

Educational Technology Plan for Bluffton Exempted Village CSD - 045211

School Years:

2009-10

2010-11

2011-12

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Pre-Planning

1.0 Establish Technology Planning Committee

Assistive Technology/Special Needs Coordinator
 Curriculum Coordinator
 Library/Media Specialist
 Parent
 Principal
 Superintendent
 Student
 Teacher
 Technology Coordinator
 Treasurer

Approvers:

Marden Herr (Technology Coordinator/Director)
 Paula Parish (Treasurer)
 Greg Denecker (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?

Our plan provided a general guide that facilitated the dispersment of technology funds. Our technology plan was realistic considering budget allocations, goals and objectives. Three of our district goals were to reduce network costs, provide high quality professional development, analyze and improve student achievement. The consensus of our planning team reflected that the plan met our needs at the time. We continue to keep student academic achievement as our priority as we endeavor to seamlessly integrate emerging technologies into the classroom.

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?

We believe our funds were used to maximize the benefit to our stakeholders. Aspects of areas identified in our tech plan remain very relevant, considering funding levels, and we plan to continue to build in those areas. We will strive to be as realistic as possible while keeping up with the ever changing advancements in technology. Meaningful, job embedded, on-going, professional development is key to using technology to enhance teaching and learning and elevate student scores.

1.3 Vision/Mission

A. Vision

It is our vision for the Bluffton Exempted Village School District to use technology to continue our high level of academic standards, while providing an enriching and fulfilling experience for the total learning community in a safe and positive environment.

B. Mission

The technology mission of the Bluffton Exempted Village Schools is to incorporate technology into the educational environment in such a way that it will provide a safe and stimulating environment in which flexibility is encouraged in meeting the needs of every student, and to value all persons and learning in order to develop individuals who demonstrate problem-solving skills, personal responsibility, and a desire for lifelong learning.

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	2011-12
Fine Arts	In Progress	2011-12
Foreign Language	In Progress	2011-12
Mathematics	In Progress	2011-12
Science	In Progress	2011-12
Social Studies	In Progress	2011-12
Technology (specific course)	In Progress	2011-12
Other Content Areas	In Progress	2011-12

- 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?

We plan to implement the technology standards with the curriculum maps in each subject area. Technology grade level indicators within each map are embedded and coordinated to related activities including the use of technology for the purpose of meeting the Ohio Academic Content Standards and improved learning for all students. Vertical and horizontal alignment will be achieved through department and also grade level meetings held at the discretion of district administration.

We use annual professional development workshops: Bluffton's Technology Education in Curriculum Conference, Etech Ohio Technology conference, Northwest Ohio Educational Technology conference, and Southern Ohio Instructional Technology Association. Other opportunities available include in-house half-day technology PD training, ITC sponsored training, INFOhio training, e-Learning, and content specific video conferences demonstrating best practices throughout the school year. Attendees of conferences and workshops share job embedded information presented with colleagues. Training received improves technical knowledge base and provides opportunity to integrate technology into content areas. Teachable moments in technology become very meaningful to staff and students. We plan to have a core set of teachers to provide ongoing and just-in-time support and training. Local staff technology training sessions will be planned and coordinated by the district technology director.

A focus on learning comes by first asking how we can best improve the reading, writing, language, math and thinking skills of all of our students and how new technologies can be used to help achieve those ends. We must not use technology just for the sake of using technology, but only when these technologies are the most appropriate tool for that purpose. And this will only happen when we make a fundamental shift away from acquiring technology to improving learning. We plan to align our available technology with our teaching

and learning intentions, which is not the norm for educational technology. We plan to make a substantive link between the technology and learning for measurable student results.

We must not only evaluate our best practices, but utilize surveys (BETA) to evaluate how the staff views technology and the support that we provide. Constant evaluation of ones efforts and developing data that will determine whether curriculum and technology are actually being integrated will be our evaluation process.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we know we're getting there?

We plan to have our focus on measurable outcomes for student learning as they apply to each content area. Increases in student achievement will be evident from test data, adequate yearly progress, and the performance index. Short answer and extended response answers will show improvement. Teachers who have attended conferences are encouraged to mentor colleagues, present at local and state technology conferences, and utilize opportunities for professional development. Local staff technology training sessions are scheduled with a list provided on our website while other conference attendees receive certificates of attendance as their documentation of training.

The technology director will incorporate informal classroom observations to increase awareness and facilitate implementation of technology.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we sustain focus and momentum?

Our district plan includes creating engaged learning environments for the purpose of technological and academic acquisition. Curriculum alignment is an ongoing process and will never be complete. Continuous improvement is the goal. We plan to continually upgrade hardware and software so teachers and students have access to the tools to meet the demands of 21st century learning, contingent on funding. Data driven decisions based on curriculum reviews will enable our district to monitor student progress and make adjustments as needed.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

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	N/A	N/A
K-2	3.0	3.0
3-4	3.0	3.0
5-7	3.0	3.5
8-10	3.0	3.5
11-12	3.5	4.0

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier.

We plan to look at report card data including item analysis, aggregate and disaggregate analysis, to determine where achievement gaps and weaknesses exist. Horizontal Language Arts alignment strategies are discussed at regularly scheduled grade level times. Language Arts vertical alignment strategies are discussed during scheduled in-service and/or waiver days. In addition, grade level meetings are used for teachers to field test software and decide which language arts related technology is appropriate for their specific grade level.

