1a. Technology Committee Membership

The Cheney USD 268 Technology Team represents the Board of Education, the community, students, classified and certified staff, administration and the technology department.

Tom Alstrom – Superintendent & Parent
Ann Asbury –CHS Communications Teacher & Parent
Roger Brown – Community Member
Mary Butel - 6-12 Library Teacher
Jeri Carroll – Professor – Department of Curriculum & Instruction, Wichita State University
Rex Casner –CHS Business Teacher & Parent
Livia Custer – 5th Grade Teacher
Stacy DeVore – CMS Technology & Social Studies Teacher & Parent
Derek Ervin – CHS Student
Carla Ewy – K-5 Library Teacher & Parent
Carla Hibbs – CHS Social Studies Teacher
Michelle Higgins – CMS Technology Education Teacher & Parent
Peggy Jones – 6th Communication Teacher
Terry Kohler – Board Member
Gary Kramer – System Administrator
Lori Kutilek – 3rd Teacher & Parent
Jeanine Long – CES Counselor
Meg Rice – 1st Grade Teacher
Jamie Rumford – CES Principal & Parent
Rod Scheer - CHS Business Teacher & Parent
Kelly Schmidt – District Technology Assistant
Richard Soash – Curriculum & Technology Director
Ron Traxson – CHS Principal
Amy Wallace – CMS Principal & Parent
Sharen Young – Kindergarten Teacher

1b Technology Needs Assessments

Cheney USD 268 surveys students, teachers, administrators and community annually to find areas of need and to assess progress toward meeting the district technology goals.

Student Technology Needs

Student needs are assessed with the results of the annual student survey as well as with input from staff and administration. The district reviews the results of local, state & standardized assessments to pinpoint additional areas of need. The building-level School Improvement Teams (SIT) and the District Technology Team also make suggestions based on progress on school improvement strategies and needs identified through data reviews and requirements of local, state and federal programs. Student members on the district Technology Team also provide input based on their evaluations of district technology resources and needs. All these suggestions/requests are then incorporated into the Annual Technology Requests. The requests are prioritized by the District Technology Team and then submitted to the Cheney USD 268 Board of Education for review and approval.

- 6th-12th Grade Annual Online Student Survey
- Alignment of content-area software purchases to state standards, district curriculum and to School Improvement Plans (e.g. Kidspiration/Inspiration – Graphic Organizers, Everyday

Math Online games to supplement the CES math program, Lexia Reading, Read Naturally, Earobics and Fast ForWord for at-risk reading)
- Student input to Technology Team
- State & local assessment results & benchmark results
- Computer Literacy Requirements of NCLB and QPA (e.g. 8th grade Computer Apps & Computer Applications I & II at CHS are now required)

Staff & Administration Technology Needs

Staff's and administration's needs are assessed using the results of the annual survey for each group. In addition, Cheney USD 268 Technology Requests are sent to staff in February. The requests are then collected and submitted to the Technology Team for review. These requests are evaluated based on budget available, on ability to meet student learning needs and on supporting building school improvement plans. The highest needs items are incorporated into the Annual Technology Requests which are submitted to the Cheney USD 268 Board of Education for review and approval.

- Annual Online Staff Survey
- Annual Online Administrator Survey
- Technology Requests in February – reviewed by District Technology Team
- School Improvement Team Requests/Suggestions
- Technology Team Recommendations

Parent / Community Technology Needs

Parent/community needs are assessed with an annual online survey. Community members on the District Technology Team also provide input based on their evaluations of district technology resources and needs. The Technology Team reviews the results and incorporates recommendations into the Annual Technology Requests submitted to the Cheney USD 268 Board of Education for review and approval.

- Annual online community survey at the spring Parent Teacher's Conference
- PowerSchool – parental access to student data system
- Parent/Community member input to the District Technology Team
- Informal survey of computer access at home used to distribute refurbished computers to students who do not have a computer at home

District-wide Technology Needs

District-wide technology needs are submitted by the System Administration and district Technology Director for inclusion in the Annual Technology Requests.

- Asset Manager – maintains current inventory of hardware & installed software which assists in tracking the age of district hardware as well as versions and quantity of software licenses in use.
- On-going computer replacement cycle, with a goal of having no computers older than five years old for student, staff, and administrator use.
- On-going rotation cycle for replacement of servers.
- Recommendations for other district-wide hardware, software and network needs are made as needed.

The Annual Technology Requests from teachers, administration and district technology staff are compiled and reviewed by the District Technology Team. Once finalized, the Cheney USD 268 Board of Education is presented a list of proposed upgrades and additions at the April meeting each year. After discussion of the proposal, recommendations are reviewed and approved by the Board at its May meeting.

The goal of this process is to keep district technology current in order to improve student learning and meet the technology needs of district staff and administration.

2. Instructional Technology Vision Statement

The technology vision of Cheney USD 268 is not focused on the technology; rather it is focused on improving student learning and classroom instruction by improving the quality of classroom learning activities, including the integration of technology when appropriate.

The Instructional Technology Vision for Cheney USD 268 is:

- To enhance instruction through technology
- To provide technical skills for the post-secondary world
- To enhance communication between school and community
- To meet individual learning needs related to technology of all students, staff & administration
- To promote the ethical and responsible use of technology and information

in order to improve student learning

This process is directed toward meeting the student learning needs within the district, aligned to school improvement plans developed by building School Improvement Teams and guided by the results of district test data.

The district is moving toward student-centered classrooms with integrated and/or cross curriculum content. Cooperative learning provides students with the opportunity to be engaged with each other and with their own learning. Reading is taught across the curriculum, with a focus on the four text types (narrative, expository, technical and persuasive). Math is taught in context, encouraging students to apply and explain rather than do the problems at the end of the chapter. Social studies and science are taught so that students will develop deeper understandings of important concepts rather than memorize facts. Fine arts are taught to encourage students to express themselves in multiple manners and formats and to develop a life-long interest in the arts. Technical education is taught to encourage students to develop skills that will serve them in their future lives, be it professional, technical, or personal.

In each of these areas, technology is used to support and enhance the learning experience, often in ways that would not be possible without the use of technology.

3a. Goals & Objectives

The technology goals for the district are designed to be integrated into classroom learning activities. These goals assist in meeting each building's School Improvement Plans (SIP) which are designed to meet the requirements of the Kansas Quality Performance Accreditation (QPA) and federal No Child Left Behind (NCLB).

Goal 1 - To enhance instruction through technology
Objectives:

- Develop student-centered classrooms with the teacher as facilitator
- Promote hands-on use of technology by students
- Integrate technology infused project-based and inquiry-based learning into classrooms to facilitate critical thinking, problem solving and decision making
- Build technology integration into the curriculum planning process

Goal 2 - To provide technical skills for the post-secondary world
Objectives:

- Provide strong programs to prepare students for the Kansas Vocational Educational II competencies in FACS, Technology Education, Business & Computer Applications
- Provide strong programs in order for students to meet the Cheney USD 268 Technology Standards, ISTE Technology standards, state assessments and the requirements of NCLB
- Offer a variety of courses to prepare students for the work place

Goal 3 - To enhance communication between school and community
Objectives:

- Provide parents with current information via a web-based student information system
- Promote communication and publicize district achievements via the district web page & district cable channel
- Promote learning via classroom web pages
- Publicize the district via a promotional video

Goal 4 - To meet individual learning needs of all students and staff
Objectives:

- Improve learning opportunities for at-risk and under-performing students
- Enrich learning opportunities for all students
- Provide learning opportunities beyond the walls of the school building
- Provide the necessary hardware and software for staff and students to effectively use technology
- Improve the technology skills of district staff

Goal 5 - To promote digital citizenship (i.e. the ethical and responsible use of technology and information)
Objectives:

- Teach, model and promote the safe and ethical use of technology
- Teach, model and promote the ethical use of information
- Approve policies and guidelines that encourage the ethical & responsible use of technology and information

3a-1 Technology Use Assessments

In order to track progress toward improving student learning, the district must make positive steps to meet and track the goals and objectives in section 3a. These data are both qualitative and quantitative, providing a means to evaluate progress toward improving student learning in the district.

