

Educational Technology Plan for Conneaut Area City SD - 043810

School Years:

2009-10

2010-11

2011-12

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Pre-Planning

1.0 Establish Technology Planning Committee

Principal
 Superintendent
 Teacher
 Technology Coordinator
 Technology Support
 Other

Approvers:

Brian Chase (Technology Coordinator/Director)
 Linda Bryan (Treasurer)
 Kent Houston (Superintendent)

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?

After reviewing our Technology Plan that was approved from 2006 - 2009, many goals have been met or have enhanced student learning and teaching behaviors.

Many of the goals that were outlined in the previous Technology Plan as still relevant, and will continue to be used in the coming years in the Conneaut Schools.

Technology strategies for inclusion in to the classroom is based around the individual staff member(s). Common planning time has been made available in order to per mote discussion of how tools such as technology can be integrated in to lesson planning.

Professional development has also bee implemented in order to have staff trained on technology related equipment. The thought is, in order to have inclusion of technology, we must have a educational staff that feels comfortable with the use of technology as a tool. We do not feel that technology alone is the end, but the means to an end. The professional development is key in order to allow the flow of available technology into the hands of a trained staff.

Sadly, funding for such professional development is scarce. Most technology related professional development is only accomplished because of the funding that the state provides.

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?

The Conneaut Schools has been very progressive in our implementation of technology. New needs in the form of training and equipment arise every day. Because of the immersion in technology, support of these systems is very much in demand. If asked about unexpected outcomes, support has become a valued commodity.

Additional unexpected outcomes have come in the form of student usage and familiarity with the technology that has been implemented. In some cases, we have found students that have a much higher level of knowledge over the use of technology compared with our educational staff.

1.3 Vision/Mission

A. Vision

B. Mission

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 district'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.

- 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	2009-10
Fine Arts	In Progress	2009-10
Foreign Language	Not Started	2009-10
Mathematics	In Progress	2009-10
Science	In Progress	2009-10
Social Studies	In Progress	2009-10
Technology (specific course)	In Progress	2009-10
Other Content Areas	In Progress	2009-10

- 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?

Hinkle (20090526)

Through research and common planning time, teachers need to enhance their current lessons with technology and to see where technology can fit into their curriculum. Use of the ACOT will help to identify key area which need to be aligned.

Identified key components which need strengthen academically has been and will continue to be a focus of the Ohio Improvement Process (OIP) team which is comprised of major stakeholders at the building and district level. Respectively the building level team (blt) and the district level team (DLT) will maintain a constant vigilance over one another throughout the process. The OIP will speak to the necessary components which are required in order to ensure student success. If technology is required it will be provided in the final analysis provided by the building's by June 15th. The summarization of the analysis will appear in the district CCIP.

To date, a major need to increase many already current technologies and introduce others has been reviewed, discussed, and selected by the OIP teams and will become a significant focus of the CCIP for school year 10. However other initiatives may be forth coming. To these will be added significant PD in the areas of Math, Science and Special Education at all grade levels.

In Conneaut technology instruction is recognized as a embedded piece to any healthy PD and it has over the years and will continue to be embedded in its development and support of team-chosen curriculum areas; again via. the OIP process.

Hopefully, this year more than any other will provide financial opportunities which will permit the significant increases of integrating SmartBoard technologies, uses of overhead projectors & ELMOs, interactive IEP/ETR writing, collection dissemination, and implementations which allow for the continue progress monitoring of the protocols required by Special Education. All of these will be for PreK-12.

In reading DIBELS has been and continues to be a large part of the reading program for early intervention strategies (K-3) which includes progress monitoring. The new school year will require PD for the introduction and implementation of the new progress monitoring tool for Math, also of the DIBELS family.

Significant emphasis needs to be placed on identifying instruments which will support the OIP teams in their decision making. Current ones, like the ACOT together with data which is scrutinized for the OIP will increase the correct usage and appropriateness of technology for the classroom and PD settings and will provide assurances that the correct information is being taught.

How will we know we're getting there?

Hinkle (20090526)

District progress will be aligned by using the processes identified through the OIP. Key stakeholders have already formulated a technology team, which will hold meetings monthly to support the appropriate alignments between curriculum needs and technology supports.

A survey will be provided on-line which will permit other stakeholders who are not part of the "team" to provide their input in a timely fashion.

Monthly common grade-level assessments which have been directly aligned to Ohio's standards and the OAT/OGT components for district-wide testing will inform all instruction. Monthly evaluation of the monthly assessments will quickly point to the areas of strength and deficit which are common within grade or building levels.

How will we sustain focus and momentum?

Hinkle (20090526)

PD, monthly team meetings, the rudiments of OIP at building and district levels, and monthly review of technology use together with on-line surveys and the ACOT will drive the information about technology needs in the Conneaut Schools.

A major effort will be provided to access staff's development with basic technologies, and PD will be provided for those who are may demonstrate an inability to be competent with various technologies. The assessment will be driven by the monthly technology plan, after a careful review of other school district means by which they have addressed this question.

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	2.0	3.0
K-2	4.0	4.5
3-4	3.0	4.0
5-7	3.0	4.0
8-10	3.0	4.0
11-12	3.0	5.0

How will we get there?

Hinkle (20090526)

The needs assessment, goals, strategies and related PD will have been developed by the OIP teams at the building and district level. Buildings are required to identify and implement strategies which directly align to that of the district. Hopefully, the monthly technology team meetings will include a best-practice forum to better address advancements in teaching, learning, and student achievement.

In particular, Reading will be further enhanced through the technology found with DIBELS, SmartBoard classroom uses, facilitating the proper usage of PDA, and efficient usage of the Waterford systems.

PD will also support the enrichment of curriculum needs for non-traditional learners. In the past the district has had only identified children through the IEP process using the program known as PLATO learning. Next year the district hopes to expand the program to include more children, create a home-base learning program using PLATO, and become competitive with those entities which threatened our funding allocations.

Next, a team of stakeholders has chosen a new Math curriculum. In working with Title One buildings as well as our MS and HS, all have indicated a need to marry technology to a progress monitoring of data in a systemic manner. To date, most inquiries have been about DIBELS_Math. The district hopes to explore what is needed in cost and PD to implement such a program. Together with DIBELS, the district intends to purchase many calculators to match Ohio Standards and the dictates of the district's new math curriculum. To do this, PD will be required in the correct use of the calculators.

Of course all activities will be held in close proximity to the school district whenever possible. In fact this summer, a PD with Margaret Searles is being held in our MS campus building because of its readiness to the technology that will be required as part of the PD.

Technology will be enhanced through stand-alone opportunities, opportunities with newly develop text book publishers, the DIBELS math and reading faculties, on-site and off-site workshops, and during already established job-embedded PD for reading and math.

Applying word processing, desktop publishing, and presentation software (PowerPoint) to learning environment will be utilized to support the real-world relevance of technology applications.

As a standard of proof of the current integration and progress of technology in English Language Arts, the Conneaut Schools will continue to use programs related to this filed of study. Such indicators of success will be the adequacy and quality of the learning technology programs used to assist the learning process.

Programs such as TurnItIn.com will continue to assist in the determent of plagiarizing and help students prepare successful papers now and in the future.

How will we know we're getting there?

Hinkle (20090526)

To support math language, data will be collected from DIBELS; math DIBELS however is pending. Needs and instruction will also be informed by data gathered from common monthly assessments, results of electronic and/or printed portfolios, teacher and grade level achievement tests, and results of the last school year's results on the OGT/OAT.

In addition, goals and strategies which are relevant to this process would be those directly in alignment with the CCIP and OIP, therefore using these processes will help to identify success or non-success of action-steps, or to identify newly development ones.

How will we sustain focus and momentum?

Hinkle (200905126)

Using yet-to-be determined rubrics to ascertain staff's true development with technology and to vindicate technology uses will help with the ability to identify and acquire emerging technologies which will enhance and support student achievement. Other devices such as DIBELS, Waterford, OAT/OGT, common monthly assessments will also support a means by which to evaluate the integrations needed.

However, it is imperative for the monthly Technology team to review together with stake holders of the district OIP team as to the kinds of data and the means by which to collect data to support whether or not technology has been appropriately utilized, evaluated, and integrated.

Certainly, school district administrators and district OIP stakeholders will become key components of this development.

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	1.0
K-4	1.0	1.0
5-8	2.0	4.0
9-12	2.0	5.0

How will we get there?

Hinkle (20090526)

A careful review of current technology standards in direct correlation to fine-arts needs to be developed which is concomitant to the OIP process, all documentation for trainings and attendance will be electronically maintained.

An online survey will be developed and sent to educators to begin the process of developing a district baseline for not only fine arts but other areas as well.

A needs assessment will be conducted utilizing the OIP processes specific to each building prek-12. At this time, those goals have yet to be established. Time does not permit, however by October 30, 2009, teams will have met and supported a clean needs assessment for this particular area.

Using the OIP process will allow data to speak to, or to be developed which would permit , a smoother integration of technology into the classroom.

Part of the assessment preparation will be provided by the district technology department to support accurate reviews using the methodology in ACOT. PD will focus on ACOT understanding, uses, and implementations.

Upon completion of the ACOT, using research and teachers common planning time, the fine arts teachers will identify key areas, match them to technology and technology standards.