At the elementary level we administer DIBELS, a scientifically based assessment program that measures fluency, three times per year. DIBELS Progress is measured annually by three benchmarks. Using information from those benchmarks allows reasonable student progress goals to be set at the strategic and intensive level, and measured through progress monitoring. STAR Reader is used in conjunction with Accelerated Reader to track student reading progress electronically at both the elementary and middle school levels. Each teacher establishes criteria for the number of books to be read per grading period, per grade level. Incentives for reading are provided for all participants. Accelerated Spelling and Grammar is also used at the 4-5 grade levels. Teachers in grades K-5 use scholastic keys-MaxWrite to write and illustrate stories and reports. Inspiration software is used to assist students in pre-writing. Bailey's Book House software from River Deep, and the Reading AtoZ website are used in K-1 classrooms to assist young children build essential literacy skills. Special needs students use Write Outloud, Clicker, Essential Grammar, Essential Punctuation, and Simple Sentence Structure software to assist with written language. In addition, Cast eReader and Parts of Speech software assist special needs students by reading text to them. The use of multimedia tools that enable students to become active and experiential learners is also used. United Streaming video clips are utilized at all levels to provide visual representations for a multitude of Language Arts lessons. Interactive whiteboards are utilized to engage students in grammar and spelling activities. The use of word processing and presentation software is integrated consistently throughout the school year for writing and critical thinking activities.

How will we know we're getting there?

The focus of our district is on measurable outcomes for student learning as they apply to Language Arts. Increases in student achievement will be evident from test data, adequate yearly progress reports, the performance index, and value added. Short answer and extended response answers will also be indicators of

improvement. Data driven decisions based on curriculum reviews using formative assessments will enable our district to monitor student progress and make adjustments as needed.

The DIBELS assessment will indicate increased fluency results from benchmark to benchmark. Fluency, as it occurs with nonsense words, word segmentation, and words per minute will certainly be indicators. We expect to see increased reading levels during the three annual assessment periods as indicated from STAR reading.

How will we sustain focus and momentum?

Building a culture of inquiry, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology and academic goals as related to Language Arts.

Data driven decisions based on curriculum reviews will enable our district to monitor student progress and to make adjustments as needed. As funds become available, our district plans to have an increased number of teachers attend technology conferences and opportunities for professional development where Language Arts is presented. Department members will mentor each other in the acquisition of new technology as it is integrated into processes and theories germane to their academic field and/or professional situation.

Contingent on funding, we plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century.

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	N/A	N/A
K-4	3.0	3.5
5-8	3.0	3.5
9-12	3.0	3.5

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of

various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier. In addition, departmental meetings can be used for teachers to field test software and decide which Fine Arts related technology is appropriate for their specific area.

United Streaming video clips are utilized at all levels to provide visual representations for a variety of Fine Arts lessons. We plan to integrate software such as Sibelius, Photoshop, and Premier, into our current fine arts curriculum along with hardware tools such as digital cameras and camcorders. These technology tools will enable our teachers to engage students with enhanced, hands-on activities.

How will we know we're getting there?

Staff will have become proficient at using videos and the Internet to access exemplary models of music, art, and drama while using software to enhance their curriculum. Cross curriculum videoconferencing sessions will also be utilized where students can be introduced to a diverse collection of art while experiencing a math lesson using patterned surfaces to explore concepts and figures, such as tessellations and polygons. Another example of cross curriculum videoconferencing would be students in a fine arts class learning about ancient American civilizations by looking for clues about their daily rituals in ceramic figures, a limestone carving, clothing and other objects incorporating mythology and glyphs. Ongoing formative classroom assessments will provide achievement data and feedback that reflect improvement in the instructional sequence of Fine Arts. Teachers who have attended conferences will mentor colleagues as well as present at technology conferences and other opportunities for professional development.

How will we sustain focus and momentum?

Building a culture of creativity, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology goals as related to Fine Arts. As funds become available, our district plans to have an increased number of teachers attending technology conferences and opportunities for professional development as related to Fine Arts. Department members will mentor each other in the acquisition of new technology integrated processes and theories. Contingent of funding, we plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century.

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	2.5	3.0
9-12	2.5	3.0

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier. In addition, departmental meetings can be used for teachers to field test software and decide which Foreign Language related technology is appropriate for their specific language.

United Streaming video clips are utilized at all levels to provide visual representations for a variety of Foreign Language lessons. Word processing and presentation software are used frequently in our current Foreign Language curriculum to engage students with the content.

How will we know we're getting there?

Staff have become proficient at using videos and the Internet to access exemplary models of Foreign Language while using software to enhance their curriculum. Cross curriculum videoconferencing sessions will be utilized that can be delivered in several languages from a variety of content providers. One example would be a video series that promotes discussion, in a given language, and interpretation of America's national character and heritage through examination of American art and artifacts. Another example of cross curriculum videoconferencing would be a foreign language class learning about ancient American civilizations by looking for clues about their daily rituals in ceramic figures, a limestone carving, clothing and other objects incorporating mythology and glyphs. Ongoing formative classroom assessments will provide achievement data and feedback that reflect improvement in the instructional sequence of Foreign Language. Teachers will become more comfortable with videoconferencing equipment and enable their students to learn language and culture with, and from, students in other districts or countries, as well as practice the language through discussion.

Teacher feedback will be used as evaluation of their progress and future needs with using the implemented technology.

How will we sustain focus and momentum?