Annual technology survey results for each goal are included.

Goal 1: To enhance instruction through technology
Objectives:

- Develop student-centered classrooms with the teacher as facilitator
  - Assess classrooms by informal principals' observations
  - Administer local survey annually to teachers and students
- Promote hands-on use of technology by students
  - Administer annual student survey
- Integrate technology infused project-based and inquiry-based learning into classrooms to facilitate critical thinking, problem solving and decision making
  - Track number of project-based, rather than textbook, units taught each year
- Build technology integration into the curriculum planning process
  - Provide group planning time to develop student learning units
  - Include technology in all units in curriculum matrices

Goal 1 Survey Results

	2001					2006					2007					2008				
	Important		Not Important			Important		Not Important			Important		Not Important			Important		Not Important		
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Students	42%	35%	15%	1%	2%	55%	31%	11%	1%	2%	54%	35%	10%	0%	1%	59%	30%	9%	1%	1%
Staff	80%	18%	2%	0%	0%	58%	27%	15%	0%	0%	69%	26%	5%	0%	0%	70%	26%	4%	0%	0%
Community	92%	8%	0%	0%	0%	*	*	*	*	*	71%	21%	5%	1%	2%	71%	18%	10%	0%	1%
Administration	75%	25%	0%	0%	0%	40%	60%	0%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%

* = not surveyed at this time

It is interesting that student scores have increased for the combined top two rankings from 77% in 2001 to 89% in 2008.

Goal 2 - To provide technical skills for the post-secondary world
Objectives:

- Provide strong programs to prepare students for the Kansas Vocational Educational II competencies in FACS, Technology Education, Business & Computer Applications
  - Track number of students completing VE II program (Technology Education, FACS & Business)
- Provide strong programs in order for students to meet the Cheney USD 268 Technology Standards, ISTE Technology standards, state assessments and the requirements of NCLB
  - CHS – Track number of students completing Computer Applications I & II
  - Assess staff and student (grades 8^{th} – 10^{th}) technology skills (pre- and post-test) with InfoSource Learning's online assessment
  - Assess keyboarding skills annually in grades 3-9
- Offer a variety of courses to prepare students for the work place
  - Offer additional technical courses each year (e.g. addition of FACS computer modules at CHS & CMS) as staff and equipment are available
  - Increase School-to-Work and Career Pathways opportunities

Goal 2 Survey Results

2001 2006 2007 2008

	Important		Not Important			Important		Not Important			Important		Not Important			Important		Not Important		
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Students	43%	35%	12%	1%	1%	56%	30%	10%	1%	3%	57%	32%	10%	.5%	.5%	64%	23%	10%	3%	1%
Staff	64%	23%	2%	0%	2%	64%	29%	7%	0%	0%	66%	26%	8%	0%	0%	64%	28%	8%	0%	0%
Community	75%	17%	0%	0%	0%	*	*	*	*	*	72%	18%	7%	1%	1%	70%	16%	10%	3%	1%
Administration	100%	0%	0%	0%	0%	60%	40%	0%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%

* = not surveyed at this time

It is interesting that student scores have increased for the combined top two rankings from 78% in 2001 to 87% in 2008. Other groups have remained relatively stable.

Goal 3 - To enhance communication between school and community
Objectives:

- Provide parents with current information via a web-based student information system
  - Track student and parental access to online student grades & attendance
  - Increase the percentage of progress reports emailed rather than mailed
  - Increase the use of AlertNow
- Promote communication and publicize district achievements via the district web page & district cable channel
  - Increase educational and informational programming via the district cable channel
  - Increase educational and informational programming on district webpage
- Promote learning via classroom web pages
  - Increase the number of teacher-maintained web pages that provide educational information and links
- Publicize the district via a promotional video
  - Complete and distribute a district video for use at the Wichita Home Show, for visitors and for area realtors

Goal 3 Survey Results

	2001					2006					2007					2008				
	Important		Not Important			Important		Not Important			Important		Not Important			Important		Not Important		
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Students	49%	30%	9%	3%	1%	53%	25%	14%	5%	3%	55%	21%	21%	2%	1%	57%	23%	14%	5%	1%
Staff	55%	32%	11%	0%	2%	64%	29%	11%	4%	0%	62%	28%	8%	2%	0%	60%	34%	4%	0%	2%
Community	75%	25%	0%	0%	0%	*	*	*	*	*	64%	21%	11%	1%	3%	70%	14%	13%	3%	1%
Administration	75%	25%	0%	0%	0%	20%	60%	20%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%

* = not surveyed at this time

Ratings of this goal have remained relatively stable since the implementation of the online student information system in 2004.

Goal 4 - To meet individual learning needs of all students and staff
Objectives:

- Improve learning opportunities for at-risk and under-performing students
  - Monitor and provide assistance to struggling students via technology resources and teacher-designed interventions in classrooms and during seminar. The district is moving toward the implementation of Kansas Multi-Tier System of Supports to meet the needs of each student.
  - Monitor reading skills with STAR in 1st – 5th grades and Scholastic Reading Inventory (SRI) in 3rd – 12th grades
  - Track standardized test scores

        - 9th Grade – Explore
        - 10th Grade – Plan
        - 11th Grade – Practice ACT
        - 11th Grade – PSAT
    - Track results of Kansas standards assessments
- Enrich learning opportunities for all students
    - Provide free computers via loan program for families without a computer in the home
    - Increase the use of technology for enrichment activities
- Provide learning opportunities beyond the walls of the school building
    - Increase the use videoconferencing equipment to provide access to KanEd and other educational enrichment programs
    - Increase the use videoconferencing equipment to provide access to post-secondary courses
    - Increased the use of Kan Ed Learning Station desktop and online information databases for all staff and students
- Provide the necessary hardware and software for staff and students to effectively use technology
    - Collect Annual Technology Requests, reviewed by the District Technology Committee with approval from the Board of Education
    - Increase student and staff approval ratings of hardware and software on annual survey
- Improve the technology skills of district staff
    - Maintain subscription to online Atomic Learning
    - Provide district-wide, building, grade-level/content area and individual professional development opportunities
    - Require that staff include one technology goal in their yearly learning goals, which are reviewed by the building principal
    - Increase passing scores on the online assessment of ISTE technology skills from InfoSource Learning. Thirty-four percent of the staff passed the pre-assessment (42% CES; 25% CMS; 34% CHS)

Goal 4 Survey Results

	2001					2006					2007					2008				
	Important		Not Important			Important		Not Important			Important		Not Important			Important		Not Important		
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Students	48%	22%	13%	4%	5%	63%	23%	10%	2%	2%	68%	17%	13%	2%	1%	67%	20%	10%	2%	1%
Staff	59%	30%	11%	5%	5%	38%	45%	16%	0%	0%	45%	33%	22%	0%	0%	56%	34%	6%	0%	4%
Community	25%	42%	25%	0%	0%	*	*	*	*	*	68%	23%	8%	1%	0%	68%	19%	11%	1%	1%
Administration	75%	25%	0%	0%	0%	60%	40%	0%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%

* = not surveyed at this time

Combining the top two ratings, scores have increased steadily for students (70% in 2001 to 87% in 2008) and community (67% in 2001 to 87% in 2008). Staff's rating of the goal has been rather erratic.

Goal 5: To promote digital citizenship (i.e. the ethical and responsible use of technology and information)

Objectives:

- Teach, model and promote the safe and ethical use of technology
    - Conduct 4th Grade Internet Use & Safety sessions
    - Publish Internet safety articles in district newsletters

- Integrate ethics into CMS 8th computer course and CHS Computer Applications I & II
- Integrate Internet safety and cyberbullying into CMS & CHS computer classes

- Teach, model and promote the ethical use of information
  - Integrate ethics into CMS & CHS communications, journalism and library activities
- Approve policies and guidelines that encourage the ethical & responsible use of technology and information
  - Review and update CHS Plagiarism policy
  - Review and update District Copyright policy

Goal 5 Survey Results

	2001					2006					2007					2008				
	Important		Not Important			Important		Not Important			Important		Not Important			Important		Not Important		
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
Students	48%	32%	14%	1%	1%	70%	17%	8%	2%	3%	68%	21%	8%	1%	1%	68%	20%	9%	1%	1%
Staff	59%	20%	9%	0%	0%	69%	24%	7%	0%	0%	69%	22%	7%	2%	0%	72%	22%	6%	0%	0%
Community	50%	50%	0%	0%	0%	*	*	*	*	*	82%	12%	5%	1%	0%	83%	8%	9%	0%	1%
Administration	75%	25%	0%	0%	0%	20%	80%	0%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	0%	0%

* = not surveyed at this time

Rating of this goal has remain relatively stable with all surveyed groups.

