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p> <p>12/1 Janice Truitt, Jim Long, & Jeanne Lowenthal</p> <p>12/2 Phone and email communication between Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel, Anita Hilborn, Jeanne Lowenthal</p> <p>12/8 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>Add computers to each 2-D art classroom to achieve a total of three. The new 9th and 10th grade school will need 3 workstations for each 2-D art classroom. Total equipment (including new high school) is listed as follows:</p> <p>10 Computers-Enhanced</p> <p>5 HP ScanJet 6200 Cxi</p> <p>10 Intuos 4x5 Serial Tablets</p> <p>5 Sony Mavica Digital Camera FD83</p> <p>10 licenses for Adobe Photoshop 5.5</p> <p>Network drops for computers</p> <p>10 tables and 10 chairs</p> <p>10 classrooms</p>

<p>Staff Training Needs</p>	<p>Teachers will be trained in Adobe Photoshop through Professional Development sessions by Janice Truitt and Jim Long.</p>
<p>Rationale for Initiative</p>	<p>The 9th and 10th grade schools received 2 computers per two-dimensional design classroom this year. Due to the average number of 28 students per class there is a need for one more computer per room. Five of the rooms did not receive scanners so there is a need for 5 scanners. The new 9th and 10th grade school will need to be provided the same equipment as the others.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	<p>The art curriculum needs to stay current with the needs of our society. Industrial leaders advise school to develop core competencies in conceptual thinking, two-dimensional design, 2-D animation, industrial design, graphic design, computer game design, fashion, architecture, and web page design. It is important that we provide opportunities that increase student awareness of career options and teach them how to get there.</p> <p>The top 5 art schools in the nation, Rhode Island School of Design, The School of the Art Institute of Chicago, ArtCenter, Maryland Institute of Art , and CalArts, require fine art portfolios for admittance. For our students to stay competitive we need to include technology works in those portfolios.</p> <p>The Dallas Art Institute and Collin County Community College stress the importance for art students to be proficient in the use of technology. Both stated that students need to learn how to use computers along with traditional methods to create art .</p>
<p>Site Visits to Examine Existing Models</p>	<p>Attended workshops at the Texas Art Education Conference on technology in the art classroom.</p> <p>Discussions with art coordinators from other districts revealed that other Texas districts are ahead of Plano ISD in placing computers in the art classrooms.</p>
<p>Suggested Timeline for Implementation</p>	<p>Installed and operational by August 1, 2001. Ordering of hardware/software would begin as soon as funds are available.</p> <ol style="list-style-type: none"> 1. Map out location for computers. 2. Order hardware and software. 3. Install wiring.

	<p>4. Install hardware.</p> <p>5. Install software.</p> <p>6. Training for teachers in Fall of 2001.</p>
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2000 Bond Planning
High School - Art

	Art	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	10	10		
Computers-Enhanced	10	10	1,791.00	17,910.00
Digital Cameras	5	5	639.00	3,195.00
Scanner	5	5	389.00	1,945.00
Tablets - Art	10	10	150.00	1,500.00
Drops	10	10	250.00	2,500.00
Electrical (Quad)	10	10	250.00	2,500.00
Tables	10	10	45.00	450.00
Chairs	10	10	15.00	150.00
<i>List software here</i>				
Photoshop	10	10	163.00	1,630.00
TOTALS				31,780.00



Senior High School (11-12) Art

Subject Area/Level	Art I, II, III, at 11-12 schools
Submitted by	Janice Truitt and Jim Long
Curriculum and Technology Team Members	Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel, Anita Hilborn, and Jeanne Lowenthal
Planning Meetings (include schedules and members attending)	<p>9/20 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p> <p>11/18 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p> <p>12/1 Janice Truitt, Jim Long, & Jeanne Lowenthal</p> <p>12/2 Phone and email communication between Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel, Anita Hilborn, Jeanne Lowenthal</p> <p>12/8 Janice Truitt, Jim Long, Jeanine Caldwell, Meghan Martel</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>Add 3 workstations for one art classroom at each senior high. Total equipment is listed below:</p> <p>9 Computers-Enhanced</p> <p>3 HP ScanJet 6200 Cxi</p> <p>3 HP DeskJet 1120CxiC280A</p> <p>9 Intuos 4x5 Serial Tablets</p> <p>9 licenses for Adobe Photoshop 5.5, 3 manuals, and 3 CDs</p> <p>Network drops and electricity for computers and printers</p> <p>9 tables & 9 chairs</p> <p>3 start up supply kits including zip disks , rewritable</p>

	compact discs, Inkjets, Photo paper, Inkjet paper,
Staff Training Needs	Teachers will be trained in Adobe Photoshop through Professional Development sessions by Janice Truitt and Jim Long.
Rationale for Initiative	The senior high schools are in need of student computers for Adobe Photoshop. Only the 11th and 12th grade classrooms that are used to teach Advanced Placement Art have student computers. This year the 9th and 10th grade art classrooms for Art I, and II, and pre-Advanced Placement Art have received student computers along with Adobe Photoshop. It is important for the 11th and 12th grade schools to be able to offer the same opportunities to the students that take Art I, II, and III at the senior highs. Three student technology stations per classroom would allow for students to experience illustration, graphic studies, manipulation of self created images, and experience with computer programs that focus on visual imaging.
Supporting Research (documenting improved student achievement – attach articles of reference)	<p>The art curriculum needs to stay current with the needs of our society. Industrial leaders advise schools to develop core competencies in conceptual thinking, two-dimensional design, 2-D animation, industrial design, graphic design, computer game design, fashion, architecture, and web page design. It is important that we provide opportunities that increase student awareness of career options and teach them how to get there.</p> <p>The top 5 art schools in the nation, Rhode Island School of Design, The School of the Art Institute of Chicago, ArtCenter, Maryland Institute of Art , and CalArts, require fine art portfolios for admittance. For our students to stay competitive we need to include technology works in those portfolios.</p> <p>Dallas Art Institute and Collin County Community College stress the importance for art students to be proficient in the use of technology. Both stated that students need to learn how to use computers along with traditional methods to create art .</p>
Site Visits to Examine Existing Models	<p>Attended workshops at the Texas Art Education Conference on technology in the art classroom.</p> <p>Discussion with other art coordinators revealed many Texas districts are ahead of Plano ISD in placing computers in the art classrooms.</p>
Suggested Timeline for Implementation	Installed and operational by August 1, 2001. Ordering of hardware/software would begin as

Implementation	<p>soon as funds are available.</p> <ol style="list-style-type: none"> 1. Map out location for computers. 2. Order hardware and software. 3. Install wiring. 4. Install hardware. 5. Install software. 6. Training sessions for teachers during fall of 2001.
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2000 Bond Planning
Senior High School - Art

	Art	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	6	6		
Computers - Enhanced	9	9	1,791.00	16,119.00
Printer - 1120 Cxi DeskJet	3	3	689.00	2,067.00
Scanner	3	3	389.00	1,167.00
Tablets - Art	9	9	150.00	1,350.00
Drops	12	12	250.00	3,000.00
Electrical (Quad)	12	12	250.00	3,000.00
Tables	9	9	45.00	405.00
Chairs	9	9	15.00	135.00
List software here				
Photoshop	9	9	163.00	1,467.00
TOTALS				28,710.00



Automotive Collision (11-12)

Subject Area/Level	Automotive Collision I & II (11-12)
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Jan Short, East Cluster Coordinator, Industrial Technology Ron Winkelmann, Director, Career Education
Planning Meetings (include schedules and members attending)	9/2/99 Tommy Coleman; Roby Armstrong, Snap-On 11/10/99 Bill Roton; Georgie Arrants, Snap On 12/3/99 Lowell Highnote; James McCrary; Roger Tadajewski, Snap On; Fidel Casto, TEA
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Computer learning system 6 PC's and network software (Shop Key Auto Body)
Staff Training Needs	ASE certification
Rationale for Initiative	Critical occupation
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	12/3/99 Brookhaven Community College
Suggested Timeline for Implementation	

2000 Bond Planning
Senior High School - Auto
Collision I & II

	Automotive Collision I & II	Total	Cost	Total Cost
Campuses	2	2		
Classrooms	2	2		
Computers	6	6	1,050.00	6,300.00
Network drops	6	6	250.00	1,500.00
Electrical (quad)	6	6	250.00	1,500.00
<i>List software here</i>				
Shop Key Auto Body network software	2	2	3,000.00	6,000.00
TOTALS				15,300.00



Automotive Technology (11-12)

Subject Area/Level	Automotive Technology I & II (11-12)
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Jan Short, East Cluster Coordinator, Industrial Technology Ron Winkelmann, Director, Career Education
Planning Meetings (include schedules and members attending)	9/2/99 Tommy Coleman; Roby Armstrong, Snap-On 11/10/99 Bill Roton; Georgie Arrants, Snap On 12/3/99 Lowell Highnote; James McCrary; Roger Tadajewski, Snap On; Fidel Casto, TEA
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Computer learning system 6 PC's and network software (Shop Key)
Staff Training Needs	ASE certification
Rationale for Initiative	Critical occupation
Supporting Research (documenting improved student achievement – attach articles of reference)	Items required for NATEF/ASE certification
Site Visits to Examine Existing Models	12/3/99 Brookhaven Community College
Suggested Timeline for Implementation	

2000 Bond Planning
Senior High School - Auto Tech I
& II

	Auto. Tech. I & II	Total	Cost	Total Cost
Campuses	2	2		
Classrooms	2	2		
Computers	6	6	1,050.00	6,300.00
Network drops	6	6	250.00	1,500.00
Electrical (quad)	6	6	250.00	1,500.00
<i>List software here</i>				
Shop Key Auto Body network software	2	2	3,000.00	6,000.00
TOTALS				15,300.00



Business and Information Technology (9-12)

