

Educational Technology Plan for Kettering City SD - 044180

School Years:

2006-07

2007-08

2008-09

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

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Pre-Planning

1.0 Establish Technology Planning Committee

Assistive Technology/Special Needs Coordinator
 Board Member
 Curriculum Coordinator
 Instructional Integrationist
 Library/Media Specialist
 Parent
 Principal
 Student
 Teacher
 Technology Coordinator
 Technology Support

Approvers:

Debbie LeValley (Technology Coordinator/Director)
 Steven Clark (Treasurer)
 Bob Mengerink (Superintendent)

1.1 Overview of TPT v3 Planning Framework

eTech Ohio's Technology Planning Tool version v 3.0, 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

"Was the plan realistic then?"

The committee was broken down into four groups. Each group discussed one of the four goals stated in our current technology plan. Overall, each group agreed that the goals in the 2003 plan were realistic at the time. Group one felt that Goal 1 - "Modern technology will be available to assist all students in the successful completion of the KCS CIP Goal I" - "By August 2006 the KCS will annually achieve 94% of the Ohio Department of Education report card indicators" was weak based on the strategies listed to support this goal.

"Is the plan realistic now?"

The current technology plan is broken down into four main goals. After review and discussion, Goal 1 - "Modern technology will assist all students in the successful completion of KCS CIP Goal I - By August 2006 the KCS will annually achieve 94% of the Ohio Department of Education report card indicators," it was agreed that this goal is no longer realistic. Our report card indicators have changed along with new academic content standards and testing. This goal was not met. Goal 2 - "Teachers will integrate technology in their instructional planning to develop exploration, inquiry, problem solving, and creativity for all students" is still realistic, and is an ongoing

process in our district. Goal 3 - "The technology hardware, software, and network configurations in all the schools will be at or above Ohio School Net minimum standards." This goal is not realistic now because the standards met were 2003 standards. Our efforts will be focused on exceeding current standards. Goal 4 - "Additional funds to support the technology goals will be sought through outside sources." This was and is a realistic goal but the action plan was never implemented.

1.3 Vision/Mission

A. Vision

Vision:

Provide all students and staff the opportunity to access, explore, experience, and master emerging technologies that are transforming our world.

B. Mission

Mission:

The technology mission of Kettering City Schools is to provide all students and staff a technology environment that will support and enhance a standards-based curriculum to improve 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 for you to describe how your district is officially and permanently writing Ohio Technology Standards into whatever documents your district uses to define how teachers are expected to integrate technology into different subjects at different grade levels. For ESCs, please identify how you are assisting your contracted schools in aligning their curriculum to the technology standards.

Regardless of whether your district calls it a "Graded Course of Study", a "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 need to be written into these documents to the point of being "interwoven" with the content standards for math, science etc.

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

	Where are we now?	Where do we want to go?
English Language Arts	In Progress	2008-09
Fine Arts	In Progress	2008-09
Foreign Language	In Progress	2008-09
Mathematics	In Progress	2008-09
Science	In Progress	2008-09
Social Studies	In Progress	2008-09
Technology (specific course)	In Progress	2008-09
Other Content Areas	In Progress	2008-09

How will we get there?

Update existing hardware within the district to support existing technologies/software aligned to academic content standards. Technology subcommittees will be formed to address integration of Ohio Technology Content Standards into the specific content areas of English Language Arts, Fine Arts, Foreign Language, Mathematics, Science, Social Studies, Technology and other content areas. These committees will become familiar with the Technology Content Standards and the Standards for the content area they represent. Existing technology use at all grade levels will be identified, evaluated and classified by technology content standard. The committees will devise a plan to integrate the remaining standards at the appropriate grade levels. Included in this plan will be the selection and evaluation of appropriate technology (software and hardware) and the appropriate professional development needed to support teachers in their efforts as they move forward with the integration plan. This plan will be submitted to the District Technology Committee for approval. The plan is then submitted to Instructional Services Committee for approval. The plan will then be submitted to the Treasurer and Superintendent for approval.