Whenever possible, these skills will be taught in context, at an age-appropriate grade level. However, to ensure that students at Cheney USD 268 have met the requirements of the Kansas Board of Regents – Computer Technology Proficiencies, students will be required to complete two semesters of computer application coursework. These courses have moved from a textbook-based to a project-based format, allowing students to apply all the skills set forth in the above goals and objectives to real world situations.

3b Curriculum Integration and Enhancement

The complete list of district standards & benchmarks are available at http://www.cheney268.com/Technology/ITGradeLevelReport.htm

The goal of curriculum integration and enhancement is to integrate technology resources, curriculum content, information literacy and authentic assessments into classroom learning activities in order to improve student learning. This process requires more than just hardware and software for success. It requires that a district change the way it teaches in order to take advantage of the increased productivity and access that technology can offer. It also requires time for teachers to shift their classroom activities from traditional activities to more student-centered activities.

District-wide Initiatives

- Kagan Cooperative Learning
- Guided Reading (K-5) / Reading Across the Curriculum (6-12)
- Curriculum Matrices, with technology being added to all matrices
- CES and CMS team grade level curriculum planning days
- CHS content-area curriculum planning days
- Whenever possible, computer software is installed on the network so that it is available to students and staff wherever they are in the district.

- K-12 standards-based interactive math programs - Everyday Math – CES ; Math in Context (MIC) – CMS; Interactive Math Program (IMP) – CHS
- K-12 Quia subscriptions
- LeapTrack Learning System (K – 4th grades)
- Use of LearningStation with Atomic Learning and links to all state and locally supplied online database resources for student & staff use. Students have been trained on using BackPack on the LearningStation desktop to transfer files to and from home.
- Subscriptions to full-text databases beyond those provided by the State of Kansas
- PowerSchool student data system with online attendance and grade reporting available to students and parents
- Project-based learning (Understanding by Design) and inquiry-based learning as models for curriculum design
- Integration of technology instruction into the classroom by the classroom teachers rather than teaching those skills in isolation. The exceptions are a formal keyboarding/computer applications for one semester at the 6th & 8th grade levels. Computer Applications I & II are required at the high school level to meet the requirements of NCLB and VE II.
- Train and encourage teachers to create classroom web pages that provide resources and links to classroom activities.
- SIT chairs are members the District Technology Team
- Curriculum / Technology Director is a member of all SIT committees
- All state assessments at all levels are completed online.

Hardware & Software

Although the mere presence of hardware and software does not guarantee integration, meaningful integration cannot take place without readily available hardware and software. The district currently has 536 computers with a pre-K-12 population of 794 students and 63 regular classroom teachers, 5 special education teachers, and 58 additional staff. Eighty-two percent of the computers are less than four years old. The district has installed nComputing X300 terminal kits on 99 computers, allowing the district to attach multiple monitors and keyboards for a total of 297 workstations. As older computers are replaced, additional nComputing X300 boxes will be installed to reduce the total number of computers while still providing computer access to more students. The district employs a full-time System Administrator, Computer Support Technician, Curriculum / Technology Director and two Tech Support students during the summer. During the school year, the Tech Support students are used to provide technical support as needed.

- All computers in the district are networked and connected to the Internet with T3 connectivity.
- Each teacher/administrator has a laptop or desktop computer, depending upon his/her preference.
- All computers in the district have Microsoft Office as well as Kidspiration (K-3rd) or Inspiration (4th-12th).
- All computers Pre-K through 2nd grades have kid-sized keyboards.
- All educational buildings have dedicated wireless access throughout the buildings
- Cheney Elementary School (CES) has at least 5 computers per classroom. Third, fourth and fifth grade classrooms at least 1 computer to every 2 students. There is one computer lab with 24 computers and wireless laptop cart with 16 computers. Every classroom has a ceiling mounted projector or 34” monitor attached to computers. First through fifth grade classrooms also have an Interwrite pad.
- Cheney Middle School (CMS) has at least one computer per classroom. Some classrooms have additional computers. There are two computer labs (28 & 22 computers) and a 24

station wireless laptop cart. Every classroom has a ceiling mounted projector or 34" monitor attached to computers. Many classrooms have Interwrite pads. The building also has an Interwrite Clicker system.

- Cheney High School (CHS) has at least one computer per classroom. There are two computer labs (30 & 10 computers), two business labs (21 & 12 computers), a library lab (29 computers), a publications lab (12 computers), an AutoCAD lab (15 computers), an At-Risk lab (10 computers) & two 24 station wireless laptop carts. Ninety percent of classrooms have a ceiling mounted projector or 34" monitor attached to computers. CHS also has mobile Polycom equipment for use with distance learning and concurrent college classes. Many classrooms have Interwrite pads. The building also has an Interwrite Clicker system.

Technology Prep / Tech Support Program

Based on the Gen Y model, Tech Prep students create classroom materials for teachers. In addition, these students are available to go to classes to assist teachers and students with student learning projects that include technology. For 2008-2009, the program has two students in the course. Tech Support students are hired during the summers to assist with technology installation and maintenance. These students then enroll in Tech Support class during the school year and continue to provide technical assistance. Currently there are three students in this program. This program has been very successful in preparing students to obtain jobs / careers in technology fields after high school.

Computer Loan Program

Community and student surveys have shown that approximately 90% of students in the district have a computer at home (approximately 80% with Internet access). Students without computers at home are put at a disadvantage in both technology skills/access and access to learning resources. The district loans donated excessed computers to students who do not have computers at home.

Grade Level / Content Areas

Technology Integration at Cheney Elementary School (CES)

The elementary school has one computer lab and a wireless laptop cart. In addition, each classroom has computers at a ratio of one computer for every two students. Every room is equipped with a ceiling mounted projector or 34" monitor. All 1st-5th grade classrooms have an Interwrite pad for teacher and student presentations. Each classroom is equipped with a sound amplification system for teachers.

The building has a site license to Everyday Math (EM) Online Games to add math practice using technology. The elementary administers STAR reading assessment grades K-5 and Scholastic Reading Inventory (SRI) grades 3-5 to benchmark reading skills. Students are encouraged to read by using Accelerated Reading throughout the building. Student progress in reading is benchmarked three times a year and progress monitored regularly using AimsWeb.

The elementary is in the process of planning the implementation of the Kansas Multi-Tier System of Supports. Monitoring reading skills and intervening when needed are a key part of the school improvement plan. Technology plays an important role in this process as a supplement to Tier I interventions and a teaching tool for Tiers II and III interventions. Lexia Reading software provides instruction and practice with phonemic awareness and phonics skills. Read Naturally software provides practice with fluency. Earobics (Tiers I & II) and Fast ForWord (Tier III) provide skill building with phonemic awareness, processing and memory skills. Intensive one-to-one and small group work

in combination with these technologies has brought about some dramatic improvements with struggling readers.

Technology Strategies in CES School Improvement Plan

- Graphic Organizers/Inspiration/Kidspiration in all content areas
- Reading Renaissance (Accelerated Reader & STAR): 1st– 5th grades
- Scholastic Reading Inventory (SRI) 3rd -5th grades
- Harcourt Computer Program: Phonics Express: K - 2nd grades
- LEAP Frog/Track: K – 4th grades
- Timeliner software 3rd-5th grades
- KCA Formative Assessments online 3rd -5th grades
- Mission Comprehension software 3rd -5th grades
- Fast ForWord software
- Electronic Flashcards
- Earobics software
- DIBELS / AimsWeb
- StudyDog software Pre-K – 2nd grades
- Read Naturally software
- Lexia software

Kindergarten
Communications

The resources being utilized are helping to promote multiple kindergarten skills. Phonemic awareness, phonics, pre-reading skills, listening and following directions, letter knowledge, book making skills, writing, and cooperative learning are a few of the targeted skills.