Subject Area/Level	Business and Information Technology Grades 9-12
Submitted by	Judy Cordell, Jan Short
Curriculum and Technology Team Members	Judy Cordell, Jan Short, Joyce Purser, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt
Planning Meetings <small>(include schedules and members attending)</small>	<p>August 31, 1999 (Judy Cordell, Jan Short, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt)</p> <p>September 16, 1999 (Judy Cordell, Jan Short, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt)</p> <p>September 28, 1999 (Judy Cordell, Jan Short, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt)</p> <p>October 19 1999 (Judy Cordell, Joyce Purser, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt)</p> <p>December 8, 1999 (Judy Cordell, Joyce Purser, Judy Hassack, Cindy Wisdom, Connie Seelhorst, Connie James, Deedra Schmidt)</p>
Proposed Initiative <small>(include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)</small>	<p>In order to adequately address the skills for these classes, the business department is requesting a scanner and color ink jet printer for each high school and senior high school classroom.</p> <p>The business department is also requesting that one existing lab at each high school and senior high school campus be upgraded to include multimedia computers, digital camera, camcorder, scanner, printing devices and appropriate software. This lab is required to accommodate the state curriculum and course projects in BCIS I, BCIS II, Multimedia, Business Computer Programming, and Business Coop.</p> <p>This lab will also need a projection device for</p>

	teaching and for student presentations.
Staff Training Needs	Equipment and software training provided by PISD Instructional Technology Staff
Rationale for Initiative	<p>Currently do not have the capability to teach all of the TEKS required in business education courses due to lack of multimedia equipment</p> <p>BCIS I, BCIS II, Multimedia, and Business Computer Programming (all utilizing this lab) satisfy the Technology Applications credit required for graduation</p> <p>Serves large numbers of students through a shared rotation of BCIS I, BCIS II, Business Computer Programming, Business Education Coop, and Multimedia classes.</p> <p>Recommendation of the addition of multimedia for the business education labs was part of a year-long study done by the Business and Marketing cluster committee of the Career Education Advisory Committee. This study was done in 1998-99, and the committee was made up of representatives of PISD, community members and business & industry representatives. No multimedia components that were recommended by the study have been purchased.</p> <p>Provides the flexibility to adjust curriculum with changing technology</p> <p>Allows opportunity to offer courses in the future which are being recommended by the state.</p> <p>Prepares the student for success & readiness in the workplace through technology and communication skills which continue to be emphasized by business and industry.</p> <p>Business & industry emphasize critical skills using multimedia as being required of students (see PISD Technology Needs Assessment - Final Report attached).</p> <p>Higher education is looking to high schools to provide essential skills in using technology.</p> <p>Multimedia must be present for students to experience hands-on learning rather than be presented with theoretical scenarios.</p> <p>Research shows that use of multimedia tools augments intelligence, supports problem-solving</p>

	activities, decision-making and encourages collaborative teaming - all crucial to success in the workplace.
Supporting Research (documenting improved student achievement – attach articles of reference)	Technology Needs Assessment Final Report
Site Visits to Examine Existing Models	Visited by Susan McKreel, Aldine I.S.D., George Washington Career School of Applied Technology, Engineering & the Arts, Houston, Texas
Suggested Timeline for Implementation	Summer 2001

2000 Bond Planning
High School - Business Computer Information Systems

	Business	Total	Cost	Total Cost
	Computer			
	Information			
	Systems			
Campuses	5	5		
Classrooms	7	7		
Headphones	210	210	13.68	2,872.80
Printer - 1120 DeskJet	7	7	689.00	4,823.00
Scanner	7	7	389.00	2,723.00
TOTALS				10,418.80

2000 Bond Planning
Senior High School - Business Computer Information Systems

	Business	Total	Cost	Total Cost
	Computer			
	Information			
	Systems			
Campuses	3	3		
Classrooms	15	15		
Headphones	450	450	13.68	6,156.00
Printer - 1120 Cxi DeskJet	15	15	689.00	10,335.00
Scanner	15	15	389.00	5,835.00
TOTALS				22,326.00

High School - Business Multimedia

	Business Multimedia	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	5	5		
Camcorder/tripod	5	5	615.00	3,075.00
Digital Cameras	5	5	639.00	3,195.00
Headphones	150	150	13.68	2,052.00
Printer - 1120 Cxi DeskJet	5	5	689.00	3,445.00
Printer - 4050 Laser	5	5	1,384.00	6,920.00
Scanner	5	5	389.00	1,945.00
Upgrade of Current Computers to Multimedia Computer	150	150	750.00	112,500.00
VCR - Stereo	5	5	250.00	1,250.00
Separate circuits for comp monitors/CPUs	5	5	1,500.00	7,500.00
TOTALS				141,882.00

2000 Bond Planning

Senior High School - Business Multimedia

	Business Multimedia	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Camcorder/tripod	3	3	615.00	1,845.00
Digital Cameras	3	3	639.00	1,917.00
Headphones	90	90	13.68	1,231.20
Printer - 1120 Cxi DeskJet	3	3	689.00	2,067.00
Printer - 4050 Laser	3	3	1,384.00	4,152.00
Scanner	3	3	389.00	1,167.00
Upgrade of Current Computers to Multimedia Computer	90	90	750.00	67,500.00
VCR - Stereo	3	3	250.00	750.00
Separate circuits for comp monitors/CPUs	3	3	1,500.00	4,500.00
TOTALS				85,129.20



Choral Music (K-12)

Subject Area/Level	Elementary & Secondary Choral Music
Submitted by	Kathy Kuddes, Elementary & Vocal Music Coordinator David Hitt, Instructional Technology Specialist
Curriculum and Technology Team Members	Kathy Kuddes - Fine Arts Dept, David Hitt - Technology Bill Stroud – PESH, Nora Henson – PSHS, Liz Robertson – PWSH, Bryce Lowrance – Armstrong, Misty Casey – Rice, Christina Cruse – Frankford/Robinson, Linda Arbolino – Hedgcoxe, Nancy Eisen – Skaggs, Jim Lovell – Brinker
Planning Meetings (include schedules and members attending)	HS/SH team – November 10 & December 8 MS team – October 20 & December 10 Elem team – October 25 & December 6
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	AV bundles (including 27" monitor/SVHS/Scan Converter w/ cart or wall mount), 1 microphone, 1 pair headphones, Stereo VCR - All current elementary music classrooms and all high school and senior high school choir rooms are in need of microphone, headphones & VCR upgrades
Staff Training Needs	Basic introduction to the operation of the AV Bundle (a single session for elementary & secondary)
Rationale for Initiative	This proposal would bring the identified campus music and/or choral rehearsal rooms up to current educational specifications in core curriculum areas. It would provide teachers with the ability to utilize existing software and Internet access as an instructional tool (not just an administrative tool). In particular this capability would be useful in support of TEKS and curriculum objectives regarding

	<p>identification and information about various instruments, cultures and historical periods in the elementary music program and composer and historical research in the secondary choral program. In addition, the use of the AV bundle would allow teachers to use notational software already on the campus to prepare professional sight-reading examples without the need to photocopy a classroom set each day.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	
<p>Site Visits to Examine Existing Models</p>	<p>Members of the committee have already seen the AV bundles in use in classrooms on their home campuses and in the presentation labs. The useful application of this technology is readily accepted.</p>
<p>Suggested Timeline for Implementation</p>	<p>Purchase of equipment to begin as soon as possible. Installation of bundles and other hardware to begin at elementary campuses Spring 2001, secondary campuses Summer of 2001. Training for staff Fall 2001. (This time line is subject to consultation with technology staff and feasibility)</p>

2000 Bond Planning
Elementary - Music

	Music	Total	Cost	Total Cost
Campuses	36	36		
Classrooms	38	38		
Headphones	38	38	13.68	519.84
Microphones	38	38	10.00	380.00
TV/Scan-It	38	38	595.00	22,610.00
VCR - Stereo	38	38	135.00	5,130.00
Electrical (Quad)	38	38	250.00	9,500.00
A/V Carts	38	38	125.50	4,769.00
TOTALS				42,908.84

2000 Bond Planning
High School & Senior High -
Choir

	Choir	Total	Cost	Total Cost
Campuses	8	8		
Classrooms	8	8		
Headphones	8	8	13.68	109.44
LaserDisc Player	3	3	785.00	2,355.00
Microphones	8	8	10.00	80.00
VCR - Stereo	8	8	255.00	2,040.00
Electrical (Quad)	7	7	250.00	1,750.00
TOTALS				6,334.44



Computer Science (9-10)

Subject Area/Level	Computer Science--high school
Submitted by	Jim Wohlgehausen, Candy Atwood
Curriculum and Technology Team Members	Jim Wohlgehausen, Julia Haun, Candy Atwood, Tom Johnson
Planning Meetings (include schedules and members attending)	<p>Jim Wohlgehausen, Julia Haun, Candy Atwood, Tom Johnson, Debby Moilinan, Ginger Britain, Mike Coe, Sara Freeman, Neil Gander, Pat Ruckel, Susan Walker, Jason Webber</p> <p>Initial meeting was with Jim, Julia, Candy and Tom to begin planning. Jim W. then spoke with teachers on the committee to prepare for an all day work session that was held on September 2 with all the above mentioned in attendance. The next meeting was held with Jim, Julia, Candy, and Tom on November 17th.</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>25 multimedia computers(with DVD player) per school=125 total</p> <p>Scanner--HP Scanjet 6200CXI per school=5 total</p> <p>Digital Camera 1 per school=5 total</p> <p>Stereo VCR with s-video Input per school=5 total</p> <p>HP Deskjet 1120 Cxi color printer per school=5 total</p> <p>HP 4050 Laser printer per school=5 total</p> <p>Camcorder/tripod per school=5 total</p> <p>Separate circuits for computer monitors and CPUs with wall switches for each circuit.</p>
Staff Training Needs	Teachers for these courses will be hired with the necessary training.

<p>Rationale for Initiative</p>	<p>Emergent technologies have produced new opportunities for students to learn technical skills necessary to be competitive in an increasingly technical world. At present time, students have sufficient technology exposure in K-8 and 11-12. To promote continuity of technology education, we propose two new courses to be offered to satisfy the state requirement for computer education. This will allow students to get this credit at the 9-12 level.</p> <p>Separate circuits and switches are needed so the instructor could control student monitors and direct student attention appropriately.</p> <p>The courses proposed are:</p> <p>Desktop Publishing</p> <p>Multimedia</p> <p>Webmastering</p> <p>These courses are approved by the state of Texas and have been taught in other Texas districts for up to 3 years.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	<p>State required courses.</p>
<p>Site Visits to Examine Existing Models</p>	<p>N/A</p>
<p>Suggested Timeline for Implementation</p>	<p>Year 2000-2001</p>

2000 Bond Planning
High School - Computer Science

	Computer Science	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	5	5		
Camcorder/tripod	5	5	615.00	3,075.00
Computers - Enhanced	125	125	1,791.00	223,875.00
Digital Cameras	5	5	639.00	3,195.00
Headphones	125	125	13.68	1,710.00
Printer - 1120 Cxi DeskJet	5	5	689.00	3,445.00
Printer - 4050 Laser	5	5	1,384.00	6,920.00
Scanner	5	5	389.00	1,945.00
Separate circuits for comp monitors/CPUs	5	5	1,500.00	7,500.00
VCR-Stereo	5	5	250.00	1,250.00
Network drops	125	125	250.00	31,250.00
Electrical (quad)	125	125	250.00	31,250.00
Tables	125	125	45.00	5,625.00
Chairs	125	125	15.00	1,875.00
TOTALS				322,915.00



PLANO

Independent School District

Criminal Justice (11-12)

Subject Area/Level	Criminal Justice (11-12)
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Ron Winkelmann, Director, Career Education Donna Criswell, Executive Director Curriculum & Instruction
Planning Meetings (include schedules and members attending)	
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Access to PISD cabled classroom w/12 computers Criminal Justice software
Staff Training Needs	
Rationale for Initiative	
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	Collin County Community College classroom
Suggested Timeline for Implementation	Spring 2001

