Educational Technology Plan for Columbus City SD - 043802

School Years:
2009-10
2010-11
2011-12

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created using the eTech Ohio online Technology Planning Tool version 3.0 (TPTv3)

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Pre-Planning

1.0 Establish Technology Planning Committee
Assistive Technology/Special Needs Coordinator
Instructional Integrationist
Superintendent
Technology Coordinator
Technology Support
Treasurer
Other

Approvers:
   Gene Harris (Superintendent)
   Penny Rucker (Treasurer)
   Michele VanDyke (Technology Coordinator/Director)

1.1 Overview of TPT Planning Framework
eTech Ohio's Technology Planning Tool, strategically addresses technology planning in an educational organization and provides guidance in implementing technology to increase student achievement. Within this technology plan you will find the educational organization's vision and mission statements as well as a plan for the following: ODE Academic Content Standards (ACS) alignment with the ODE Technology ACS, technology integration into the curriculum, technology policy, technology leadership and administration, infrastructure and networking, and budgeting.

The technology planning framework addresses 5 questions adapted from "Asking the Right Questions: Techniques for Collaboration and School Change" by Edie Holcomb. In each phase of the plan, narrative responses describe the educational organization's technology planning in the following manner:

   "Where are we now?" addresses ASSESSMENT of current status within the educational organization
   "Where do we want to go?" addresses GOALS for growth in various areas
   "How will we get there?" addresses PROFESSIONAL DEVELOPMENT necessary to achieve goals
   "How will we know we're getting there?" addresses the EVALUATION PROCESS that enables the educational organization to MONITOR PROGRESS toward the specified goals.
   "How do we sustain the momentum?" Addresses ORGANIZATIONAL SUPPORT, EVALUATION and REVISION processes to achieve the goals

As Ohio endeavors to build more agile and effective school improvement plans, this technology plan will be an instrumental tool in fostering quality planning and managing technological changes that will impact the communities where we live.

1.2 Review Current Technology Plan
      To what goals and strategies does your current plan commit to advance the use of technology to enhance teaching and learning?
      Are any of these goals no longer relevant?
      What goals and strategies were met, and to what degree of success?
   Yes
   Please address the following as you plan for the next three years. Be sure to record your conclusions for reflection.
      Were there any unexpected outcomes or new needs that emerged?
      Which goals and strategies still need to be addressed? How will the technology committee address them?
   Yes, while aspects of the previous plan could not be completed (due to funding and staffing issues), CCS continues to meet the growing technology demands of the students.

1.3 Vision/Mission
A. Vision
   Each student is highly educated, prepared for leadership and service, and empowered for success as a citizen in a global community.

Per No Child Left Behind (NCLB), all students are to become technologically literate by 8th grade. To this end, the technology mission for Columbus City Schools (CCS) is to maximize access to a wide variety of current technology in the classroom and to provide the skills and culture that will best allow the district to integrate technology throughout the entire learning community. In our classrooms, technology will be used to access curriculum and enhance instruction needed for increasing student academic achievement. Operationally, technology will be used to manage student data and provide for efficient operations.

B. Mission

To provide a technology experience that is reliable, easy to use and adaptable to the various needs of the district. Thus utilizing technology to gather information and make data driven decisions. The overriding objective of making technology accessible is to allow administrators, teachers and students to become more efficient, effective and creative in solving problems, developing thinking skills, organizing and processing information, communicating ideas, reinforcing learning and applying knowledge.

Administrators will use technology programs as an invaluable part of managing the schools and administrative sites.

Teachers will use technology to strengthen the curriculum goals of the district and integrate technology into lessons that engage students in the learning process.

Students will use technology to retrieve information from a variety of sources for use in solving problems and in accessing knowledge critical for success during their educational experience with Columbus Public Schools, in their lives outside of school and to become a part of the world-wide learning communities.

Curriculum Alignment & Instructional Integration

2.1 How Are You Making Ohio's Technology Standards An Official Part Of Your District's Curriculum?

This section is a prerequisite for Sections 2.2 through 2.8 and should be considered as a separate task with a different goal. The goal of this section is to describe how your district is including Ohio Technology Standards into the distict's curriculum. Regardless whether your district calls it a "Graded Course of Study," "Curriculum Map," or something else – all districts have some form of documentation that spells out what is expected to be taught. The content standards for technology should be written into these documents so they are interwoven with the content standards for math, science etc. For Educational Service Centers (ESCs), please identify how you are assisting your contracted schools in aligning their curriculum to technology standards.

The academic content standards, known as curriculum, describe what to teach. Technology standards should be embedded within the content from other disciplines in order to deliver the curriculum in a highly effective and motivational way.

1. Using the grid below, please indicate the status of your district's efforts to embed Ohio's Technology Standards into the content standards for each curricular area. In the left column, "Where Are We Now?," please select "Not Started," "In Progress," or "Complete" for each curriculum area listed. In the right column, "Where Do We Want To Go?" please select the school year you completed or plan to complete this process.

	Where are we now?	Where do we want to go?
English Language Arts	In Progress	2010-11
Fine Arts	In Progress	2010-11
Foreign Language	In Progress	2010-11
Mathematics	In Progress	2010-11
Science	In Progress	2010-11
Social Studies	In Progress	2010-11
Technology (specific course)	In Progress	2010-11
Other Content Areas	In Progress	2010-11

2. In the textboxes below, please provide brief but comprehensive descriptions of how you are writing Ohio's Technology Standards into all of your curriculum areas. How are you measuring progress toward that goal, and how will you sustain a culture of technology integration into the future?

How will we get there?

The district strategy for alignment in each content area is guided by the district designed curriculum guides. The curriculum guides for each content area are reviewed by the Instructional Information Services (IIS) staff. The staff then aligns integrated technology activities and lessons to the curriculum guide and the state standards. After the alignment is complete, the IIS department creates and offers PD courses and workshops which model and demonstrate to teachers how to effectively integrate the technology into the curriculum. Many resources are created in this process, e.g., the on-line subscriptions, PLATO, Destination Math/Reading on-line courses, Blackboard Learning System interactive shells and on-line manipulatives which align with the curriculum, as well as utilizing Smartboard and Student Response System.

Below follows CCS strategies:

EXPLORATION (K-5):
Strategy:
At the elementary level, CCS students explore the use of technology and technological applications. Teachers integrate technology skills throughout the core curriculum through the use of district approved software, web-based software and subscription services through the Internet. There are technology curriculum resources available for lessons in the core curriculum guides. Teachers augment daily lesson plans with technology activities that enrich the learning experience.   CCS will begin using its newly-developed K-5 technology curriculum which teaches technology skills completely integrated into the core curriculum areas, mirroring the activities in the CCS developed curriculum pacing guides.   In addition to the elementary technology experience for all CCS students, there are 67 Enhancing Education Through Technology (EETT) grants awarded to district elementary schools. The grant focuses on augmenting the

teaching of mathematics and reading with technology.

SKILL-BUILDING (6-8):
Strategy:
Building on the exploratory technology knowledge gained in elementary school, middle school students take specific technology courses. The Computer Awareness curriculum is offered to middle school students as part of the Unified Arts rotations at each grade level. A primary goal of Computer Awareness is to improve student academic achievement through the use of technology. Lessons are designed to introduce and reinforce critical technology skills within the context of core curriculum; so that the technology and content merge together seamlessly. This course also educates students on the use of the computer as a productivity tool for learning, research, networking, collaboration, telecommunications, and problem solving. Students apply learned technology skills to daily class work. Eighth grade students were offered PC Applications I and II for high school credit for the first time in 2006-2007. The PC applications course teaches the Microsoft office suite in detail. PC Applications I and II are skill-based technology courses taught by a certified technology teacher. After completion of PC applications I and II, students are able to use the office productivity software, internet navigation tools, and they have basic hardware knowledge.

INTEGRATION AND SPECIALIZATION (9-12):
Strategy:
Applying the skills learned in middle school technology classes, high school students are able to integrate these skills in all of their course work. In addition, students are prepared to take more advanced technology classes. To this end, there are over 120 specialized technology courses available to high school students for credit. Technology courses differ depending on type of course, description and instructional time. Technology courses range in credit(s) from .5 to 3.0 credit(s). Previously, technological skill development occurred at the high school level with a survey approach used at the middle school level; however, to remain current with emerging technological advances, students need to gain computer skills earlier.

How will we know we're getting there?
The district process to monitor the curriculum alignment has been that select members of the curriculum team review and critique the newly created alignment products. Teachers who are using them in the curriculum are surveyed and results are used to modify the aligned curriculum. In specific areas, such as math, we use the state standardized test results to evaluate the effectiveness of the alignment.