Lessons will incorporate one technology standard. Clearly, professional development will be needed to make sure that the teacher has the needed skills to enhance the students learning with technology in the area of fine arts.

District team will review what are best practices through the support of local universities and the ESC to identify and rank order common to extra-ordinary methods which will improve fine-arts teachings.

Upon completion of the exploration of methods, select methods will be identified to utilize with selected standards. Teachers will be trained in the correct applications to support those standards.

How will we know we're getting there?

Hinkle (20090529)

In order to know that we are accomplishing what we need to, it will be necessary to reflect on our lessons individually and with our co-teachers. An in-house rubric will need to be established by the fine art teachers which will be developed in cooperation with the district Tech team. By reviewing and sharing what goes on in the classroom through a careful analysis which may involve practices such as ACOT, it will be easy to determine if we are on the correct path in order to meet our set goals. Part of the evaluation will include a survey of parents, students, and staff (no more than 5-7 items) after each lessons for a set period of time yet to be announced. This will provide information and perspective into how successfully technology is being addressed in the fine arts classroom.

How will we sustain focus and momentum?

Hinkle (20090529)

While the district is proud of the many fine technologies that are available to enhance student learning and teacher's ability to help students learn, there is always room to grow.

It is not easy to speak of sustained focus and momentum until such time a base-line has been established which had been spoken to earlier. In accordance with baseline, the ACOT prescribed courses, each building

together with its OIP team will be required to identify its need to enhance learning.

Certainly, when two buildings are part of a Title one funding stream, PD will be available to support those identified needs. The Middle School and High School both of which are not title one funded will have funds set-aside to support PD in technology supported areas.

Last year we had identified the increased usages familiar to In order to sustain focus and momentum, we need to have software that can be used in the fine arts classrooms such as drawing programs, music composition programs like Finale, PowerPoint presentations and more access to computers for fine arts students. We will also need to keep up-to-date with changing technology through programs, classes and other sources.

In order to accomplish this goal, administration will be held accountable to support staff and students whenever possible in the use and understanding technology with in the learning environment. This will be done by continual communication with the technology coordinator on the support and implementation of technology uses within our district. This will be done in order to meet the Academic Content Standards K-12 in the use of technology in our district and as required by the state of Ohio.

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	N/A	N/A
5-8	1.0	3.0
9-12	3.0	4.0

How will we get there?

Hinkle (20090602)

Students use word processing and PowerPoint to enhance learning in the foreign language classroom. Teachers regularly share ideas within the department to enhance their teaching strategies. Professional development in this area is still welcome and needed.

How will we know we're getting there?

Hinkle (20090602)

Although this area is not tested on the OGT or achievement tests, the use of electronic portfolios will be used as a tool to get feedback on instruction.

How will we sustain focus and momentum?

Hinkle (20090602)

Continued support and professional development along with the purchase of software specific to foreign language would help teachers continue to utilize technology to achieve student learning goals.

In order to accomplish this goal, the district tech team will have a responsibility for accountability and support to staff and students when ever possible in the use and understanding technology with in the learning environment.

This will be done by continual communication with the technology coordinator on the support and implementation of technology uses within our district.

This will be done in order to meet the Academic Content Standards K-12 in the use of technology in our district and as required by the state of Ohio.

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	1.0
K-2	1.0	2.0
3-4	1.0	2.5
5-7	1.0	3.0
8-10	1.5	3.0
11-12	2.0	4.0

How will we get there?

Hinkle (20090603)

Mathematics will have undergone a major change driven by the school's Supt. and the district's math curriculum committee. School Year 10 (SY10), will see a new curriculum and a new way of doing math business, Prek-12.

What this means for the building leadership teams (blt) is a review of what has been working and has not. It will be important to establish, using the OIP process, the collections of technology which will be required beyond what we already know to support teaching and learning with the new curriculum. After suggestions and recommendations have been made to the blt, the DLT (District Leadership Team) will need to review to be sure the goals and recommendations are directly aligned to CCIP and to identify needed PD. Some suggestions will undoubtedly include a recommendation to improve technology available to Title One buildings due to the funding streams of ARRA.

At this writing PD for ELMOS, SmartBoards, Waterfords, and DIBELS reading and math will be necessary. All PD will be job-embedded and provided systemically throughout the school year. PD must align to the ODE Math standards set for each grade level. All identified educators will be required to attend PD in September and throughout the remainder of the school year, it will be job-embedded and offered during school hours.

Also, after-schools parent connection projects are needed. The district needs to provide parents an opportunity to understand the new curriculum and its technological ramifications for them and their children both in the classroom and at home. Parents, via. technology must be provided information for them to better understand the link between technology and the new Math curriculum. Parents must be given PD opportunities to be able to work with the information that will be available to them through the Math publisher and recommended web links. This will give them an understanding of what will be occurring in the classroom for their students as part of the PD trainings.

For educators, specifically teachers, PD will be required for ELMOS, SmartBoards, calculators, Waterford products and other related instruments to the new Math series. PD will be used to introduce new products, reinforce usages of older technologies, and supportive in classroom coaching via. the technology department for others. In summary, PD will be provided that is both internal and external to the classroom experience.

Some of these efforts will be strengthened by using supports from the local ESC/SST and will be driven through the processes known throughout the district as the OIP. Training will take place on site in the educator's school building or the district's PD room.

"Although graphing and scientific calculators are used extensively in mathematics classrooms, the use of other technologies is woefully absent." This was a statement written as recently as last school year as part of technology planning. However with the implementation of a new math curriculum, and the implementation and on-going development of projects to support goals which are highly scrutinized and defined through OIP, much will be done to increase what is "woefully absent". This will be especially true for the Title One buildings; ARRA funds will make a dramatic difference for technology-driven ideas sy10-11.

Professional development on the integration of spreadsheets, internet research, and/or other software specific to mathematics is necessary to enhance student achievement.

As a standard of proof of the current integration and progress of technology in Mathematics, the Conneaut Schools will continue to use programs related to this filed of study. Such indicators of success will be the

adequacy and quality of the learning technology programs used to assist the learning process. Programs such as Algebra 1, Algebra 1, and Geometry learn software by MCDougal Littell.

How will we know we're getting there?

Hinkle (20090603)

Evaluation of successes and deficits will occur by looking at relationships established when connections are made between district OAT/OGT data, common grade assessments, and blt & DLT reviews as part of the on-going OIP processes.

Interim data/feedback will be collected, too both from all stakeholders. Linkages will attempt to be made which prove student outcomes and technology supports. This will come from surveys, classroom activities, and traditional teacher evaluation strategies.

It is recommended that teachers are given a defined evaluation opportunity to demonstrate their techno-know-how. The staff technology evaluation instruments (STEI) would clearly demonstrate an individual's ability to access and utilize technology correctly in the classroom. PD would then not be limited to only introductions of new "toys" but would increase opportunities for training for those who require basic-skill development, or skill development for identified on-going growths areas. Its recommended that a plan be developed that would resonate the same as the goals which will have been identified using the OIP process. Using an information survey, PD facilitators would have the information that is needed to identify areas requiring PD support. Summarily, all staff would have areas of growth that could be addressed in an effort to acculturate each building with an operational staff, not just a few, but all. This would cut down on repairing and using technology supports and equipment.

All staff, prior to day one of school will be sent a survey to address individual classroom needs using information obtained from ACOT, and some of the linkages found through PBS (in particular)

Much of the information will be accumulated using technology. Either responses to electronic questions, or survey will be utilized to gather the needed information. The district and buildings teams will be permitted to review as is deemed necessary and within the parameters for staff "privacy" as dictated by district policy and the will be collected using surveys and ongoing PD progress notes at the end of each PD session. Utilizing the information gathered from a "Survey Monkey" process will support an ability to gather information which will support quality survey support for PD linkages between what are current perceived and current real needs.

While an "I let you know its broken and you fix it" has been the current practice, more is needed. Teachers and staff people (plural) should have PD which will support their interdependent usage and maintenance of technology. Most people are dependent on the technology to fix even minor issues. Currently, coaches utilized for reading initiatives and Building principals have been trained in the correct supportive measure for teachers in order to implement correctly and proficiently technology in the classrooms. This must be expanded to include opportunities for people who are regularly engaged in technology uses to be knowledgeable and skillful about fixing minor issues.

As teachers and others become more proficient there will be fewer calls to fix the "cuts and scrapes". As teachers become more proficient in the use of technology, students achievement scores will rise, and parents dialogue about using technology will increase.

How will we sustain focus and momentum?

Hinkle (20090603)

It is our primary belief for the Conneaut Schools, that both learning and teaching are enhanced through the carefully planned and strategic uses of technology as part of sustaining the proven momentum of learning as well as the provision of internal and external PD for all staff.

In particular a routine model has evolved in our K-3 buildings, through the funding streams that were at one time available through a Reading First initiative. As such, laptops, SmartBoards, Waterford, Reading_DIBELS, and e-learning modules have become common.

In light of this, most educational provider are housed and provide services in Title One buildings who were recipients of the numerous opportunities available through Reading First. All current staff has been trained and

continue to receive updates and reinforcements in known technology areas just mentioned.