2000 Bond Planning Senior High School – Criminal Justice

	Criminal Total Justice	Cost	Total Cost
Campuses	1	1	
Classrooms	1	1	
List software here			
Criminal Justice software	3	3	1,250.00
TOTALS			3,750.00





PLANO

Independent School District

Drafting (11-12)

Subject Area/Level	Drafting I & II (11-12) PSHS, PESH, & PWSH
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Jan Short, East Cluster Coordinator, Instructional Technology Ron Winkelmann, Director, Career Education
Planning Meetings (include schedules and members attending)	9/2/99 Steve Minnerly, Al Ayars, Terry Wright, Wes Pippard
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	6-HP 1120 printer/plotters (60) 19-inch monitors
Staff Training Needs	Provided by Auto Desk
Rationale for Initiative	
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	PSHS
Suggested Timeline for Implementation	2000-2001

2000 Bond Planning
Senior High School - Drafting I & II

	Drafting I & II	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Printer - 1120 Cxi DeskJet	6	6	689.00	4,134.00
Monitors - 19"	60	60	362.00	21,720.00
TOTALS				25,854.00



English (9-12)

Subject Area/Level	English 9-12
Submitted by	Jenne Briedwell, English coordinator, and Mary Pfeiffer, Instructional Technology Specialist
Curriculum and Technology Team Members	Jenne Briedwell, English coordinator; Mary Pfeiffer, instructional technology; Betsy Presley, teacher; Patricia Wheeler, teacher; Kim Thomason, teacher; Christie Duke & Nancy Connors, LA coordinators
Planning Meetings (include schedules and members attending)	Aug. 18--LA Tech Team; Aug. 27--LA Tech Team; Sept. 2--LA Tech Team; Sept. 9--Eng.Department Chairs; Sept. 10--LA Tech Team; Sept. 13--Eng.Teacher Tech Team; Sept. 17--LA Tech Team; Sept. 24--LA Tech Team; Nov. 29--Pfeiffer & Briedwell; Dec. 7--Eng.Teacher Tech Team; Dec. 15, 16, 17, & 20
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>Add 216 computers and laptops (with CD ROM drives, microphones, headsets, electricity, network drops, computer tables, and chairs) to 9 -12 English classrooms where there are currently are none.</p> <p>Upgrade 374 existing computers with CD ROM drives, microphones, and headsets</p> <p>Provide a VID/Elmo device for each department</p> <p>Purchase networked vocabulary study and grammar skills software for each secondary site.</p>
Staff Training Needs	15 PDH hours for each of 581 English teachers in multimedia software and textbook accompaniment software, use of equipment, and integrating technology into the learning process
Rationale for Initiative	<p>Inequity among district campuses in access to technology</p> <p>Need to meet state requirements for TEKS</p> <p>Need to prepare students for step into the future</p> <p>Need to provide large screen presentation adequate for viewing text as a strategy for</p>

	teaching/learning effective composing and revising
Supporting Research (documenting improved student achievement – attach articles of reference)	<p>Students who read, research, write and edit using computer technology scored better on the state-level NAEP writing exam administered in 35 states to 100,000 students. (<i>1998 NAEP Report</i>)</p> <p>A digital environment improves the teaching of literature as well as the learning environment because it is "participatory, spatial, and immersive." ... "Can we honestly say we are preparing them for the future by clinging to our outdated processes of lecturing, notetaking, computerized testing, and pasting magazine cut-outs onto poster board? The methodology lags behind the soaring minds and spirits of our students." (<i>English Journal, March 1999</i>)</p> <p>Using multimedia in instruction provides an electronic hands-on experience that creates more meaningful learning and a higher motivation for at-risk students. (<i>Technology in the Classroom</i>)</p> <p>The Standards for the English Language Arts include components that emphasize the use of technology to communicate effectively; apply knowledge of language to "create, critique, and discuss print and nonprint texts;" gather and use information; and accomplish their own goals. (<i>National Council of Teachers of English</i>)</p> <p>In a master classroom, projecting a computer screen to teach writing strategies and styles and ways to successfully revise their work resulted in an emphasis on the revision process rather than on original faults. (<i>Hazen and Parker, 1989</i>).</p>
Site Visits to Examine Existing Models	<p>Allen High School</p> <p>Vines High School</p>
Suggested Timeline for Implementation	<p>Computers and peripherals for existing computers - installed and operating: Spring 2001</p> <p>Projection devices, vids, vcr's - installed and operating: fall 2001 through spring 2002</p> <p>Training: in progress and on going -- introductory for new teacher users; spiraling to add skills for technology for skilled/continuing teachers</p>

2000 Bond Planning
High School - English

	English	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	49	49		
Computers	132	132	1,050.00	138,600.00
Headphones	240	240	13.68	3,283.20
Internal CD Drive	358	358	85.00	30,430.00
Microphones	107	107	10.00	1,070.00
Vid, 15ft.Cable, RCA JCK-JCK Barrel Adapter	10	10	565.00	5,650.00
Drops	216	216	250.00	54,000.00
Electrical (Quad)	216	216	250.00	54,000.00
Tables	132	132	45.00	5,940.00
Chairs	132	132	15.00	1,980.00
<i>List software here</i>				
Vocabulary Study software	5	5	3,200.00	16,000.00
Grammar Study software	5	5	3,200.00	16,000.00
TOTALS				326,953.20

2000 Bond Planning
Senior High School - English

	English	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	49	49		
Computers	24	24	1,050.00	25,200.00
Headphones	238	238	13.68	3,255.84
Internal CD Drive	16	16	85.00	1,360.00
Microphones	94	94	10.00	940.00
Vid, 15ft Cable, RCA-JCK-JCK Barrel Adapter	6	6	565.00	3,390.00
Wireless Laptops	60	60	3,600.00	216,000.00
Drops	64	64	250.00	16,000.00
Electrical (Quad)	64	64	250.00	16,000.00
Tables	54	54	45.00	2,430.00
Chairs	54	54	15.00	810.00
Cabinets for Laptops	2	2	1,000.00	2,000.00
<i>List software here</i>				
Vocabulary Study software	3	3	3,200.00	9,600.00
Grammar Study software	3	3	3,200.00	9,600.00
TOTALS				306,585.84





ESOL (K-12)

<p>Subject Area/Level</p>	<p>ESOL 31 selected Elementary Schools; 4 selected Middle Schools; 2 selected High Schools</p>
<p>Submitted by</p>	<p>Patsy Robles-Goodwin - Don Dempsey</p>
<p>Curriculum and Technology Team Members</p>	<p>Administrative: Patsy Robles-Goodwin, Kay McGowan, Maria Galvan; Teachers: Diane Elkins, Barbara Nelson, Indi Watanabe, Joan Toplicar, Debbie Ladis, Kaye St. Peter</p>
<p>Planning Meetings (include schedules and members attending)</p>	<p>8/17/99, Frankford Middle School ESOL team; 8/19/99, Plano West Senior High School ESOL team; 10/14/99, Thomas Elementary school; 12/1/99, Plano Senior High School ESOL team; 12/1/99, Jasper High School ESOL team; 12/2/99, Williams High School ESOL team; 12/2/99, Plano East Senior High School ESOL team</p>
<p>Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)</p>	<p>31 ELEMENTARY SCHOOLS</p> <p>78 Networked Multimedia Workstations. 32 are replacement workstations for Macintosh computers, 46 are new workstations to bring the standard to 2 networked workstations per Elementary ESOL classroom.</p> <p>78 network drops, 78 dual electrical outlets, 39 printers</p> <p>31 Copies of the Ellis English Language Software</p> <p>4 MIDDLE SCHOOLS</p> <p>84 Networked Multimedia Workstations. 54 are replacement workstations, 30 are new workstations to bring the standard to 6 networked workstations per Middle School ESOL classroom.</p> <p>84 network drops, 84 dual electrical outlets, 5 printers</p> <p>36 Copies of the Ellis English Language Software</p>

	<p>2 HIGH SCHOOLS</p> <p>42 Networked Multimedia Workstations. 18 are replacement workstations, 24 are new workstations to bring the standard to 8 networked workstations per High School ESOL classroom.</p> <p>45 network drops, 45 dual electrical outlets, 3 printers</p> <p>20 Copies of the Ellis English Language Software</p>
Staff Training Needs	Ellis will provide on site instruction as needed for each campus. Training is provided during the regular school day.
Rationale for Initiative	<p>Upgrade workstations to provide access to technology that will improve all ESOL student's English Language skills to ultimately pass TAAS and graduate. Access to the district wide network will provide each student access to all district educational software</p> <p>Equity (replacement of all Macintosh workstations)</p>
Supporting Research (documenting improved student achievement – attach articles of reference)	<p>The ELLIS Software is an intensive multimedia system designed to help change the way students learn English. It teaches English skills to all levels of English learners, including those who are preliterate. The CD-based product combines full motion video with text, still images, graphics, audio, and record voice features in one system. ELLIS-CD increases proficiency in the areas of grammar, vocabulary, culture, listening, pronunciation, and communicative competence. These skills are necessary for the ESOL students to master the TEKS and pass TAAS.</p> <p>ELLIS Intro was awarded the 16th annual Software Award of Excellence award by Technology & Learning magazine. Awards were presented to 41 winners, 30 in the School category, and 11 in the Home Learning category. More than 60 educator-judges, kids, and editors of Technology & Learning spent many hours test-driving the programs to determine the winners.</p>
Site Visits to Examine Existing Models	Carrollton Farmer's Branch ISD, Richland Community College
Suggested Timeline for Implementation	2000-2001 School Year

2000 Bond Planning
Elementary - ESOL

	ESOL	Total	Cost	Total Cost
Campuses	31	31		
Classrooms	39	39		
Computers	46	46	1,050.00	48,300.00
Headphones	78	78	13.68	1,067.04
Microphones	78	78	10.00	780.00
Printers - 895 Cxi DeskJet	39	39	530.00	20,670.00
Drops	78	78	250.00	19,500.00
Electrical (Quad)	78	78	250.00	19,500.00
Tables (based on 30 x 30)	78	78	45.00	3,510.00
Chairs	78	78	15.00	1,170.00
<i>List software here</i>				
<i>Ellis</i>	31	31	1,600.00	49,600.00
TOTALS				164,097.04

2000 Bond Planning
High School - ESOL

	ESOL	Total	Cost	Total Cost
Campuses	2	2		
Classrooms	7	7		
Computers	24	24	1,050.00	25,200.00
Headphones	42	42	13.68	574.56
Microphones	42	42	10.00	420.00
Drops	42	42	250.00	10,500.00
Electrical (Quad)	42	42	250.00	10,500.00
Tables	42	42	45.00	1,890.00
Chairs	42	42	15.00	630.00
<i>List software here</i>				
<i>Ellis</i>	20	20	1,600.00	32,000.00
TOTALS				81,714.56



PLANO

Independent School District

Health (9-12)