EXPLORATION (K-5):
Practice:
At the elementary level, teachers concentrate instruction using Ohio Technology Standards 1,3,4 & 5. These four standards span across two literacies and focus efforts on productivity. Basic technology productivity skills are essential for beginners allowing for the creation of an ePortfolio. Items created through the use of Cross-curricular lesson designed in CCS Course of Study in the newly developed K-5 technology curriculum will be archived and placed in an ePortfolio for review at the Middle School Level monitoring technology uses by student and teacher is accomplished during this walk through process. These portfolio items are evidence of documented mastery of all four standards.

SKILL-BUILDING (6-8):
Practice:
At the Middle School level, students will apply their learned productivity skills using Computer Awareness curriculum and PC Applications I and II. The integration efforts are focused at the Design and Social Interaction level. The Computer Awareness Program teaches technology skills through the use of the content curriculum. Students receive a grade for both PC Applications and Computer Awareness courses.

INTEGRATION AND SPECIALIZATION (9-12):
Practice:
Incorporated into CCS secondary education classroom are all seven of the adopted standards. The technology academic content standards are interwoven into each curricular discipline. The purpose of integrating technology is to help students make realistic connections between what they learn in each content area and the real world. In addition, Columbus City Schools offers over 45 specialized technology classes for specific career paths. Grades are awarded for these courses as well.

How will we sustain focus and momentum?

The Instructional Information Services support the aligned curriculum through several different resources and formats. One of the most efficient ways is through maintaining the aligned curriculum in Blackboard Learning System interactive environments. The department offers over 50 on-line and face-to-face courses which support the aligned curriculum. The courses are offered to the participants as both graduate credit and CEU's. The courses are also designed so staff members can use the credit toward their Highly Qualified Teacher Certification. The department also has developed a standard evaluation for the PD courses as well as a review committee for the aligned content.

2.2 How Will You Be Using Technology to Improve Teaching and Learning in English/Language Arts?

The goal of section 2.2 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in English/Language Arts at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade English/Language Arts teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the English/Language Arts instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in English/Language Arts

1.0 Entry - Learn the basics of using new technology.
2.0 Adoption - Use new technology to support traditional instruction.
3.0 Adaptation - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
4.0 Appropriation - Focus on cooperative, project-based, and interdisciplinary work, incorporating technology as needed.
5.0 Invention - Discover new uses for technology tools. Develop spreadsheet macros for teaching algebra for example, or design projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.5	2.5
K-2	2.0	3.5
3-4	2.0	3.5
5-7	1.5	3.5
8-10	1.5	3.5
11-12	1.5	3.5

How will we get there?

Columbus City Schools mission of ensuring all students are highly educated and prepared as citizens in a global community is aligned to the assess/plan/teach instructional model. The English Language Arts Curriculum strategy for integrating technology to achieve student learning has been developed through assessments, the curriculum planning and instructional strategies. Currently we have adopted for the elementary teachers a PDA assessment tool which allows teachers to accurately assess students' reading skills and strategies, and receive real time web based reports. Teachers are involved in using the web based reports to determine students instructional needs and receive customized intervention strategies aligned to the pages of their reading text book and to other internet websites. Teachers then use their internet instructional

text to teach lessons through the use of a whiteboard. They can also assign additional support lessons on the textbook website for individual students or groups to complete independently or at home. The entire adopted textbook series is available on-line and accessible for teachers, students and parents.

The goal is to have all teachers use technology tools within the frame of the instructional model and move toward using Web 2.0 internet tools as a platform for simple social interactions, for communication, collaboration, and creating, remixing and sharing content. Teachers will expanded their use of laptops to promote higher-level thinking skills and to broaden the wealth of information available to students. They also incorporate digital cameras, document cameras, and projectors to process, produce, and present information.

In addition, the reading language arts department models the use of various types of technology including interactive whiteboards, podcast, ELMO's, web clips, online courses for graduate or CEU credit and various other online resources as part of professional development offered by Instructional Information Services and Instructional Technology Specialists.

The district's reading department is working collaboratively with classroom teachers to create and share lessons designed to teach literacy through the use of various technologies mentioned above. As teachers become experts, we build capacity so that those teachers train and collaborate with teachers at the building level. Utilizing Web 2.0 tools, future plans include collaborative efforts through teacher lesson sharing networks such as weblogs, Wikis, RSS technology, online photo galleries and teacher created podcast.

How will we know we're getting there?
Careful monitoring and strategic implementation of the use of technology by Instructional Technology Specialists, Curriculum Directors and building Administrators will be an integral part of achieving our goals. One way to measure our progress is to monitor the types and levels of professional development being requested. As technology is integrated into the professional development offered, the level of discussion and sharing amongst teachers will be an indication of the level at which technology is being used in their own classrooms. Another source we use for information is classroom and school visits. Walkthroughs are an effective indicator of whether technology is effectively being utilized on a large scale. Instructional Technologists, Curriculum Directors and building Administrators participate in the walk throughs. The walk throughs provide formative feedback to teachers on how they may increase the effective use of technology. Evidence may be student work, materials present in the classroom, and even arrangement. As the comfort level with technology increases, we anticipate the requests for online collaboration opportunities such as classes, PLCs, focus groups, blogs, etc. to increase as well.

How will we sustain focus and momentum?
In order to accomplish this, the reading department will need to increase the level of collaboration with the Instructional Information Services department, the Information Support Services department, and the reading teachers who can also be considered technology experts. Staff in the department need to keep pace with new technology and trends and receive training in the cutting edge technology available. The technology departments need to be kept apprised of reading support needs and issues. Our teacher technology leaders need to be trained immediately and given opportunities to implement the use of new technology so they can, in turn, be motivated, excited, and enthusiastic when presenting/training so that teachers see these new technologies as aids and tools in making their jobs a little more seamless and not as "just something new" and temporary. Additionally, by modeling integrated and effective use of technology as being the 'norm', our hope is that it will also become the norm in our schools.

2.3 How Will You Be Using Technology to Improve Teaching and Learning in Fine Arts?

The goal of section 2.3 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Fine Arts at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Fine Arts teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not

broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Fine Arts instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in Fine Arts
1.0 **Entry** - Learn the basics of using the new technology.
2.0 **Adoption** - Use new technology to support traditional instruction.
3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.0	2.5
K-4	1.0	2.5
5-8	1.0	2.5
9-12	2.5	3.0

How will we get there?
Columbus City Schools' strategy for integrating technology to achieve student learning is being addressed on many levels. Our mission of ensuring all students are highly educated and prepared as citizens in a global community begins with our curriculum. The district adopted curriculum resources contain strategies and exercises for using technology, e.g., music notation software such as Sibelius, Music Ace and Finale Notepad, MIDI, keyboards, computers, Internet websites for music and art research, computer generated art and specialized equipment/technology used to create, enhance and modify theatrical productions. Recently CCS purchased textbooks and ancillary materials for high school physical education. This text adoption supports our on-line curriculum which was created for our Columbus Virtual High School physical education students. Technology is embedded into the entire Unified Arts curriculum through strategies that enable teachers and students to use it as a tool to promote student understanding. In addition, the Unified Arts department models the use of various types of technology including interactive whiteboards, Blackboard, the use of heart rate monitors, ELMOs, web clips, streaming videos, electronic grading and various other online resources as part of professional development.

The district's unified arts department is working collaboratively with classroom teachers to create and share lessons designed to teach physical education, health, music, visual art, drama and dance through the use of various technologies mentioned above. As teachers become experts, we build capacity so that those teachers train and collaborate with teachers at the building level. Future plans include collaborative efforts through online classes, teacher lesson sharing networks and curriculum resources. With our forthcoming thin-client technology, teachers will be able to more easily access and become more familiar with online video streaming, virtual field trips, textbook software, and lessons designed for interactive whiteboards, heart rate monitors, on-line portfolios, Microsoft Movie Maker and other dynamic software.

How will we know we're getting there?
Careful monitoring and strategic implementation of the use of technology will be an integral part of achieving our goals. One way to measure our progress is to monitor the types and levels of professional development being requested. As technology is integrated into the professional development offered, the level of discussion and sharing amongst teachers will be an indication of the level at which technology is being used in their own classrooms. Another source we use for information is classroom and school visits. Walkthroughs are an effective indicator of whether technology is effectively being utilized on a large scale. Instructional Technologists, Curriculum Directors and building Administrators participate in the walk throughs. The walk throughs provide formative feedback to teachers on how they may increase the effective use of technology. Evidence will be increased student physical activity levels, student presentations of ideas and information in a digital format and collaboration with an on-line community. As the comfort level with technology increases, we

anticipate the requests for online collaboration opportunities such as classes, PLCs, focus groups, blogs, etc., to increase as well.