- Leap Track & Leap Mat for phonemic awareness skills
- Kidspiration for organizing ideas
- Earobics software for reading remediation
- Kid Pix software for yearly technology/reading project
- Reader Rabbit Reading software for reading skills
- Internet web sites for phonemic awareness and letter recognition
- StudyDog software for phonemic awareness and letter recognition
- Lexia for reading remediation and phonemic awareness
- Language Basics/Fast ForWord software for phonemic awareness and pre-reading skills
- Kid Keys software for keyboarding

Math

The use of technology in the math curriculum is utilized to support math skills such as numeration, data collection, geometry, operations, measurement, and patterns.

- Leap Track for math awareness skills
- Everyday Math games online for reinforcing math skills
- Reader Rabbit Math software for math awareness skills
- Millie Math software for math awareness skills
- Kid Pix software for number recognition, counting skills, and number to word correspondence
- Calculators for number skills

Science & Social Studies

- Discovery Education Streaming video clips to reinforce thematic learning in both science & social studies.

Student progress was made by teacher observation, assessment, and computer generated reports. These programs aided teacher planning according to the student improvements and weaknesses. The child is placed in a variety of programs based on the results of the assessment. We are helping to address all students' strengths and weaknesses.

First Grade

We as a first grade team have continued to grow in the area of technology use and knowledge. With the additional reading materials, we have seen our students' reading score continue to climb.

With online Earobics licenses we have seen more students get the benefits of letter sound knowledge, recall, and beginning reading skills.

Grey Olltwit's software programs have also provided students with an opportunity to be exposed to curriculum before being introduced in the classroom, thus improving reading scores.

Communications

The tracking system for STAR, Earobics, Pathways, and AR tests allow us to continually monitor each individual's reading progress. We as teachers can then make informed decisions on appropriate changes and interventions needed.

- AR tests for monitoring student reading level
- STAR test for monitoring quarterly reading level
- Tape recorders and Audacity recordings for written literature responses in stations
- Interwrite pad for daily language review, edits, revisions, and scoring rough drafts of writing projects
- Word for Mother's Day book, recipe & technical writing for the robots project
- Overhead projector in stations for manipulating letter tiles to build words & for students demonstrating their solutions and strategies for solving problems
- Internet sites for reading, phonics
- Leap Track for reading skills
- Earobics software for reading remediation
- Fast ForWord software for reading remediation
- Grey Olltwit's Flashcards software for site words practice
- Kid Keys software for keyboarding

Math

Using the video projector and Interwrite pad allows student involvement and instant feedback of student understandings and misconceptions. The internet sites are self monitoring and allow students and teachers instant feedback.

- Everyday Math games online for reinforcing math skills
- Interwrite pad for daily math and word problem practice
- Internet sites for math practice (addition and subtraction problems)
- Overhead for student demonstrations of their solutions and strategies for solving problems

Science and Social Studies

Foss website allows students to participate in state standard based activities.

- Foss Website

Second Grade
Second graders use technology to learn and explore in all content areas.

Communications
- Internet for phonics, writing, and reading practice
- Internet for research
- Kid Keys software for keyboarding
- Leap Track for reading skills practice
- PowerPoint for test prep
- Accelerated Reader for reading motivation and practice
- STAR for reading assessment
- Microsoft Word for publishing narrative and expository writing pieces
- Microsoft Word for spelling practice and student-created books
- Discovery Education Streaming for video clips
- Kidspiration software for compare and contrast activities
- Kid Pix software for spider research presentation
- Web quests for accelerated & extended activities
- Fast ForWord software for reading remediation
- Read Naturally software for reading fluency practice
- Lexia software for reading remediation

Math
- Websites for skill review
- PowerPoint software for test prep using Interwrite pad
- Grey Olltwit's software and websites for math facts practice
- Everyday Math games online for reinforcing math skills
- Discovery Education Streaming for video clips
- Leap Track for math practice
- Web quests for accelerated & extended activities

Social Studies
- PowerPoint software for presentations
- Discovery Education Streaming for video clips
- Internet for research
- Digital camera for taking pictures comparing past and present

Science
- PowerPoint software for habitat presentations
- Discovery Education Streaming for video clips
- Internet for research on spiders and animals & habitats
- Kid Pix software for spider presentation

The Second Grade web page is updated regularly with content area information and student links for reading and math practice.

Technology has been used to enhance/practice phonemic reading skills. We use the technology for editing, writing, and spelling practice. During target time, we use the technology for

sight word practice and practicing keyboarding skills. Students research on the computers using bookmarked sites and then create & present PowerPoint's to the class.

Third Grade

Third grade uses many different forms of technology including laptops, desktops, projector, other hardware devices and software. We have found that integrating technology into our curriculum is a powerful tool for student learning. The students are motivated by technology and retain much more information when they can manipulate and interact with the data or subject matter. We have seen progress in our students when they work in groups, in partners, or individually. The technology we use in 3rd grade is invaluable and has enriched our curriculum greatly.

Communications:

Third grade utilizes the following technologies to improve presentation in lessons, enhance the creativity of the students' responses to reading, writing, and other communications instruction, as well as boost student motivation. The teacher-created PowerPoints also allow all teachers to ensure that standards are being taught in a cohesive manner. We have seen student progress in writing through the use of the technological graphic organizers we use. The Quia quizzes allow instant feedback for both student and teacher and create opportunities for instantaneous re-teaching and differentiated instruction. Software programs such as Fast ForWord, Read Naturally, Lexia and Earobics provide instruction to students in both the second and third tiers of the Multi-Tier System of Supports (MTSS).

Communications

- Teacher-created PowerPoints for teaching writing and test preparation
- Graphic organizers for student use in writing
- Quia quizzes and activities for student practice
- Internet hot lists for skill practice
- Word processing for writing rough drafts & final copies
- Research using preselected Internet sites
- Timeliner software for research and organization of ideas.
- Type To Learn software for keyboarding
- Read Naturally software for reading fluency practice
- Lexia reading software for reading remediation
- AimsWeb software for progress monitoring
- Fast ForWord software for reading remediation
- Kidspiration software for organizing thoughts in guided reading
- Eggspert for student developed questions
- Audacity software for shared reading
- MP3 player for student reading fluency
- Grey Olltwit's Flashcards software for site word practice
- Earobics software for reading audio processing
- Excel spreadsheets for tracking student progress
- Teacher created web-sites for standards practice

Math

Third grade uses the PowerPoint program at the end of every math unit. Students have shown progress by working together in Kagan cooperative learning groups to solidify their knowledge of each unit. It enhances our instruction through instant feedback for both student and teacher and creates opportunities for instantaneous re-teaching and differentiated instruction. The teacher created

websites are organized and structured by content area and standard and practice can be tracked by both teacher and student. We have seen motivation increase when students receive instant feedback.

- PowerPoint software for math review
- Eggspert for reviewing for tests
- Teacher–created websites & other websites for math practice
- Quia quizzes and activities for math practice
- Everyday Math games online for reinforcing math skills & E-planner

Social Studies & Science

Third grade uses our teacher created website to organize all technological information and activities in one easy to use format. We use it to introduce a unit through a Discovery Education Streaming video, as well as teacher selected websites to support the standards for each unit. The Quia quizzes and activities provide instant feedback so teachers can provide re-teaching, extra support or extension. Our GPS unit provides students the opportunity to use state of the art GPS systems to meet our local standards.

- Discovery Education Streaming for presentations
- Internet websites (i.e. BBC, Foss) for activities related to standards
- Quia quizzes and activities for review and assessment
- Teacher–created websites for each unit taught.
- GPS technology & Google Earth for geography unit
- Digital Cameras for research and presentation.

We have seen improvements in retention of material, in motivation to use the technology, in excitement for learning, and in mastery of the material because of the way technology has been integrated into every aspect of our curriculum.