How will we know we're getting there?

Our curriculum integration specialists, administration, and department chairs will monitor the progress of professional development and implementation of standards on an ongoing basis through the evaluation process, departmental meetings, and inservice opportunities.

How will we sustain focus and momentum?

The technology committee, along with the integration subcommittees, will evaluate progress on an annual basis and make necessary adjustments to the overall integration process.

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 have your technology planning team 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.

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. Please feel free to use fractional numbers.

Current Levels of Technology Integration in English/Language 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-2	2.5	4.0
3-4	2.5	4.0
5-7	2.0	4.0
8-10	2.5	4.0
11-12	2.5	4.0

How will we get there?

The Language Arts department integrates technology at varying levels throughout the district. For example, one of the ways our first grade teachers integrate technology into Ohio's Language Arts Academic Content Standards for the Writing Process Standard (Benchmark G: Publish writing samples for display or sharing with others, using techniques such as electronic resources and graphics) is by having their students compose at the computer using basic word processing skills, print, and hang their finished product in the hallway for parents during to see during Open House. (Grade-Level Indicator 8 – Use available technology to compose text, and indicator 14 – rewrite and illustrate writing samples for display and for sharing with others.) To move this department forward a .5 level each year over the next three years, technology subcommittees will evaluate existing use of technologies that support a standards-based curriculum, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals. Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. The district will develop a plan to upgrade the infrastructure and hardware. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged.

How will we know we're getting there?

Test data to measure student progress will be analyzed to evaluate and monitor progress. Kettering City Schools currently have two curriculum leaders as committee members of the D3A2 initiative to provide data and resources that are aligned to the Ohio Academic Content Standards. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, and increase parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. In an effort to provide teachers the tools to incorporate technology 60 smart board in-house grants were awarded to our teachers this year and will be installed over the summer for use beginning in the 06-07 school year. Three sessions of professional development on the use of the Smart Board have already been scheduled. A 3-year plan identifying milestones will be developed and maintained.

2.3 How Will You Be Using Technology To Improve Teaching and Learning In Fine Arts

The goal of section 2.3 is to have your technology planning team 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.

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. Please feel free to use fractional numbers.

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	2.5	4.0
5-8	2.5	4.0
9-12	2.5	4.0

How will we get there?

The Fine Arts department integrates technology at varying levels throughout the district. In the Arts, technology is advancing rapidly, and we are committed to providing the technology experiences necessary to prepare our students for the career of their choice. Just this year Kettering City Schools built a new Performing Arts Center addition to the high school. All music teachers were provided notebook computers for traveling between schools to teach classes, and to use while they are away at competitions. The Recital Hall was equipped with sophisticated sound and lighting equipment, and many of the performances are videorecorded and used in the classrooms for critical evaluation. Music students are using computer programs for composing and practice. Art students are using Adobe Photoshop, and other software packages to create, edit and produce artwork for classroom projects and art shows. The photography classes have gone digital as students explore the wide use of this type of technology. Our digital design class designs and produces a variety of campus brochures, and flyers for a number of student activities, including for the first time this year promotional materials for our new Trent Arena that opened in the fall of 05. To move Fine Arts forward a .5 level each year over the next three years, technology subcommittees will evaluate existing use of technology in the Fine Arts, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals. Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. A 5-year replacement plan was developed at the high school level this year, and will be implemented for the upcoming 06-07 school year. Plans for the middle and elementary schools are in progress. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged.

How will we know we're getting there?

Test data to measure student progress will be analyzed to evaluate and monitor progress. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored. Levels of technology use will be monitored through file server usage, and requests for additional technology tools to integrate technology. Next year several music and art teachers across the district will begin using Smart Board Technology in their classrooms.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, an enhanced infrastructure, and increased parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. A 3-year

plan identifying milestones will be developed and maintained.