How will we sustain focus and momentum?

In order to accomplish this, the unified arts department will need to increase the level of collaboration with the instructional information services department, the information support services department, and the unified arts teachers who can also be considered technology experts. Staff in the department needs to keep pace with new technology and trends and receive training in the cutting edge technology available. The technology departments need to be kept apprised of unified arts needs and issues. Our teacher technology leaders need to be continuously trained and given opportunities to implement the use of new technology so they can, in turn, be motivated, excited, and enthusiastic when presenting/training so that teachers see these new technologies as aids and tools in making their jobs a little more seamless and not as "just something new" and temporary. Additionally, by modeling integrated and effective use of technology as being the 'norm', our hope is that it will also become the norm in our schools.

2.4 How Will You Be Using Technology to Improve Teaching and Learning in Foreign Language?

The goal of section 2.4 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Foreign Language at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Foreign Language teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Foreign Language instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in Foreign Language

1.0 **Entry** - Learn the basics of using the new technology.

2.0 **Adoption** - Use new technology to support traditional instruction.

3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	N/A	N/A
K-4	1.0	3.5
5-8	1.0	3.5
9-12	1.0	3.5

How will we get there?

Columbus City Schools' strategy for integrating technology to achieve student learning is being addressed on many levels. Our mission of ensuring that all students are highly educated and prepared as citizens in a global community begins with our curriculum. The district adopted curriculum resources contain strategies and exercises for using technology, specifically free digital recording programs, programs for presentations and projects, tapes, videos, along with on-line websites and resources to access listening and reading activities in

the target languages. Teachers currently make good use of ancillary materials provided by the textbook and are looking forward to the more advanced integrated technology that will accompany a new textbook adoption in 2010. Currently, a team of teachers is working to make Spanish I virtually accessible to students by putting podcasts of information, assignments and assessments in Blackboard. They are also using resources from United Streaming and other free on-line sources to provide a virtual course and extra help for students to access at home. Our plan is to increase the number of on-line courses available each year. We also plan to use video-conferencing to bring lesser-taught languages to more schools in our district so that students have more options in the area of World languages.

The World Language Department is working collaboratively with classroom teachers to create and share lessons, resources and expertise by modeling usage in professional development activities. As teachers become experts, we build the capacity for teachers to train and collaborate with each other at the building level. Future plans include collaborative efforts through Blackboard, teacher lesson plan sharing networks, curriculum resources, and the use of on-line tutorials for intervention.

How will we know we're getting there?
Careful monitoring and strategic implementation of the use of technology will be an integral part of achieving our goals. One way to measure our progress is to monitor the types and levels of professional development requested. Training will be modified to meet teacher needs and level of technology usage. As the comfort level increases, we anticipate that the requests for more advanced opportunities will also increase.   Another source of information is classroom and school visits. Walkthroughs are a great indicator of whether technology is effectively being utilized on a large scale. Evidence may include student work, materials present in the classroom and informal discussion.

How will we sustain focus and momentum?
In order to accomplish this, the World Language Department will need to increase the level of collaboration with the Instructional Information Services department, the Information Support Services department and the world language teachers who can also be considered technology experts. Members of the department need to keep pace with new technology and trends. They also need to continually receive training in cutting edge technology as it becomes available. The technology departments need to be kept apprised of World Language support needs and issues. Our teacher technology leaders need to be trained immediately and given opportunities to implement the use of new technology. Then they can, in turn, be motivated, excited, and enthusiastic when presenting/training so that other teachers see these new technologies as aids and tools in making their jobs a little more seamless and not as "just something new" and temporary. Additionally, by modeling integrated and effective use of technology as being the 'norm,' our hope is that it will also become the norm in our schools.

2.5 How Will You Be Using Technology To Improve Teaching and Learning In Mathematics?

The goal of section 2.5 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Mathematics at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Mathematics teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Mathematics instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in Mathematics
1.0 **Entry** - Learn the basics of using the new technology.

2.0 **Adoption** - Use new technology to support traditional instruction.

3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.

4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.

5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.0	2.0
K-2	1.0	2.5
3-4	2.0	3.5
5-7	2.5	4.0
8-10	3.0	4.0
11-12	3.0	4.0

How will we get there?

Columbus City Schools strategy for integrating technology to achieve student learning is being addressed on many levels. Our mission of ensuring all students are highly educated and prepared as citizens in a global community begins with our curriculum. The district adopted curriculum resources contain strategies and exercises for using technology, specifically graphing calculators and overhead calculators. Most recently a K-2 integrated math and science curriculum was created for our STEM focused elementary schools. Technology was embedded into this curriculum through strategies that enable teachers and students to use it as a tool to promote student understanding. In addition, the mathematics department models the use of various types of technology including interactive whiteboards, the use of virtual manipulatives, ELMO's, web clips, streaming videos and various other online resources as part of professional development. All teachers in grades K-5 have access to interactive lessons and math tools through the adopted textbook software programs. In our high schools, many are using dynamic mathematics software to help students understand and apply concepts. As a district, we have been piloting new graphing calculator technology and software in 6 schools for grades 6 and 9-12. The focus has been on exploring math concepts through the use of the technology and creating lessons to support this technology within the curriculum. Each year our plan is to increase the number of schools who participate in this pilot.

The district's math department is working collaboratively with classroom teachers to create and share lessons designed to teach mathematics through the use of various technologies mentioned above. As teachers become experts, we build capacity so that those teachers train and collaborate with teachers at the building level. Future plans include collaborative efforts through online classes, teacher lesson sharing networks and curriculum resources. In the classroom, our strong STEM program, present not only at the 9th-12th grade levels, but also at K-2 and 6th grade levels, incorporates virtual labs and hands-on experiences, technology, and technological design activities into everyday curriculum. With our forthcoming thin-client technology, teachers will be able to more easily access and become more familiar with online video streaming, virtual field trips, textbook software, and lessons designed for interactive whiteboards, graphing calculators, Geometer's Sketchpad, virtual manipulatives and other dynamic math software.

How will we know we're getting there?

Careful monitoring and strategic implementation of the use of technology will be an integral part of achieving our goals. One way to measure our progress is to monitor the types and levels of professional development being requested. As technology is integrated into the professional development offered, the level of discussion and sharing amongst teachers will be an indication of the level at which technology is being used in their own classrooms. Another source we use for information is classroom and school visits. Walkthroughs are a great indicator of whether technology is effectively being utilized on a large scale. Evidence may be student work, materials present in the classroom, and even arrangement. As the comfort level with technology increases, we anticipate the requests for online collaboration opportunities such as classes, PLCs, focus groups, blogs, etc. to increase as well.

How will we sustain focus and momentum?

In order to accomplish this, the math department will need to increase the level of collaboration with the instructional information services department, the information support services department, and the math teachers who can also be considered technology experts. Staff in the department need to keep pace with new

technology and trends and receive training in the cutting edge technology available. The technology departments need to be kept apprised of math support needs and issues. Our teacher technology leaders need to be trained and provided opportunities to implement the use of new technology so they can, in turn, be motivated, excited, and enthusiastic when presenting/training so that teachers see these new technologies as aids and tools in making their jobs a little more seamless and not as "just something new" and temporary. Additionally, by modeling integrated and effective use of technology as being the 'norm', our hope is that it will also become the norm in our schools.

2.6 How Will You Be Using Technology to Improve Teaching and Learning in Science?

The goal of section 2.6 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Science at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Science teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Science instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in Science
1.0 **Entry** - Learn the basics of using the new technology.
2.0 **Adoption** - Use new technology to support traditional instruction.
3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.0	2.0
K-2	1.0	2.0
3-5	1.5	2.5
6-8	3.0	3.5
9-10	3.0	3.5
11-12	3.0	3.5

How will we get there?
Columbus City Schools is well on its way to achieving the technology vision in science. As part of its mission of enabling all students to become successful citizens in the 21st century, the department models for teachers effective instruction through the integration of technology such as interactive whiteboards, document cameras, slideshows, and numerous online resources in professional development. As teachers become experts, we build capacity so that those teachers train and collaborate with teachers at the building level. Future plans include collaborative efforts through online classes in Blackboard and curriculum resources such as question banks, CiMS, Classroom Connect, Plato, and others; and adding additional PLCs with a focus on collaborative use of technology. In the classroom, our strong STEM program, present not only at the 9th-12th grade levels, but also at K-2 and 6th grade levels, incorporates virtual labs and hands-on experiences, technology, and technological design activities into everyday curriculum. These activities offer realistic ways to examine

content that is typically best acquired through hands-on experience. With our forthcoming thin-client technology, teachers will be able to more easily access and become more familiar with online video streaming, virtual field trips, and our new textbook adoption software.