Building a culture of inquiry, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology goals as related to Foreign Language. As funds become available, our district plans to have an increased number of teachers attending technology conferences and opportunities for professional development as related to Foreign Language. Department members will mentor each other in the acquisition of new technology integrated processes and theories. Also contingent on funding, we plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century.

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	N/A	N/A
K-2	1.0	2.0
3-4	2.0	2.0
5-7	2.0	2.5
8-10	2.0	2.5
11-12	2.5	3.0

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier.

We plan to look at report card data, aggregate and disaggregate analysis, to determine where achievement gaps and weaknesses exist. Horizontal Mathematics alignment strategies are discussed at regularly scheduled grade level times. Mathematics vertical alignment strategies are discussed during scheduled in-service and/or waiver days. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support.

Departmental meetings will be used to bring teachers together to decide which mathematical related technologies will be best suited for optimal student productivity at each grade level.

At the elementary level we expect to see increased math performance levels during the three annual assessment periods as indicated from STAR Math. Teachers in grades K-5 currently use spreadsheet, Micrograms, and Riverdeep software to lay the groundwork for a solid understanding of fundamental math concepts and thinking skills at the K-5 levels. The middle school level in our district uses Study Island, the web-based state assessment preparation program and standards-based learning program for Mathematics instruction and intervention. Spreadsheet software is used for graphing and manipulating data. At the high school level Geometer's Sketchpad, MathCAD, and TI Graph link software are used to engage students with enriching, hands-on activities. United Streaming video clips are utilized at all levels to provide visual representations for a variety of mathematics lessons.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we know we're getting there?

The focus of our district is on measurable outcomes for student learning as they apply to Mathematics. Increases in student achievement will be evident from test data, adequate yearly progress, and the performance index. Short answer and extended response answers will also show improvement. Data driven decisions based on curriculum reviews using formative assessments will enable our district to monitor student progress and make adjustments as needed. Teachers who have attended conferences will mentor colleagues, and present at technology conferences and other opportunities for professional development. Continued use of videoconferencing to energize classes such as trigonometry by providing students with an opportunity to role-play real life exercises that require students to apply trigonometry or geometry formulas to reach real life critical decisions. Cross curriculum videoconferencing sessions will also be utilized. Students can be introduced to a diverse collection of art while experiencing a math lesson using patterned surfaces to explore concepts and figures, such as tessellations and polygons.

We expect to see increased Mathematical performance levels during the three annual assessment periods as indicated from STAR Math. Study Island evaluations will enable us to see improvement in Ohio achievement test scores. Our district intends to see increased calculator proficiency as student's progress through various Mathematical levels. We should also see evidence of increasing levels of efficiency with those students using formulas, spreadsheets, graphs, and tables. Students will use presentation media to demonstrate Mathematical results.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we sustain focus and momentum?

Create an engaging learning environment for the purpose of achieving technology goals as related to Mathematics. As funds become available our district plans to have an increased number of teachers attending technology conferences, as well as opportunities for professional development related to Mathematics. Department members will mentor each other in the acquisition of new technology integrated processes and theories. Contingent on funding, we plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

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	N/A	N/A
K-2	1.0	2.0
3-5	1.5	3.0
6-8	2.0	3.0
9-10	2.5	3.0
11-12	3.0	3.5

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier.

We plan to look at report card data, aggregate and disaggregate analysis, to determine where achievement gaps and weaknesses exist. Horizontal Science alignment strategies are discussed at regularly scheduled grade level times. Science vertical alignment strategies are discussed during scheduled in-service and/or waiver days. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support.

Grade level meetings can be used to bring teachers together to field test and make decisions on appropriate technology for use with activities related to science.

At the elementary level Riverdeep software is used to show how to observe, analyze and test theories. At the middle and high school levels Vernier equipment and software are used to improve student understanding of science concepts by engaging them in higher-level thinking skills, such as analysis, synthesis, and evaluation. United Streaming video clips are utilized at all levels to provide visual representations for a variety of science lessons. The use of multimedia tools that enable students to become active and experiential learners will be used.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we know we're getting there?

The focus in our district is on measurable outcomes for student learning as they apply to Science. Increases in student achievement will be evident from test data, adequate yearly progress, and the performance index. Data driven decisions based on curriculum reviews using formative assessments will enable our district to monitor student progress and make adjustments as needed. Short answer and extended response answers will also show improvement. Teachers who have attended conferences will mentor colleagues, and present at technology conferences as well as other opportunities for professional development. Continued use of videoconferencing to energize science and/or health classes by taking part in sessions that use gross facts, fun games and intriguing demonstrations to engage our students in thoughtful discussions and activities that encourage them to make informed decisions that prevent disease, promote wellness and foster academic success. Videoconferencing can also serve to demonstrate career options. One example of that would be when science classes attend a session that allows them to see medical transplants or an autopsy. It is a truly memorable learning experience when students can ask questions and interact with a forensic pathologist while watching a taped autopsy or a live surgery.

Our district intends to see increased calculator proficiency as student's progress through various Science levels. We should also see increased levels of efficiency for students using formulas in spreadsheets, graphs, and tables. Students are expected to present Science results using presentational media.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we sustain focus and momentum?