Fourth Grade

Since implementing the Enhancing Education Through Technology (EETT) Grant in 2003, the fourth grade team has continued to grow in the area of technology use and knowledge. Fourth grade uses many different forms of technology including laptops, desktops, projector, digital cameras, scanners, Interwrite pads, etc. Integrating technology into our curriculum is a powerful tool for student learning. We have seen improvements in motivation for learning and mastery of cognitive material because of the way technology has been integrated into our curriculum.

Communications

Student learning is enhanced through the integration of technology in communications. Students work individually and cooperatively using technology to respond to reading, practice learning concepts, and apply comprehension skills.

- Internet sites & cyberhunts for practice, review & research
- Graphic organizers for text structures
- Video production for the insect unit
- Word processor for writing, revising, and publishing
- Quia activities and quizzes for practice and assessment
- Microsoft Paint software for story retelling

Math

Math instruction this year has been enhanced by implementing the new Everyday Math E-Planner and online reference book. Teachers are able to access the student journal pages and animated video clips that demonstrate the math concepts for student instruction. Students are more engaged in the lessons when a visual is presented on the board, and this has shown improvement in content knowledge learned.

- Everyday Math E-Planner & Online Reference book for lesson presentations
- Everyday Math games online for reinforcing math skills
- PowerPoint software for review activities
- Internet sites for practice and review
- Digital camera for data collection and presentation
- Inspiration software for sorting activities

Science & Social Studies

Science and social studies instruction is enhanced through multi-media presentations. Students are more engaged in the lessons when a visual is presented. Students work individually and cooperatively using technology to review, research, and present concepts learned.

- Discovery Education Streaming for video clips
- Internet sites for gaining content information
- Inspiration software for organizing research projects
- Online library catalog for library research
- Excel software for presenting results of experiments
- Quia activities and quizzes for practice and assessment
- Timeliner software for historical events in U.S. regions
- Microsoft Paint software for manipulating maps

Fifth Grade

The fifth grade teachers integrate technology throughout daily lessons across the curriculum. Student motivation increases when technology is used, and technology improves student learning.

Communications

Students are accountable to the revision process by color coding revisions using the 6-traits and author's tricks. It is a quick visual assessment to find out if kids are able to identify the parts of speech, punctuation, and are able to implement the 6-traits.

- Word processing during the 6-trait revision and editing process on all writing assignments
- Internet research on writing topics
- Internet for formative assessments to monitor student progress on skills and individual skill practice
- Grey Olltwit's Flashcard software for vocabulary
- Quizlet for reading concept practice
- Kid Pix software for completing Wanted Poster, classroom newsletter, & the MovieMatics project
- Type To Learn software for keyboarding
- PowerPoint software for creating Wanted Poster on description of themselves
- Ray's Spelling software for spelling practice
- MP3 player and camcorder for improving reading fluency and comprehension

Math

Students create paper, pencil charts and graphs and then transfer the information to an Excel document so that they understand the X and Y axis. We use the programs via the Internet to track student progress for 5th grade skills.

- Excel software for graphs, charts, and data collection
- Internet for individual skill practice
- BAIP resources
- Quizlet for math concept practice
- Quizdom for reviews and assessments
- Everyday Math games online for reinforcing math skills
- Digital camera and recorder for recording classroom lessons for student review

Science & Social Studies

Technology is vital to implementing the seven styles of learning. This allows students to choose how they learn best.

- Excel software for creating a table or graph and recording data
- Timeliner software to plot events of Revolutionary War
- Internet for research on social studies topics
- Discovery Education Streaming clips to research all 5th grade topics studied
- Quizdom for reviews and assessments
- Digital camera and recorder for Native American villages
- PowerPoint software for Native American comparisons; jeopardy review for tests

Technology Integration at Cheney Middle School (CMS)

The middle school has two computer labs and a wireless laptop cart. Every room is equipped with a ceiling mounted projector or 34" monitor. Most rooms have an Interwrite pad for teacher and student presentations.

With few exceptions, technology instruction is not isolated from classroom instruction in the middle school. Sixth graders have nine weeks of keyboarding at the start of the year to be sure they are prepared for the technology tasks in middle school. Eighth graders have a one semester technology review in order to meet high school Vocational Education II and NCLB requirements. All other technology instruction is integrated into all content areas, especially communications. Communications teachers have 85 minutes every day, double the time of other core subjects, in order to provide the extra time required for technology-rich projects.

Two key strengths at the middle school are the integration of content areas and online class web pages. Content teachers teach key units in conjunction to reinforce student learning, especially communications and social studies. An example is the 6th grade World History unit on Egypt. The communications and art teachers introduce Egyptian folklore, poetry, culture and art before the social studies teacher actually begins the unit to build interest and background knowledge. As the social studies unit begins, the communications teacher continues to present materials over the Egyptian civilization to help students make connections. Another strength of the middle school curriculum is the online web pages. Teachers have built units of study on their teacher web pages so that students use the pages to learn about the content, with activities and assignments accessed online (i.e. 6th grade World History http://www.cheney268.com/MSSS/DeVore/DeVoreSSHome.htm or 7th grade communications http://www.cheney268.com/MSCom/Harris/HarrisMain.htm).

Technology Strategies in CMS School Improvement Plan

- Reading Counts /Scholastic Reading Inventory
- Graphic Organizers/Inspiration in all content areas

- KCA Formative Assessments online
- Fast ForWord software
- Earobics software
- Read Naturally software
- Lexia software

Math

The math department regularly incorporates technology into its curriculum.

- Teachers' web pages for homework assistance and links to practice sites.
- Interwrite pad for student presentations of Problem of the Day and sharing of student strategies
- Graphing & regular calculators for problem solving
- Math enrichment through the elective robotics class

Student assessment scores reflect increased learning due to technology. Technology has been a bonus, allowing students present their thought processes and information to the class.

Communications

Technology is incorporated into communications curriculum in a variety of ways.

- Online KANed databases, the Internet and the online library catalog for research projects
- Word, PowerPoint, Inspiration, Movie Maker, Interwrite pads, Interwrite clicker system for demonstration/presentation of student knowledge. Student designed projects include brochures, print advertisements, video commercials, short movies, and PowerPoint presentations over research.
- Digital video camera, digital cameras and scanners for student projects
- Internet, Google Earth, Discovery Education Streaming and historical sound bites for integration with other content areas
- KCA formative assessment, Learning Station and Quia for review for local and state assessments
- Josten's Yearbook Online for the yearbook class. Students also use digital cameras.
- Teacher-created web pages are not only a communications tool but are used daily by students as instructional tool.

State reading, writing and research standards provide the framework by which students develop projects and other writing activities successfully. Students produce technology-driven projects and demonstrate ongoing improvement of skills as a result of technology instruction and integration. With each new technology project, students' skills are enhanced to make them functional in the global marketplace.

Science

Through the use of technology in the classroom, students have received hands-on experiences with the science curriculum. As a result of the hands-on experiences, student learning has improved. Students enjoy and retain this information for a longer period of time.

- Online KANed databases, Internet sources and the online library catalog for research projects
- Word, PowerPoint and video for presentation of student projects.
- Inspirations for creating graphic organizers, concept maps and outlines
- Projector and Interwrite pad for presentation of the science problem of the day

- Video cameras for creating news broadcasts presenting severe weather and environmental issues
- Excel for generating data charts and graphs

Music

Music students interact with Smart Music software in several different ways.

Band

- Smart Music software for playing assigned quizzes on concert band music or lines. The Smart Music assessment shows students which notes were correct or incorrect as well as which were in tune and which tend to be sharp or flat.
- Smart Music software for an accompanist tool to aid soloists in their preparation for music festivals

Vocal Music

Instrumental musicians constantly analyze and adjust the different elements of music while playing. At the same time musicians read and perform music written on the page and communicate with each other through their instruments while playing. Instrumental music provides the student with a unique learning experience, and an extreme mental challenge by asking them to process information on many different levels at the same time.

- Smart Music software for rehearsing solos. The contest books align with the computer so each student has visual as well as audio learning. The levels of difficulty can be chosen or adjusted to fit the abilities of the student.

Social Studies

In Social Studies we try to incorporate as much technology as possible through activities on the Internet, projects using Microsoft Office programs, and access to teacher websites for students.