How will we know we're getting there?

Much of the professional development that the science department currently presents is based upon demand. The recent requests have been for sessions that deal primarily with 'introduction to using' topics relating technology to science. One way to measure our progress is to monitor the types and levels of professional development being requested. Informally, the discussions at these sessions will also indicate progress. Another source we use for information is classroom and school visits. Walkthroughs are a great indicator of whether technology is effectively being utilized on a large scale. Evidence may be student work, materials present in the classroom, and even arrangement. As the comfort level with technology increases, we anticipate the requests for online collaboration opportunities such as classes, PLCs, focus groups, blogs, etc. to increase as well.

How will we sustain focus and momentum?

In order to accomplish this, the science department will need to increase the level of collaboration with the instructional information services department, the information support services department, and the science teachers that can also be considered technology experts. Staff in the department need to keep pace with new technology and trends and receive training in the cutting edge technology available. The technology departments need to be kept apprised of science support needs and issues. Our teacher technology leaders need to be trained immediately and given opportunities to implement the use of new technology so they can, in turn, be motivated, excited, and enthusiastic when presenting/training so that teachers see these new technologies as aids and tools in making their jobs a little more seamless and not as "just something new" and temporary. Additionally, by modeling integrated and effective use of technology as being the 'norm', our hope is that it will also become the norm in our schools.

2.7 How Will You Be Using Technology to Improve Teaching and Learning in Social Studies?

The goal of section 2.7 is to identify the major elements of your district's plans to use technology to enhance teaching and learning in Social Studies at the elementary, middle and secondary levels over the next three years.

The primary objective is that you provide a brief description of two or three broad-based practices being utilized by the majority of your district's teachers to use technology to improve teaching and learning at the elementary, middle and secondary levels. For example, if all or most of your fifth through seventh grade Social Studies teachers are requiring students to conduct internet research or produce multimedia presentations on a regular basis; this would qualify as a broad-based practice. But if only a fraction of your teachers are regularly using these tools in the classroom – do not portray it as a broad-based practice.

Please feel free to include information about significant technology integration practices which are, by nature, not broad-based. For example, if a high school science teacher is using simulation software to allow students to conduct virtual experiments which are too dangerous to replicate in the classroom or lab; please indicate this in the Science curriculum area at the high school level only.

Using the ACOT Scale and the grid below, indicate your school's current level of effective technology integration in the Social Studies instructional process, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Current Levels of Technology Integration in Social Studies

1.0 **Entry** - Learn the basics of using the new technology.
2.0 **Adoption** - Use new technology to support traditional instruction.
3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.5	2.5
K-2	1.0	2.5
3-5	1.5	3.0
6-8	1.5	3.5
9-10	2.5	3.5
11-12	2.5	3.5

How will we get there?

Columbus City Schools strategy for integrating technology to achieve student learning is being addressed on many levels. Our mission of ensuring all students are highly educated and prepared as citizens in a global community begins with our curriculum. The district adopted curriculum resources contain strategies and exercises for using technology such as online atlases and interactive software that are part of the adopted teaching resources. In addition, the social studies department models the use of various types of technology including interactive whiteboards, ELMO's, web clips, webquests, streaming videos and various other online resources as part of professional development. All teachers in grades K-5 have access to interactive lessons and social studies tools through the adopted textbook software programs. In our high schools, many are using Smartboard and presentation software to help students understand and apply concepts. The focus has been on preparing students to use the software to give presentations. Each high school also has an E-Instruction classroom performance system that is used for interactive review and assessment activities.

The district's social studies department is working collaboratively with classroom teachers to create and share lessons designed to teach social studies through the use of various technologies mentioned above. As teachers become experts, we build capacity so that those teachers train and collaborate with teachers at the building level. Future plans include collaborative efforts through online classes, teacher lesson sharing networks, curriculum resources and the use of the social studies website. With our forthcoming thin-client technology, teachers will be able to more easily access and become more familiar with online video streaming, virtual field trips, textbook software and lessons designed for interactive whiteboards.

How will we know we're getting there?

Careful monitoring and strategic implementation of the use of technology will be an integral part of achieving our goals. One way to measure our progress is to monitor the types and levels of professional development being requested. As technology is integrated into the professional development offered, the level of discussion and sharing amongst teachers will be an indication of the level at which technology is being used in their own classrooms. As the comfort level with technology increases, we anticipate the requests for online collaboration opportunities such as classes, professional learning communities (PLC), focus groups, blogs, etc. to increase as well.

School and classroom visits are another way of monitoring and measuring whether technology is effectively being utilized on a large scale. Evidence will include student work, and materials present in the classroom. Lastly, high school students will use technology to complete virtual tours to understand the numerous geographical, political, and cultural different communities.

How will we sustain focus and momentum?

In order to accomplish this, the social studies department will need to increase the level of collaboration with the instructional information services department, the information support services department, and the social studies teachers who can also be considered technology experts. Staff in the department will keep pace with new technology and trends and receive training in the cutting edge technology available. The technology departments need to be kept apprised of social studies support needs and issues. Our teacher technology leaders will be trained and given opportunities to implement the use of new technology so they can, in turn, be empowered and equipped to present, train and troubleshoot so teachers see these new technologies as aids and tools in making their jobs a little more seamless. Additionally, by modeling integrated and effective use of technology as being the 'norm', our goal is that it will also become the norm in our schools.

2.8 How Are You Teaching Students About Technology Itself?

The goal of Phase 2.8 is for district technology planning staff to describe your district's efforts to teach students what they need to know and be able to do in order to meet Ohio's technology content standards.

IMPORTANT NOTE: Phase 2.8 is about technology as its own academic content standard and focuses on specific

technology courses.

Phase 2.8 is the place to indicate what technology instruction you are offering at the elementary, middle and secondary levels. Examples of these "pure technology" courses would include, but are not limited to: career technology, library media, keyboarding, multi-media or digital video production, web page authoring, network administration, etc.

As you are considering how you will teach the technology academic content standards, consider reviewing your Comprehensive Continuous Improvement Plan (CCIP) goals and strategies.

Activity

Using the Apple Classroom of Tomorrow (ACOT) Scale and the grid below, indicate your school's current level of effective technology integration specifically concerning technology courses, as well as your target levels for improvement. If your responses fall between whole numbers, such as between 3.0 and 4.0, feel free to use .5 increments such as 3.5.

Instructional Integration

1.0 **Entry** - Learn the basics of using the new technology.
2.0 **Adoption** - Use new technology to support traditional instruction.
3.0 **Adaptation** - Integrate new technology into traditional classroom practice. Here, they often focus on increased student productivity and engagement by using word processors, spreadsheets, and graphics tools.
4.0 **Appropriation** - Focus on cooperative, project-based, and interdisciplinary work - incorporating the technology as needed and as one of many tools.
5.0 **Invention** - Discover new uses for technology tools, for example, developing spreadsheet macros for teaching algebra or designing projects that combine multiple technologies.

	Where are we now?	Where do we want to go?
Pre-K	1.0	2.0
K-2	1.0	2.0
3-5	1.5	2.5
6-8	2.5	3.5
9-10	2.5	3.5
11-12	2.5	3.5

How will we get there?

Columbus City Schools strategy for integrating technology to achieve student learning starts the newly updated and developed curriculum for each subject area. The idea is to integrate technology to strengthen the curriculum goals and to completely engage students into the learning process. Our district has designed specific curriculum guides for each grade-level through well-articulated benchmarks and grade level indicators. The curriculum guides, which contain extensive lesson plans, are written and reviewed by a team which consists of technology integration specials and curriculum developers to see where technology will be integrated into that particular curriculum. The seamless integration may take the form of online resources, applications, Blackboard resources, internet resources or even videos on demand. Moreover, CCS has recently completed the development of a K-12 technology curriculum which involves skills matrices and curriculum lesson plans that are integrated with core curriculum content to teach technology concepts.Once the team has developed integration products and plans, the district presents the integration through a variety of professional development opportunities. The district has the use of five full day professional development days, plus the ability to offer face-to-face and online courses for graduate or CEU credit. Also, the Instructional Technology staff members are available for in school workshops before, during and after school. These workshops are coordinated with the each building administrator and can occur several times throughout the school year.

How will we know we're getting there?