Building a culture of inquiry, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology goals as related to Science. As funds become available our district plans to have an increased number of teachers attending technology conferences and opportunities for professional development as related to Science. Department members will mentor each other in the acquisition of new technology integrated processes and theories. We plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century, contingent of funding.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

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	N/A	N/A
K-2	1.0	2.0
3-5	2.0	2.5
6-8	2.0	3.0
9-10	2.0	3.0
11-12	2.0	3.0

How will we get there?

We assess our needs based on the Ohio academic content standards and administrator-teacher demand as revealed from our spring half-day technology training sessions. We plan to implement interactive whiteboards/projectors into our classrooms. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference, (B-TEC) hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier. Grade level meetings can also be used to bring teachers together to field test software and decide on appropriate technology related to social studies indicators.

United Streaming video clips are utilized at all levels to provide visual representations for a variety of Social Studies lessons. Word processing and presentation software are used frequently in our current Social Studies curriculum to engage students with the content. The use of multimedia tools that enable students to become active and experiential learners will be used.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we know we're getting there?

Our district focuses on measurable outcomes for student learning as they apply to Social Studies. Increases in student achievement will be evident from test data, adequate yearly progress, and the performance index. Data driven decisions based on curriculum reviews using formative assessments will enable our district to monitor student progress and make adjustments as needed. Short answer and extended response answers will also show improvement. Teachers who have attended conferences will mentor colleagues and present at technology conferences as well as other opportunities for professional development.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we sustain focus and momentum?

Building a culture of inquiry, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology goals as related to Social Studies. As funds become available our district plans to have an increased number of teachers attending technology conferences and opportunities for professional development as related to Social Studies. Department members will mentor each other in the acquisition of new technology integrated processes and theories. We plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century, contingent of funding.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

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	N/A	N/A
K-2	1.5	2.0
3-5	2.0	2.5
6-8	2.0	3.0
9-10	2.0	3.0
11-12	2.5	3.0

How will we get there?

We plan to look at report card data, aggregate and disaggregate analysis, to determine where achievement gaps and weaknesses exist. We plan to focus on learning by first asking how we can best improve the reading, writing, language, math and thinking skills of all of our students and how new technologies can be used to help achieve those ends. We plan to research and model Best Practices and exemplary district programming. As we continually move into a digital age it is necessary to infuse digital tools, both hardware and software, into our instruction and learning. Instruction is provided for both teachers and students in the use of various software and hardware uses throughout the entire school year utilizing half-day training sessions, and tech student support. In addition, we send our entire staff to the annual, Bridging Technology in the Educational Curriculum Conference (B-TEC), hosted by the Allen County Educational Service Center. Staff members from districts in Allen County compile a list of skills they want or need to learn and speakers they would like to hear. Sessions to accommodate the list are presented at B-TEC Conference and then reinforced during the local professional development sessions discussed earlier.

The use of multimedia tools that enable students to become active and experiential learners will be used. Word processing, excel spreadsheet, presentation software, database, publishing, videoconferencing, and web page editing software provide a broad foundation of valuable technological skills to prepare students for further education and the work place. Use of digital media software provides a rich resource to manipulate content into meaningful knowledge promoting problem solving and critical thinking skills. United Streaming video clips will be utilized at all levels to provide visual representations for a variety of technology lessons. These technology tools will enable our teachers to engage students with enhanced, hands-on activities. In addition, keyboarding is introduced with software at the elementary levels and progressively developed at each succeeding level.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we know we're getting there?

Our district will focus on measurable outcomes for student learning as they apply to the technology standards. Increases in student achievement will be evident from test data, adequate yearly progress, and the performance index. Data driven decisions based on curriculum reviews using formative assessments will enable our district to monitor student progress and integrate technology as appropriate. Short answer and extended response answers will also show improvement. Many of our teachers will be comfortable with videoconferencing and see the application for students to virtually break down the walls of their classroom by bringing rich, real world experiences into the teaching. Teachers who have attended conferences will mentor colleagues and present at technology conferences, as well as other opportunities for professional development.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

How will we sustain focus and momentum?

Building a culture of excellence, our district plans to support our staff and students by creating an engaging learning environment for the purpose of achieving technology goals. As funds become available our district plans to have an increased number of teachers attending technology conferences and opportunities for professional development as related to the integration of technology. Staff members and students will mentor each other in the acquisition of new technology integrated processes and theories. District finances drive the momentum of technology throughout the district. We plan to continually upgrade hardware and software so teachers have access to tools that meet the demands of the 21st century, contingent of funding.

For additional information see the Bluffton Exempted Village School's continuous improvement plan (CIP.zip) in the document library.

Technology Policy, Leadership and Administration

3.1 Analyzing District Education Technology Policies

Awareness - Policy is not in place; little or no understanding of importance of policy

Adoption - Traditional policies are in place; lack of consistent use

Exploration - New/updated policies are being researched

Transformation - Policies support high performing learning environments

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

How do we get there?

Technology policies are developed as warranted by local situations or dictated by state mandates.

Initial phase of policy development will be to establish a team of evaluators that will analyze our present systems and determine how to streamline decision making for efficiency and cost savings to the school district. This team will consist of the District Technology Coordinator, Development of Curriculum Integration and Assessment Specialist, Special Education Director, and building principals along with a board member. Short term focus will be to include a cost of ownership analysis in order to evaluate facilities design, equipment and software purchases and deployment. Data Analysis for Student Learning (DASL) was adopted in the 2006-2007 school year. Since implemented, policies have been created that will require staff to provide online information to parents and students by adopting an online curriculum and grade book system. In addition, training is underway to allow teachers to collect and analyze data in order to target student's specific individual needs. Policies are being created that are driven by improvement of student test scores. Development of grade level student assessments are an example of such policy. Another short term goal is to evaluate equity and access to technology and the policies related to evaluating emerging technologies.