2.4 How Will You Be Using Technology To Improve Teaching and Learning In Foreign Language?

The goal of section 2.4 is to have your technology planning team 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.

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. Please feel free to use fractional numbers.

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	2.5	4.0
5-8	2.5	4.0
9-12	2.5	4.0

How will we get there?

The Foreign Language department integrates technology at varying levels throughout the district. During the 05-06 school year our foreign language departments began using Videostreaming to support their efforts in the classroom. They are currently using this technology over TV, but some Foreign Language teachers will be using Smart Board technology next year to deliver this technology. To move this department forward a .5 level each year over the next three years, technology subcommittees will evaluate existing use of technologies that support a standards-based curriculum, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals.

Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. The district will develop a plan to upgrade the infrastructure and hardware. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged.

How will we know we're getting there?

Test data to measure student progress will be analyzed to evaluate and monitor progress. Videostreaming logs will be monitored to determine usage. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, an enhanced infrastructure, and increased parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. A 3-year plan identifying milestones will be developed and maintained.

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

The goal of section 2.5 is to have your technology planning team 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.

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. Please feel free to use fractional numbers.

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	2.5	4.0
3-4	2.5	4.0
5-7	2.5	4.0
8-10	2.5	4.0
11-12	2.5	4.0

How will we get there?

The Math department integrates technology at varying levels throughout the district. Our high school math teachers attended the T3, Texas Instruments, Teachers Teaching with Technology Conference in Denver this past February to improve their technology integration skills in the classroom. Our teachers use Texas Instruments Graphing Calculator as this tool is used in a wide variety of ways and applied to many mathematical concepts covered by Ohio's Mathematical Academic Content Standards. Next year our high school teachers will be able to provide a visual demonstration of the graphing calculator features because 70% of them have received an in-house SmartBoard Grant. A SmartBoard workshop on graphing calculators is scheduled for August, 2006 for our math teachers. To move this department forward a .5 level each year over the next three years, technology subcommittees will evaluate existing use of technologies that support a standards-based curriculum, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals. Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. The district will develop a plan to upgrade the infrastructure and hardware. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged.

How will we know we're getting there?

Test data to measure student progress will be analyzed to evaluate and monitor progress. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored. Observed teacher use of smart board and graphing calculators during observation will be documented.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, an enhanced infrastructure, and increased parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. A 3-year plan identifying milestones will be developed and maintained.

2.6 How Will You Be Using Technology To Improve Teaching and Learning In Science?

The goal of section 2.6 is to have your technology planning team 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.

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. Please feel free to use fractional numbers.

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	2.5	4.0
3-5	2.5	4.0
6-8	2.5	4.0
9-10	2.5	4.0
11-12	2.5	4.0

How will we get there?

Kettering City Schools just completed a 3-year district-wide renovation/construction project creating 21 new state of the art science rooms throughout the district. Each new science room received new teacher computers at the Middle School, the high school will receive new computers next year, and the elementary schools in 2007-08. The Science department integrates technology at varying levels throughout the district. Some of the more innovative teachers are approaching level 4 use. For example, in a 5th grade science room the teacher uses the internet to track hurricanes. Students look at and download satellite images, track longitude and latitude, plot the storm path, then analyze the impact this storm will have on the areas that it moves through. Next year a smart board will be installed into this classroom to technologically support this teachers efforts to use technology to improve student learning. To move this department forward a .5 level each year over the next three years, technology subcommittees will evaluate existing use of technologies that support a standards-based science curriculum, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals. Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. The district will develop a plan to upgrade the infrastructure and hardware. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged.

How will we know we're getting there?

Principals at the High School, Middle School, and most of the Elementary schools were provided a notebook computer this year to use during teacher evaluations. During teacher evaluation, principals will note the use of integration of technology in the classroom. Test data to measure student progress will be analyzed to evaluate and monitor progress. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, an enhanced infrastructure, and increased parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. A 3-year plan identifying milestones will be developed and maintained.