Once the integrated curriculum has been formally released to the staff members, a team of teachers uses and critiques the integrated technology curriculum alignment. The team evaluates the integration by conducting informal discussions and interactive computer lab sessions with staff members. The team will then make suggestions for additions, edits, deletions or changes. Resources are checked for authenticity, function and relevant and current information. Updates are made as necessary to guides which are posted online. For professional development opportunities, an online evaluation is conducted with the participants. The data gathered for each integration course is reviewed by the instructional technology team, curriculum coordinators and the instructor(s). Courses or professional development sessions are then modified as necessary

according to the data collected. Curriculum additions, edits, deletions or other modifications are made to keep the integrity of the professional development equal to the integration that was created.

How will we sustain focus and momentum?

First, the IIS department along with the MIS department will continue to support the technical side of the technology so that staff and students have proper access to the technology they need to achieve student learning. There is a biweekly meeting between IIS and MIS that allows the departments a chance to organize and support the instructional technology environment. Application updates, software installations and technical support are discussed at the meetings. Next, the district encourages the use of a variety of technology products and tools. CCS is a large district with many different technology resources such as laptops, PDAs, Tablet PCs and interactive whiteboards. The district also supports a variety of grants and applications that give students and staff the opportunity to achieve. The district has earned 67 EETT grants, HP grants and several Federal Math and Science Grants. The district also has purchased several applications, which target specific areas to support academic achievement. An example of these are Read, Write and Gold (TextHelp) for special needs students, Inspiration, Kidspiration, videos on demand through Unitedstreaming.com, FrontPage, EasyTech, TechConnect, River Deep (Destination Math), Aspire, Blackboard Learning Systems and videoconferencing is available in all classrooms throughout the district. All of these technology products are linked to professional development and credit initiatives. Many of our staff members receive all their re-certification credits through the Instructional Information Services graduate and CEU courses. The courses are evaluated, monitored and revisions are made as necessary.

Technology Policy, Leadership and Administration

3.1 Analyzing District Education Technology Policies

Awareness - Policy is not in place; little or no understanding of importance of policy
Adoption - Traditional policies are in place; lack of consistent use
Exploration - New/updated policies are being researched
Transformation - Policies support high performing learning environments

	Where are we now?	Where do we want to go?
A.Electronic network linking district with other stakeholders for information exchange, collaboration and distance education	Exploration	Exploration
B.District wide program providing data or administrative systems to schools (e.g., fiscal databases, student assessment results)	Exploration	Exploration
C.Technology-related facilities design, equipment and software	Exploration	Exploration
D.Technology acquisition and standards	Adoption	Exploration
E.Research and evaluation of educational technology initiatives	Exploration	Exploration
F.Development and dissemination of educational technology devices, applications and approaches	Exploration	Exploration
G.District funding for educational technology	Awareness	Transformation
H.Equity and access to technology	Adoption	Transformation

How do we get there?

The mission of the Columbus City School district is that each student is highly educated, prepared for leadership and service, and empowered for success as a citizen in a global community.

The challenge facing the Information Technology (IT) organization is the creation of a comprehensive strategic vision of information technology that will define an acceptable standards based, best practice environment while still permitting decentralized innovation to accommodate instructional technology. By aligning the IT organization into a collaborative structure, and committing to a project management methodology, with software lifecycle development principles, and best practices the reduction in risk of systems not meeting the business objectives is minimized significantly.

There are four simple goals of our information technology organization to accomplish the district mission:

•Partner with district educational departments to deploy technology solutions based on their requirements in meeting the established objectives of the Superintendent.

•Partner with business units within the district to deploy technology solutions for efficiency purposes in achieving the established goals and objectives of the Superintendent.

•Support solutions by maintaining software, hardware, and infrastructure.

•Continuous improvement of the technology offerings based upon the educational and business requirements and/or their changing needs.

How do we know we are getting there?

In order to aid in improving student academic achievement through the use of technology in schools, IT will help to design programs to assist students in crossing the digital divide by ensuring that every student is technologically literate by the end of eighth grade, and the program also encourages the effective integration of technology with teacher training and curriculum development to establish successful research-based instructional methods.

It is impossible to measure the actual success of a student based on the technology experience offered. It is our

hope through collaborative efforts with the technology and academic groups, we can offer the most current and reliable technology and software offerings. Success can be reflected in higher test scores and ultimately higher graduation rates. This will not provide an absolute measure, but will indicated movement in the right direction.

District funds for technology continue to be an issue, however, the recent passage of the school levy earmarked funds for the period covering this plan and will allow the district to make significant strides in our technology offerings. A technology refresh will begin the summer of 2009 and reach all district buildings by the summer of 2011.

Technology and its use in the classroom will be monitored by the building administrator. In addition, we have added computer use and integration to the walk throughs, that are completed by an academic committee. Walk throughs are detailed in Phase 2 of the plan.

How do we sustain the focus and momentum?
By aligning the IT organization into a collaborative structure, and committing to a project management methodology, with software life cycle development principles, and best practices the reduction in risk of systems not meeting the business objectives is minimized significantly.

The creation of a Board of Technology Services sponsoring projects and/or project managers will be identified to oversee the projects. In addition, representatives from the local business community, instructional computing, business units, and parent advocates will be requested to participate as a members of the Board of Technology Services (BOTS) and provide feedback related to our desire to increase technology career pathways and increase technology programs at all levels within the Columbus City Schools.

3.2 Analyzing District Leadership
Awareness - These administrators do not use technology. An expectation to use technology with students and staff is not expressed nor do the administrators support the staff in the use of technology.
Adoption - Administrators have access to technology but don't use it on a comprehensive basis. Educators in the building are expected to use the technology but not in a powerful way to improve student achievement. Leaders support staff in developing technology skills.
Exploration - Leaders encourage and support educators in the use of technology, but the use may not be pervasive throughout the system. Administrators use technology and see some benefit.
Transformation - Leadership provides strong vision encompassing all aspects of educational technology. Technology is vital to administrators and is utilized in innovative ways on a daily basis. Administrators fully understand how to use the tools effectively in the classroom and to manage education.

	Where are we now?	Where do we want to go?
A.Instructional leadership, assessment and curriculum	Adoption	Transformation
B.Competencies/Standards (e.g. ISTE NETS-A)	Adoption	Transformation
C.Advocacy for technology	Exploration	Transformation
D.Measures and accountability for effective use	Exploration	Transformation
E.Role model in the use of technology	Exploration	Transformation
F.Professional development	Adoption	Transformation
G.Support for educational technology	Adoption	Transformation
H.Professional practice	Adoption	Transformation

How do we get there?
The purpose of this section is to provide an explanation of how information technology service is made efficient, effective, reliable and repeatable.

In order to meet the ever changing dynamics within the educational environment, our information technology organization will be prepared to meet the growing needs of our customers, which includes parents, students, Columbus City schools employees. By creating and aligning by functional areas, the information technology organization benefits by building redundancy within the organization, creation of cross functional teams for collaboration, and the extensible knowledge of the enterprise architecture for future projects.

The CIO will be accountable to the executive leadership of the district in creating and maintaining partnerships that foster the district's strategic mission and meeting the established goals for the inclusion of technology within the educational processes.

Additionally, the CIO will commit to restoring interdepartmental collaboration as well as the necessary infrastructure to support the collaborative efforts, which will include technology advisory teams made up of community members, board members, educators, business leaders, and information technology professionals.

Currently the district is burdened with fragmented and inefficient systems and operational stove-pipes because of the lack of a system architecture and design process that integrates the various data bases and applications. By aligning the IT organization into a collaborative structure, and committing to a project management methodology, with software lifecycle development principles, and best practices the reduction in risk of systems not meeting the business objectives is minimized significantly.

How do we know we are getting there?

The purpose of the Information Technology organization is contribute to the effectiveness and efficiency of business and operations as well as the 100% academic success of our students.

During the past seven years, the district has demonstrated steady improvement by implementing several aligned initiatives:
The district created curriculum guides aligned state academic content standards to teacher, assuring alignment among the written, taught, and tested curriculum.

The district assured continuity of curriculum delivery by creating pacing guides for teacher use in all core subjects; this addresses a need created by high student mobility.

The district provided technical assistance to schools by providing student quarterly assessments aligned to pacing charts for students and by providing Curriculum Review Teams.

The district provided staff development aligned to the needs of each building based on results from formative and summative assessments and classroom observations of Curriculum Review Teams.

Leadership throughout the district (operational and academic) are not only advocates for technology use in the district, they have become champions for its use and are demanding it at a higher level and advanced training. ISTE standards have been in place in the district for many years, the district has taken them to the next level and will continue to grow in adhering to them. Professional development has become a part of the purchase of all technology in the district. The district has also adopted a train the trainer model for teachers to not only teach their peers, but to become the "subject matter expert" for consultation within the school and the entire district. This has been well received with the roll out of the parent and teacher assist web portals in several of our schools.