6th Grade Social Studies and Tech Classes

- Word software for making tables, graphic organizers, flyers and signs and web pages
- PowerPoint software for presenting research projects & displaying information
- Publisher software for brochures of different cultures, displaying information & research projects
- Movie Maker software for creating pictures, video and music projects
- Quia for review activities for class and state assessments and for taking local assessment
- BrainPop for introducing and reviewing concepts
- Window Media Player software for ripping music for projects & showing short video clips of their own short movies
- Internet for daily work & Web Quests
- Online unit web pages for social studies and technology class
- Discovery Education Streaming for information on different cultures

7th Grade:

- PowerPoint for presentation of student projects
- Internet for researching a country of the world
- Online unit web pages for social studies

8th Grade:

- Online KANed databases, Internet sources and the online library catalog for research projects
- Brain Pop for introducing and reviewing concepts

- PowerPoint, Publisher, and Word software for presentation of student projects (i.e. civil responsibilities)
- Online unit web pages for social studies

Art

The art classroom uses technology when appropriate for meeting the national and state visual arts standards.

- Internet for viewing museum/artist web pages
- Discovery Education Streaming for viewing artists' biographies and work
- Internet and Discovery Education Streaming for student projects (i.e. an op art website and a tessellation video for their tessellation project.)

Technology Lab

Within the technology classroom, technology is used continuously. The following is a list of Synergistics modules that the students rotate through during their 7th and 8th grade years:

Astronomy, Audio Broadcasting. Basic Sewing, Biotechnology, Body Systems, Breakfast Nutrition, CADD, Clothing Care, Computer Graphics and Animation, Digital Design, Digital Transportation, Dynamic Earth, Electronics, Energy Power & Mechanics, Engineering Towers, Entrepreneurship: Child Care, Environmental Issues, Families, Fashion & Textiles, Fitness & Health, Flight Technology, Forensic Science, Interior Design, Life Skills, Light & Lasers, Microwave Cooking, Personal Finance, Plastics & Polymers, Robots, Snack Nutrition, Soils, Video Production, & Water Management

Critical learning experiences utilizing these modules enable our students to not only learn in the classroom, but also be able to transfer this into real world where technology is used daily.

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Technology Integration at Cheney High School (CHS)

The high school has one computer lab, one library lab, two business labs, one publications lab, one reading lab & one math lab (both shared with the middle school), one AutoCAD lab, and two wireless laptop carts.

Technology Strategies in CHS School Improvement Plan

- Graphic organizers – Inspiration and Word documents
- Reading Counts & SRI programs that set goals for student reading based on their measured Lexile
- Providing individual, computer-delivered instruction and assessment of each student's identified deficiencies. The math and reading labs provide struggling students access to individualized instruction and remediation software, including Lexia Reading, Read Naturally, BAIP.
- KCA State Assessments

Health/Physical Education

The high school Health/Physical Education classes have implemented several types of technology over the past few years. Weightlifting classes have been using Excel to make tables and formulas to help chart their daily progress. Advanced Physical Education and Freshmen Physical Education/Health have been using the internet to help research topics pertaining to a wide range of health and exercise subjects.

- Excel software for tracking weight lifting and evaluating the weight lifting goals
- Internet resources for research projects on physical education and health activities

Social Studies

The high school social studies department is incorporating technology in the classroom to enhance knowledge and productivity of both students and teachers. The department has focused on incorporating technology with daily assignments and lesson planning, student-centered projects, as well as presentations.

- Presentation tools (PowerPoint, Photo Story and Movie Maker) for teacher & students presentations and for review activities
- Research tools (Learning Station, CHS Library Online Catalog and other online sources) for research projects
- Internet resources for student research, online web quests, Discovery Education Streaming videos, CNN student news, T. Roger Taylor sources & for election coverage
- Publishing tools (Word, Publisher) for publishing, webpage creation & brochures
- Inspiration software for teacher-created graphic organizers and for student generated graphic organizers and for pre-writing
- Turnitin subscription for checking rough draft papers for plagiarism before submitting final copies
- Quia subscriptions for review and assessments
- Data collection tools (Excel) for collecting, analyzing and presenting data (i.e. Stock Market overall profits and losses)

Journalism

The publication classes uses technology on a daily basis to produce the yearbook and newspaper. In addition to desktop publishing and digital editing tools, the publications classes also make use of digital cameras daily. The newspaper and journalism classes make daily use of the Internet and various databases for research.

- Photo editing and layout software (Adobe InDesign, Adobe Photoshop) for producing the yearbook and newspaper
- Digital cameras for photographing school activities
- Internet and various databases for research

Communications

The high school communications classes have implemented several types of technology over the past few years. English III classes, along with American Studies classes, make use of technology received though a grant this past year. Students are able to take quizzes in game form via Quia. They have completed several cross-curricular projects that use such technology as Photo Story 3, Movie Maker, digital cameras, and DVD burners.

- Presentation software (PowerPoint) for presentations on a regular basis
- Research tools (Learning Station, CHS Library Online Catalog and other online sources, Internet & Contemporary Literary Criticism) for research projects
- Inspiration software for outlining and organizing
- The Turnitin program for teaching students how to correctly document sources (rather than for catching them plagiarizing)
- Scholastic Reading Inventory (SRI) software for measuring reading progress and Reading Counts software for monitoring comprehension. Reading scores have improved and more students are reading on their own since the implementation of this program.

- Blogging software for sharing ideas and thoughts
- Lexia Reading software for developing phonological awareness
- Read Naturally software for fluency and comprehension development

Foreign Language

The Spanish program at Cheney High School focuses on the five language competencies: speaking, listening, reading, writing and cultural studies. In order to have a basic-intermediate level of understanding of a foreign language and the cultures in which it is spoken, students are required and encouraged to use various forms of technology.

- Internet resources & research tools for Internet-based research projects and for international news
- Research tools for the research projects
- Pinnacle software for video projects
- Writing & presentation software (Word, Publisher, PowerPoint, Movie Maker, Pinnacle) for creating and presenting student projects

Business / Computer Applications-

A wide variety of technology is utilized in the Business/Computer department at Cheney High School, including Microsoft Office Programs to multimedia software for student projects.

- Internet resources for project research
- Presentation software (i.e. eZedia QTI, Microsoft Producer, Microsoft PowerPoint) for student presentations
- Desktop publishing software (i.e. Adobe InDesign, Microsoft Publisher) for creating projects
- Web development software (i.e. FrontPage, Micromedia Flash) for developing web pages
- Video creation & editing tools (i.e. Microsoft Movie Maker, Adobe Premiere Elements, eZedia MX, Pinnacle Studio) for creating & editing video projects
- Digital still & video cameras for developing web pages and student projects
- Ellsworth Online Keyboarding program for reviewing keyboarding skills
- Atomic Learning for tutorials on numerous software applications.
- Digital picture editing software (i.e. Adobe Photoshop, Adobe Illustrator) for processing images for web pages and student projects

Special Education

Students with special needs are encouraged to learn and use the technology sources available to them. Computers are available in the resource rooms, allowing a more direct and personalized instruction for the students in a variety of ways.

- Cognitive Learning Lab software for developing reading skills
- SRI and Reading Counts for assessing reading and comprehension skills
- Fun Brain web site for developing math skills
- Jig Zone web site for developing eye coordination skills
- Internet resources for research projects
- Internet for research projects, reading local and national news
- Word software for typing their papers or lessons & for spell check
- WebKidds online for creating each student's IEP to meet their individual needs

Trade and Industry

This program prepares individuals to apply technical skills and advanced computer software and hardware to the creation of graphic representations and simulation in support of engineering projects. This includes instruction in architectural graphics, engineering graphics, two-dimensional and three-dimensional engineering design, solids modeling animation, computer-aided drafting (CAD), computer-aided design (CADD), and auto-CAD techniques.