Again, much of the supervision is provided through Reading First initiatives by ODE's Office of Literacy. Often the district's technology department, we find, will coach teachers as to what they can do to eliminate or prioritize a technology problem. Too often the technology department is providing services which are in part not only support technology integration but will encourage future developments. Revision is key to the foundation of the department and its integration with curriculum. But as mentioned in earlier statements, the key to supporting the integration is a Technology Team which operates in close proximity in style and product as does the blt or DLT would using the OIP model.

Our primary goal is to identify and integrate (funding) technologies which will support the areas already discussed or identified by OIPs. Using the OIP model the district will correctly identify needs that are data driven for teaching, learning, and related PD opportunities. As part of a means to strengthen data gathering information will be selected from earlier discussed surveys, from data process by blts and DLTs, from common grade assessments, and the OGT and OAT results. Feedback from these resources will direct our focus for future professional development needs.

To accomplish this goal, administration will be held accountable to support staff and students whenever possible in the use and understanding technology within the learning environment. This will be done by continual communication with the technology coordinator on the support and implementation of technology uses within our district. This will be done in order to meet the Academic Content Standards K-12 in the use of technology in our district and as required by the state of Ohio.

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	1.5	3.0
K-2	1.5	3.0
3-5	1.0	3.0
6-8	2.0	3.0
9-10	3.0	3.5
11-12	3.0	3.5

How will we get there?

Hinkle (20090602)

The typical classroom shows a daily infusion of learning websites, opportunities available in Title One buildings such as DIBELS, Waterford, e-learning modules, the sustained uses of Skill Steaming, Plato Web Learning and United Streaming. Established patterns of administrator, teacher and student uses are evident and act as a standard of proof of the current integration and progress of technology in every day practices which include evaluation, teaching and learning of reading, math, science, social studies, writing, foreign language, special education services & service-delivery, and language development.

This year saw for the first time, a consistent use of technology to score a multitude of special education re-evaluation and evaluation. The special education department report a major decrease in paper work as a result while increasing its proficiency in identifying correctly students in need.

The Conneaut Schools will continue to use programs related to these field of study as it strengthens others; PD is job-embedded and ongoing. Nevertheless, indicators need to be established for the upcoming school year which will continue the pattern of growth which has been established. These newly formulated indicators of success will have to improve upon the adequacy and quality of the learning technology programs used to assist the learning process, and the identification and evaluation processes. *Programs such as Probes and microscopes are used in the high school chemistry & physics classes. Other grade levels may use PowerPoint presentations, word processing, graphing calculators, and internet research to enhance student learning in science.

Together the blt & DLT (processes of OIP) will assist teachers to identify PD activities. In order to involve most stakeholders, PD will be provided on-site during the work day. Keep in mind that OIP will directly be reflected in the CCIP process as well.

Last school year saw the Title One buildings upgrade their labs and related materials. Next year a focus will be to utilize monies to support patterned growths earlier discussed, in particular Smart Boards will be added with accompanying training, Elmos and calculators will be provided for each teacher engaged in math instruction and PD will be made available for each.

Evaluation for the PD themselves will come from an on-line survey which will be patterned after those available from our local ESC and SST providers.

How will we know we're getting there?

Hinkle (20090602)

Using the OIP processes, the DLT (District Leadership Team) will have a direct responsibility for reviewing information as it pertains to each of 3 core areas, Reading, Math and Attendance.

PD will be provided for each area, and growth in the CCIP goals for the district and building will be monitored according to those plans. They will be able to tell whether or not technology integration has supported student learning as will teacher-made survey. To summarize, the SITE Team (Specialized Integrations of Technology and Education) which is designed from those processes similar to the OIP will be meeting monthly throughout the school year to identify matches between successful and non-successful integrations. Information gathered by the SITE team will be reviewed by blts and DLTs.

How will we sustain focus and momentum?

Hinkle (20090602)

Professional development at all levels is required--especially if new technologies (e.g. Smart Boards, Math DIBELS, etc)are acquired for classrooms. As part of PD, each teacher will be required to review the technology goals which are a part of their grade level assignment and to track examples when a particular benchmark has been taught. Again the SITE team would have a governing interest in helping teachers with quick access and collection of data for this information.

The SITE team will be accountable for helping students, staff, parents, and administrators have a better and sufficient understanding technology within the learning environment. This will be done by continual communication with the technology director about the support and implementation of technology uses within our district. This will be done in order to meet the Academic Content Standards K-12 in the use of Technology in our district and as required by the state of Ohio.

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	2.0	3.0
K-2	2.0	3.0
3-5	2.0	3.5
6-8	3.0	4.0
9-10	3.5	4.5
11-12	3.5	4.5

How will we get there?

Hinkle (20090606)

United Streaming is the most frequently used technology tool in the social studies classroom. Some staff are able to integrate internet searches, PowerPoint presentations and/or word processing to enhance student

learning goals.

As a standard of proof of the current integration and progress of technology in Social Studies, the Conneaut Schools will continue to use programs related to this field of study. Such indicators of success will be the adequacy and quality of the learning technology programs used to assist the learning process. Programs such as United Streaming will continue to be used. Also, the addition of a long distance learning system will be available for remote connections to areas such as NASA by utilizing an on-site Poly Com system.

How will we know we're getting there?

Hinkle (20090606)

Grade level achievement tests, monthly assessments, and the OGT will help us monitor the progress students are making on their learning goals. Alternative assessments such as electronic portfolios will add additional feedback into student achievement.

Much work is needed to integrate Social Studies with technology and with learning. One of our lowest OAT scores is found in this particular discipline.

Our OIP teams will be taking a closer look at what has been occurring and why our students are remaining unsuccessful. Careful integration of standards which inform instruction will have to be revisited monthly (Assessment Mapping), and with the introduction of other technology for other disciplines, the SITE and OIP teams will have to be involved in making progress towards measured and monitored goals and objectives.

How will we sustain focus and momentum?

Hinkle (20090606)

On-going professional development which is aligned to OIP and SITE goals and objectives will be required to keep staff current on the implementation of technology relating to this specific department. Up-to-date material by using "live" sources as the Internet will allow us to keep current and relevant information available to our students.

In order to accomplish this goal, administration will be held accountable to support staff and students whenever possible in the use and understanding technology within the learning environment. This will be done by continual communication with the technology coordinator on the support and implementation of technology uses within our district. This will be done in order to meet the Academic Content Standards K-12 in the use of technology in our district and as required by the state of Ohio.

Again, a constant monitoring and supervision is needed to support better opportunities for students to be successful in passing social studies OATs. The monitoring and supervision will help to integrate what teachers are working with in the classroom, and answer the question about what is needed for technology to support.

Certainly, one of the first goals of the SITE team will be to address the kinds of methods or methodology that is present with successful school sites which are similar to ours. At this writing there is not enough information about what works or doesn't work that is specifically technologically-based with Social Studies.

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	2.0	3.0
3-5	2.0	3.5
6-8	3.0	4.0
9-10	3.0	4.0
11-12	3.0	4.0

How will we get there?

Hinkle (20090606)

The addition of formal computer instruction (especially keyboarding and beginning word processing) at the K-5 grade levels would help facilitate the implementation of technology into other curriculum areas.

Interdisciplinary activities at all levels could then be used to integrate and reinforce student learning goals.

Currently the technology department is integrating current technology standards into the way day to day activities are handled. In the Conneaut Area City Schools it is our mission to further learning and understanding of the uses of technology. With the stable implementations of technology, we will be better suited to make gains in the use of technology in the classrooms and in the office environments. A major focus now and in the future will be to provide our staff with detailed and professional training on the hardware and software solutions that are implemented to further student achievement.

While this is true for the department, there is a strong concern that the dissemination of this information and other information like it requires a continued integration between OIP processes and teams and the team which needs to be developed, spoken through out as SITE.

Only with the integration of OIP and SITE, will the district be in a position to truly look at data and determine what are the needs of our students.

Without a doubt, Reading (using Reading First Processes), Math (using a new Math curriculum), Writing (again using rudiments from what has been learned with Reading First), Science & Social Studies (integrating data from a variety of sources) will need to be reviewed. The data other than mentioned earlier in other parts of this plan may not be enough.

It could perhaps be necessary to review and reinvent, if necessary, the kinds of data that is collected, in particular to marry meaningful data to improved Science and Social Studies. Summarily, both the OIP and SITE teams will be challenged to look at the kinds of data that is collected and to ask the tough questions about is this truly data that supports learning about the integration of technology, or is this data simply being used to meet a compliance issue with ODE.

Until data decisions are made, we are unable to decide on the kinds of PD that is necessary, again beyond that which already was discussed in earlier chapters. When PD is offered, it will become part of a district plan as

there have been many administrative concerns expressed about the need to integrate PD with a teachers work day, and a student's learning day in such a way that there are as few non-teacher-instructional days as is possible. Remaining cognizant of the need to integrate all PD throughout the school year will help drive the integration of technology. Regardless, PD will be job-embedded and offered throughout the staff member's work day. Electronic sign-in sheets will need to be developed, so all workshop information can be quickly maintained as a record, and ease of dissemination as well as participation documentation will be quickly accessible.

How will we know we're getting there?

Hinkle (20090606)

The usual evaluation methods (grade level achievement test, assessment tests, and OGT) are not going to be as helpful monitoring our progress. Alternative methods such as electronic portfolios, student logs, and the interdisciplinary use of technology will need to be employed.