2.7 How Will You Be Using Technology To Improve Teaching and Learning In Social Studies?

The goal of section 2.7 is to have your technology planning team 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.

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. Please feel free to use fractional numbers.

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	2.5	4.0
3-5	2.5	4.0
6-8	2.5	4.0
9-10	2.5	4.0
11-12	2.5	4.0

How will we get there?

Our Social Studies Department has been very active this year incorporating videostreaming into their lessons to support the Academic Content Standards. Although students currently watch this over TV, next year several teachers will be showing these clips over their smart board. One of our elementary teachers is using Ben's Guide - an interactive web site for Government, while another teacher at the middle school uses the Hot Shot website for an economics simulation where students create their own product, advertise, market, and budget. Next year a technology subcommittee will evaluate this type of existing use of technology against our standards-based curriculum and identify the particular standard it supports, identify current best practices that are not currently in use, and explore new emerging technologies that improve student learning. All efforts will support district student learning goals. Professional development will be offered to support technologies that improve student learning, and content specific textbook software will be evaluated. The district will develop a plan to upgrade the infrastructure and hardware. Integration teams using the buddy system will be developed for teacher support. Participation at state and local technology conferences will be encouraged. All teachers receiving a smart board will be provided two professional development sessions.

How will we know we're getting there?

Student test data will be analyzed to evaluate and monitor progress. Teacher and student input through surveys will be collected. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored.

How will we sustain focus and momentum?

The district will support and encourage ongoing use of technology by teachers, staff and administrators, through increased attendance to technology conferences, on-site inservice opportunities, an enhanced infrastructure, and increased parental involvement through technology services. Equipment will be properly maintained and put on a replacement cycle to maintain a stable and reliable technology environment. A 3-year plan identifying milestones will be developed and maintained.

2.8 How Are You Teaching Students About Technology Itself?

The goal of Phase 2.8 is for district tech 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 tech, 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 CCIP goals and strategies.

Activity

Using the following scale from Apple Classrooms of Tomorrow (ACOT), self-assess your organization's current level of technology integration into your instructional process. Give credit to pockets of excellence, but try to paint an overall picture. Fractional numbers such as "2.5" are acceptable.

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	3.5
3-5	1.5	3.5
6-8	1.5	3.5
9-10	1.5	3.5
11-12	1.5	3.5

How will we get there?

Prior to alignment, all hardware within the district must support existing technologies and software aligned to academic content standards. The high school is currently undergoing a major technology renovation consisting of updated cabling, new servers, new teacher computers, updated labs, smart board installation in 16 rooms, and evaluation of software alignment to academic content standards. The curriculum coordinators are including Technology Standards in the new course of studies they are developing for all content areas. The Elementary Technology Coordinator is currently evaluating K-5 classroom use of Technology Standards with the help of our Technology Leaders within our nine elementary schools. The technology committee will devise a plan to integrate the standards that are not currently being addressed. Included in this plan will be the selection and evaluation of appropriate technology (software and hardware) and the appropriate professional development needed to support teachers in their efforts as they move forward with the integration plan. This plan will be submitted to the District Technology Committee for approval. The plan is then submitted to Instructional Services Committee for approval, and then submitted to our Treasurer and Superintendent. In the area of professional development, our Elementary Tech Leaders meet quarterly with the Elementary Tech Coordinator for inservice and take this information back to the teachers in their schools. We have several summer teacher workshops scheduled including a Math Smart Board Workshop, Excel Workshop, Digital Camera, New Teacher Tech Orientation, and Tech Leader Year Ahead workshop.

How will we know we're getting there?

The technology committee, along with the integration subcommittees, will evaluate progress on an annual basis and make necessary adjustments to the overall integration process. BETA surveys will be used as a tool to monitor progress. Integration teams will collect evidence of integrated projects or lessons, and of student work. Logs of lab usage will be maintained, and demand for supplies and usage will be monitored.

How will we sustain focus and momentum?