Second phase of policy development will include analyzing our present policies and determining if they should be altered to fit the schools mission of developing student achievement. Standardization of software and hardware purchases and deployment, acceptable use policy, email standards, Internet filtering and the Children's Internet Protection Act, are examples of already established policies that are board adopted.

Finally, analyzing the technology services budget and how district funds are going to be allocated to continue the development of technology in the district is vital. Alternate forms of funding and present needs will be analyzed. The cost of not refreshing our infrastructure and end devices needs to be identified to all stakeholders.

How do we know we are getting there?

The superintendent of schools and the Board of Education will be responsible for monitoring the process of policy development. All policies, once developed, must be accepted by the superintendent and adopted by the board of education before proper implementation into district school buildings can begin. Evaluation of established policies will be surveyed and communicated by the committee to it's stakeholders. The three goals of our district will be to reduce network costs, provide high quality professional development, analyze and improve student achievement. Policies interfering with our goals will be evaluated and altered.

How do we sustain the focus and momentum?

District staff will be informed of newly adopted board policies at staff meetings as well as email. In addition, stakeholders can access board adopted policies and changes through our district website.

Conflicts arising as a result of following developed policy will be reported to the building principal. If not resolved, the issue will escalate to the technology director and if necessary to the superintendent of schools.

3.2 Analyzing District Leadership

Awareness - These administrators do not use technology. An expectation to use technology with students and staff is not expressed nor do the administrators support the staff in the use of technology.

Adoption - Administrators have access to technology but don't use it on a comprehensive basis. Educators in the building are expected to use the technology but not in a powerful way to improve student achievement. Leaders support staff in developing technology skills.

Exploration - Leaders encourage and support educators in the use of technology, but the use may not be pervasive throughout the system. Administrators use technology and see some benefit.

Transformation - Leadership provides strong vision encompassing all aspects of educational technology. Technology is vital to administrators and is utilized in innovative ways on a daily basis. Administrators fully understand how to use the tools effectively in the classroom and to manage education.

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

How do we get there?

Educational leaders understand the social, legal, and ethical issues related to technology and model responsible decision-making related to these issues.

Administrators receive annual half-day technology professional development. Bluffton Schools administrators will be introduced to the Online E-learning classes available through eTech Ohio. In addition, technology services provide the opportunity for administrators to attend eTech Ohio's Technology Conference.

How do we know we are getting there?

Engage administrators in using district-wide and disaggregated data to identify improvement targets at the district and program levels. The superintendent will evaluate administrators based upon the following productivity goals:

- Do you model routine, intentional, and effective use of technology?
- Do you employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community?
- Do you create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity?
- Do you engage in sustained, job-related professional learning using technology resources?
- Do you maintain awareness of emerging technologies and their potential uses in education?
- Do you use technology to advance organizational improvement?

How do we sustain the focus and momentum?

Continuously monitor and analyze performance data to guide the design and improvement of program initiatives and activities. Employ multiple measures and flexible assessment strategies to determine staff technology proficiency within the program and to guide staff development efforts.

The support for the use of technology to achieve the leadership goals must come from the top down. The board of education must be aware of technology issues and support the superintendent in his evaluation of meeting administrative goals. The principal must be accountable for the technology in his or her building and identify a plan to achieve the desired goals. Technology director and the director of curriculum assessment must work hand in hand developing a connection in utilizing technology to improve student achievement.

3.3 Technology Leader/Coordinator Time Commitments

	Where are we now?	Where do we want to go?
Strategic/Project/Action Planning	4%	5%
Acquisitions/Procurement	5%	5%
Deployment/Implementation of Technology	11%	10%
Maintenance & Repair	20%	20%
End-user Technical Support & Training	20%	15%
Curriculum Alignment & Instructional Integration	7%	12%
Fiscal Management/Grant Applications	3%	3%
Superintendent Cabinet/Executive/Board Meetings	8%	8%
Tech Staff Development & Management	10%	10%
Policy Development, Monitoring & Enforcement	3%	3%
Evaluating New/Emerging Technologies	9%	9%
Other	0%	0%
Total	100%	100%

How will we get there?

We have focused on identifying and decreasing the day to day activities involved in our network and implemented a more streamlined approach to providing a quality network and infrastructure for staff and students. Some examples include moving to a windows 2003 environment with active directory and group policy, use of ghosting, and deep freeze.

eTech Ohio's Technology Training Academies, Summer Summits, and regional technology coordinator meetings, along with monthly county technology coordinator meetings organized through our allen county ESC and local ITC training sessions have provided and facilitated the professional development needed to implement our goals.

How will we know we are getting there?

Currently technology is supported through an email-based system with the aid of several student swifties (students working in future technologies). Feedback received through formal and informal meetings with administration and staff provide valuable information regarding evaluation and effectiveness of our progress.

How will we sustain focus and momentum?

We must not only evaluate our best practices, but utilize surveys (BETA) to evaluate how the staff views technology and the support that we provide. Constant evaluation of ones efforts and developing data that will determine whether curriculum and technology are actually being integrated will be our evaluation process. The technology director will incorporate informal classroom observations to increase awareness and facilitate implementation of technology.