How do we sustain the focus and momentum?

There are four simple goals of our IT organization to accomplish in the Columbus City Schools District.

• Partner with district educational departments to deploy technology solutions based on their requirements in meeting the established objectives of the Superintendent.
• Partner with our district business units to deploy technology solutions for efficiency purposes in achieving the established goals and objectives of the Superintendent.
• Support solutions by maintaining software, hardware, and infrastructure.
• Continuous improvement of the technology offerings based upon the educational and business requirements and/or their changing needs.

The next level of work must concentrate on the factor that has the greatest impact on student achievement: the delivery of instruction. This requires the enthusiastic collaboration of every staff member in the district, 100% of the time. This next level of work focuses on providing rigorous, world class instruction for every student. Our vision requires the development of a common understanding of highly effective, high-expectation instruction across the district.

Additionally, the information technology organization has set a goal to become the model information technology organization for urban school districts in the State of Ohio by performing the following:

• The ability to meet the business needs and functions of the district. Create goals that establish a strategic planning methodology to achieve customer service, business alignment and a continuous communications.

• Developing and maintaining an agile IT framework that allows flexibility in meeting the demand of instructional technology. (Standardization of hardware and software usage throughout the district).

• Support solutions by maintaining the software, hardware, and infrastructure.   The IT organization takes ownership and accountability of the mission and goals established with the business units to achieve their goals and objectives set forth by the Superintendent.

• Partnering with the various business units to continuously improve the technology solutions being developed and/or acquired to address the changing business needs. (Includes instructional educational needs)

The high level principles that guide the information technology decision making are:

• based upon best practices
• project management philosophy
• technology standards
• communications
• documentation
• routine maintenance periods
• repeatable procurement practices
• responsible fiscal operations
• skilled personnel
• an agile information technology framework allowing flexibility within the work environment to meet district demands

The introduction and utilization of the Information Technology Service Management (ITSM) framework within the district computing infrastructure will provide consistent and comprehensive documentation of best practices.

ITSM is a systematic approach to planning, delivery and support/control of information technology systems involved in business operations. ITSM is focused on customer and business processes to achieve operational excellence. The framework provides a systematic and professional approach to the management of IT services for the following benefits:

• reduced costs
• improved IT services through the use of proven best practice processes
• improved customer satisfaction through a more professional approach to service delivery
• standards and guidance
• improved productivity
• improved use of skills and experience
• improved control of delivery of third party services through the specifications of ITSM framework as the standard

3.3 Technology Leader/Coordinator Time Commitments

	Where are we now?	Where do we want to go?
Strategic/Project/Action Planning	50%	65%
Acquisitions/Procurement	5%	0%
Deployment/Implementation of Technology	0%	0%
Maintenance & Repair	0%	0%
End-user Technical Support & Training	0%	0%
Curriculum Alignment & Instructional Integration	0%	7%
Fiscal Management/Grant Applications	10%	0%
Superintendent Cabinet/Executive/Board Meetings	15%	15%
Tech Staff Development & Management	5%	5%
Policy Development, Monitoring & Enforcement	5%	5%
Evaluating New/Emerging Technologies	5%	3%
Other	5%	0%
Total	**100%**	**100%**

Other (please describe):

The IT organization will be held accountable for the mission and goals established with the business units and academic leadership to assist in achieving reachable goals and objectives set forth by the Superintendent. The CIO will deliver technology solutions enabling management to make informed decisions based upon information delivered in real time.

How will we get there?

In an effort to change the direction of information technology within the district, the strategy outlines a vision of alignment of personnel into functional areas of coverage for maximization of effectiveness, creation of new roles to promote an agile organization prepared to partner with executive level, instructional education, and business operations to achieve the goals of the District.

The implementation of a project management office to coordinate the suggested technology projects ensuring inclusion of the project stakeholders. Additionally, the district of this magnitude should have a technology advisory council consisting of educational leaders, community leaders, business leaders, and technology leaders to make recommendations regarding the inclusion of technology usage throughout the district. Implementation of this strategy will also require the development of a fiscal office for IT spending, and contract management oversight of IT vendors utilized throughout the district.

How will we know we are getting there?

The introduction and utilization of the Information Technology Service Management (ITSM) framework within the district computing infrastructure will provide consistent and comprehensive documentation of best practices. ITSM can be defined as a systematic approach to planning, delivery and support/control of information technology systems involved in business operations. ITSM is focused on customer and business processes to achieve operational excellence. The framework provides a systematic and professional approach to the management of IT services.

• reduced costs
• improved IT services through the use of proven best practice processes
• improved customer satisfaction through a more professional approach to service delivery
• standards and guidance
• improved productivity
• improved use of skills and experience
• improved control of delivery of third party services through the specifications of ITSM framework as the standard

How will we sustain focus and momentum?

Continued involvement with technology committees, such as ETech and the Council of Great City Schools, will keep the focus sharp and information up to date. The addition of new system requirements and curriculum changes to incorporate technology into the learning environment on a daily basis, will keep the challenge to find new and cost efficient ways to meet the growing demands.

The overall transformation must be sponsored by the Superintendent, Deputy Superintendent, COO and lead by the CIO as the program manager. The CIO will have the overall responsibility for oversight and management of the program plan.

Technology Infrastructure, Management and Support

4.1 Networking, Internet & Telecommunications

This section is designed to speak to the network/telecommunications infrastructure necessary to support the technologies in use by the district for administrative and instructional computing. These uses range from EMIS reporting, shared administrative applications, video on demand (VOD), voice over IP (VoIP) telephony, thin client server access, Internet research and others.

With a wide range of new, converging or expanding services relying heavily on a converged network, capacity planning is imperative to the success of subsequent strategies that use the network. For example, a network using thin client connectivity to servers, with heavy Internet access, file and print services, as well as voice over IP, will need careful network capacity planning to introduce video streaming technologies.

ACTIVITY 1:

Complete the portfolio of network services and telecommunications services provided. Indicate any changes that you plan to introduce.Use the following scale in answering "Where are we now?"

- **None** - This technology does not currently reside on the network.

- **Some** - There are pieces of this technology residing on the network. It does not exist in all buildings or only in certain places.

- **Many** - This technology is pervasive throughout the district and/or building.

    Use the following scale in answering "Where do we want to go

- **Decrease** -We plan to decrease this technology on the network.

- **No Change** - We plan to maintain the level of technology on the network.

- **Researching** - We are investigating if we want to implement this technology on the network or if we want to increase or decrease this technology on the network.

- **Increase** - We plan to increase this technology on the network.

	Where are we now?	Where do we want to go?
Thin/Network Clients	Some	Increase
File and Print Sharing	Some	No Change
Internet Traffic	Many	No Change
Video Conferencing (IP)	Some	No Change
Video Conferencing (ATM)	None	No Change
Video On-Demand (local building/district server)	Many	No Change
Video Streaming (Internet)	Many	No Change
Voice Communications - Voice over IP	None	Researching
Voice Communications - Centrex/PBX	Many	No Change
Remote Access (Dial-up/VPN) to School Resources	Some	Decrease
Wireless	Some	Increase
Email	Many	Increase
Enterprise/Shared Applications (e.g., online grade book)	Some	Increase

ACTIVITY 2:

Discuss the impact of the network and telecommunications services activity above on the bandwidth requirements of the LAN, WAN and Internet connection. Record the impact on bandwidth below.

	What is the current impact?
LAN Bandwidth	No Changes
WAN Bandwidth	Increase
Internet Bandwidth	No Changes
Telephone Circuits	Increase

How will we get there?

The District is in the initial process of a technology refresh. The purpose of the refresh is to replace legacy equipment that is unable to support emerging educational requirements. Current equipment has a high degree of failure, repair parts are no longer available, or they are not cost effective to replace. The majority of this equipment will be replaced with 'Thin Client' technology. Software will be delivered through centralized systems reducing the need to dispatch individuals to manually install software. The systems will have no moving parts, such as disk drives, thus reducing maintenance and the manual process of re-imaging after a failure. Net effect of using this technology is increased classroom instruction time, systems that are able to run current and legacy application side by side, and a more rewarding experience for the user. Where it is not feasible to deploy 'Thin Client' we will issue a traditional workstation but still deliver the application to that unit electronically. While there will be an investment in new equipment at the inception of the project, a cost savings will be realized over time through lower maintenance costs and a reduction in employee costs due to less time in the field.