Our curriculum integration specialists, administration, and department chairs will monitor the progress of professional development and implementation of standards on an ongoing basis through the evaluation process, departmental meetings, and inservice opportunities. Equipment will be properly maintained and placed on a replacement cycle to maintain a stable and reliable technology environment. A 3-year plan identifying milestones will be developed and maintained.

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

How do we get there?

Policy is set at the district level. Recently our Board of Education made a commitment to funding a district-wide initiative to integrate technology with curriculum and instruction. An outside consulting firm has provided an evaluation of the high school technology environment, and work has begun to provide a stable infrastructure and new network environment to support teacher use of technology. We are currently evaluating all departmental software for alignment to a standards based curriculum. We recently completed updating all technology board policies to maintain compliance with federal and state law. These new and updated policies will be included in student handbooks. Weekly technology department meetings are held where discussions often center around current emerging technologies and their impact on education. Kettering City Schools currently have two members serving on D3A2 committees and will continue to pursue improving data analysis interpretation, and accessible resources for teachers.

How do we know we are getting there?

Review district technology policies annually and update as needed. Updates should reflect current trends in use of technologies. Continue to evaluate data analysis use and understanding through teacher participation and feedback. Review hardware replacement cycle to make sure district is on schedule with funding goals.

How do we sustain the focus and momentum?

The technology department will monitor new developing issues that must be governed by district policy.

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

How do we get there?

Our district will encourage administrators to model technology by supporting them with reliable hardware, emerging technologies such as principal software, support of participation in leadership tech programs such as LIT, and ongoing professional development of software aligned w/academic content standards and data analysis tools. Efforts at the district level to secure commitment for funding and replacement will continue. In the technology department, we are currently constructing a training lab for administrators and support personnel for ongoing technology training sessions.

How do we know we are getting there?

The BETA survey is an excellent indicator of building level administrative support and modelling. This tool will be used along with administrative evaluations. Observation will be part of this process - are administrators using the tools that have been provided?

How do we sustain the focus and momentum?

Continue to inservice all leaders on new technologies, and provide the necessary tools for individual use. Reduse level of anxiety by providing efficient, dependable hardware and service.

3.3 Technology Leader/Coordinator Time Commitments

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

Other (please describe):

N/A

How will we get there?

The district supports a full time Director of Technology services. The district is committed to professional development for integrating technology to enhance student learning. Recently the Board of Education approved funding to align technology with current standards.

How will we know we are getting there?

Revisit time allocation after technology planning process is complete and being implemented. New hardware will reduce repair and service issues, freeing time to focus on integration for student learning.

How will we sustain focus and momentum?

Revisit technology plan approved by district quarterly and evaluate progress.

Technology Infrastructure, Management and Support

4.1 Networking, Internet & Telecommunications

"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 places.

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

"Where do we want to go?"

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

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

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

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

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

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

How will we get there?

File and print sharing will increase at the high school this year as we switch over from ink-jet printers to laser printers. With our new technology environment, teachers and students will be saving files to the file server, and teachers will be able to share files. Along with this, we will upgrade the entire district with digital copiers. All staff will be networked to their copier for print and scanning capabilities. Over the next several years we plan to increase our wireless service so that our entire district has wireless access. We plan to change all hubs to switches and 10 to 100 MB. The high school is currently receiving, and both middle schools received network upgrades this year.

How will we know we are getting there?

Our goal in switching over the laser networked printers, and networked copiers is to reduce spending on the costly ink-jet printers over time. We will inservice our teachers and staff this summer on how to use this equipment. The board of education will be updated at the June, 2005 board meeting on the progress made this year with technology integration.

How will we sustain focus and momentum?

The technology environment at the high school is currently being upgraded. New servers re being installed and new back up systems are in place.

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 district.

Late Adopter - Waiting until the technology is quite established in the field and fully tested.

Middle Adopter - Waiting until the first wave has been introduced into the school setting.

Early Adopter - One of the first settings to pilot and test the technology.

	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)	1:2.6	1:3
Peripherals (e.g. scanner, digital camera)	Some	Pervasive
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?