Technology Infrastructure, Management and Support

4.1 Networking, Internet & Telecommunications

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

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

ACTIVITY 1:

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

- **None** - This technology does not currently reside on the network.
- **Some** - There are pieces of this technology residing on the network. It does not exist in all buildings or only in certain places.
- **Many** - This technology is pervasive throughout the district and/or building.

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

- **Decrease** - We plan to decrease this technology on the network.
- **No Change** - We plan to maintain the level of technology on the network.
- **Researching** - We are investigating if we want to implement this technology on the network or if we want to increase or decrease this technology on the network.
- **Increase** - We plan to increase this technology on the network.

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

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	Increase
Telephone Circuits	No Changes

How will we get there?

We continue to streamline our infrastructure by identifying how we can make it more efficient. Through the use of our E-Rate discount funds, we have updated our core data switches which provide for fault tolerance and redundancy. We anticipate the need to expand the storage capacity for our network. We have implemented several virtual servers which have increased efficiency in operations and cut operation costs, reduced hardware costs and accelerated application roll out time. Also, video on demand has been implemented through the use of a network manager which allows videos to be downloaded during off-peak hours and streamed through our local network instead of using Internet bandwidth.

How will we know we are getting there?

Continued use of web-based network monitoring and traffic analysis tools supplied by our ISP to track networking and bandwidth issues within the district. Through a partnership with our ISP we can monitor and pinpoint bandwidth (over)usage areas. Reports generated from these tools will provide valuable resources to facilitate communication with all stakeholders.

Updating to managed switches throughout the district has improved network dataflow and throughput, thus minimizing network bottlenecks. Fewer IT requests relating to network issues has been a positive indicator of their value-added.

How will we sustain focus and momentum?

With the increase in complexity of modern networking, increased downstream and upstream bandwidth will continue to be a concern. Also with the introduction and advancement of streaming video technologies we anticipate the possibility of further bandwidth being necessary in the future.

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)	1:5	1:5
Peripherals (e.g. scanner, digital camera)	Some	Some
Emerging Technologies	Middle adopter	Middle adopter
Assistive and adaptive hardware (e.g. Intellikeys, Alpha Smart) and specialized software	Some	Some

How will we get there?

It is important to provide the staffing and technology infrastructure necessary to facilitate the desired technology hardware and support levels for our district. We strive to keep infrastructure and technology equipment updated each year as funds are available. Our current telecommunications capabilities, including a voicetel T-1 line with 23 lines and an ISP fiber 10 MB connection, provide adequate coverage and support for our district initiatives. Through E-rate discount funding, switches can be updated to current technologies each year. Technology hardware in our district is updated at the beginning of each school year as funds are available.

In the next three years we are looking to update many of our high school and elementary classrooms with newer computer equipment. We plan to swap our newer lab computers with the older classroom computers. Then to improve the quality of the labs we can utilize an extra server and integrate thin client technology with the older computers.

Emerging technologies, such as interactive whiteboards provide a proven engaging, interactive tool facilitating

both teaching and learning and have been implemented in our district via grants and district funds as available. We continue to evaluate the most challenging concepts within the content areas as identified by analysis of test data and target those classrooms for implementing this technology.

How will we know we are getting there?

The evaluation, planning, procurement and upgrading of technology is centered around its value-added to student achievement and progress. Several areas to monitor include software and infrastructure. Software compatibility will be measured through our ability to gather baseline data, analyze and disseminate results to maximize effectiveness. Create and publish an inventory of present equipment and software available to stakeholders. Infrastructure processes include monitored network traffic, inventory of port counts, site survey of wiring, budget for growth, and look for alternative funding. Security issues are supported through the implementation of network managed virus, spyware, and WSUS software.

Professional Development will be provided as necessary for emerging technologies to be effectively integrated into the classroom.

How will we sustain focus and momentum?

Through E-rate discount funding, infrastructure can be updated to current technologies each year. Technology hardware in our district is updated at the beginning of each school year as funds are available. Software needs will consistently be evaluated based on alignment to standards and district goals for maximum student achievement. We will look at value added considerations to student progress with each emerging technology and software title being reviewed.

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	2 - Minimal
Data Analysis & Reporting	3 - Adequate	3 - Adequate
Grade Book	4 - Advanced	4 - Advanced
Library Automation	4 - Advanced	4 - Advanced
Facilities Management	2 - Minimal	2 - Minimal
Voice Telephony	1- None	1- None
Human Resources & Financial Management	2 - Minimal	2 - Minimal
Network Account Management	4 - Advanced	4 - Advanced
Transportation	2 - Minimal	2 - Minimal
Food Services	3 - Adequate	4 - Advanced

How will we get there?

Our district converted from SIS to DASL in the Fall of 2006. We have upgraded from a stand alone gradebook program to a fully integrated, online gradebook. Job embedded professional development has been provided by the district as necessary to implement these changes.

We plan to add a computerized food service hardware and software system in our HS cafeteria. Support and training will be provided as necessary through our MS/ES head cook and the specific vendors providing these services.

The plan to replace our paper trail facilities management with an online system was cost prohibitive and was not implemented.

How will we know we are getting there?

Upgrades to our districts student information system and gradebook have facilitated student-parent to teacher communications by providing current data throughout the school year for all stakeholders. Also, teacher productivity has been greatly enhanced by reducing much of the redundant processes typically required. Feedback provided by staff continues to be an indicator of the effectiveness of these new systems.