The district is currently evaluating the benefits vs cost analysis of replacing Centrex/PBX services with VoIP. The ROI is attenuated by the VoIP capital expenditure and the generous Erate subsidy that Centrex receives. A limited VoIP pilot will provide better insight to its benefits in an educational environment. As we continue to research the VoIP the district's need for phones and lines will increase based on new building construction. OSFC regulations require a phone in every classroom.

The district currently uses VPN for system support. As we continue with the virtualization project, the need for this access tool will decrease and be replaced with VDI technology. This will enable the system administrator to remotely access systems as needed for maintenance and support. This will enable the user to establish a secure remote desktop session in order to conduct the district's business as needed. Through this session the user will be able to access their e-mail, network files, and the internet.

The district is currently evaluating the incorporation of 802.11n wireless for its higher throughput for higher-bandwidth applications and for the ability to perform remote laptop management.

With the district's adoption of the thin-client model, including server consolidation onto bladecenters and virtualization technology, it will be necessary to increase the core network WAN bandwidth from 1G to 10G. Datacenter networking will also be transitioning toward virtualization, 10G and FCoE technologies to improve the management of server, storage and network resources. Fiber Channel over Ethernet and 10 Gigabit will allow the convergence of data and storage traffic over the same connections, reducing the "octapus effect" of maintaining separate Ethernet and SAN networks, interfaces and cabling. Core and datacenter switches that are reaching EOL/EOS will need to be replaced. The district, in 2007/08 completed a lifecycle replacement of all the L3 and L2 switches in its schools and administrative buildings.

The above changes will improve the user experience and performance significantly. Use of this technology will result in more time devoted to teaching and learning with less down time, ultimately contributing to increased student academic achievement.

How will we know we are getting there?

Monitoring and strategic implementation of the technology changes will be an integral part of achieving our goals. The IT department will engage staff and administrators in user groups for feedback and to determine on-going training needs. Ultimately, if we are meeting federal, state and audit requirements, the district will be satisfying the needs. An increase in student achievement and operational efficiency will indicate success.

How will we sustain focus and momentum?

Newtork capacity for the district is regularly monitored and adjustments will be made in response to district needs. Columbus City Schools understands the importance of the network up time and reliability and budgets accordingly.

4.2 Access to Technology

None - This technology does not exist in the building(s) and/or district.
Some - This technology is in the building(s) and district, but there are only a few in each location.
Pervasive - This technology is an integral part of the building(s) and/or district.

	Where are we now?	Where do we want to go?
Computer to Teacher Ratio (1:n)	1:1	1:1
Computer to Student Ratio (1:n)	1:3.5	1:3.5
Peripherals (e.g. scanner, digital camera)	Some	Some
Emerging Technologies	Middle adopter	Middle adopter
Assistive and adaptive hardware (e.g. Intellikeys, Alpha Smart) and specialized software	Some	Some

How will we get there?

With the rapid changes in technology and the funding concerns in the K12 environment, Columbus City Schools is continually researching the most current technology and the right fit for our curriculum. The district is moving from placing 4 - 5 computers in a class to laptop carts and desktop lab settings. This allows our students interactive time using technology and the best access to software. CCS continues to research a variety of technology options for instruction. These options primarily consist of desktop computing, laptop cart, tablet, smartboard and wireless computing environments. CCS is using laptop carts in many of the buildings today, with wireless access confined to cart proximity. In addition to the hardware, CCS is working with the curriculum group to consolidate the software offerings to the district by ensuring the latest version is supported, obsolete software is removed and that the software is directly aligned to the curriculum. Software offerings will be evaluated to ensure they function properly in our current computing environment, are aligned to the curriculum and are being purchased as a benefit to the entire district (enterprise licensing) where applicable. This process is completed prior to purchasing upgrades to software and/or purchasing new titles. In-service training dedicated to technology training will continue, as well as, specialized training to those schools involved in the piloting of new technology.

How will we know we are getting there?

Computing technology and peripherals will be purchased as needed to meet the needs of goals of the district and embrace emerging technology. In addition, the district is implementing a refresh cycle for computer equipment so that CCS is providing and maintaining equipment that will be relevant for student use outside of the district. This will allow for technology growth that fosters academic achievement. The district will use the ISTE Teacher and Administrator Standards to evaluate staff integration of technology into student lessons and leadership efforts in technology.

How will we sustain focus and momentum?

The District will convene panels to regularly review the technology strategies. This plan will be updated at least annually to meet the changing needs of the district. The district will continue to rightsize the technology capacity up and down, based on enrollment and the curricular needs of the students and instructional programs.

4.3 Stakeholder Access to Educational Information & Applications

1. **None:** Our organization does not have this type of electronic system. We maintain paper records.
2. **Minimal:** Our organization utilizes some electronic documents to manage these systems and processes such as spreadsheets or word processor.
3. **Adequate:** Our organization uses database software to manage these systems and documents.
4. **Advanced:** Our organization shares this type of information using industry-adopted data standards and practices (e.g. SIF, XML-Web Services or EDI).

   Tool

	Where are we now?	Where do we want to go?
Student Information Services	4 - Advanced	4 - Advanced
Instructional Applications	4 - Advanced	4 - Advanced
Data Analysis & Reporting	4 - Advanced	4 - Advanced
Grade Book	2 - Minimal	4 - Advanced
Library Automation	4 - Advanced	4 - Advanced
Facilities Management	3 - Adequate	3 - Adequate
Voice Telephony	2 - Minimal	4 - Advanced
Human Resources & Financial Management	2 - Minimal	3 - Adequate
Network Account Management	4 - Advanced	4 - Advanced
Transportation	4 - Advanced	4 - Advanced
Food Services	4 - Advanced	4 - Advanced

How will we get there?

CCS is now offering the eSIS electronic grade book module and will be using that as the standard. This is in production at two High Schools and is being rolled out to all schools by request. This will allow all schools continuity in processing, access for parents and greatly increase the accuracy of data.

The district is currently evaluating the benefits vs cost analysis of replacing Centrex/PBX services with VoIP. The ROI is attenuated by the VoIP capital expenditure and the generous Erate subsidy that Centrex receives. A limited VoIP pilot will provide better insight to it's benefits in an educational environment.

The district is pursuing an ERP solution for HR, Financials and procurement. This system will include Position Control and other HR modules to meet the Highly Qualified and NCLB requirements. And, provide a more efficient and accurate data and accounting system.

How will we know we are getting there?

CCS conducts annual surveys to the buildings to identify where the teachers and administrators have seen improvement and identify areas where we can institute technology appropriate to their classroom and administrative needs. Working with the buildings on a daily basis, through the field teams and the instructional technology department problem areas are also identified and acted on immediately.

How will we sustain the focus and momentum?

CCS will continue to work with the buildings and operational departments to define requirements and select appropriate technology. Academic achievement and operational efficiencies are the best measure of success.

4.4 Educational Software

Never - When selecting educational software, this process never occurs.
Rarely - When selecting educational software, occasionally this process is followed.
Sometimes - When selecting educational software, we typically follow and/or incorporate this process.
Always - When selecting educational software, this process is always followed and/or incorporated.
Selection Processes

	Where are we now?	Where do we want to go?
Requirements gathering, feature/fit analysis to goal	Sometimes	Always
Professional development planning for end users and support personnel	Sometimes	Always
Criteria for evaluation developed - including alignment to ACS and curriculum	Sometimes	Always
Evaluation of demo copies	Sometimes	Always
Implementation pilots	Sometimes	Always
Replacement cycle (upgrade, retire, new)	Rarely	Sometimes
System requirements / technical and operational support	Sometimes	Always

How will we get there?

In June 2005 Board Policy was approved that states committee approval is required for the purchase of any new software. This review includes technical requirements, instructional use and alignment. CCS has also inventoried and catalogued "all" of the software that resides in the district. This is managed by the Instructional Technology Group. Having moved to a Novell Active Directory shop in 2005-2006, the technology group now monitors all of the software adds and moves by individual school and computer. This has eliminated most of the rogue software in the district. Institution of the new policy brought awareness of change to the district at large and in most cases the technical group has access to software prior to purchase for testing the technical functionality in our environment and the Instructional Technology group has the opportunity to review the software for ease of use and alignment to the curriculum. The policy has been in place for several years and the department has adjusted the process to include purchases on an enterprise scale. This was done to ensure that all schools have access to the same software, providing continuity as students travel throughout the district. In addition, the inventory model provides the district with the opportunity to look at areas where we can purchase a district license as opposed to many individual license. The inventory will also allow for version control and a hope of eliminating outdated software programs. Evaluation of the effectiveness of software programs takes place now and the demand for higher tests scores is pushing the envelop for additional monitoring.

How will we know we are getting there?