The SITE teams should discuss and review the ability for teachers to utilize electronic portfolios and other quality student information gathering systems.

How will we sustain focus and momentum?

Hinkle (20090606)

On-going professional development that demonstrates grade-level application of technology would be the most beneficial to teachers at all grade levels.

We should continue our offerings of hands-on professional development (word processing, spreadsheets, databases, PowerPoint, etc.) to staff at all grade levels. As teachers become more fluent with the technology, they will better see its applications in the classroom.

In order to accomplish this goal, administration will be held accountable to support staff and students whenever possible in the use and understanding technology with in the learning environment. This will be done by continual communication with the technology coordinator on the support and implementation of technology uses within our district. This will be done in order to meet the Academic Content Standards K-12 in the use of technology in our district and as required by the state of Ohio.

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	Adoption	Adoption
B. District wide program providing data or administrative systems to schools (e.g., fiscal databases, student assessment results)	Transformation	Transformation
C. Technology-related facilities design, equipment and software	Adoption	Exploration
D. Technology acquisition and standards	Transformation	Transformation
E. Research and evaluation of educational technology initiatives	Adoption	Exploration
F. Development and dissemination of educational technology devices, applications and approaches	Exploration	Exploration
G. District funding for educational technology	Awareness	Exploration
H. Equity and access to technology	Adoption	Exploration

How do we get there?

District policies relating to technology are built on current implemented situational strategies, or forthcoming instances that may need a governing procedure in place prior to launching of a specific technology, or support structure. The development of such procedures in relation to technology are headed by the Superintendent, Building Administration, and the Director of Technology.

The Conneaut Area City Schools technology policies will be and are driven by District Administration and the Director of Technology relating to issues of proper enforcement of school technology policy. Technology policies will be and are developed by District Administration and enforced by the Director of Technology. We will be implementing a systemic approach to policy development, which will better position our district to analyze and enhance the use of technology in the educational environment. We believe that in order to condition our staff in the use of technology, administration must be required to be a driving force in the adoption process of governing technology policy concepts.

Components of an implemented policy are typically handled by the Administration and governed by the Director of Technology. Training and the gathering of policy related information is provided as needed by directly by Administration and Staff, however typically handled by the use of one of the following. Surveys, Moodle, Email, Handouts, or Professional Development Sessions.

How do we know we are getting there?

Upon initiation of new district technology policies, online surveys will be posted using the WebMonkey.com survey software. This will be utilized to gather plus/delta information about an instituted governance policy. Survey results will be reviewed and ratifications to policy then could be made if called for by administration.

Policy implementation results will be monitored during staff evaluations, and updated as deemed necessary. Implementation issues will be corrected as deemed necessary by administration. Newly created or updated policies would be submitted for Board review for adoption into district technology policy standards.

How do we sustain the focus and momentum?

Applied policies are to be supported by a district level hierarchy that will start with the Superintendent and the Educational Board. District technology policy will be filtered down to the governing building administration and staff. Expectations for upholding all created policies will reside on Building Administration and Building Staff. The Director of Technology is to oversee all implemented technology policy, and in addition to serve as a district proxy

for conceptual policy creation opposed to the actual implemented policies for feasibility in execution..

Survey tools such as WebMonkey.com will be utilized to provide current feedback and to allow policies to be kept up-to-date and relevant. Such tools will be required to help assist with the creation of new and emerging ways to help monitor the technology control process and associated policy. Internal review will need to be implemented in order to establish baselines on how effective or non-effective an enacted policy functions in a given environment.

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	Exploration	Transformation
B. Competencies/Standards (e.g. ISTE NETS-A)	Exploration	Exploration
C. Advocacy for technology	Exploration	Transformation
D. Measures and accountability for effective use	Adoption	Exploration
E. Role model in the use of technology	Adoption	Exploration
F. Professional development	Exploration	Exploration
G. Support for educational technology	Exploration	Transformation
H. Professional practice	Exploration	Exploration

How do we get there?

Action will be taken to provide training to district administration to help raise awareness of the technologies that are being used in their respective buildings. In addition a support structure will be implemented to empower the administration to advocate the use of technology in the classrooms.

Immersing administration in the use of technology and empowering better prepared technically savvy administrators we will be providing for a higher level of technology use and understanding in all our buildings. These actions in turn will allow administration to be role models for the use of technology in their educational community.

The goals and implementation procedures will need to be provided in professional development sessions. In addition personal training sessions on a per building as needed basis will be offered. Moodle servers have been implemented within our district to help assist with online training material, in addition to aid in technology implementations in the classroom as well and personal training in other related topics as well.

How do we know we are getting there?

Successful measurements of the implementation of technology will be attained by reviewing classroom successes, and the technological correlation to the alignment of that classroom to the policies and standards. All will foster technology alignment in the lesson planning.

Use of technology in the classroom will be directly reflection on the building administrations push to implement solutions for a data driven result based structures. Gathering of data and feed back about the implementations will be headed by district administration and assisted by the technology department to better gather information and make changes to instituted process if needed.

How do we sustain the focus and momentum?

Technology will be supported physically and virtually by district level technology administration and technicians. The leadership support will flow through district administration channels. This will include all avenues for professional development and evaluation and revision strategies.

By providing a strong training foundation and support program, a given technology will be better integrated with seasoned teaching and learning methods. District leaders are to seek out a balance of traditional teaching methods backed with the use of technology as a tool. Goals will be set within lesson plans and success of technology will be based on the integration that will allow for further success in instruction.

Professional development to administrations and staff will be provided by in house training and virtual training using the Moodle application. Such training will be held dependent to funding current received through varying grants

3.3 Technology Leader/Coordinator Time Commitments

	Where are we now?	Where do we want to go?
Strategic/Project/Action Planning	10%	10%
Acquisitions/Procurement	5%	5%
Deployment/Implementation of Technology	10%	10%
Maintenance & Repair	10%	10%
End-user Technical Support & Training	10%	10%
Curriculum Alignment & Instructional Integration	5%	5%
Fiscal Management/Grant Applications	5%	5%
Superintendent Cabinet/Executive/Board Meetings	20%	20%
Tech Staff Development & Management	5%	5%
Policy Development, Monitoring & Enforcement	10%	10%
Evaluating New/Emerging Technologies	10%	10%
Other	0%	0%
Total	100%	100%

Other (please describe):

NA - Not a chosen time allocation...

How will we get there?

A position review was done to gather what the Technology Director of the Conneaut Schools addresses on a daily basis. The information gathered has been included below.

- * Strategic/Project/Action Planning
- * Acquisitions/Procurement
- * Deployment/Implementation of Technology
- * Maintenance & Repair
- * End-user Technical Support & Training
- * Technology Related Curriculum Alignment & Integration
- * Fiscal Management/Grant Applications
- * Superintendent Cabinet/Executive/Board Meetings
- * Tech Staff Development & Management
- * Policy Development
- * Monitoring & Enforcement
- * Evaluating New/Emerging Technologies
- * Digital Transportation Route Planning

To properly implement time allocations, daily scheduling will be done for all appointments and projects. During mission critical events or outages, priority queuing will be used. Additionally professional development will be

used to retain highly trained staff to help achieve the above outlined criteria.

It will be considered best case practice to employ in house full-time trained technology staff. The preferred ratio would be at one Technician per building with one district level Director of Technology.

How will we know we are getting there?

We will be focusing on three elements when working on ways to measure and manage our districts progress: staffing, time, and money. We have also added a fourth element and is considered most important and it is the first and last task... First and foremost you have to manage the district project scope.

Project scopes are what the district project is supposed to accomplish and the budget (of time and money) that has been created to achieve the districts objectives. It is absolutely imperative that any change to the scope of the project have a matching change in budget, either time or resources. If the scope of a district project is changed, the project manager (Technology Director) would attempt obtain an appropriate change in budgeted resources.

When the scope of a project is properly controlled and progressing forward, feedback would be gathered to note if a change in a projects scope was in need of adjustment or total revision. Such feedback would be retrieved by the use of online survey tools after evaluations have been accomplished.

How will we sustain focus and momentum?

Sustaining focus and momentum will require the districts Technology Director to bring a realization and focus to staff involved in district technology implementations. By delegating duties, the Technology Director will be the acting project manager on behalf of the district. The act of delegating over projects the Technology Director will be better situated to see the over all picture and make scope changes as needed.

Key items that will be embraced will be the focus on the projects and how these projects will relate a support staff, students, and administration. By using empowerment, incentives, discipline, and negotiation we will remain focused in order meet our technology objectives.

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

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	No Changes
Internet Bandwidth	No Changes
Telephone Circuits	No Changes

How will we get there?

Objective Focus:

As in previous planning stages in prior technology plans a strong foundation in file and printer sharing had been implemented throughout our district. Further implementation will be sought after for all relevant staff employees of the Conneaut District. The focus in coming years will to enable a more detailed reporting system(s) to have a visual guide as to how the systems are being used. Based off this data, changes will be made to better serve the staff in using highly intuitive systems.

Objective Focus:

In reviewing the Conneaut Schools infrastructure many upgrades have been done since the inception of our new buildings. All switching is layer 3 and all interconnecting media including to the classroom connections are Gigabyte connections.