Streamlined food service system will enhance communication and management processes as measured by our head cooks. The middle school/elementary cafeteria has successfully implemented an automated point of sale system in 2008-09 school year.

How will we sustain the focus and momentum?

We will continue to research and evaluate potential enhanced tools and services available to meet emerging needs within the district. Through evaluation of best practices and available data of similar districts we can make informed decisions and build support and expand understanding for these types of systems.

4.4 Educational Software

Never - When selecting educational software, this process never occurs.

Rarely - When selecting educational software, occasionally this process is followed.

Sometimes - When selecting educational software, we typically follow and/or incorporate this process.

Always - When selecting educational software, this process is always followed and/or incorporated.

Selection Processes

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

How will we get there?

Is the software compatible with existing hardware?

Does it support various teaching and learning styles?

Is there a plan to implement the software in the classroom?

Does the software align with state and national standards?

Does the software help to increase student achievement?

Does it do what the publisher claims it will do?

Assess service agreements (often most expensive part of software purchase)

Is a consistent approach being used to evaluate all vendors?

Evaluate information provided by vendors using measurable, documented criteria

Establish best fit for district needs

Alignment with content standards:

Meeting individual student needs based on collected data

Providing assistive technologies for special needs students

Appealing to 21st century students

Promoting a wide-range of thinking skills

Addressing multiple learning styles

Age and ability appropriateness

Promoting safe and healthy use of technology resources

How will we know we are getting there?

I. Set goals? Committee Leader and/or staff

II. Identify Strategies? Committee Leader and/or staff

III. Assign responsibilities? Committee Leader and/or staff

- A. Collect, analyze and synthesize data? Curriculum Coordinator and staff
 - 1. State Academic Content Standards
 - 2. District Report Card Results
 - 3. District Initiatives
 - 4. BETA
 - 5. CIP
 - 6. TPT
 - 7. Others as Appropriate
- B. Identify end-user? Curriculum Coordinator and Technology Coordinator
- C. List necessary professional development? Curriculum Coordinator, staff and Technology Coordinator
- D. Determine implementation date
- E. Correlate with district calendar? Curriculum Coordinator
 - 1. Decide final date for implementation
 - 2. Work backwards, remembering:
 - a) Purchasing delays
 - b) Professional development requirements
 - c) Installation time and troubleshooting
- F. Research software choices? Trained Reviewer
- G. Select several options to consider for purchase? Trained Reviewer
- H. Review each option, evaluate each option and then select the software to purchase? All involved
- I. Provide professional development for essential personnel at point of delivery of software? Technology Coordinator
- J. Implement software usage? Staff
- K. Determine budget for software purchase? Technology Coordinator
- IV. Pilot software use? Teachers and Students
- V. Collect and aggregate data? Curriculum Coordinator
 - A. Identify the impact to meet the addressed needs
 - B. Document usage of software at building level
- VI. Initiate Purchase Procedures? Technology Coordinator

How will we sustain focus and momentum?

- VII. Plan for inventory, licensing and usage tracking procedures? Technology Coordinator
 - A. Document end-user acceptance and use
 - B. Inform future purchases based on documentation
- VIII. Plan for additional Professional Development? Curriculum Coordinator and Technology Coordinator
 - A. Identify local personnel
 - B. Locate additional providers if needed
 - C. Establish funding opportunities

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	4 - Advanced	4 - Advanced
Security zones	4 - Advanced	4 - Advanced
Wireless network security policies	3 - Adequate	3 - Adequate
Central log mechanism and review policy	2 - Minimal	2 - Minimal
Incident response procedures	2 - Minimal	2 - Minimal
Network security	2 - Minimal	2 - Minimal
Host Security	3 - Adequate	3 - Adequate
Data security / integrity	3 - Adequate	3 - Adequate
Anti-virus software	4 - Advanced	4 - Advanced
Spyware	3 - Adequate	4 - Advanced
Firewall	1- None	1- None
Filtering	4 - Advanced	4 - Advanced

How will we get there?

We have initiated security measures to secure our wireless network by using stronger security access methods (WEP encryption) and a remotely administered anti-virus tool (Vexira); We plan to utilize tools to measure security issues through access to our ISP firewall security logs that enable us to investigate inappropriate network and Internet behavior. We also plan to research intrusion detection tools in order to better secure our network (e.g. snort). The remote network deployment of the Windows update management system (WSUS) keeps our computers up-to-date with the latest patches and service packs.

How will we know we are getting there?

We anticipate a reduced amount of IT requests resulting from spyware, spam, pop-ups, and overall slowed performance in computers that affect technology effectiveness. Data gathered from our technology issues email will provide the necessary data to support the effectiveness of our tools being used. We also expect better network performance as indicated by the aforementioned measurement tools. WSUS has a web-based reporting mechanism that tracks updates to the district's computers.

How will we sustain the focus and momentum?

We will stay proactive with emerging threats by having the most recent Windows security updates, spyware updates, and anti-virus definitions. We also require focused staff development regarding potential security issues such as usage of email, Internet access, network integrity, removable storage devices and student monitoring to promote understanding of security policies and their importance.

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	1:1100	1:1100
Support Staff to Teachers	1:79	1:79
Support Staff to Computers	1:450	1:450
Support Staff to Buildings	1:3	1:3

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

How will we get there?

We utilize a simple email system to facilitate the requesting, storing, communicating, and reporting of technology assistance in the district. Implementation will be reinforced through administrative support at the building level to maintain records of support. Staff benefits include improved productivity and efficiency through reduced data entry and improved communication.