Subject Area/Level	Secondary Health, Grades 9-12
Submitted by	Jim Wussow and Rita Turner
Curriculum and Technology Team Members	Secondary Health Teachers
Planning Meetings (include schedules and members attending)	On site visits to each campus were made.
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	The total need for the high schools and senior high schools are 104 student computers. It is proposed that each classroom have a VID per campus. Wiring and cabling will be needed for computers. Appropriate software, including use of the Internet, needs to be provided for students and teachers.
Staff Training Needs	Middle school health teachers will be trained during the integration of the middle school project. Staff will also be trained during the curriculum and elective PDH days.
Rationale for Initiative	<p>Rationale for Initiative in the Secondary Health Program Http://www.wtvi.com/teks</p> <p>Technology is a powerful tool to address objectives that can not be met in other ways. Effective technology is used to deliver instruction that matches the background and pace of the learner. It helps students to obtain specific skills and knowledge.</p> <p>Teachers use technology in a variety of ways. They can monitor the progress of students and communicate with parents and administrators. They can exchange ideas with other teachers and consult with experts in a variety of fields. Teachers use technology to further expand their own knowledge and professional capabilities.</p> <p>Technology can be used to implement curriculum. Students can collect information from a database. They can do word processing and apply information to a spreadsheet. Technology helps students to incorporate different forms of multi-</p>

	<p>media and work in a collaborative setting.</p> <p>The curriculum of the middle school health program is based on access to the Internet. The current technology is unable to support this need. The remaining MACS must be replaced. Additional workstations need to be added to the classrooms with PC's due to class size. The high school classrooms have no student computers. Students need to access the Internet for information, research, and projects. In addition, these students need effective software to enhance the curriculum. Technology is needed to achieve the goals and objectives of the curriculum.</p>
Supporting Research (documenting improved student achievement – attach articles of reference)	N/A
Site Visits to Examine Existing Models	N/A
Suggested Timeline for Implementation	<p>Fall, 2000 - Middle Schools</p> <p>Spring, 2001 - High Schools, Senior High Schools</p>

2000 Bond Planning
High School - Health

	Health	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	10	10		
Computers	80	80	1,050.00	84,000.00
Vid, 15ft.Cable, RCA JCK-JCK Barrel Adapter	5	5	565.00	2,825.00
Drops	80	80	250.00	20,000.00
Electrical (Quad)	80	80	250.00	20,000.00
Tables	80	80	45.00	3,600.00
Chairs	80	80	15.00	1,200.00
TOTALS				131,625.00

2000 Bond Planning
Senior High School - Health

	Health	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Computers	24	24	1,050.00	25,200.00
Vid, 15ft Cable, RCA-JCK-JCK Barrel Adapter	3	3	565.00	1,695.00
Drops	24	24	250.00	6,000.00
Electrical (Quad)	24	24	250.00	6,000.00
Tables	24	24	45.00	1,080.00
Chairs	24	24	15.00	360.00
<i>List software here</i>				
To be Determined, Internet	24	24	250.00	6,000.00
TOTALS				46,335.00



Health Science Technology (9-12)

Subject Area/Level	Health Science Technology, Grades 9-12
Submitted by	Judy Cordell, Jan Short
Curriculum and Technology Team Members	Judy Cordell, Jan Short, Nanci Kistler, Janet Bailey, Cathy Caster, Sherry McLaughlin, Sandy Thorson, Kelly Adams, Chris Fox
Planning Meetings <small>(include schedules and members attending)</small>	<p>August 31, 1999, (Judy Cordell, Ron Winkelmann, Nanci Kistler, Judy Hassack, Cindy Wisdom, Deedra Schmidt, Connie James, Nancy Carr)</p> <p>September 23, 1999 (Nanci Kistler, Judy Cordell, Sherry McLaughlin, Chris Fox, Janet Bailey, Sandy Thorson, Kelly Adams)</p> <p>December 2, 1999 (Nanci Kistler, Judy Cordell, Kelly Adams, Chris Fox, Janet Bailey, Sherry McLaughlin)</p>
Proposed Initiative <small>(include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)</small>	The proposal for Health Science Technology includes 8 computers for each high school and 8 computers for each senior high school in the district. There is also a request for a VID to allow group viewing of items used in health care instruction. A.D.A.M. software is requested for each of these labs so students will have access to medically accurate, 3-dimensional instruction of anatomy as well as surgery simulations.
Staff Training Needs	A.D.A.M. training (2 days X 11 teachers)
Rationale for Initiative	<p>There are no computers currently in the Health Science Technology Departments with the exception of Plano East (2) and Plano West (4). Lack of computers greatly limits the access of current information in the rapidly changing health care professions.</p> <p>Having computers would allow students to access a wealth of medical information at no cost through use of the internet.</p> <p>Would enhance medical terminology through use of</p>

	<p>internet and A.D.A.M.</p> <p>CTX will allow instruction of all students viewing the screen at the same time.</p> <p>Elmo will allow all students to see different sized manipulatives used in health care.</p> <p>Although all Health Science Technology teachers hold a clinical licensure, they cannot be experts in all areas, due to the breadth of the medical curriculum. This initiative would expand the level of expertise offered in the classroom.</p> <p>A.D.A.M. software will provide 3-dimensional hands-on opportunities to make learning more relevant.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	
<p>Site Visits to Examine Existing Models</p>	<p>Visits to P.I.S.D. High School/Senior High Science Labs</p>
<p>Suggested Timeline for Implementation</p>	<p>Summer 2001</p>

2000 Bond Planning
High School - Health Science
Technology

	Health Science Technology	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	5	5		
Headphones	40	40	13.68	547.20
Vid, 15ft.Cable, RCA JCK-JCK Barrel Adapter	5	5	540.00	2,700.00
Computers	40	40	1,050.00	42,000.00
Network drops	40	40	250.00	10,000.00
Electrical (quad)	40	40	250.00	10,000.00
Tables	40	40	45.00	1,800.00
Chairs	40	40	15.00	600.00
<i>List software here</i>				
Access Point	5	5	1,300.00	6,500.00
A.D.A.M. Software - Interactive Anatomy 3D libraries Volumes 1 & 2	40	40	340.00	13,600.00
TOTALS				87,747.20

2000 Bond Planning
Senior High School - Health Science Technology

	Health Science Technology	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Computers	18	18	1,050.00	18,900.00
Headphones	24	24	13.68	328.32
Vid, 15ft Cable, RCA-JCK-JCK Barrel Adapter	3	3	565.00	1,695.00
Network drops	20	20	250.00	5,000.00
Electrical (quad)	20	20	250.00	5,000.00
Tables	20	20	45.00	900.00
Chairs	20	20	15.00	300.00
<i>List software here</i>				
Access Point	3	3	1,300.00	3,900.00
A.D.A.M. Software - Interactive Anatomy (3D libraries Volumes 1 & 2)	24	24	340.00	8,160.00
TOTALS				44,183.32



PLANO

Independent School District

Journalism/Yearbook (9-12)

Subject Area/Level	Journalism and yearbook
Submitted by	Jenne Briedwell, English coordinator, and Mary Pfeiffer, Instructional Technology Specialist
Curriculum and Technology Team Members	Jenne Briedwell, Jonna Birkes, Brian Hennig, Laura Sansome, Kym Reed, Mary Pfeiffer
Planning Meetings (include schedules and members attending)	Sept. 3rd e-mail
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	24 additional Mac computers, 8 1120 Cxi DeskJet printers, 8 scanners, 8 digital cameras, 44 electrical outlets
Staff Training Needs	15 PDH hours for each journalism teacher in use of software and equipment. Training provided by publishers
Rationale for Initiative	<p>Additional computers will alleviate inequity among district campuses</p> <p>Because journalism teaches the publishing business, the students need equipment consistent with the industry standard. For example, the graphics programs that they need for yearbook and newspaper need large amounts of ram. They need all of the following in order to keep up in a publishing world which is changing almost daily:</p> <ul style="list-style-type: none"> • The latest in IMAC technology • Efficient scanners • Laser printers with 11X17 capability for newspapers • Sophisticated digital cameras <p>Many of the teachers at our high school are using outdated equipment or cast offs from other departments. They are reluctant to produce newspapers because their limited technology must be devoted to the yearbook.</p> <p>At our senior highs, newspapers are being created</p>

	<p>using the old-fashioned cut and paste because the printers won't accommodate a large enough page.</p> <p>As everything moves to a highly digital world, journalism needs digital cameras for both their newspaper, journalism, and yearbook. Some schools do not even have one.</p> <p>A strong program requires that students have access to good, real world tools. We want strong programs.</p>
Supporting Research (documenting improved student achievement – attach articles of reference)	NA
Site Visits to Examine Existing Models	Plano West Senior High
Suggested Timeline for Implementation	<p>Digital cameras spring, 2001</p> <p>Computers, scanners, and printers - Summer/fall 2001</p> <p>Training: in progress and on going -- introductory for new teacher users; spiraling to add skills for technology for skilled/continuing teachers</p>

2000 Bond Planning
High School - Journalism

	Journalism	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	5	5		
Computers - Mac	20	20	1,100.00	22,000.00
Digital Cameras	5	5	639.00	3,195.00
Printer-1120 Cxi DeskJet	5	5	689.00	3,445.00
Scanner	5	5	389.00	1,945.00
Drops	20	20	250.00	5,000.00
Electrical (Quad)	20	20	250.00	5,000.00
Tables	21	21	45.00	945.00
Chairs	21	21	15.00	315.00
TOTALS				41,845.00

2000 Bond Planning
Senior High School - Journalism

	Journalism	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	3	3		
Computers - Mac	4	4	1,100.00	4,400.00
Digital Cameras	3	3	639.00	1,917.00
Printer-1120 Cxi DeskJet	3	3	689.00	2,067.00
Scanner	3	3	389.00	1,167.00
Drops	15	15	250.00	3,750.00
Electrical (Quad)	15	15	250.00	3,750.00
Tables	13	13	45.00	585.00
Chairs	13	13	15.00	195.00
TOTALS				17,831.00



PLANO

Independent School District

Learning Media Services (K-12)

Subject Area/Level	Learning Media Services
Submitted by	Tish Mulkey
Curriculum and Technology Team Members	Tish Mulkey, David Schuster, Harriett Bell, Cynthia Ward
Planning Meetings (include schedules and members attending)	August 26: T. Mulkey, D. Schuster, H. Bell, C. Ward September 8: T. Mulkey, D. Schuster, H. Bell October 25: T. Mulkey and D. Schuster November 17: T. Mulkey and D. Schuster January 13: T. Mulkey, David Schuster, Jim Macaluso (PISD TV specialist), Paul St. Andre (Southwestern Bell Networking) Feb. 4: Tish Mulkey, Mary Hewett, Jim Macaluso, Paul St. Andre
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<ol style="list-style-type: none"> 1. Library Upgrade includes: transition from Dynix Scholar Software to Sunrise Software (next generation of our library management software), Server Hardware & Accessories and a WebPAC server. All of this will be housed at the Shiloh facility and maintained by Library Technical Services. No additional electrical or network drops would be required. 2. Video Delivery via WAN. Equipment would include a head-in system for delivery of video in both analog and digital formats. As part of plan implementation a scaleable digital server would be located at Library Technical Services and possibly (depending on the approach taken) another smaller server at each campus library. This plan may also require additional electrical and cabling outlets at all sites. 3. Video production cart for each campus. This mobile cart would contain equipment to allow staff to originate video programming anywhere in the

