

Charter Oak - Ute Community School District Technology Plan (2010 Revision)

DEFINITION

Technology literacy is the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to enhance learning in all subject areas.

BACKGROUND

The Charter Oak - Ute School District believes that the focal use of technology in the school district should be to enhance and supplement student learning and achievement. As computing, networking, media, and science continue amazing developments in relatively small periods of time, many new opportunities have arisen to enhance student learning. However, to take full advantage of these opportunities, the district believes that students and faculty must have established a core skill set of basic technology literacy and know how of basic computing skills. This core skill set can be defined as adhering to the National Educational Technology Standards (NETS) and include the following:

- a) Basic operations & concepts
- b) Social, Ethical, & human issues
- c) Technology productivity tools
- d) Technology communication tools
- e) Technology research tools
- f) Technology problem-solving and decision-making tools

RESOURCES

The elementary school in Ute contains 1 mobile lab with approximately 20 notebook computers, and approximately 40 other machines located in various classrooms.

The Jr/Sr high school in Charter Oak contains 1 computer lab with approximately 25 desktop computers, 1 mobile lab with approximately 20 notebook computers, and approximately 50 other machines located in various classrooms as well as various servers.

In addition each building has multimedia projectors, digital camcorder, digital cameras, and high speed local area network with an internet gateway, and software for creative projects, productivity, and learning. The Charter Oak Building contains 13 electronic whiteboards and the Elementary Building contains 5 electronic whiteboards. Networked laser printers are also found throughout both buildings.

The school district also employs a Technology Coordinator to assist faculty, staff, and students where need arises.

TIMELINE

Future plans include:

2010 - 2011

a) Develop and Deploy a 1-1 student laptop initiative for grades 7 -12 with 170 leased apple macbooks in time for a January 2011 implementation date. Schedule educational and professional development days for staff on creating and implementing a Digital Learning Environment (DLE) within the classroom.

b) Increase network and internet resources to support the 1-1 initiative by upgrading the network wiring in the high school to gigabyte backbone wiring and switches, installing redundant wireless coverage, and increase the ISP connection to 20mbps full duplex.

c) Install application, file, and system servers to support 1-1 initiative..Ensure staff has appropriate training to support smooth transition.

d) Migrate current high school resources to the elementary building after the 1-1 initiative roll-out.

e) Collect feedback from staff, students, and community on 1-1 initiative.

2011 – 2012

a) Examine qualitative and quantitative data on 1-1 initiative. Revise assesments as necessary.

b) Work with staff in further developing DLE skills and discovering educational resources.

2012 - ??

a) Keep aware of new technologies that may enhance learning and bring more value to the time in the classroom.

b) Discuss, revise and review plan based on data and feedback.

INTEGRATION

The primary point of contact for reaching the districts goals of technology literacy has been in the classroom. Various assignments that incorporate some aspect of technology as a requirement for the completion of the assignment, help build and reinforce core technological skill sets. Some previous examples of this used in the classroom include.

- English writing assignments required to be done on a word processor program and assessed on grammar, spelling, punctuation, layout, and other technical requirements.
- History students researching a 1930's topic of their choice and then doing a slide-show presentation of their findings.
- Some math problems incorporated into the homework requiring the use of graphic calculator to arrive at the correct answer.
- Social studies class assignment that incorporate advanced satellite mapping technologies, such as google earth, into the assignment.
- Advanced multimedia editing in courses such as sound production and advanced business applications.

By extensive and repetitive use of technology in the day to day subject matter, we hope to facilitate student confidence and ability in technological tasks.

In order to do this we must first have technology confident and able teachers. That is why we have and will continue to devote time and resources towards staff training and development and effective communication and feedback mechanism.

It is anticipated that with every 7 -12 student with their own issued laptop in the 1-1 laptop DLE initiative, the learning environment will be extended into the home with the use of technology, as well as creating more learning opportunities and resources for use throughout the school day, with a focus on researching and creating content and projects that the district hopes will enhance learning and understanding of all subject areas.

ASSESSMENT

The 8th Grade class is required to have an annual assessment. The assessment will consist of a computer based task oriented examination as well as a written exam that involves testing the student's abilities according the NETS performance indicators. Our definition of proficiency will be a score of 70% or better on the combination of the computer exam and written exam. The exam may be subject to change based on changes to NETS indicators as well as other areas the district may wish to evaluate.

NETS for Students

1. Basic operations and concepts

- ▶ *Students demonstrate a sound understanding of the nature and operation of technology systems.*
- ▶ *Students are proficient in the use of technology.*

2. Social, ethical, and human issues

- ▶ *Students understand the ethical, cultural, and societal issues related to technology.*
- ▶ *Students practice responsible use of technology systems, information, and software.*
- ▶ *Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.*

3. Technology productivity tools

- ▶ *Students use technology tools to enhance learning, increase productivity, and promote creativity.*
- ▶ *Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.*

4. Technology communications tools

- ▶ *Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.*
- ▶ *Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.*

5. Technology research tools

- ▶ *Students use technology to locate, evaluate, and collect information from a variety of sources.*
- ▶ *Students use technology tools to process data and report results.*
- ▶ *Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.*

6. Technology problem-solving and decision-making tools

- ▶ *Students use technology resources for solving problems and making informed decisions.*
- ▶ *Students employ technology in the development of strategies for solving problems in the real world.*

GRADES PRE-K – 2

Performance Indicators:

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 2 students will:

1. *Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies. (1)*
2. *Use a variety of media and technology resources for directed and independent learning activities. (1, 3)*
3. *Communicate about technology using developmentally appropriate and accurate terminology. (1)*
4. *Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. (1)*
5. *Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom. (2)*
6. *Demonstrate positive social and ethical behaviors when using technology. (2)*
7. *Practice responsible use of technology systems and software. (2)*
8. *Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. (3)*
9. *Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. (3, 4, 5, 6)*
10. *Gather information and communicate with others using telecommunications, with support from teachers, family members, or student partners. (4)*

GRADES 3 – 5

Performance Indicators:

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 5 students will:

1. *Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively. (1)*
2. *Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide. (1, 2)*
3. *Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use. (2)*
4. *Use general purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum. (3)*
5. *Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. (3, 4)*
6. *Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. (4)*
7. *Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. (4, 5)*
8. *Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities. (5, 6)*
9. *Determine which technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (5, 6)*
10. *Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. (6)*

GRADES 6 – 8

Performance Indicators:

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 8 students will:

1. *Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (1)*
2. *Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (2)*
3. *Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (2)*
4. *Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (3, 5)*
5. *Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. (3, 6)*
6. *Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (4, 5, 6)*
7. *Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. (4, 5)*
8. *Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (5, 6)*
9. *Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving. (1, 6)*
10. *Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. (2, 5, 6)*

GRADES 9 – 12

Performance Indicators:

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 12 students will:

1. *Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. (2)*
2. *Make informed choices among technology systems, resources, and services. (1, 2)*
3. *Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole. (2)*
4. *Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information. (2)*
5. *Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence). (3, 4)*
6. *Evaluate technology-based options, including distance and distributed education, for lifelong learning. (5)*
7. *Routinely and efficiently use online information resources to meet needs for collaboration, research, publications, communications, and productivity. (4, 5, 6)*
8. *Select and apply technology tools for research, information analysis, problem-solving, and decision-making in content learning. (4, 5)*
9. *Investigate and apply expert systems, intelligent agents, and simulations in real-world situations. (3, 5, 6)*
10. *Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works. (4, 5, 6)*