Students Working In Future Technologies (SWIFTies) are volunteer students selected to provide technology support to the district. We use a train-the-trainer method to prepare students to provide technical support through the school day. We also supply productivity software support to staff through assigning tech student helpers to visit their classroom once per week (tech day) during the school year. These students are trained by our technology teacher as a part of their advanced technology class. As teachers become more proficient with technology through annual district sponsored half-day technology training, peer-to-peer technology support among staff provides another just-in-time technology support system.

How will we know we are getting there?

In the future, Beta-Survey results will provide evaluative information on our email system's usefulness. Also through the use of email, staff can be surveyed on the effectiveness and satisfaction of using an email as a requesting system and technology support in general.

Staff provide feedback via email to technology instructor and director to give direction and improve our "tech day" concept. Further, a steady increase with the integration of technology in the classroom as a result of teacher comfort and expertise with technology will lead to improved student motivation and learning.

How will we sustain focus and momentum?

Our district-sponsored half-day technology training sessions continue to provide valuable feedback and direction for technology support. We continue to educate our staff to bring their collective technology literacy level higher.

4.7 Total Cost of Ownership

None - This factor is not accounted for in the cost analysis.

Some - This factor has cursory consideration but is not a primary decision driver.

More - There is deliberate consideration for this factor, but it may not always be a primary decision driver.

Extensive - This factor is always considered in cost analysis and is a primary decision driver.

Process

	Where are we now?	Where do we want to go?
Vendor Relationships	Some	Some
Procurement Plan	Some	Some
Specifications/Requirements/Fits Analysis	Some	Some
Integration of donated time, materials or services	Some	Some
Deployment/Installation plan	Extensive	Extensive
Initial Training and Professional Development	Some	Some
Evaluation of current external support costs versus new purchase	Some	Some
Loss of institutional knowledge for replaced systems	Some	Some
Phase Out/Replacement cycle	Some	Some
Disposal costs	Some	Some

How will we get there?

We plan to continue relationships with various vendors with the goal of acquiring necessary technology at the lowest cost to the district. Donated computers to the district are only considered if they are of higher specifications than the oldest in the district. Use of Fresh Start from Microsoft for OS and open source productivity suites provides the necessary software to make these machines valuable to the district at no additional cost.

The district's deployment/installation strategy utilizes ghosting and windows server technology to push computer images and policies to all the district's machines in minimal time with no end-user intervention. Annual half-day technology training has provided necessary support for newly implemented and re-imaged systems.

Disposal costs for removal of old equipment are shared with county districts once or twice per year as necessary.

How will we know we are getting there?

There is always emphasis placed on the use of technology in education. Staff are encouraged to use technology with students to enhance their learning with the ultimate goal of improved student achievement. Professional development for staff in the use and integration of technology is also an important aspect of technology in education. Acquiring technology gets us started; however, we continually strive to make sure the technology works. Every other aspect of using technology in education comes from the foundational realization of having technology that works seamlessly for the end-users.

How will we sustain focus and momentum?

We will continue to research and evaluate potential enhanced tools and services available to meet emerging needs and improve current systems within the district. Building a network of peers at the local, county, and state level we can evaluate best practices, utilize available data, and make informed decisions to maintain the lowest possible total cost of ownership.

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	47,640	44,040	44,040	44,040	132,120
Hardware	36,675	44,675	44,675	44,675	134,025
Student Data Administrative Systems	0	11,000	7,000	7,000	25,000
Software	29,100	23,125	23,125	23,125	69,375
Security	350	350	350	350	1,050
Technology Staffing/Support	4,650	4,800	4,800	4,800	14,400
Professional Development	5,700	5,700	5,700	5,700	17,100
Consumables	0	0	0	0	0
Additional	14,850	0	0	0	0
Total	138,965	133,690	129,690	129,690	

Additional Items

We have a print document agreement with a vendor which covers the cost of all printers, consumables, and service for 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?

The three-year budget process attempts to support the needs of each building by adding new and updating existing hardware and software. The estimates are based on previous purchases and estimates from potential vendors. Specific district technology funding is set by the superintendent and treasurer each school year. Since the district's infrastructure is in place, our infrastructure costs mainly include our ISP fees and upgrades to our building/classroom switches and server software. We have a main data server with a second running three virtual servers that serve three buildings. Each running 2003 server software. Grade K-2 have three to four computers per classroom while grades 3-7 have four computers per classroom. Two middle school and two elementary computer labs are also available. High school classrooms have from one to three computers, but have access to four computer labs. Professional development costs are based on the funds spent for technical training only, but other funds, including Title Funds are used for integration of technology into the curriculum.

There are plans for our HS cafeteria to move to an automated system in the 2010-11 school year.

How will we get there?

The majority of funding for technology comes from our general fund. Our administrators and Board of Education are committed to providing a technology rich environment for our students. In addition, we pursue grants, both with our county consortium and individually to supplement the general fund. We apply annually for Ohio K-12 Network, Professional Development Grant, and ERATE funds to help offset the costs of our telecommunications & Internet access, professional development, and infrastructure upgrades respectively.

Appendix A - Additional Documents

Description	Name	Date Submitted
<u>Technology Standards for School Administrators</u>	tssa.pdf	March 08, 2006
<u>Bluffton CIP</u>	CIP2008.doc	November 04, 2008