	<p>school and distribute the live signal directly into a network drop from any room in the building. This programming could then be accessed from any other classroom, either in the building or across the district.</p>
Staff Training Needs	<ol style="list-style-type: none"> 1. All library staff would require training on the transition from the Scholar software to Sunrise. This would include both campus and LMS/LTS staff. 2. All library staff would require training in the video distribution system. 3. All staff would require training in the use of the video production cart equipment.
Rationale for Initiative	<ol style="list-style-type: none"> 1. Our Dynix Scholar product will be phased out by the producer within the next 2-3 years and we will no longer receive support or upgrades. By moving to the Sunrise product we will be staying with a format and style which is familiar and which has provided us with excellent library management capabilities for the past 6 years. The server we are now using is the original one purchased 6 years ago and which needs to be replaced. 2. Since we have withdrawn from Region 10 media services and no longer have access to their large collection of videotapes and laser disk titles we must provide comparable services from our centralized media library. Housing the multiple copies of everything that would be requested would be difficult. Therefore, being able to transmit the video across the wide-area network will streamline the mode of delivery and make more titles accessible to teachers and students in a very timely manner. "Unicast" distribution, that is, one video transmission being accessed by multitudinous viewers, would be the preferred method. <p>Taking into account that all of our media is currently analog, as are the TVs and VCRS in the classrooms, it seems wise to develop an alternative way to deliver multiple programs via analog signal and phase in digital/video streaming. Another desirable characteristic of streaming video (digitized) is that it allows teachers to use only that portion of a video program that is relevant for the lesson without the task of physically cueing up the video tape. Also, the video could be viewed directly on the student's computer in addition to the large-screen monitor.</p>
Supporting Research (documenting	<ol style="list-style-type: none"> 1. The upgrade for Dynix is a necessity, not a

<p>improved student achievement – attach articles of reference)</p>	<p>choice, since the Scholar product as we know it will no longer exist within the next 3-5 years. Also, the age of our server is a concern.</p> <p>2. Providing for increased accessibility of video programming for students and teachers would result in more timely integration of materials into the daily instructional process. Many times it is impossible for schools or the district to have enough individual copies of a title to satisfy all of the requests. The recommendation to move gradually from analog delivery to digital delivery is prudent, taking into account the large number of tvs and vcrs that would need to be replaced immediately if we were to by-pass the analog distribution step in the process.</p> <p>3. Several of the video production carts are already being placed on campuses and have proven to be exciting tools for both teachers and students.</p>
<p>Site Visits to Examine Existing Models</p>	<p>David Schuster visited Wylie ISD for a demonstration of a video-delivery system. Nov. 12, 1999</p> <p>Tish Mulkey visited Hebron HS for a demonstration of their media retrieval system. Nov. 15, 1999</p> <p>Tish Mulkey and David Schuster visited Allen HS to look at the media retrieval system currently being installed. Feb. 4, 2000</p>
<p>Suggested Timeline for Implementation</p>	<p>1. The Dynix migration needs to begin by Spring 2001 in order to complete work during the summer and ensure a smooth transition for Fall, 2001. This would involve installing the new server. The new WebPac server could be delayed until Spring or Summer 2002 or maybe later, depending on how well our existing server holds up.</p> <p>2. The phase-in of the digital distribution system is contingent on completion of the new wide-area fiber network. Since that network is not scheduled for completion until Spring 2001, it is assumed that work on the digital distribution system could begin Summer of 2001. Adding digital servers for Shiloh and all of the campuses could spread into 2002 or even beyond.</p> <p>3. Adding the video production carts could begin in Winter, 2001 and be completed within six months. Training for teachers and library staff would need to occur as soon as equipment is assembled. Students would also need to be</p>

	trained in its use.
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2000 Bond Planning
Library

	Total	Cost	Total Cost
Campuses	56		
Classrooms			
Video Crash Cart			
	Cost covered under districtwide initiatives		
Administrative Software		390,500.00	390,500.00
Hardware Upgrade			
Analog and Digital Video from LMS		263,000.00	263,000.00
	TOTALS		653,500.00





PLANO

Independent School District

Mathematics (9-12)

Subject Area/Level	High School Mathematics
Submitted by	Jim Wohlgehausen, Candy Atwood
Curriculum and Technology Team Members	Jim Wohlgehausen, Julia Haun, Candy Atwood, Tom Johnson
Planning Meetings (include schedules and members attending)	<p>Jim Wohlgehausen, Julia Haun, Candy Atwood, Tom Johnson, Debby Moilinan, Ginger Britain, Mike Coe, Sara Freeman, Neil Gander, Pat Ruckel, Susan Walker, Jason Webber</p> <p>Initial meeting was with Jim, Julia, Candy and Tom to begin planning. Jim W. then spoke with teachers on the committee to prepare for an all day worksession that was held on September 2 with all the above mentioned in attendance. The next meeting was held with Jim, Julia, Candy, and Tom on November 17th.</p>
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>DT 100 Elmo, 15ft. RCA Composite Cable, RCA JCK-JCK Barrel Adapter</p> <p>High School = 50 total; Sr. High School = 36 total</p> <p>TI-83 Overhead Graphing Calculators</p> <p>High School = 15 total; Sr. High School = 18 total</p>
Staff Training Needs	Training teachers will be done by the Instructional Technology Department.
Rationale for Initiative	<p>Rationale for the DT 100 Elmo</p> <p>Changing Instructional methods for the technologically advanced mathematics classroom requires better ways of sharing information. Use of the Elmo would allow teachers to share prepared notes, lessons, and other print materials as well as demonstrating with manipulatives during</p>

	<p>instruction. The Elmo allows for student interaction, the sharing of classroom experiences, and immediate feedback. Two components that are necessary for a Brain Compatible Classroom are Immediate Feedback and Effective Collaboration. Having an Elmo in each classroom would promote these components.</p> <p>Rationale for the TI-83 Overhead Graphing Calculators</p> <p>Teaching of Mathematics is evolving as a result of the advancing technology available to us. As a result of these changes, use of a graphing calculator in the classroom has become a basic need. Therefore, overhead calculators are needed for demonstration to help students better understand the material. These overhead calculators also allow the students to share immediate results during class discussions.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	<p>Supporting Research for the Elmo</p> <p>Effective Collaboration and Immediate Feedback Components of a Brain Compatible Classroom</p> <p>ITI: Model by Susan Kovalik</p> <p>In chapter 7, <i>Effective Collaboration</i>, researcher Leslie Hart talks about the need for great quantities of input to the brain. Another researcher, Frank Smith stipulates that a learner needs “much opportunity to manipulate information, and talking with others in a workgroup is an effective way to manipulate information. According to both authors, Collaboration—students teaching each other and providing a sounding board for each other—is an essential element in a brain-compatible learning classroom.</p> <p>In chapter 8, <i>Immediate Feedback</i>, Kovalik states, “Contrary to popular belief, the hardest thing the brain does is forget something that is learned, as distinguished from forgetting something it never learned in the first place or which was not meaningful...which occurs for 80 percent of the students who stop just short of mastery. When we say, ‘I taught it but the students forgot it,’ what is really so is that ‘I taught it but the students never learned it.’ Feedback was insufficient for the student to develop a correct mental program.</p>

	<p>Therefore, the importance of immediate feedback is obvious. Susan Kovalik states, "Feedback, accurate and immediate, is needed at the time the learner is building his/her mental program. The best learning environments are those in which the materials and events themselves provide the feedback.</p> <p>In the Caine and Caine book, Making Connections, chapter 7, Principles of Brain-Based Learning discusses 12 principles of brain based learning. Principle 10, We Understand and Remember Best When Facts and Skills are Embedded in Natural, Spatial Memory, states that specific items are given meaning when embedded in ordinary experiences. All education can be enhanced when this type of embedding takes place. To give meaning to specific content, Caine and Caine state that "Teachers need to include the use of real-life activity, including classroom demonstrations, projects, field trips, and visual imagery of certain experiences and performances. Success depends on using all of the senses and immersing the learner in a multitude of complex and interactive experiences."</p>
Site Visits to Examine Existing Models	The committee visited Vines social studies and science classrooms as well as the library. We saw several different models and configurations. We were able to experiment with the Elmos.
Suggested Timeline for Implementation	Phased in throughout the length of the bond.

2000 Bond Planning
High School and Senior High School - Math

	Math	Total	Cost	Total Cost
Campuses	8	8		
Classrooms	86	86		
TI-83 Overhead Calculators	33	33	270.00	8,910.00
Vid, 15ft.Cable, RCA JCK-JCK Barrel Adapter	86	86	565.00	48,590.00
	TOTALS			57,500.00





PLANO

Independent School District

PACE (K-5)

Subject Area/Level	PACE - Elementary School
Submitted by	David Hitt, Instructional Technology Lynda Walker, PACE Coordinator
Curriculum and Technology Team Members	David Hitt, Lynda Walker, Laura Milligan, Rick Navarre, Barbara Holmes
Planning Meetings (include schedules and members attending)	11/8/99, 11/22/99, 11/29/99, 12/15/99, 12/16/99
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Bring all elementary PACE rooms up to 6 networked workstations each. (see spreadsheet) Bring each elementary PACE room up to one network printer (HP DeskJet 895Cxi C6410A (Windows)). Bring each elementary PACE room up to one regular classroom A/V bundle (see spreadsheet).
Staff Training Needs	N/A
Rationale for Initiative	Elementary gifted programs currently have 4 computers for as many as 15 - 18 students in a class. These tools are needed to develop the advanced curriculum elements that our gifted students pursue. Even with multi-tasking and sharing, teaching computer programming is difficult at best.
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	
Suggested Timeline for Implementation	Spring 2001



Reading (9-12)

Subject Area/Level	Secondary Reading
Submitted by	Nancy Connors, Secondary Reading Coordinator Mary Pfeiffer, Instructional Technology Specialist
Curriculum and Technology Team Members	Nancy Connors, Mary Pfeiffer, Christie Duke, Jenne Briedwell, Dot Pitts
Planning Meetings (include schedules and members attending)	Aug. 18, Tech Team; Aug. 27, Tech Team; Sept. 2, Tech Team; Sept. 3, 9-12 Reading Teachers; Sept. 8, Middle School Dept. Chairs; Sept. 15, Tech Team; Dec. 6, Middle School Dept. Chairs
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>(1) Provide a VID/Elmo and VCR for each department at the Senior High Schools</p> <p>(2) Provide at all middle school sites a software program such as Talking Walls which provides innovation, depth, and dimension to keep students excited and engaged in the learning process. Such a program would afford interactive decoding helps and interdisciplinary and multi-sensory experiences. Additionally, it would move students beyond mere decoding and comprehension of textbooks pages as they</p> <ul style="list-style-type: none"> • Organize, analyze, and interpret a wide variety of information: nonfiction text; maps, charts, and graphs; videos or filmstrips; and Internet resources. • Practice multiple forms of writing: keeping journals, preparing for class/group discussions, analyzing concepts in depth, comparing points of view, and participating in collaborative activities. <p>The goals of such a program are as follows:</p> <ul style="list-style-type: none"> • To engage at-risk students • To assure that students enjoy successful reading experiences • To provide support for students who many need extra help