The technology staff currently spends most of its time doing maintenance and repairs on existing technology throughout the district. The infrastructure must be enhanced with new computers throughout the district. As this happens our technology staff will do less maintenance and repair, and have more time for integration to support learning. Subscribing to online journals, and sites that review emerging technologies, visiting convention displays and booths, and reading about new technologies. As needs are identified in the classrooms through data analysis, new technologies will be searched that address that particular need. Depending on the software/hardware, a pilot of one school, or the entire district, could be initiated. Feedback and evaluation would determine putting that technology in place. After attending several Smart Board demonstrations at National Technology Conferences, and our Math Department visit to this year's Teaching with Technology Conference in Denver, it was decided that the Technology Department would offer 60 Smart Board Grants to our teachers in the district. Each teacher that applied for a grant had to write a lesson plan including the smart board and one that was aligned to the academic content standards. All smart boards will be installed this summer.

How will we know we are getting there?

Site visits, research existing technologies, develop a prototype, present to directors and superintendant for approval. Oversee implementation and professional development as needed during this phase.

How will we sustain focus and momentum?

It is a full time job staying current with technology. Since technology changes so quickly, the technology plan will be updated and revised according to current practices on a semiannual basis.

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 (for an explanation or definition of the following terms click the help icon)

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

How will we get there?

We identify the need, include stakeholders in the pre-conversion phase, implementation, schedule required inservice to learn the new system, continuous updates and improvements, and support for end users. Our most current project is to offer parents the opportunity to pay fees online. This will be a service to the families that we serve, and promote parental involvement. We are also including in our Student Information System our Human Resource department. Our personnel in these areas have attended three 1/2 day inservices to learn the new system, and are now using the system with support services in place. Our Financial staff was also involved in this process since much of their data is originated in in the Human Resources department. We also switched over to a Automated Student Scheduler this year and are in the process of comparing it to results achieved with previous years.

How will we know we are getting there?

User group meetings are in place for the Personnel component of our SIS. The Technology Department manages these systems and meet with the end users on an ongoing basis for feedback, and make adjustments accordingly. Feedback often results in special custom reports written to address specific needs of the department. We will evaluate the effectiveness of the automated student scheduler against prior year percentages, and continue to tweak the system to achieve better results.

How will we sustain the focus and momentum?

Our district plans to offer other components of our SIS system each year. offer more web-based tools for our staff and students. Evaluation of technologies that will fit our needs will be ongoing. Discussions at the administrative level about the benefits of such programs is ongoing.

4.4 Educational Software

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

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

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

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

Selection Processes

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

How will we get there?

Software aligned with the Academic Content Standards is often included in our Textbook selection process since most textbooks have accompanying software. This process is done by content area. Committees evaluate demos, then once a selection is made, the product is piloted. Inservice on the text and supporting materials including software is budgeting for the entire process. District wide, we are in the process of upgrading and standardizing our infrastructure so that these existing technologies can be integrated with the curriculum.

How will we know we are getting there?

Curriculum and Technology Coordinators collect feedback from the end users. The technology department responds to any roadblock that prevents teachers from effectively using their resources.

How will we sustain focus and momentum?

A process will be developed to evaluate all software before purchasing to measure expected benefit to students.

4.5 Security

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

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

How will we get there?

Our district policies reflect compliance for security measures. We continuously monitor new technologies that will help us maintain a secure environment with the least restriction for achieving our educational goals.

How will we know we are getting there?

Communication between end users and consideration of achieving district goals will help determine whether or not our system is effective and at the same time secure. Any breach of security is analyzed and acted upon.

How will we sustain the focus and momentum?

Our security policies are public knowledge and AUP is printed in all student directories. There are plans to include this information on our web site as an additional way of communicating policy to our parents.