Future upgrades considered will be relating to wireless services throughout all our buildings. At this time we have spotted access for wireless systems. Future planning is to be done to do site surveys to gather needed data for access point placements in our buildings for blanket access. Additional research will be done to allow a higher level of security for wireless devices. It is our intent to provide the user friendly services, but in a responsible manner to provide the most secure network environment.

Network extension to the transportation garage will be planned in the summer of 2009. This is in response to the addition of a new transportation routing and management software implemented at the start of 2009. Funding for this fiber installation will be paid for by the district as is it not an eRate allowable item.

Additional repairs will start during the summer of 2009 to correct issues with network cabling that was run in conduit in the floors of our schools. This infrastructure repair has been scheduled and all repair dates have been set. The repair will include pulling of all old RJ45 to be replaced with a gel field cable that can withstand the dampness found in the floor conduit.

Objective Focus:

Voice Over IP - VoIP was provisioned and implemented during the construction phase of the new buildings in the Conneaut district. At the time of install the system was provisioned with the basic install and equipment. We will be seeking out possible upgrades to be done to the system in terms of functionality of the system as a whole. This item is an eRate item that is typically funded annually at a 72% discount.

How will we know we are getting there?

Objective Focus:

In order to keep all stakeholders abreast of current developments in technology, communication methods stem from district administrators, building administrators, and to staff. Weekly meetings are held with between the Superintendent and the Director of Technology to discuss the status of current projects and the general status of the department. In addition future planing is started at this level to be carried out as defined in all meetings.

Objective Focus:

Data collection will be done on a daily basis. Software tools have been deployed that monitor the infrastructure 24/7. Such items include the following.

- A: Email notification service for all equipment status updates.
- B: Active real time gauges are run to poll SNMP events.

- C: Network performance monitors.
- D: Syslog Servers.
- E: CISCO IPS Devises.
- F: Router CPU load gauges.
- G: Ticket system will be used to run report on all related service requests.

Indicators will be set as desired thresholds. Monitoring using tools described will provide the data required to make informed decisions. By reviewing data the district will be empowered to make informed decisions about our network services.

Objective Focus:

To provide a quality of service infrastructure monitoring has been valued to find problematic situations before they become performance related issue. Quality of Service is the back plane on which much planning is done prior to implementing and all services. VLAN's have also been a method on helping control rate flow and data layering at the switch levels.

How will we sustain focus and momentum?

Objective Statement:

Annually a sustained effort has been put in place to have the technology integration in areas that could be benefited by the use of a specific tools related to technology. With this focus, a related sustainability factor has been added with a dependence on such technology services. In order to provide a high return on investment and reliability, specially internal trained staff will be employed by the district in the area of technology by the Conneaut Schools to provide the mechanism to facilitate the dependability of services offered. These staff will be on site and available for immediate problem resolution(s) when the need should arise.

Objective Statement:

Furthering education will be promoted by the use of Professional Development funding and other related funds. Keeping pace with technology will take dedicated focus. In order to help on site staff in keeping current, reference material will be kept on hand to aid in staying current with training. Furthering education in technology related fields for staff will also be highly promoted.

Objective Statement:

All planning and evaluation will be a annual technology department focus. Reviewing past data and applying possible needs analysis infrastructure planning will be dependent on the need at the time. If a potential negative impact is uncovered related to capacity of services, an action plan would be put into place to deal with the needed project.

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)	1:6	1:4
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	Pervasive

How will we get there?

Industry technology standards provide a formula to determine the human resource skills necessary to support the total environment, and then translate this into real numbers based on full-time employees. The following variables and staffing ratios were established:

Workstations- Resources are required to install, maintain, track and update.

Resource estimate: $W/1000$, where W is the number of workstations.

Users- The number of users affects account administration, user training, and "how to use" assistance, documentation and configuration services.

Resource estimate: $U/1300$, where U is the number of users that use the network.

Clusters-Physical CO-located workgroups, sharing servers, printers and other peripheral equipment.

Resource estimate: $C/57$, where C is the number of clusters.

Supported Applications- The number of applications provided and supported centrally affects the resources required to install, update, support, and track and document software licenses.

Resource estimate: $A/50$, where A is the number of supported applications.

Vendor Operating Systems and Applications- Operating systems for different platforms all have frequent revisions and updates to install and ensure interoperability with other systems and applications.

Resource estimate: $V/2$, where V is the number of distinct vendor operating systems and platforms.

Licenses required- A license is defined as the right to use the application across multiple platforms.

Resource estimate: $L/25$, where L is the number of licenses.

To determine the total human resources (HR) required use the following formula (Arfmann & Roden):

$$HR = W/1000 + U/1300 + C/57 + A/50 + L/25 + V/2$$

An example of this formula approach to determining appropriate staffing levels would be a school district with 1,000 workstations, 2,000 users, 30 clusters (e.g. school offices), 25 applications supported, 3 operating systems (WinXP, Windows 2000 and Mac), and licenses required for 25 different software packages. The staffing would be determined as follows:

$$HR = 1000/500 + 2000/1000 + 30/15 + 25/50 + 25/25 + 3/1$$

$$HR = 2 + 2 + 2 + .5 + 1 + 3 \text{ (for a total of 10.5 FTE)}$$

Although telecommunications and network support were not included in this study, similar FTE ratios could be developed to establish appropriate staffing levels for these and other skill sets based on industry standards.

The technology staffing numbers work out as follows; we have estimated on the lower end of what the real data may provide for:

$$HR = 1000/1000 + 2000/1300 + 30/57 + 25/50 + 25/25 + 3/2$$

$$= 1 + 1.54 + .53 + .5 + 1 + 1.5 = 6.07 \text{ FTE}$$

If you summarize the above information from this equation alone, this shows that by these standards we should

have 6.07 Full Time Equivalent Employees in the technology department. As it is understood that this type of staffing is not realistic in the K-12 system, it does show the need for support in technology in our district.

Additional assistance might be acquired by using technology proficient staff during off hours. This might be accomplished by the use of stipends to offset the time periods worked in assistance of the technology staff. Such positions would be look at on a per building and needs basis.

It has been favorable to have all staff in house and on call for on time repairs as needed.

How will we know we are getting there?

District technology related evaluations will be the responsibility of the Technology Department Director and related stakeholders. The ultimate responsibilities will fall to the Director of Technology to over see all evaluations, planning, procurement, upgrading, and implementation of all district related technology.

In order to help determine the proper equipment, planning, and procurement of technology related items surveys will be utilized to gather information from the stakeholders and staff within the district. Such surveys will also be utilized to gather end user data on the current usability of systems in their respective buildings.

SurveyMonkey.com will be the method by which data is compiled. A sample of such a survey has been submitted with this plan. The included sample is a screen capture of an account that had been created to help pull input from stakeholders in forming the 09 - 12 Technology Plan.

Pilot programs are set up specifically to review technology related purchases. It is the current practice of the Conneaut Technology Department to review all software and hardware that is being considered for the district. This also includes the review of emerging technologies. As a case study such reviews were done in the past year to ascertain of the Windows Vista operating system would be the next operating system that the district would be upgraded to as a district standard. In this specific example after much testing with district run applications, it was found that Vista would not be a good fit at this time in comparison with Windows XP Pro. In such an example it shows how a piece of technology is reviewed and made sure that it is a correct fit for the districts specific needs.

How will we sustain focus and momentum?

Revision strategies would be based off of key areas as outlined below.

- * Are IT spending priorities and technology deployments well aligned with the districts needed strategy?
- * Which IT functions must the district excel in order for the strategy to succeed?
- * Are new IT initiatives (e.g. security, application integration) called for?
- * What are the most immediate IT improvements that can be accomplished over the short term?
- * Are there multiple systems that could be consolidated to reduce labor, licensing, or hardware costs?
- * Are there older IT resources that are expensive to maintain and generate lower value than newer alternatives?
- * Are there opportunities to automate any processes?
- * What service levels are required for IT resources?
- * What is the overall consensus of IT users about the quality of existing IT resources?
- * Where are IT strengths to be exploited and where are weaknesses to be shored up?
- * Are all IT assets fully utilized?
- * Are all IT assets appropriately licensed?

The subject areas outlined above will allow us to have a frame work to pull from. This will allow us to control the planning and insuring that needed capacity is provided for in looking toward the future of our districts technology

integration planning.

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	3 - Adequate	4 - Advanced
Instructional Applications	2 - Minimal	3 - Adequate
Data Analysis & Reporting	3 - Adequate	4 - Advanced
Grade Book	2 - Minimal	4 - Advanced
Library Automation	4 - Advanced	4 - Advanced
Facilities Management	2 - Minimal	3 - Adequate
Voice Telephony	3 - Adequate	4 - Advanced
Human Resources & Financial Management	3 - Adequate	4 - Advanced
Network Account Management	4 - Advanced	4 - Advanced
Transportation	4 - Advanced	4 - Advanced
Food Services	4 - Advanced	4 - Advanced

How will we get there?

Student Information Services:

Stakeholders: Administration, Staff, Students

All SIS applications are run by the districts ITC. All related services, support, training, and upgrades are handled the ITC.

The service provided is the form of eSIS allows for student management utilizing a web based interface. The system allows for a central point of management for student related information.