	<ul style="list-style-type: none"> • To improve students' reading comprehension • To raise students' test scores <p>(3) Implement the state-mandated instructional program for dyslexia and related disorders by providing a computer at each 11-12 site with phonemic awareness software program at each 6-12 sites (20 site licenses)</p>
Staff Training Needs	<p>Middle School: Summer training in the use of hardware, software, Internet, instructional methods and curriculum designed to integrate the technology. Additional training time: PDH and curriculum in service days</p> <p>High School/ Sr. High: PDH and curriculum in service days for all to learn multimedia presentation software and equipment such as digital camera, projection device(s), and scanner</p> <p>Training for new reading teachers to include current 9-12 software</p>
Rationale for Initiative	<p>The state-mandated Texas Essential Knowledge and Skills <u>require</u> that the Language Arts program [which includes Reading] educate students in viewing and in word processing.</p> <ul style="list-style-type: none"> • Reading software that is delivered via computer allows the classroom teacher to tailor skill development to the individual needs of students. Reading classes are scheduled for <u>all</u> students, including those who are ESOL and those with learning problems. • Proposals will complete the Reading Initiative began in 1993 and will bring all middle schools to a point of equity in delivering the required TEKS and in being prepared to implement the new middle school curriculum consistently across the district. <p>Texas has also mandated an instructional program for dyslexia and related disorders.</p> <ul style="list-style-type: none"> • A laptop and phonemics awareness software allow the flexibility necessary for the dyslexic student to still function with the regular education classroom.
Supporting Research (documenting improved student achievement – attach articles of reference)	<p>Research reports on student gains after technology use:</p> <ul style="list-style-type: none"> • Osgood -- 20% compared to 5% gained in

	<p>reading skills statewide in Minnesota</p> <ul style="list-style-type: none"> • <i>Journal of Adolescent & Adult Literacy</i> --82% compared to 76% of remedial readers increased rate • NAEP showed 35 states with higher state-level exam scores among students who read, research, write and edit using computers • Australia & Nova Univ. --gains in writing, speaking, and thinking. Studies included students with special needs. • President's State of Union called for technology literacy. • University of Virginia, 1999 --student projects facilitated by the Internet help students "...become connected and involved learners."
<p>Site Visits to Examine Existing Models</p>	<p>Visits to all PISD middle schools. Extensive dialogues with colleagues serving other school districts in the Metroplex.</p> <p>Site visit to Allen High School.</p>
<p>Suggested Timeline for Implementation</p>	<p>2001 – Installation of hardware/software in middle school classrooms to create equity in technological resources. Training parallel to installations.</p> <p>2002 – Implementation of curriculum guides to support use of Internet web sites that support our curricula. Installation of district-wide software purchases for reading.</p>

**2000 Bond Planning
High School - Reading**

	Reading	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	13	13		
<i>List software here</i>				
<i>Lexia (dyslexia software)</i>	5	5	500.00	2,500.00
TOTALS				2,500.00

**2000 Bond Planning
Senior High School - Reading**

	Reading	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	6	6		
Computers	3	3	1,050.00	3,150.00
VCR	6	6	135.00	810.00
Vid, 15ft Cable, RCA-JCK-JCK Barrel Adapter	3	3	565.00	1,695.00
Drops	3	3	250.00	750.00
Electrical (Quad)	3	3	250.00	750.00
<i>List software here</i>				
<i>Lexia (dyslexia)</i>	3	3	500.00	1,500.00
TOTALS				8,655.00



ROTC (9-12)

Subject Area/Level	ROTC / 9-12
Submitted by	LTC Jim Coughlin, ROTC Coordinator
Curriculum and Technology Team Members	District ROTC Staff/U.S. Army Cadet Command (USACC)
Planning Meetings (include schedules and members attending)	Four meetings held and two scheduled; District ROTC Staff and USACC representatives attended/will attend.
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	High School: 1 computer for each ROTC classroom (Jasper has 2) Senior High School: 2 computers, 1 laptop, FAX machine, camcorder, phone line for AOL, and scanner
Staff Training Needs	Training required on basics (use) of LCD Projectors and Scanners.
Rationale for Initiative	Initiatives listed share the same rationale. Beginning in July 2000, ROTC units, worldwide, will be utilizing a common Internet program entitled "Fort Electron". This program will require that the majority of communication between individual units, units with U.S. Army Cadet Command (USACC) will be via Internet. Additionally, curriculum texts, workbooks, and administrative/operational/logistical forms will be received, changed, and submitted via the Internet. In order to be fully functional, train student cadets to become proficient in their various unit position responsibilities, and update various briefing/presentation techniques associated with the 9-12 level curriculums, it is necessary to have the associated hard/software components. The requested items will help insure that the Plano ISD ROTC Programs remain in the forefront leadership position of all such units worldwide
Supporting Research (documenting improved student achievement – attach articles of reference)	These are new initiatives within the district ROTC area. However, preliminary feedback to USACC indicates exemplary success rate in all initiative areas.



Science (9-12)

Subject Area/Level	Secondary Science Grades 9-12
Submitted by	Linda Flack and Rita Turner
Curriculum and Technology Team Members	Rita Turner, Cindy Bray, Debbie Ferguson, Linda Flack High School and Middle School Department Chairs Middle School Project Teachers: Susan Bartley, Mary Presley, Martha Robertson, Libby Griffin, Patti Tuck
Planning Meetings (include schedules and members attending)	September 8, 4:15 Department Chairs September 10 8:30 September 15 8:30
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	The high school and senior high schools need additional and updated probeware for existing and proposed replacement technology.
Staff Training Needs	High School is basic replacement of outdated equipment. PDH will be offered on additional equipment such as CD ROM writer, Sony Digital Camera, and the Lab Pro for probeware
Rationale for Initiative	The following web sites were reviewed: http://222.wtvi.com/teks/ http://www.ascd.org/pubs/articles/techart.htm http://www.wtvi.com/teks/
Supporting Research (documenting improved student achievement – attach articles of reference)	The following web sites were reviewed: http://www1.whitehouse.gov/WH/EOP/OSTP/NSTC/PCAST/k-12ed.html

	<p>/PCAST/k-12ed.html</p> <p>Wysiwyg://37/http://www.quasar.ualberta.ca/edpy485/edtech/research.htm</p> <p>http://www.ed.gov/pubs/EdTechGuide/appc.html</p> <p>Report to the President on the Use of Technology to Strengthen K-12 Education in the United States March 1997</p> <p>http://www1.whitehouse.gov/WH/EOP/OSTP/NSTC/PCAST/k-12ed.htm</p> <p>Research on Technology Use in Education</p> <p>Wysiwyg://37/http://www.quasar.ualberta.ca/edpy485/edtech/research.htm</p> <p>Video Projector</p> <p>Rationale:</p> <p>It has been established in the research and my own observations in Plano ISD science classrooms, that when technology is used on a regular basis, instructional practices improve and become more in line with brain-based learning. There is less emphasis on lecture and more on students acquiring knowledge through problem solving and hands-on activities. Immediate feedback is given to students, which has been proven in brain research to enhance learning. Students often present projects, that they have developed, on a monitor which cannot be seen by all students. The video projector would eliminate this difficulty and thus encourage more student involvement in presenting through technology. The projector is also compatible with distance learning interaction, and having the large screen will improve this effective strategy. Having the most current and</p>
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appropriate equipment in the classroom, which is not difficult to operate, will promote more student involvement in the learning process.

As instruction increasingly relies on the Internet, the technology must be available for students and teachers. A projection device can provide images that can be seen by all students at one time. Large group instruction is enhanced with greater attention to the visuals that augment instruction. Most of what is taken into the brain is visual, and every opportunity that is out there to develop visual senses, increases learning. With the flexibility of the projector being mounted in the ceiling, teachers can arrange classrooms to fit the needs at any given moment. Databooks discourage flexibility of classroom arrangements because of the wiring.

In a limited number of high school science classrooms, databooks and high-lum projectors are used. There are approximately 5 of these setups in each 9-10,11-12 building, and their use is extensive. However, because not all teachers have access to it on a daily base, many students are not exposed to the benefits of this equipment. Regardless of what type of projection device that might be selected, every teacher must have a permanent set up in the classroom. Having the computer, overhead projector, databook, often a laptop, and other peripherals attached to a cart in the front of the room is unsightly, a major dilemma when dealing with all the wires, and a possible safety hazard. Some do not project well in large classrooms as the overhead projector is not adequate, and the new high-lum projectors are not of the quality required for a databook. With the advancement of projection devices, being mounted in a ceiling, all of these issues are eliminated.

Teachers who do not have access to the databook use monitors to project. Text and graphics are much too difficult to see for students sitting beyond the middle of the room. Attention of students is lost, and thus learning is diminished. Science classrooms are required to be 1200 square feet, which exasperates the problem. When probeware is used in science, teachers will first demonstrate probe use through a databook or on the monitor. The monitor is certainly clear, but much too small to determine the readings on graphs produced by the probes. Other software displays detail of science apparatus, organisms, dissections of organisms, and many forms of graphics. Without a clear large picture, detail is missed and learning lost. Frustration for both the student and teacher occurs, and the use of the technology is diminished. In

	<p>using a video projector there would be no need for scan converters, the images would be clearer, larger, and more precise. The use of a video projector, would eliminate the problems of small text and graphics. As a result, teachers will be encouraged to use the technology.</p> <p>We must consider where we want PISD teachers and students to be in five years. A video projector will help us to reach a goal to implement instructional practices that are brain based. All of the middle school curriculum being written is geared toward using technology to its fullest extent, and this must include technology that will tie to the students emotionally with large clear images, and personally involve them with opportunities to use the technology to present their own learning and ideas to other students. All students will have access to this opportunity only if every classroom has this equipment permanently installed. Consider the costs and installation of monitors, databooks, overhead projectors, and maintenance of all this equipment, when evaluating the purchase of the video projector. In comparison, is it going to be that much different? Where are we going to get more bang for the buck?</p>
Site Visits to Examine Existing Models	N/A
Suggested Timeline for Implementation	<p>Fall, 2000 - 6th Grade</p> <p>Summer, 2001 - 7th Grade</p> <p>Summer, 2002 - 8th Grade</p> <p>Fall, 2000 - Microscopes for grades 6-12</p> <p>Fall, 2001 - Other technology for grades 9-12</p>