We will know that we are getting there when we do not have software installation requests that we have not seen. And, we are using software that is aligned to curriculum, is a current version and can be used in all locations throughout the district.

How will we sustain focus and momentum?

The master list of software will be regularly reviewed by the Instructional Technology Department to insure that the product still meets the curriculum standards as well as the most current version. The process evaluation will result in a current list of software for the district to choose from, rather than the purchase of something new to meet each individual schools needs.

4.5 Security

1. **None:** Organization does not have any of these policies or securities in place.
2. **Minimal:** The basic functions are present, but not all layers are addressed.
3. **Adequate:** The basic functions are present and all layers are addressed and integrated.
4. **Advanced:** The basic functions are present, all layers are addressed and integrated, and proactive monitoring with security response and forensic log analysis procedures are in place.

	Where are we now?	Where do we want to go?
AUP (Acceptable Use Policy)	Yes	Yes
User Account management and network authentication policies	3 - Adequate	3 - Adequate
Security zones	3 - Adequate	3 - Adequate
Wireless network security policies	3 - Adequate	3 - Adequate
Central log mechanism and review policy	3 - Adequate	4 - Advanced
Incident response procedures	3 - Adequate	4 - Advanced
Network security	3 - Adequate	3 - Adequate
Host Security	3 - Adequate	3 - Adequate
Data security / integrity	3 - Adequate	3 - Adequate
Anti-virus software	3 - Adequate	3 - Adequate
Spyware	3 - Adequate	3 - Adequate
Firewall	4 - Advanced	4 - Advanced
Filtering	4 - Advanced	4 - Advanced

How will we get there?

With the enormous amount of system logging, the district is planning to incorporate security logging management tools to automatically aggregate, identify, prioritize and mitigate security threats. Logging activity from firewalls, IPS, wireless, DNS servers, routers and switches and other sources will be directed to a centralized logging appliance to improve the ability to quickly identify malicious activity and the incident responsiveness.

How will we know we are getting there?
The IT department understands the significance and the importance of the network security and network performance. CCS currently runs with a 99.9% network up time. When network issues occur, they are quickly isolated and re-routed with minimal interruption to the users.

How will we sustain the focus and momentum?
Maintain high availability solution for the network. Continually monitor network traffic.

4.6 Technology Support and Management

Support Ratios (1:n)

	Where are we now? (1:n)	Where do we want to go? (1:n)
Support Staff to Students	1:3933	1:5000
Support Staff to Teachers	1:300	1:50
Support Staff to Computers	1:1800	1:3000
Support Staff to Buildings	1:12	1:2

	Where are we now?	Where do we want to go?
Average Response Time (Days)	2	2
Service Level Agreement (SLA)	Yes	Yes
Full-time technology coordinator/director	Yes	Yes

How will we get there?
The current break/fix staff for CCS technology is sufficient, the issue we are facing is the age of the equipment and the availability of parts. As we continue to roll out the thin client technology in the virtualized environment, the fewer hours the team will spend in the field. Computers will simply reboot or remote control access will allow for a more efficient issue resolution. In the new environment, PCs will be "swapped" as opposed to down for any length of time for repair.

How will we know we are getting there?
Employee/user satisfaction is directly related to help desk SLAs. As we institute the thin client technology and consolidate software packages, we expect to see a significant reduction in help desk and field calls.

How will we sustain focus and momentum?
CCS will continue to strive to meet the growing demands of wireless technology, software, etc. to provide students with access to the technology they will be using once they leave the district. This will be done through budgeted funds as well as through grants and special funding. In addition, provide training and support as we transition to the newest technology, ensuring that the user community is comfortable and satisfied with the new equipment and environment. Professional development will be conducted through the field team, on line tutorials and the vendor where appropriate.

4.7 Total Cost of Ownership

None - This factor is not accounted for in the cost analysis.
Some - This factor has cursory consideration but is not a primary decision driver.
More - There is deliberate consideration for this factor, but it may not always be a primary decision driver.
Extensive - This factor is always considered in cost analysis and is a primary decision driver.

Process

	Where are we now?	Where do we want to go?
Vendor Relationships	Some	Extensive
Procurement Plan	Some	Extensive
Specifications/Requirements/Fits Analysis	Some	Extensive
Integration of donated time, materials or services	Some	Some
Deployment/Installation plan	Some	Extensive
Initial Training and Professional Development	Some	More
Evaluation of current external support costs versus new purchase	None	Extensive
Loss of institutional knowledge for replaced systems	None	Extensive
Phase Out/Replacement cycle	None	Extensive
Disposal costs	None	More

How will we get there?
Total Cost of Ownership (TCO) is a concept that was not readily acknowledge in the district in the past or today. Most technology is purchased based on functionality with little attention given to how it would perform or be maintained in the district computing environment. While functionality plays a major role in the products acceptance and use, the district is beginning to adopt TCO in the purchasing process.

Our new model introduces the concept of total cost of ownership of the district's disparate information systems and data through direct alignment of managing the academic department's interest and that of the rest of the district's business interest supported through an infrastructure delivery model to achieve the mission of the district.
Benefits of a converged managed IT Portfolio:

Academic
• Improved decision making
• Better information
• Better integration
• Improved quality

Strategic
•   Alignment with Superintendent goals and objectives
•   Alignment with Academic goals
•   Innovation

Transactional
• Reduced cost
• Increased usage of the "pipe"

Infrastructure
• Business integration
• Business flexibility and agility
• Reduced IT cost over time
• Standardization

How will we know we are getting there?
Evaluation of our efforts to identify TCO will be reflected in budgeting and management of resources. We have been tracking, for the last several years, maintenance and support costs of many technology solutions purchased by the district. This will allow us to report back to departments the on-going costs of supporting the solutions. In addition, we will be instituting technology that will be more cost effective to the user community.

How will we sustain focus and momentum?
TCO will be the focus of all of the technology decisions of the District. It is important for the entire district to understand all of the components that go into technology projects as well as infrastructure maintenance and enhancements. The business operations have very definitive need to progress with integration of new technology solutions that will provide greater efficiencies within the operations. However, a very distinct need

prior to any technology upgrades and integration requires a comprehensive review of the business processes and current applications within the business portion of Columbus City Schools. Create goals that establish a customer service, business alignment.

• Continuous communication with business units and Executive level management regarding mission and goals.

• Partnering with the various business units to continuously improve the technology solutions being developed and/or acquired to address the changing business needs, the needs of instructional educational.

Budget and Planning

5.0 Budget

Sound budgeting is important for your technology plan; not only to project future spending and funding, but also to meet requirements for various private, state and federal funding opportunities. It is recommended that a representative from your treasurer's office be involved in completing this phase.

	Where are we now?	Where do we want to go?			
	Current Fiscal Year	2009-10	2010-11	2011-12	Total
Network/Telecommunications Services	1,420,000	1,420,000	1,465,000	1,510,000	**4,395,000**
Hardware	2,000,000	2,000,000	2,000,000	2,000,000	**6,000,000**
Student Data Administrative Systems	150,000	150,000	170,000	190,000	**510,000**
Software	960,000	960,000	1,000,000	1,030,000	**2,990,000**
Security	75,000	75,000	80,000	85,000	**240,000**
Technology Staffing/Support	6,900,000	6,900,000	7,200,000	7,500,000	**21,600,000**
Professional Development	10,000	10,000	15,000	20,000	**45,000**
Consumables	575,000	575,000	600,000	625,000	**1,800,000**
Additional					**0**
Total	**12,090,000**	**12,090,000**	**12,530,000**	**12,960,000**	

Provide details about your budget process. How did your committee gather this data? Have you included spending amounts for planned future technology hardware, software, professional development, or other services?

The technology department at CCS is not the only department that spends money on these items. Part of the Technology Committee's charge will be look at what we are spending as a district and try to minimize the servicing cost. The MIS department currently budget as follows; salaries and overtime, required costs (CCS budgets 100% of all costs that may be reimbursed through a grant and/or Erate dollars), estimated operating costs (supplies, paper, etc.) and then projects. The projects are budgeted with any other department that is working on the project. Once the initial budget is done by the department, it of course makes it way through several iterations before the final budget number is set. At that time the MIS team gets back together to determine where adjustments can be made to the plan.

How will we get there?

CCS is currently looking at a number of internal solutions to cut costs and maximize what can be done to advance computing solutions in the schools. Included in this list are staff allocations, alignment of Erate funds to new initiatives, bond money in future building plans, etc. In addition, we are working closely with schools to wisely spend grant and Title funds on the technology that will most accurately align with the curriculum needs of the district. Budget is a challenge and the CCS technology groups will strive to stretch the dollars to remain in a growth mode as opposed to a maintenance mode.