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	1:405	1:405
Support Staff to Teachers	1:22	1:22
Support Staff to Computers	1:155	1:175
Support Staff to Buildings	1:1	1:1

	Where are we now?	Where do we want to go?
Average Response Time (Days)	2-3	1-2
Service Level Agreement (SLA)	No	No
Full-time technology coordinator/director	Yes	Yes

How will we get there?

Our district has very old computers that require considerable maintenance and repair. We are in the process of implementing a new technology environment at the high school and will move to the elementary schools next year. The district will be placed on a 5-year replacement cycle. The ratio of staff to computer, and our response time to repairs should be reduced as a reflection of decreased maintenance/repair.

How will we know we are getting there?

Currently the old computers are a barrier to some use of technology in the classroom. End-user satisfaction will be monitored through our help desk, and by providing dependable hardware that will accommodate current software solutions.

How will we sustain focus and momentum?

Monitoring of help desk numbers, analyzing BETA survey results, and making adequate adjustments that will support end users.

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	More
Procurement Plan	Some	More
Specifications/Requirements/Fits Analysis	Some	More
Integration of donated time, materials or services	Some	More
Deployment/Installation plan	Some	More
Initial Training and Professional Development	Some	More
Evaluation of current external support costs versus new purchase	Some	More
Loss of institutional knowledge for replaced systems	Some	More
Phase Out/Replacement cycle	Some	More
Disposal costs	Some	More

How will we get there?

General use of TCO has been used in the district to determine costs associated with implementing new systems. A more precise TCO process will be incorporated into future decisions for technology. The TCO process was used as we developed our new technology upgrade plan for the high school. We evaluated our relationships with various vendors, and then chose the vendor we felt could best accomplish our goals and that shared the same values. A 5 year plan includes an ongoing infrastructure upgrade to support our goals, timeline, and deployment costs, costs of required training for our tech staff as well as end users, an inventory to determine new vs. replace w/upgrade, disposal costs, finance costs, etc. Replacing existing ink jet printers with laser printes and digital copiers with networking capabilities will reduce printing expenses in the long run.

How will we know we are getting there?

Our technology is being upgraded to support increased demand and use of emerging technologies, such as software that accompanies new textbooks, smartboards, and videostreaming. One benefit we expect to realize from these upgrades is less maintenance and repair, freeing up time for our technology coordinators to focus more on the integration aspect of technology. Evaluation and review of tech coordinator activities will be ongoing.

How will we sustain focus and momentum?

A process will be established using TCO and all purchases will be presented using that process. Each proposal will include evaluation of the new system, with allowance for adjustments based on that evaluation process.

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	2006-07	2007-08	2008-09	Total
Network/Telecommunications Services	47,000	48,000	49,000	50,000	147,000
Hardware	120,000	750,000	1,250,000	250,000	2,250,000
Student Data Administrative Systems	120,000	125,000	130,000	135,000	390,000
Software	25,000	50,000	50,000	50,000	150,000
Security	5,000	10,000	5,000	5,000	20,000
Technology Staffing/Support	365,000	380,000	395,000	410,000	1,185,000
Professional Development	8,000	10,000	12,000	15,000	37,000
Consumables	29,000	30,000	31,000	32,000	93,000
Additional	70,000	75,000	80,000	85,000	240,000
Total	789,000	1,478,000	2,002,000	1,032,000	

Additional Items

We budget 70,000 for telephone service and receive approximately 32,900 (47%) in e-rate discounts. We expect energy costs to rise, therefore the annual increase.

Provide details about your budget process

No plans to increase staff over the next three years. Our plans including an upgrade to infrastructure and hardware district-wide beginning in 06-07 including additional fiberoptic cabling, network enhancement, new computers and laptops for labs and teachers beginning with the high school in 06/07 and the nine elementaries beginning in 07/08, with a replacement plan reserve starting in 08-09. With the emphasis on technology supporting student learning in the classroom, there will be increased emphasis on professional development for technology.

How will we get there?

Our district is researching different types of funding to support our technology goals, including cost cutting measures throughout the district, bond issues, grants, and partnerships.