2000 Bond Planning
High School - Science

	Science	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	55	55		
Lab Pro	100	100	227.00	22,700.00
Probeware and Sensors	225	225	696.00	156,600.00
Electrical (Quad)	60	60	250.00	15,000.00
<i>List software here</i>				
<i>To Be Determined, Internet</i>	525	525	250.00	131,250.00

TOTALS **325,550.00**

2000 Bond Planning
Senior High School - Science

	Science	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	45	45		
Lab Pro	60	60	227.00	13,620.00
Probeware and Sensors	135	135	696.00	93,960.00
Electrical (Quad)	48	48	250.00	12,000.00
<i>List software here</i>				
<i>To be Determined, Internet</i>	360	360	250.00	90,000.00

TOTALS **209,580.00**



Social Studies (9-12)

Subject Area/Level	Social Studies; 6 High Schools (including Special Programs Center), 3 Senior High Schools.
Submitted by	Dr. Holly Sharpe, Don Dempsey
Curriculum and Technology Team Members	<p>Dr. Holly Sharpe, Don Dempsey, Gary Mumford, Larry Harmon, Matt Cone, Libby Taylor, Dale Fleury, Janel Wood, Brent Truitt, David Scott Wilson, Linda Havins</p> <p>12/9/99 All Social Studies staff invited to a bond discussion and demonstration of distance learning. The distance learning labs at the 5 high schools were used. 16 social studies teachers attended the session.</p>
Planning Meetings (include schedules and members attending)	8/26/99, Scout team meeting on bond; 12/2/99, Scout team meeting on bond; 12/9/99, Districtwide presentation of bond and distance learning using our distance learning classrooms.
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>Classrooms: 64 high school classrooms; 7 Special Programs classrooms; 58 senior high school classrooms</p> <p>Bring all secondary social studies classrooms to a standard of 8 networked workstations per classroom. In the event there is a significant space problem, the standard workstation will be replaced with wireless laptops. Note: 19 middle school classrooms already meet this standard and Rice has 6 computers in 3 classrooms.</p> <p>Phase out current VCR's with VCR's that have SVideo inputs and stereo sound.</p>
Staff Training Needs	None
Rationale for Initiative	<p>Where do we want to be in 5 years?</p> <p>Compatibility will no longer be a relevant issue.</p> <p>As Internet requirements increase within our curriculum, the need for accessibility increases.</p>

	Minimum training would be needed.
Supporting Research (documenting improved student achievement – attach articles of reference)	Based on existing district classroom configuration proposal.
Site Visits to Examine Existing Models	Visited existing schools.
Suggested Timeline for Implementation	Phased in over 4 years (2001-004school years)

2000 Bond Planning
High School - Social Studies

	Social Studies	Total	Cost	Total Cost
Campuses	6	6		
Classrooms	71	71		
Computers	356	356	1,050.00	373,800.00
Microphones	142	142	10.00	1,420.00
Drops	500	500	250.00	125,000.00
Electrical (Quad)	500	500	250.00	125,000.00
Tables	500	500	45.00	22,500.00
Chairs	500	500	15.00	7,500.00
	TOTALS			655,220.00

2000 Bond Planning
Senior High School - Social Studies

	Social Studies	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	58	58		
Computers	368	368	1,050.00	386,400.00
Jet Direct Box	58	58	249.00	14,442.00
Microphones	116	116	10.00	1,160.00
Drops	400	400	250.00	100,000.00
Electrical (Quad)	400	400	250.00	100,000.00
Tables	400	400	45.00	18,000.00
Chairs	400	400	15.00	6,000.00
	TOTALS			626,002.00



PLANO

Independent School District

Special Education (K-12)

Subject Area/Level	Assistive Technology/Special Education
Submitted by	Cathy Young, Special Education Coordinator
Curriculum and Technology Team Members	Cathy Young, Karen Beard, Kristi Grace, Sherry Haeusler, Linda Keesee, Noelle Manasco
Planning Meetings (include schedules and members attending)	10/28/99: Assistive Technology Team, Cathy Young 12/9/99: Kristi Grace, Cathy Young
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<ol style="list-style-type: none"> 1. Secondary: Transition from chest FM system to ear level FM system for Middle School and High School students. 2. 5 portable closed circuit TVs for students with visual impairments. A CCTV is an electric eye camera that transmits text or an image to an overhead monitor. 3. Back-up 4 student laptop computers and software. 4. 11 augmentative communication devices 5. 11 PW WebSpeaks and 11 large screen monitors (19")

Staff Training Needs	Continued training through PDH on device basics and application.
Rationale for Initiative	<p>The bond will provide the funding mechanism for replacement and repair of devices, and for back-up systems. Every campus uses assistive technology devices to support instruction for students with disabilities.</p> <ol style="list-style-type: none"> 1. Secondary students are sensitive to appearance; therefore, the less obtrusive equipment will increase the likelihood that the device will be fully utilized in the appropriate setting(s), i.e. regular classroom. 2. A CCTV provides immediate access to enlarged print documents, maps, graphs, etc. It provides a student with a visual impairment the same opportunity for interaction with print and graphics in the classroom as his/her sighted peers. The portable CCTV enables the student to have these opportunities across learning environments. The student can scan the shelves in a library, looking for a particular book for a research project with the portable CCTV. Without this portable device, a teacher or sighted peer would have to do this for him/her. The student can also focus the portable CCTV on a teacher's classroom demonstration, for example, and bring this important aspect of instruction into his own experience. The portability feature is especially critical for students at the secondary level. 3. These back-up systems will be a replica of the hardware and software in place for the students. Currently, back-ups are low tech. 4. The reauthorization of the Individuals with Disabilities Education Act (IDEA) requires that assistive technology, which includes alternative and augmentative communication devices, be considered for every student. Advancements in this specialized field of technology are lightning paced. This next generation of devices includes, but is not limited to <ul style="list-style-type: none"> • Specialized scanners for speech generation • Hands-free computer operation • Augmentative communication devices that are not obtrusive and can be worn by the individual • More efficient and sophisticated visual language representation <p>This proposed funding will enable PISD to replace existing student devices with those that may not yet</p>

	<p>be in the marketplace.</p> <p>5. PW WebSpeak is a non-visual Web browser for individuals with visual impairments. It uses synthesized speech to read a Web site aloud and displays text only (no graphics) in large, plain letters as the user punches computer keys to move around the page. This technology allows the student with a visual impairment to navigate and use the Web more efficiently and independently.</p> <p>“Assistive/adaptive technology is a general term that describes an assortment of devices, equipment, software, and services that are designed to help people with special needs enjoy a greater degree of inclusion and integration into their communities.” (National Institute on Disability Research: NIDRR, 1999). These technologies help people to see, hear, walk, organize, manipulate, and understand what “might otherwise be ‘barriers’ in their immediate environment.” (NIDRR, 1999)</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	<p>IDEA requires that every student who receives special education services (1) be considered for assistive technology, and (2) be ensured access to the general education curriculum. These requirements focus on services and equipment necessary for participation in general education curricular areas. School districts are required to provide supplementary aids and services (including augmentative/assistive technology) in order for the student to receive instruction in an environment with non-disabled peers.</p> <p>2. The CCTV is an adaptive device that provides a means for students with visual impairments to accomplish visual tasks independently. “The benefits of independent accomplishment in persons with learning problems have been stressed by Polloway, Smith, and Patton (1988). For the most part, the device will be there when and where it is needed and... should reduce the...psychological stress and...negative social ramifications of having to rely continually upon others.” (Tools for Life, 1999).</p>

2000 Bond Planning
District-wide - Special Education

	Special Ed	Total	Cost	Total Cost
Campuses				
Classrooms				
Augmentative Communication Devices	11	11	4,300.00	47,300.00
Ear-level FM Systems	12	12	2,500.00	30,000.00
Laptops	4	4	2,500.00	10,000.00
Monitors - 19"	11	11	362.00	3,982.00
Portable Closed Circuit TV (VI students)	5	5	5,000.00	25,000.00
Real-Time Translation Package including hardware and software	1	1	8,500.00	8,500.00
<i>List software here</i>				
Specialized package for VI students	4	4	1,200.00	4,800.00
PW WebSpeak	11	11	875.00	9,625.00
TOTALS				139,207.00



Special Education (post-secondary)

Subject Area/Level	Post-Secondary/Special Education ("Fullstream" program at Collin County Community College.)
Submitted by	Cathy Young, Special Education Coordinator
Curriculum and Technology Team Members	Cathy Young, Kristi Grace, Carla Stephens, Barb Gordon
Planning Meetings (include schedules and members attending)	10/28/99, 12/8/99 Carla Stephens, Cathy Young, Karen Beard (preliminary)
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	4 student laptop computers; docking stations with network cards
Staff Training Needs	Student and teacher training on care of laptops.
Rationale for Initiative	These college-age students' instructional levels range from pre-first grade to approximately fifth grade. These computers will allow students to work independently as teachers provide direct instruction to other students. Laptops will provide teachers with flexibility in grouping for instruction
Supporting Research	N/A
Site Visits to Examine Existing Models	This model has been in place for PISD and is unique to the region. This technology will enable us to support instruction in a variety of instructional settings.
Suggested Timeline for Implementation	Year 1

2000 Bond Planning Senior High School Sp Ed - Post-Secondary

	Sp Ed - Post Secondary	Total	Cost	Total Cost
Laptops	4	4	2,500.00	10,000.00
TOTALS				10,000.00





Speech (9-12)

Subject Area/Level	Speech/ High School & Senior High
Submitted by	Nancy Connors, Secondary Speech Coordinator and Jim Long, Instructional Technology Specialist
Curriculum and Technology Team Members	Nancy Connors, Jim Long, Wendi Brandenburg, Brian Hennig, Sharon Ward, Karen Wilbanks, Barbara McCain, Carol Bush, Robert Shepard
Planning Meetings (include schedules and members attending)	Aug. 18, Tech Team; Sept. 2, Tech Team; Sept. 3, 9-12 Speech Teachers; Sept. 10, Middle School Speech Teachers; on-going email communication with Tech Team and other speech teachers.
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Provide the following equipment for HS and Senior HS speech (16 classrooms): 4 networked student workstations (standard software load) Drops and electrical Camcorder/tripod per classroom CD player/cassette recorder per classroom Tables & chairs Digital camera per school
Staff Training Needs	Training in use of presentation software, effective Internet research strategies and implementation of multitasking instructional strategies for the speech classroom. Training opportunities will be provided through PDH courses and taught by Nancy Connors, Jim Long and selected PISD speech teachers.
Rationale for Initiative	1) To ensure that graduates learn basic communication skills, all students are required to take the Communications Applications class. Consequently every high school student will be impacted by the technology incorporated into the speech classroom.