Instructional Applications:

Stakeholders: Administration, Staff, Students

Such applications are used throughout the district in the forms of training and collaborative software. One key SAS (Software as a Service) is PLATO. Starting on 2009 the Conneaut District will be expanding our CDA (Conneaut Digital Academy). In doing so we will be enhancing access to students by providing a method of learning from student homes. This is being done to support student achievement where traditional educational setting may not work for specific students.

Data Analysis and Reporting:

Stakeholders: Administration, Staff

Such data items are gathered internally and reviewed by Administration and Staff. Such items are put in line with concepts formed by the OIP and CCIP currently in place.

Applications that supply information for reporting are eSIS, Dibles, First Generation, Merrit Software, PLATO, Finical, Busing, ITDirect, and Novell Zenworks.

Grade Book :

Stakeholders: Administration, Staff

This application is a part of eSIS. Much feedback has been given by staff and to the usability of this application. Future plans will include gathering possible alternate options for SIS systems will more intuitive

grade book applications.

Library Automation:

Stakeholders: Staff, Students

Automation in related library tasks also includes the management of the video system in each building. Application currently in use are Horizons. This system allows for inter library loans. The system was one of the first in the nation. Since the system relies on a Carrier for transportation of books to and from locations, there is an associated fee. Such costs are mostly covered by fines & fees. The system runs efficiently and training and support are provided by the Ashtabula District Library system.

Facilities Management:

Stakeholders: Administration, Staff

Management software should be reviewed for this department. Currently a local database system is in place for work order requests, but is not being utilized as needed. Considerations may include utilizing an online system developed by SchoolDude.com

Voice Telephony:

Stakeholders: Administration, Staff

Communication is key, and a usable telephony system is required. In the last 4 years the Conneaut Schools have fully converted to VoIP. This has allowed for cost savings and has added

Human Resources & Financial Management :

Stakeholders: Administration, Staff, Public

There are no current plans to implement a human resource system outside of possible job postings to a web site.

Financial management systems are hosted by the Districts ITC as such are out of our control for updates. End user training and support are provided by the ITC.

Network Account Management:

Stakeholders: Administration, Staff, Students

Currently Netware and Microsoft servers are implemented for access to data and to provide centralized data services. Accounts provided for all district staff and students. Shared repositories have been set up to enable staff to easily share documents between peers and students have been created.

Transportation:

Stakeholders: Administration, Staff, Students, Public

A complete digital system has been implemented for route planning. System includes GPS.

Food Service:

Stakeholders: Administration, Staff, Students, Public

A complete digital POS (point of sale) has been implemented to track purchases made by students. Parent also have the ability to track their child's purchases and make restrictions via a web portal.

How will we know we are getting there?

In defining the system indicators for determining effectiveness and developing the implementation plans, the following operating principles are to be adhered to.

1. The recommended system indicators are a starting point for working towards systems development that will empower the stakeholder in the use of technology in our district..

2. Focus should be district as a global entity, and should reinforce the many not only the few.
3. The technology recommended indicators must be relevant to the State and Government standards.
4. The four primary stakeholders of technology systems are:
 - * Administration
 - * Staff
 - * Students
 - * Parents
5. There must be a strong commitment by all administrations and staff to supply the core data to a common database (electronically or otherwise), in order to establish consistency in measuring and interpreting indicators.
6. The data collection process to support calculation of the indicators must not remain stagnate, but update and change as newer technologies are implemented within the district.
7. The indicators should lend themselves to a system reports.
8. The indicators should promote system integration and continuous improvement on the behalf of the district.
9. The indicators should be designed to highlight success rather than failure.
10. All stakeholders should share system implementation result outcomes.

How will we sustain the focus and momentum?

In order for our Organization to build, support and expand systems, plans and strategies will need to be reviewed at least annually in order to:

- * Review performance measurement information
- * Assess what's working and not
- * Adjust the plan and strategies as necessary
- * Address new organizational issues that might occur

Review of organizational planning will involve the following activities:

Monitor, Evaluate, Revise, Action, Repeat

A critical component of strategic organizational planning is an information system(s) that have the required reporting capability. Ideally it should be able to: track data over time; meet report requirements and performance.

Developing evaluations for alignment of technology integration, involves determining what it is that needs to be measured. The task of evaluating projects and support strategies is easier when the success criteria and performance measures for each district organizational planning initiative have been established prior to implementation .

Methods for obtaining feedback on how well the district has accomplished its alignment and integration plan and the effectiveness of the outcomes can include:

- * Meetings with Administration
- * Administration, Staff and Student surveys
- * Analysis of relevant data
- * Reviews of progress reports by system
- * Organization performance assessments based on feedback

Momentum will be sustained by adhering to a progressing reviewing system of newer technologies. When a technology "fit" is found it will be backed with proper implementation and molded to fit our staff and students

specific needs.

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	Rarely	Sometimes
Professional development planning for end users and support personnel	Rarely	Sometimes
Criteria for evaluation developed - including alignment to ACS and curriculum	Sometimes	Always
Evaluation of demo copies	Always	Always
Implementation pilots	Sometimes	Sometimes
Replacement cycle (upgrade, retire, new)	Rarely	Sometimes
System requirements / technical and operational support	Always	Always

How will we get there?

Although technology opens up exciting avenues for learning, computers should complement, rather than replace successful methods that teachers use to help students develop basic skills and understanding. The Conneaut Schools encourage the use of a wide range of tools, both traditional and technological, to help students gain those understandings.

A successful implementation of new software packages require the full collaboration of administrators, staff, and the technology department. Initially, the educational staff must be properly trained in the individual academic standards for their specific grade levels. This departmental review should be completed at the beginning of every year as the standards develop.

Secondly it becomes the educator's responsibility to identify and define curricular areas that are not currently being addressed. This information must be relayed to the building administrator. If a need is found that might be a possible fit for a technology related solution, a full evaluation and testing should ensue.

Third step should involve building administrator administrator presenting an identified area to the district's administrative staff including the Director of Technology. The administration in conjunction with the Director of Technology must than collaborate and make a decision as to whether or not the situation merits a change or addition to the established curriculum. If a change is deemed appropriate then proper steps of implementation will need to take place.

Based on the administrative determination, it will become the technology department's responsibility to research possible vendors and provide the administration with several possible solutions.

With approval, the administrative and technology departments will then determine the best candidate (educator) to pilot the program, the length of time it will be tested, and what data needs to be collected. The technology department will then be responsible for the setup, maintenance, and support of the program.

Once the time pilot has expired all relevant data will be presented to all relevant parties (educators, administrators, technology) and a determination be made as to its effectiveness. If the program meets expectations then it falls to the technology department to roll out the system as the scheduling allows. If the program does not meet expectations then results must be presented to make a determination as to possible reasons for the programs failure or short comings. Once a consensus has been reached as to why the program did not meet district expectations then a new recommendation to the administration must be made as to how to further proceed.

Currently adopted software packages in our district are listed hereafter. MS Office 03 and 07, Photoshop, MicroType, CAD 06, Merit, Plato, Premier, Scholastic Keys, and Open Office. Web sites that offer educational games are also utilized in the elementary grade levels. eRate funding for software has not been acquired as the Conneaut district does not meet the criteria for qualifying for round two funding.

How will we know we are getting there?

The premise of any adopted software solution is that it meets the needs of our students as defined by the academic standards.

The first step that needs to be taken is for the educator to be able to demonstrate that students lack a level of proficiency in a given area as in collation to a given academic standard for their level. A identified deficiency must be documented through the use of district and state approved testing.

Documentation will provide a baseline for where a particular student falls in terms of proficiency. Once a baseline has been determined, it should be used as the benchmark for that particular student throughout the school year. As the year progresses, periodic testing must occur to determine if the student's proficiency level is increasing. The results of this testing must be analyzed by the educator and a determination made as to the effectiveness of the software. If the educator determines there is demonstrable improvement then the software has met the criteria. If there is no improvement then another solution must be reviewed to better fit the needs of the students pertaining to the state standards.

Evaluations pertaining to administrative or staff systems need be reviewed under a different set of criteria. Such criteria would be based off of integration potential with current systems, usability, and upgradeable. In addition, training provisions for staff for all new implementations of applications.

How will we sustain focus and momentum?

Building capacity is based off the needs of the integrated system that needs to be in place for student achievement. This would be in relation to possible storage requirements for projects and possible requirements placed on the local area network for running networked applications.

The cost of ownership would be based off any and all fees for licensing over the duration of the software usage. This would be within the scope of the final piece of this technology plan.

Evaluation of the effectiveness of an integrated program would be viewed as effective based on the testings results for the area of study it had been integrated. This would also be elected in AYP of the district as well.

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	4 - Advanced
Security zones	3 - Adequate	4 - Advanced
Wireless network security policies	3 - Adequate	4 - Advanced
Central log mechanism and review policy	2 - Minimal	3 - Adequate
Incident response procedures	2 - Minimal	3 - Adequate
Network security	3 - Adequate	4 - Advanced
Host Security	3 - Adequate	4 - Advanced
Data security / integrity	3 - Adequate	4 - Advanced
Anti-virus software	4 - Advanced	4 - Advanced
Spyware	4 - Advanced	4 - Advanced
Firewall	3 - Adequate	4 - Advanced

Filtering	3 - Adequate	4 - Advanced
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How will we get there?