- Internet resources for researching careers and comparing careers to the "Career Pathway" model
- CAD lab (ADA software, including AutoCAD 2008, AutoCAD LT, Architectural Desktop, Inventor and VIZ) for drafting in 2D & 3D
- CNC lathe and router for cutting and engraving student projects
- SmartBoard for teacher and student presentations

Mathematics

The high school mathematics classes utilize several types of technology. The most predominant use of technology in the mathematics classrooms is in terms of calculators. The focus of the department is to teach students the benefits of using technology affectively both in their calculations and their communication of their findings.

- Graphing calculators for calculating and graphing math problems. Students also use the presentation capabilities of the graphing calculator to share their thought processes with their peers.
- Presentation tools (i.e. Projectors and Interwrite pads) for sharing the thought processes used to solve problems. The Interwrite software and pads have had a positive impact on the math classroom.
- Internet resources for researching math topics
- Discovery Education Streaming videos for remediating and re-enforcing
- PowerPoint software for sharing student presentations
- Excel software for analyzing, calculating and displaying data
- Inspiration software for organizing information
- Word software for writing portfolios and problem write ups

Science

The science classes use an array of technology ranging from laptop data collection for labs to on-line simulations, to clickers for reviewing and classroom assessment. Students also create graphic organizers with Inspiration software, create video clips and interact with the Interwrite pad.

- Wireless laptops with probes and sensors (i.e. motion, pH, temperature) for completing physics and chemistry labs and experiments
- Computer/online simulations for experimenting with electric fields, electrical charges, electrostatic forces and planetary orbits
- Anatomy simulations for practicing and testing students' knowledge
- PowerPoint software for teacher and student presentations
- Internet resources & video clips for demonstrating concepts
- Projectors & Interwrite pads for demonstrating students' thinking processes
- Research tools for creating cross-curricular (Communications & Biology) research project. These research tools are also used in chemistry.
- Inspiration software for organizing and presenting vocabulary activities
- KSN Weather Bug / online weather resources for correlating weather data with data from the WSU Atmospheric Radiation Monitoring system
- Digital camera and Flex cam for viewing dissections and observing presentations

- Interwrite Clickers for reviewing and assessing class materials during in class discussion.

Fine Arts - Music

Critical thinking and vocal music go hand in hand as students must adjust and analyze. Students must evaluate themselves, their performances and their rehearsals on a constant basis and solve as many of the problems that may arise as they are able to in a short time frame.

- Performance analysis tools (i.e. digital audio, video, and the video projector) for analyzing
- Research tools for understanding different styles and lyrics of musicians
- Internet resources for researching lyrics of popular music and new releases for choir. Guitar students can research tablature and chords and incorporate them into their musical skills.
- Musical keyboards /synthesizers for emulating different musical as well as non-musical sounds and for creating programmable accompaniments
- Smart Music computer-based accompaniment software for programming and practicing music
- Programmable lighting and sound equipment for a wide variety of school productions and activities

Fine Arts- Visual

Creation, editing and presentation tools are utilized in art classes in projects that demonstrate different historical art periods, artists and styles.

- PowerPoint software for presenting virtual museums
- Internet resources for researching styles, mediums, artists & time periods that are used to create art projects
- Digital cameras for producing art work and creating personal digital portfolios as well as virtual art galleries on the web pages
- Programmable jewelry kiln for producing fused glass jewelry and glass slumping
- Video and Elmo projectors for demonstrating techniques and information

Family & Consumer Science

A variety of technology is used in the Foundations for Life modules, which include Career Community & Family Connections, Culinary Arts, Early Childhood & Human Development, Food Science Dietetics & Nutrition, Home Safety & Security, Hospitality & Tourism, Housing Interior & Furnishings, Nutrition & Wellness, Textiles & Apparel, Consumer Finance.

- Internet resources for researching nutrition, wellness and parenting issues
- Digital and video cameras for conducting interviews and creating public service announcements
- Elmo camera, video projector and Interwrite pad for teacher and student demonstrations and presentations
- Esante embroidery sewing machine for personalizing student projects

Library Media Center

The Library Media Center is totally dependent on technology for student learning. The online catalog guides students to the print resources available in the library. Much of the student and staff research is done online.

- Library automation system and web-based catalog for accessing, checking book status and placing holds
- Big6 Turbo online tools for organizing the research process
- State provided databases and encyclopedias
    - EBSCO

    - EBSCOhost Research Databases
    - Student Research Center – High School & Middle School
    - Kids Search – Middle & Elementary School
    - NoveList
  - Gale Cengage Learning
    - Literature Research Center
    - Academic OneFile
    - General OneFile
  - ProQuest (Nursing Journals)
  - World Book KanEd
  - Net Trekker
  - Atomic Learning
  - Heritage Quest
  - KERC (Kansas Education Research Center)
- Locally funded subscriptions to databases and encyclopedias
  - Grolier Online
  - SIRS Researcher

- Projects supported
  - 6th Grade projects on birds and diseases
  - 7th Grade project on wonders of the world
  - 8th Grade project on slavery
  - 9th Grade project on compare poetry to historical event
  - 10th Grade projects on opposing viewpoints
  - 10th Grade project on inventions
  - 11th Grade projects on a 20th Century event and its impact
  - 12th Grade projects on Supreme Court

The high school has seen significant progress in staff's and students' use of technology. As teachers have become more comfortable with technology, they have increasingly integrated students' use of technology into their classrooms.

Our students have learned how to use various software programs that are also used in the everyday world whether at work or at home. Every learning style is accommodated for in this curriculum and students become responsible learners and learn to work cooperatively with others. Math, science, technology, and communications are mixed throughout the sessions and allow students to be able to understand how these core studies are connected.

3b-1 Curriculum Integration Assessments

When the district passed a local option budget and started purchasing technology in 1999, the focus was putting the hardware and software in place and providing basic training to use the equipment. Because of all the activities and projects in section 3b, the district has made great strides in moving beyond hardware and software to using technology to change the way classrooms are structured and to improve student learning.

In order to measure the district's progress toward improving student learning, the district must track the goals and objectives in section 3b. These data are both qualitative and quantitative, providing a means to evaluate progress on improving student learning in the district.

The annual surveys for students and teachers include questions that address curriculum integration. Although self-reported, the data provide insight into technology integration. Because

both students and teachers report high levels of integration, the district seems to be progressing toward the goal of integrating technology into district classrooms in order to improve student learning.

Results from Annual Surveys

Grades 6-12 Student responses

How do your teachers use technology to improve your learning?

2001	2006	2007	2008	
81%	83%	92%	83%	Incorporating technology into their classroom presentations?
88%	83%	93%	87%	Incorporating student-made presentations, such as PowerPoint, into the classroom?
92%	86%	93%	88%	Incorporating the use of the Internet to find resources
67%	78%	82%	78%	Incorporating the use of online databases such as First Search to find resources?
67%	66%	76%	70%	Incorporating technology into units that involve several curricular areas such as communications and social studies?
3%	6%	8%	7%	Other

In spite of some variability from year to year, these responses indicate that teachers are using technology to improve student learning from the students' perspective.

Teacher responses

How often do you incorporate technology into your teaching presentations?

	2005	2006	2007	2008
Rarely	16%	16%	10%	20%
Several times a month	14%	9%	10%	8%
Weekly	16%	5%	9%	0%
Several times a week	14%	22%	19%	20%
Daily	47%	47%	52%	52%

These results indicate a stable group of teachers who do not incorporate technology into their classes, which is appropriate for some content areas. The number of teachers who use technology regularly has increased, partially because of the increased accessibility of technology to teachers and students.

Teacher responses

How often do you incorporate students using technology into the classroom?

	2005	2006	2007	2008
Rarely	10%	13%	9%	14%
Several times a month	12%	16%	17%	12%
Weekly	10%	7%	12%	4%
Several times a week	20%	24%	11%	12%
Daily	48%	30%	51%	58%

These results indicate a stable group of teachers who have students use technology rarely or several times a month. However, the percent of students using technology daily has increased steadily.

Teacher responses

Rate how effectively you feel you integrate technology into student learning?