	<p>2) Use of presentation software to enhance speech presentations is a required component of the course (TEKS 4.G). Scanner and digital camera will enable increased focus on visual components of presentations.</p> <p>3) Students are required to do extensive research in preparation for speech presentations and competitive speech activities. Internet access for research is vital for student success.</p> <p>4) The ability to have small groups of students researching and working in a multi-tasking environment will enhance the quality of instruction in the speech classroom. (e.g. While a group of students is at computers researching and preparing a presentation, other students can be listening to speech presentations.)</p> <p>5) Camcorders and VCRs are needed to help students improve speaking effectiveness. Currently many teachers have to arrange to check equipment out from the library. This equipment needs to be readily available for constant use in each speech classroom.</p> <p>6) The video projector is a vital part of the contemporary speech classroom. As with other subjects, the projected image will provide more effective use of video for instruction. However, the application of this technology is especially important if the student is to be trained in the effective use in integrating technology into real-world presentations.</p> <p>7) Access to a laptop is important for the competitive speech teams. The ability to revise materials and to do research while at state and national tournaments is critical to keep pace with other teams.</p> <p>8) Students in competitive speech program are required to do extensive copying of print materials in preparation for tournaments. Some schools' speech departments have been able to raise money to purchase their own. Inequity exists, and departments that have copiers now need replacements.</p>
<p>Supporting Research (documenting improved student achievement – attach articles of reference)</p>	<p>Though students in Texas are now required to take a speech course to satisfy graduation requirements, speech is generally not viewed as a “testable” subject. As a result, there is a lack of research evaluating the effectiveness of technology in the speech classroom. Fortunately, “proof” need</p>

	<p>not come in the form of quantitative data. We offer the following information in the support of speech's technology proposal:</p> <p>Presentation Skills –</p> <p>One of the most readily apparent uses of technology in the speech classroom is for students to learn how to effectively integrate presentation technology into their oral presentations. Among the TEKS that address these skills are:</p> <p>TEKS 110.56.b.4.M “The student is expected to... produce visual aids appropriately.”</p> <p>TEKS 110.56.b.4.D “The student is expected to use... visual aids or electronic devices appropriately....”</p> <p>TEKS 110.57.b.5.F “The student is expected to choose or produce effective visual supports.”</p> <p>TEKS 110.57.b.7.D “The student is expected to use... visual aids or electronic devices appropriately....”</p> <p>TEKS 110.58.b.4.D “The student is expected to prepare and use visual or auditory aids, including technology, to enhance presentations.”</p> <p>TEKS 110.60.b.4.A “The student presents the final product. The student is expected to use appropriate visual and auditory aids to support, create interest, and/or add aesthetic appeal to the final presentation.</p> <p>TEKS 110.50.b.5.E “The student analyzes, creates, and evaluates visual and auditory messages to plan, organize, produce, and present media messages.</p> <p>Research demonstrates that we pay twenty-five times as much attention to visual suggestions as we do to audio suggestions. Traditional video aids are outdated 20th Century tools. To be effective speakers in the modern age, students must be trained in current methods and tools. Consequently, the speech teacher must model effective use of presentation technologies, and students should be trained in appropriate development of presentation materials and in incorporating those materials into their speech presentations.</p> <p>If students are to be trained in the real-world</p>
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	<p>application of visual technology, the speech classroom will have video projection devices. Television monitors are not real-world tools for displaying the visual elements in a public speaking situation.</p> <p>Technology for Improvement of Speaking Style -</p> <p>Camcorders allow students to critique their own presentations as well as those of their peers. Through personal experience, teachers who consistently use video technology to enhance the rehearsal process see dramatic improvement in students' delivery skills. Video projection systems will also be an important part of this process since they will enable the entire classroom to efficiently review and critique their peers' performances.</p> <p>TEKS 110.58.b.2.I "The student is expected to analyze and evaluate the effectiveness of own and others' communication.</p> <p>TEKS 110.59.b.7.A "The student uses appropriate rehearsal strategies..."</p> <p>Research Skills –</p> <p>Access to information and effective research skills are crucial to the development of ethical and persuasive speech presentations. The TEKS make it clear that the research process is an important component in the speech classroom.</p> <p>TEKS 110.56.b.4.D "The student is expected to research topics for speeches...using electronic sources..."</p> <p>TEKS 110.57.b.3.D "The student is expected to research topics using primary and secondary sources, including electronic technology</p> <p>TEKS 110.57.b.4.C "The student is expected to research topics using primary and secondary sources, including electronic technology</p> <p>TEKS 110.58.b.4.C "The student is expected to research topics using primary and secondary sources, including electronic technology</p> <p>TEKS 110.59.b.3 "The student uses relevant research to promote understanding of literary works."</p>
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	<p>TEKS 110.60.b.6.A “The student utilizes research and proof in debate. The student is expected to locate and use a variety of reliable technological and print sources.</p> <p>In the speech classroom, a majority of student assignments include a research component. As is true in all curriculum areas, current research strategies must involve technology in the acquisition of information.</p> <p>Computer access in the classroom will allow increased efficiency of teacher and instructor time as the teacher incorporates multitasking strategies into the classroom.</p>
<p>Site Visits to Examine Existing Models</p>	<p>Speech teachers and coaches have visited extensively with colleagues at state conference and at speech tournaments to discuss the type of technology being used in classrooms.</p>
<p>Suggested Timeline for Implementation</p>	<p>Fall '2000 - Map classrooms Spring 2001 – Installation of computers in speech classrooms. Summer 2001 - Training opportunities for teachers in use of Internet and video technologies. 2002 – Implementation of curriculum guides to support use of Internet web sites that support our curricula.</p>

2000 Bond Planning
High School - Speech

	Speech	Total	Cost	Total Cost
Campuses	5	5		
Classrooms	10	10		
Camcorder/tripod	10	10	615.00	6,150.00
CD/Cassette recorder	10	10	103.40	1,034.00
Computers	40	40	1,050.00	42,000.00
Headphones	40	40	13.68	547.20
Microphones	40	40	10.00	400.00
Drops	40	40	250.00	10,000.00
Electrical (Quad)	40	40	250.00	10,000.00
Tables	40	40	45.00	1,800.00
Chairs	40	40	15.00	600.00
TOTALS				72,531.20

2000 Bond Planning
Senior High School - Speech

	Speech	Total	Cost	Total Cost
Campuses	3	3		
Classrooms	6	6		
Camcorder/tripod	6	6	615.00	3,690.00
CD/Cassette recorder	6	6	103.40	620.40
Computers	24	24	1,050.00	25,200.00
Digital Cameras	3	3	639.00	1,917.00
Headphones	24	24	13.68	328.32
Microphones	24	24	10.00	240.00
Drops	24	24	250.00	6,000.00
Electrical (Quad)	24	24	250.00	6,000.00
Tables	24	24	45.00	1,080.00
Chairs	24	24	15.00	360.00
TOTALS				45,435.72



Technology Education (9-10)

Subject Area/Level	Technology Education (9-10) Clark, Jasper, Williams, Shepton, and Vines Computer Applications, Graphics (CAD)
Submitted by	Dick Thedford, Career Education Coordinator
Curriculum and Technology Team Members	Dick Thedford, Career Education Coordinator Jan Short, East Cluster Coordinator, Instructional Technology Ron Winkelmann, Director, Career Education
Planning Meetings (include schedules and members attending)	9/2/99 Larry Blundell, Brian Bowes, Steve Allen, Dan Hodge, Bob Carter, Mark Mentze, Deborah Kilgore
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	Clark H.S. Computer Applications and Drafting 19" monitors Modules requested and prioritized: 1. Flight simulation 2. Satellite communications 3. Video production and digital video editing 4. Electronic Music 5. Automation and robotics with the robot 6. Artificial intelligence 7. Computer maintenance and repair HP 4500 Color Jet printers w/extra cartridges for each printer
Staff Training Needs	Training by vendor

Rationale for Initiative	
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	Clark H.S., Jasper H.S.
Suggested Timeline for Implementation	

2000 Bond Planning
High School - Tech Ed. Computer Applications, Graphics

	Tech Ed.	Total	Cost	Total Cost
	Computer Applications, Graphics			
Campuses	5	5		
Classrooms	5	5		
Monitors - 19"	40	40	362.00	14,480.00
Printer - HP Color LaserJet 4500	5	5	2,979.00	14,895.00
List software here				
Flight Simulation Module	5	5	1,865.00	9,325.00
Satellite communications Module	5	5	2,476.00	12,380.00
Video production and digital video editing Module	5	5	6,888.00	34,440.00
Electronic Music Module	5	5	4,027.00	20,135.00
Automation and robotics with the robot Module	5	5	6,283.00	31,415.00
Artificial intelligence Module	5	5	2,538.00	12,690.00
Computer maintenance and repair Module	5	5	2,425.00	12,125.00
	TOTALS			161,885.00



PLANO

Independent School District

Theater Arts (9-12)

Subject Area/Level	Theatre Arts/9-12
Submitted by	Carl Herrmann
Curriculum and Technology Team Members	Carl Herrmann, Jim Long, Carla Ford, Ida Wellsman, Debbie Holland, Vickie Harper
Planning Meetings (include schedules and members attending)	
Proposed Initiative (include list of equipment and software, quantity, campuses, # of classrooms, furniture, network cabling, electrical needs)	<p>High School/Sr. High School: (8 campuses, one classroom per campus)</p> <ol style="list-style-type: none"> 1. Addition of VCR for all Theatre Arts Classrooms 2. Addition of VID projector with Scan-It presentation software for all Theatre Arts Classrooms 3. Addition of A/V Cart for VID projector
Staff Training Needs	Training on the use of the VID unit and presentation software package
Rationale for Initiative	<p>Camcorder/VCR - The ability to record and evaluate student performances is critical to student success in theatre courses. Students develop performance skills much more quickly when they can see and hear their own performances. The middle school basic list currently includes a 27" TV monitor, but no camcorder or VCR. The high school basic list currently includes 27" TV monitor and camcorder, but no VCR. This equipment is needed in the theatre classroom on a permanent basis.</p> <p>VID/Presentation Software/Scan-It – Since theatre teachers are training students in effective communications skills, it is essential that they model appropriate techniques. Classrooms need to provide the ability to use contemporary technology for student and teacher presentation. This equipment would also eliminate the need for the screen, overhead projector, and transparencies for presentation of material.</p> <p>The TEKS for Theatre Arts specify the critical evaluation of performance/presentation skills. The</p>

	addition of the recommended equipment will aid greatly in the evaluation process.
Supporting Research (documenting improved student achievement – attach articles of reference)	
Site Visits to Examine Existing Models	
Suggested Timeline for Implementation	Fall, 2000/Spring 2001

2000 Bond Planning
High School and Senior High School -
Theater

	Theater	Total	Cost	Total Cost
Campuses	8	8		
Classrooms	8	8		
Camcorder/tripod	7	7	615.00	4,305.00
Cart, VID	8	8	150.00	1,200.00
Vid, 15ft.Cable, RCA JCK-JCK Barrel Adapter	8	8	1,400.00	11,200.00
		TOTALS		16,705.00