AUP (Acceptable Use Policy):

AUP's are required to be on file for every user that has a network account and or email services. Required forms all fill out by staff and students alike.

User Account management and network authentication policies:

Account management is done as needed on a per system basis. For network authentication it is required to have a Novell Netware account to access district systems.

Security zones:

DMZ's have been utilized for WAN based services, and internally VLAN's have been provisioned to segment data traffic. In terms of user accounts, group policies and specified contexts for user groups have been created to allocate rights based on need and position within the district.

Wireless network security policies:

Current wireless policy dictates that SID's are not to be broadcast and WEP 128bit encryption be enabled on all wireless access points. Additional attention in the future will be given to implementing additional levels of wireless security.

Central log mechanism and review policy:

Central logs of all system events are kept on all user access systems. Such logs are kept on the following services, web streaming, web access, server access, email access, network access, and ASA access. SNMP is also used to have a live view of system in real time. Currently we only review logs on an as needed basis. Staffing would need to be increased to have daily or even weekly reviews of such data.

Incident response procedures:

All incidents are logged to an online tracking system supplied by SchoolDude.com. Incident response times are typically less than two days, most incidents are completed within one day.

Network security:

Network security is monitored by software applications. At the gateway we use a CISCO IPS module to monitor all traffic and look for suspicious activity. If such activity is found the system has the ability to shut down dynamically any specific threat. Internally we use firewall on all systems.

Host Security:

Host security is a mesh of many applications. Primarily all systems have two partitions. The root drive C:\ is set up and protected against any and all changes by using Deep Freeze. This software will "lock" a system against all threats. In most cases a simple reboot of the system will restore it back to its original state, in doing so fixing most issues.

Data security / integrity:

Data security is met by utilizing backup programs on all users systems to a central server. Central server backups are managed by using SAN arrays and robotic tape backups that pull set backups to media nightly.

Anti-virus software:

The district has moved from Sophos to eSET as our preferred anti-virus vendor. Simplicity of enterprise control was the primary determining factor. All systems are enabled with AV protection and receive daily signature

updates from a district central server every 30 minutes.

Spyware:

SpyBot remains the districts chosen application for dealing with SpyWare.

Firewall:

Windows Firewall has been chosen as the default firewall application on all systems. Logs are kept on all local machine activities.

Filtering:

Content filtering has been covered for CIPA regulation using the BESS system. This is provided by our ITC and is out of the scope of the district to control. Access is given to system administrators to allow bypass accounts as needed.

CIPA

The district has started additional training to cover students and help protect them from online predators and cyberbullies. This will further not only physical security of our network, but also the personal protection of our users.

How will we know we are getting there?

Indicators that present themselves are based on service requests made on items that pertain to security related problems. To date the only related security breaches that have been know to us are in instances where students have acquired other students user names and passwords. In order to combat this event we have enforced the mandatory password changes on an annual basis for students.

Primary indicators will be more stable systems, a decrease of network resources, and a decrease in service requests for the technology department.

Increased stability of district systems leads to a much higher percentage of the technology successfully being integrated within the curriculum.

An increase of available network resources insures the highest level of service possible for legitimate programs.

As the number of threats decrease our total number of service requests for those specific situations should decrease proportionally as well.

How will we sustain the focus and momentum?

Staff members and students are issued the acceptable use policy (AUP) in writing on the first day of a current school year. They are required to sign off indicating they have read and understand the district's current policies. Annually this document is to be evaluated at the end of the school year by the technology department to determine if any changes are needed for the next year. As the policies are put into effect it becomes the administration's responsibility to ensure that anyone not adhering to district policies are corrected appropriately.

Any new security issues must first be identified and defined by the technology department. It then becomes the technology department's responsibility to make recommendations as to how it can best be handled. Once an action has been determined it falls to the technology department to inform all staff members of the new policy and the reason for its adoption.

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	1:1200	1:800
Support Staff to Teachers	1:120	1:80
Support Staff to Computers	1:500	1:333
Support Staff to Buildings	1:2.5	1:1.6

	Where are we now?	Where do we want to go?
Average Response Time (Days)	2	1
Service Level Agreement (SLA)	No	No
Full-time technology coordinator/director	Yes	Yes

How will we get there?

In section 4.2 Access to Technology an very defined overview of staffing requirements has been outlined. This should be reviewed before proceeding.

Industry standards for technology support define an efficient ratio of technicians to systems as 1:50. The academic reality is closer to one technician for every 500-1000 systems. With ratios this far removed from industry standards, we find ourselves forced into developing strict criteria for scheduling service as well as prioritizing all service requests.

1. The development of a set of standards by all members of the technology department describing a system of "best practices."
2. The introduction of a web based service request submission and tracking service. This service not only provides information to the technology department regarding the incident but also allows the end user to see how the situation is being handled and by whom. The system will also provide a scheduling feature for the technology department so that all concerned parties have an idea of what requests are currently being handled and which ones have been completed.
3. Ensure maximum system up time to decrease total number of service requests per user. This will be accomplished by simplifying and standardizing all system configurations based on a single template. This standardization has the added benefit of decreasing the technology department's diagnosis time of any given problem.
4. Decrease time to each service call by promoting "remote management" on all systems throughout the district. By alleviating the need to travel throughout the district the technology department has more time to focus on actual problem solving.

Current technology staffing is at the very minimal we can be at for continued support mechanisms to remain in place. Currently the district employees 2 full time specialized staff to cover the districts technology needs. With proper system update and policy enforcement we have been very proactive in dealing with district technology issues. Because of a high level of efficiency and the employment of specialized personnel, we have been able to maintain the level of support needed in the district.

How will we know we are getting there?

The goal for any technology department is to meet or exceed user expectations 100% of the time. This requires a constant level of communication among all the involved stakeholders starting with administration. Feedback whether positive or negative will be collected, evaluated, and acted on in the most efficient manner possible. The technology department will be developing a framework where end users can directly respond to the service level they are receiving, the technology department plans on implementing these internet based surveys and forums within the span of this technology plan. All applications will be accessible directly from the district's intranet web site.

The online framework will provide a platform for open discussion of all users' needs and if they are being met satisfactorily. This will give the technology department a more cohesive understanding of where efforts need to be improved upon. Once issues have been identified, surveys could be generated detailing a particular issue and distribute it to other users from the district for additional feedback. Based on what the returned data shows we

can then present this information to the stakeholders to determine an appropriate course of action. Once an appropriate response has been decided upon, it becomes the technology department's responsibility to schedule and implement the accepted solution.

This level of open communication between the technology department and the end users is expected to increase user confidence. By demonstrating that user's views are actually being incorporated into the overall technology scheme we anticipate an increase in the innovative uses of technology throughout the district as a whole.

How will we sustain focus and momentum?

Features of the web based service request system we have implemented include extensive accounting and report generation capabilities. By utilizing these services we can determine a baseline of how our current service level is being handled and where we need to go in order to comply with the district's technology needs. By reviewing this data we will continually ask the following questions:

1. What is the average time taken to respond to a service request for the department as a whole? If this number appears too high then it must be evaluated to determine what can be done to lower it. Is it a procedure that needs to be changed or is it a scheduling issue?
2. What is the average time taken to respond to a service request for each technician? If a particular technician is taking longer than anticipated for individual service requests, an investigation needs performed to determine why this issue exists.
3. How many services requests does the district as a whole generate for a given period of time? If this numbers seems to remain high then it must evaluated to determine a root cause.
4. Are several requests being generated for the same or similar issues? If multiple instances are occurring then this is a situation that needs to be reviewed for a system wide resolution?

By constantly reviewing the data generated by our reports to these core questions we will be prepared to determine how effective our current strategies are, and which ones need to be updated.

Attached to the documents section of this online technology plan is a sample report that shows the reporting feature in the issue resolution ticket system.

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	More	More
Procurement Plan	Some	More
Specifications/Requirements/Fits Analysis	More	More
Integration of donated time, materials or services	Some	Some
Deployment/Installation plan	Some	More
Initial Training and Professional Development	Some	More
Evaluation of current external support costs versus new purchase	Some	More
Loss of institutional knowledge for replaced systems	Some	Some
Phase Out/Replacement cycle	None	Some
Disposal costs	None	None

How will we get there?

Vendor Relationships:

Vendor relationships have become a key component for our purchase decisions. Most pricing point are so close that the service after the initial purchase has become the true selling point. We need to know that the company we are dealing with is willing and able to provide us with solutions to potential problems in a timely (if not immediate) way. If the initial cost may be slightly higher from one vendor to next we are willing to accept this if we know from experience that we are going to receive better service and support to our district.

Procurement Plan :

A procurement plan must be implemented by the entire district which directly involves the technology department. Technology hardware, software, or services should not be purchased without first consulting the technology department for a determination if the proposed system will work as intended within our infrastructure. If purchases are made without this consultation, then technology cannot guarantee any return on the investment.

Specifications/Requirements/Fits Analysis :

All analysis will be done prior to purchasing. An item being considered will be reviewed to checked to make sure it can be properly implemented based on the specifications needed.

Integration of donated time, materials or services :

Not Applicable

Deployment/Installation plan:

Deployments and installations will be based as needed and will vary as based on the project scope. Larger deployments scheduled during off peak times whenever possible.