1 = Not Used at All 10 = Integrate Very Effectively

Rating	2005	2006	2007	2008
1	7%	2%	0%	6%

Rating	2005	2006	2007	2008
2	5%	2%	0%	0%
3	5%	4%	7%	8%
4	12%	4%	0%	0%
5	12%	13%	11%	10%
6	7%	18%	18%	8%
7	14%	18%	21%	18%
8	10%	21%	7%	24%
9	12%	9%	9%	8%
10	17%	11%	28%	18%

Some of the variability in these results may be due to the 10 point rating scale, with teachers changing one or two rankings from year to year. As teachers work more with integrating technology and see others using technology, their perceptions of how well they are doing may drop as their own expectations increase.

Student, community, staff and administration responses
Are technology resources readily available to meet your educational needs?

	Hardware				Software				Tech Support			
	Yes				Yes				Yes			
	2001	2006	2007	2008	2001	2006	2007	2008	2001	2006	2007	2008
Students	84%	91%	94%	91%	84%	90%	95%	91%	79%	88%	95%	90%
Community	92%	*	90%	87%	83%	*	91%	84%	83%	*	84%	84%
Staff	73%	87%	78%	94%	64%	85%	90%	92%	73%	93%	93%	96%
Admin	100%	100%	100%	100%	75%	100%	100%	83%	75%	100%	100%	100%

* data not available

It is interesting to note that the community's perception of available technology resources is the lowest of the survey groups.

The data show significant progress, but there is still much room for improvement. Progress is not consistent across buildings, grade levels or content areas.

Each fall, district staff reviews the district integration efforts as listed in section 3b to make additions/corrections. At the end of each school year, district staff again completes the Curriculum Integration Review process in order to evaluate areas of success and areas for improvement. Although not a quantitative review, the Curriculum Integration Review provides qualitative information and raises awareness of building-wide integration activities. As teachers work together to create projects that introduce and integrate multiple content areas, the quality and depth of technology use has improved. More teachers are using their web pages as instructional tools by creating online learning activities for students (e.g. 6th grade World History http://www.cheney268.com/MSSS/DeVore/DeVoreSSHome.htm).

In 2003 the district started using online curriculum mapping software. Because the process was so labor intensive, the district abandoned "curriculum mapping" in 2007. The district has created grade-level curriculum matrices that show all core content areas and learning activities month by month. These matrices have been very effective at helping teachers find connections that they can make to other content areas. The number of matrices showing integrated technology has increased each year.

Informal principal observations collect qualitative information about the progress of technology integration into student learning activities. What gets observed gets attention. These observations

raise teacher awareness and encourage teachers to actively integrate technology. Principals also review each teacher's annual technology goal for progress in meeting the goal.

3c Technology Professional Development

Cheney USD 268 offers a wide variety of options for professional development. The district uses the Results Based Staff Development model with technology being integrated into other professional development activities. Teachers receive professional development points for technology training.

The focus of district professional development is the creation of quality student learning activities that integrate technology effectively, not technology training in isolation. Just as technology should be flawlessly integrated into student learning activities, district technology staff development is integrated into other professional development activities as much as possible rather than being presented in isolation.

Out of District

District staff is encouraged to attend appropriate professional development activities at ESSDACK and at other sites in the area. District staff often attend/present at area conferences, such as MACE, KSDE Leadership Conference, and other curriculum/technology related conferences.

District staff has attended NASB T & L Conferences & NASB school site visits when they are in the Great Plains area.

All of the Title IIA and IID funds that the district receives are spent sending staff members to professional development activities or providing substitutes to free up staff for content area or grade level planning/training.

District Level

The district has seven days of professional development time built into the schedule. Some of these days are used at the district level; the remaining days are used by buildings to provide staff development that meets building level needs. The focus is again not on technology in isolation, but as a tool to improve the quality of student learning activities.

The district also provides funds for teachers to do planning and professional development during the summer. These summer sessions have proven very successful by providing teachers extended time to work together and develop skills and student learning activities.

Building Level

Part of the district's professional development days is used at the building level to meet the technology needs of the staff at the different buildings. These sessions are planned by each building's SIT team based on survey data and requests from staff.

Short sessions at building faculty meetings are used to present short sessions and quick overviews.

The district is also trying to build in time so that teachers will have time to apply the skills that they have learned as soon as possible. Feedback from staff consistently cites time as the greatest handicap to better integration of technology. Some of the district's Title IIA funds are used to hire substitutes to free up time for extended professional development time for teachers.

Grade Level / Team / Content Area Planning Days

The district has had great success at professional development in this format based on the Technology Rich Classroom model. At the elementary, each grade level meets separately for a

planning day seven times during the year. At the middle school, core content areas from each grade level meet as a group seven times during the year. At the high school, core content areas meet seven times a year. Sometimes content areas are combined (i.e. communications & social studies) so that teachers can plan cross content area projects. The goal is to develop integrated student learning units based on state standards. The Curriculum/Technology Director facilitates these planning sessions, assisting teachers with integrating technology into their classroom activities. As the need arises, he can also provide the necessary hardware or software training as a part of the planning day.

Short sessions during teachers' daily grade level or team planning time are also available.

Just-in-time

New staff is provided one-on-one training on hardware and software available in the district. Fortunately, this training becomes shorter each year because most new teachers coming to the district already have strong computer skills.

The district has an informal network for support and training (i.e. library teachers, computer instructors, technology staff) that provides just-in-time support to assist teachers and other staff.

The district has a subscription to Atomic Learning online, available to all students and teachers 24/7.

District staff completes a yearly goals sheet that incorporates learning goals that they will be working to complete. Staff is required to include at least one goal related to the district technology goals listed in section 3a. By focusing more attention on technology, staff should continue to make progress with integrating technology.

3c-1 Technology Professional Development Assessment

One of the district's primary means of evaluating professional development activities is data from professional development activities and from the annual administrator, teacher & student surveys. After it is collected in the spring, building SIT committees review staff development progress and technology needs, using the data to make plans for staff development for the following year.

The district started using the online assessment of ISTE technology skills from InfoSource Learning. Staff took the pre-assessment in the fall of 2008. The staff will take the post-assessment in the spring of 2009.

Formal and informal administrator observations of how professional development activities are being integrated into classrooms provide qualitative data of progress in using technology to improve student learning activities in classrooms. Administrators can view teachers' curriculum matrices which include how technology is integrated into student learning and then observe actual classroom activities to see how professional development activities have affected student learning.

The building principals are responsible for reviewing progress toward meeting each staff member's annual technology goal. This process allows the district to monitor individual progress with technology to improve student learning in Cheney USD 268.

Although it is difficult to isolate the effects of technology on student learning, the overall benefits of improved pedagogy, improved student learning activities as a result of increased teacher planning time, and the integration of technology into the planning process have been dramatic. State assessment results have steadily improved.

Cheney USD 268 Standard of Excellence

- Cheney Elementary School
  - 2002 – Math (4^{th})
  - 2003 – Reading (5^{th}) and Math (4^{th})
  - 2004 – Reading (5^{th}) and Math (4^{th})
  - 2005 – Reading (5^{th}), Math (4^{th})

    - 2006 – Reading (3rd-5th), Math (3rd-5th)
    - 2007 – Reading (3rd-5th), Math (3rd-5th)
    - 2008 – Reading (3rd-5th), Math (3rd-5th), Science (4th)
- Cheney Middle School
    - 2004 - Math (7th) and Reading (8th)
    - 2005 - Math (7th), Reading (8th), Social Studies (6th), Science (7th)
    - 2006 - Reading (6th-8th), Math (8th)
    - 2007 - Reading (6th-8th), Math (6th-8th)
    - 2008 - Reading (6th-8th), Math (7th-8th), Social Studies (8th)
- Cheney High School
    - 2003 – Science
    - 2004 – Reading
    - 2005 – Math, Science
    - 2006 – Math, Reading
    - 2007 – Math, Reading
    - 2008 – Math, Reading, Science

Complete 2008 results are available at http://www.cheney268.com/assessment/2008_performance/performancereport.mht.

The district has made steady progress since first installing computers in 1999. It takes much more than just hardware and software to impact student learning. Improved pedagogy, staff development and, most importantly, time to put all of those pieces of the puzzle together are all critical factors in the process. Cheney USD 268 has made great strides in preparing students with 21st century skills necessary for success in our rapidly changing world.

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Approved KSDE March 5, 2009