Initial Training and Professional Development :

The district must apply more resources to the initial training of any technology if it is to be successful. Once the determination has been made to implement a new system then the next step is to determine a suitable staff development program. This program must be comprehensive and become a standardized requirement before any staff member is allowed use of the new technology.

Evaluation of current external support costs versus new purchase:

All evaluations will be based off of the usability of equipment to be upgraded.

Loss of institutional knowledge for replaced systems:

With all new systems learning individual curves will have an over all cost to the district. It is the intent of the technology department o offer training when such roll outs should occur. This will help with the loss during transition.

Phase Out/Replacement Cycle:

As a district determine a true replacement cycle for the district's technology. This policy must be a collaboration between technology and the administration to determine what percentage of the technology budget can be utilized for replacement equipment and/or services. At present the district does not have a end of life policy for technology.

Due to the district finical situation, reliable funding has not be available to provision for a scheduled replacement of technology. District technology typically remains in service until updates and or repairs can no longer be applied to the given equipment.

Disposal costs:

An agreement has been made with the local state prison for the dismantling and recycling of school related technology equipment. This service is provided free of charge.

How will we know we are getting there?

Criteria listed below has been selected below to act as the districts guideline in measuring the financial burden to the district relating to technology. Each of the listed topics has been evaluated to provide accurate assessments on technology budgeting.

- 1: End-user computer Hardware purchase costs
- 2: Software license purchase costs
- 3: Hardware and Software Implementation / deployment costs
- 4: Hardware warranties and maintenance costs
- 5: Software license tracking costs
- 6: Operations Infrastructure Costs
- 7: Network hardware and software costs
- 8: Server hardware and software costs
- 9: Cost to upgrade
- 10: IT Personnel costs
- 11: Backup and Recovery costs
- 12: Costs associated with failure or outage
- 13: Technology training costs of users and IT staff.
- 14: Replacement costs

Historical data when obtained from the above line items will show district trends in technology spending. Implementing historical spending data reviews we will be better able to govern and adjust funding to accurately measure efficiencies within the district technology infrastructure.

Possible software tools have been reviewed to assist in technology evaluations and to aid in applying the TCO model. A TCO Tool has been found that is open source that will be used to aid in reviewing TCO for technology.

More information may be found at <http://www.tcotool.org/>

How will we sustain focus and momentum?

Through the ratification of the updated technology plan all technology based decisions will be required to have the direct involvement of the technology department. This step will ensure that all projects meet the requirements for TCO. As this becomes the accepted practice the entire TCO model will continue to be implemented over the following three years.

The process will be evaluated yearly by the technology department and administration to determine the overall impact of the implementations on district policy. If procedures do not meet expectations then it will be the responsibility of technology and administration to draft resolutions and /or amendments as needed.

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	136,754.45	108,908.4	108,908.4	108,908.4	326,725.2
Hardware	72,924.75	62,000	22,000	22,000	106,000
Student Data Administrative Systems	131,100	131,100	131,100	131,100	393,300
Software	15,000	5,000	5,000	5,000	15,000
Security	18,019.69	5,000	5,000	5,000	15,000
Technology Staffing/Support	93,542	94,542	95,664	96,724	286,930
Professional Development	2,970	2,970	2,970	2,970	8,910
Consumables	11,500	7,000	7,000	7,000	21,000
Additional	8,000	8,000	8,000	8,000	24,000
Total	489,810.89	424,520.4	385,642.4	386,702.4	

Additional Items

Note: Some expenditures listed above are covered by grants and funding from the State of Ohio are are subject to reductions in cost to the district.

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?

Current budgeting is focused on the core needs of our district. Little if any additional monies are added on a year to year basis due to finical deficit projections by our treasury on the horizon.

Advancement that has been made in technology is due to the flow of monies from a Permanent Improvement Levy that will expire in 2011. After the last annual distribution of this levy in 2011, serious reflection will need to be taken to find alternate means of providing finical resources for technology for our district. Key people involved in this estimation was the Director of Technology and the District Treasurer.

All budget projections have been made based off of fiscal year spending. All data is gathered by reviewing budget summary reports. Comparative spending reports were also reviewed from our vendors to insure accurate amounts reflected in the fiscal year budget report shown above. Item of note, over all vendor spending in fiscal year 08-09 was decreased by over 40%. Funding amounts are shown below and are projected to hold at their current amounts, minus P.I. funding reduction at the end of 2011. Core areas of the budget have been outlined below.

Network/Telecom: \$46,800 - Cost covers all Metro-Ethernet circuits connecting individual school buildings to data center for Internet, Phone Video, and Data Networking Storage Systems. In addition we have a Centrex service for all lines in the district phone system. This cost is \$26,460. Both the \$46,800 and \$26,460 are covered by a 72% discount provided through eRate that has been outlined further in the "How will be get there" phase of this plan..

Access to Technology: \$26,000 was the average amount that we have received from SchoolNet on a annual then it went to a biannual basis. Funds were used to implement student systems in classrooms and labs. This is an item of note as this was the only MAJOR funding our district has for new technology purchases on a mass order. Since this funding was terminated, our district has been severely hit in new equipment purchases that can be attained on a annual or biannual basis.

Software: We spend an estimated \$5000 on new software or upgrades to current software packages. In most instances, software purchases are only made if accompanying classroom books are purchased as well. Many software purchases are held back as newer texts cannot be purchased at the time. The current P.I. Levy does

encompass educational text purchases however such funding will expire in 2010 as well.

Security: \$6500 - Expenditure will be increasing due to added licensing required for additional systems on our internal network. This includes: Novell Netware, eSet, Veritas, Deep Freeze, and Microsoft related licensing. Recently we added an CISCO ASA that has an IPS module to help control unwanted traffic. In order to help keep costs in line we moved from Sophos to eSET as our anti virus provider.

Staff/Support: \$93,542 - Currently our district employs one full time Director of Technolog/Systems Administrator/Technician, and one full time Service Technician to service over 1000 district systems, 15 servers, multiple NAS and backup equipment. As well as all infrastructure equipment, connections, IP Phones, IP Video Systems, IP Security Systems, and iPrint based Printing Systems. 270 staff are supported and 2400 students.

Professional Development: \$2970 - Currently the only monies that are available to technology professional development training are provided by the grant opportunities that are given by the state.

Consumables: \$11,500 - This amount covers all laser jet printers, and other forms of copy, fax, and printing functions. These costs annually tie up a considerable amount of money. Action has been taken to place policies that govern printing in our district. This includes going to central print centers, and using copiers instead of printers for mass printing.

Reduction Note: We have reduced a Technician

How will we get there?

The sum total expenditures that are listed above are based on needed services, there is little room for reduction while keeping the current level of technology in our district. Cutting costs in technology will only lessen the effectiveness that is required for the Conneaut District.

Additional funding/equipment sources will have and have been sought and obtained in the form of grants and / or donations from local business. Increases in funding have been obtained in the form of a levy that was voted into effect in 11/2005. From this levy and estimated \$35,000.00 has been earmarked for the advancement in technology systems within our district annually till 2011. Future funding sources must be found to continue our desired growth in technology over the course of this technology plan.

The District is always actively looking for companies or government agencies that donate computers after their end of life policy if met. Such systems have supplied out district with full labs in the past few years.

Funding sources that provide the capitol for technology support and purchasing are outlined below.

General Funds: Currently our base budget is \$30,000 this has fluctuated very little over the last 4 years. This is provided directly from the district capitol outlay for technology.

Private: None made.

Business: Computer donations make up the largest part of the the charitable giving from local business and local government agencies. Two labs of 30 systems each have been offered in the last 3 years. Systems are dated but functional.

Other Funding: Currently a Permanent Improvement Levy is in effect. This provides additional funding towards technology until 2011. After the expiration of this levy the district will seek to renew this levy. It is anticipated that this levy will fail.

K-12 Network: Yearly the Conneaut District applies for funding fro the state to help support internal connections. We will continue to seek such aid in the projected future.

Professional Development Grant: The state run grant for PD will continue to be sought out on a annual basis. Currently this is the only form of funding provided to allow for the advancement of technology education in our district.

eRate Funding: eRate accounts for a very large sum of the funding that the Conneaut District receives. Annually we apply for several services to receive discounts based off our poverty level. In FY 08 - 09 we have implemented a Point of Sale system to help accurately ascertain our free and reduced numbers to make sure that we are applying correctly and receive the highest percentage discount available to our district. Currently we stand at a 72% discount that will continue to be sought out every year. The eRate program is a key source of our funding and is desperately needed to provide the current level of services provided.

eRate funding that will be continued to be applied for include: Metro Ethernet Circuits, Internet, Phone, Video Delivery, Data Services, Maintenance Services, Web Hosting, and Licensing.

Appendix A - Additional Documents

Description	Name	Date Submitted
<u>Vendor Purchase Document For Section 5</u>	Conneaut 12 month 04.29.2009.xls	April 29, 2009
<u>Consumable Purchases</u>	Consumables.XLS	April 30, 2009
<u>Survey Screen Capture Section 4.2</u>	Survey Sample.gif	May 05, 2009
<u>Sample Incident Report</u>	Sample Incident Report.pdf	May 11, 2009
<u>TCO Software Tool</u>	TCO-Tool_V1_4_5.msi	May 14, 2009