

# Tustin Unified School District TECHNOLOGY CONTENT STANDARDS/CURRICULUM

Board Approved 2/9/98

## **Philosophy**

Technology has become an integral part of our daily lives and continues to change the way people live and work. The impact and importance of technology will continue to grow. Consequently, students need to acquire basic proficiency with technology while still in school.

The Tustin Unified School District Technology Content Standards/Curriculum will result in students who are problem solvers, information seekers and users, lifelong students, critical thinkers, and effective communicators.

## **Introduction**

The Technology Content Standards/Curriculum will provide students in the Tustin Unified School District with the skills and knowledge needed for success in their school years, personal lives, and future careers. Students will learn how to use technology for accessing and analyzing information, solving problems, communicating locally and globally, while practicing ethical behaviors in the use of technology.

The Tustin Unified School District believes that graduating students should possess at least a minimal level of technology skills. The standards are a continuum of skills that enhance and are a part of all curricular areas.

The Tustin Unified School District Technology Content Standards/Curriculum is based on the following Standards:

### **Standard 1: (Grades K - 12)**

*The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

### **Standard 2: (Grades K - 12)**

*The student will demonstrate knowledge and skills in using various technologies.*

### **Standard 3: (Grades 9 - 12)**

*The student will demonstrate technological knowledge and skills to access, analyze, interpret, synthesize, apply and communicate information.*

Standards 1 and 2 for Grades K-12 show the technology standards for graduation from the Tustin Unified School District. The additional standard for Grades 9-12 is designed to increase the student's knowledge and expertise while building on areas of interest. Students will be able to use technology as a tool for accessing and analyzing information, for solving problems in their personal lives, school, and careers, and for communicating their ideas and learning with others.

# Elementary School Technology Content Standards/Curriculum

## Kindergarten

**Standard 1:** *The student will understand the relevance of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1. The student will identify the computer as a machine that helps people work and play.**
  - ◆ The student will classify pictures of computers in context distinguishing whether they are used for work or play.
- 1.2. The student will demonstrate respect for the computer work of others.**
  - ◆ The student will demonstrate respect for the rights of peers by sharing and taking turns while using the computer.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1. The student will identify the parts of a computer.**
  - ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.
- 2.2. The student will have a vocabulary of computer concepts.**
  - ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, hardware, and software.
- 2.3. The student will demonstrate the care of computers and diskettes.**
  - ◆ The student will contribute to a class discussion to create a list of class rules on computer care.
- 2.4. The student will identify various keys and symbols on a keyboard.**
  - ◆ The student will identify letters, numbers, symbols and other commonly used keys.
- 2.5. The student will start, use and exit software programs properly using the keyboard and mouse.**
  - ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)

# Grade 1

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

**1.1. The student will identify uses of technology at home and school.**

- ◆ The student will draw a picture showing what a computer can do.

**1.2. The student will demonstrate respect for the computer work of others.**

- ◆ The student will demonstrate respect for the rights of peers by sharing and taking turns while using the computer.
- ◆ The student, when contributing to a class/group project, will identify their part as the only portion they have the right to change.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

**2.1. The student will identify the parts of a computer.**

- ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.

**2.2. The student will have a vocabulary of computer concepts.**

- ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, hardware, and software.

**2.3. The student will demonstrate the care of computers and diskettes.**

- ◆ The student will contribute to a class discussion to create a list of class rules on computer care.

**2.4. The student will identify various keys and symbols on a keyboard.**

- ◆ The student will identify letters, numbers, symbols and other commonly used keys.

**2.5. The student will start, use and exit software programs properly using the keyboard and mouse.**

- ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)

## Grade 2

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1. The student will identify uses of technology in the community.**
  - ◆ The student will tell how community helpers can use computers to assist in their jobs.
- 1.2. The student will describe the right of an individual to ownership of his/her computer created work.**
  - ◆ The student, while using a computer program to create a story or picture, will explain why an individual's creation is personal property.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1. The student will identify the parts of a computer.**
  - ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.
- 2.2. The student will have a vocabulary of computer concepts.**
  - ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, hardware, and software.
- 2.3. The student will demonstrate the care of computers and diskettes.**
  - ◆ The student will contribute to a class discussion to create a list of class rules on computer care.
- 2.4. The student will identify various keys and symbols on a keyboard.**
  - ◆ The student will identify letters, numbers, symbols and other commonly used keys.
- 2.5. The student will start, use and exit software programs properly using the keyboard and mouse.**
  - ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)
- 2.6. The student will create personal projects using technology.**
  - ◆ The student will type, print and save documents.
- 2.7. The student will access and retrieve electronic information.**
  - ◆ The student will use CD-ROMs such as electronic encyclopedias and other curriculum-related titles.
  - ◆ The student will communicate with other students using the Internet.

# Grade 3

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1. The student will identify the ways technology has changed the lives of people in communities.**
  - ◆ The student will produce a “before” and “after” picture with a brief description of how technology has changed the community.
- 1.2. The student will explain how copyright laws protect what a person or a company has created.**
  - ◆ The student will explain why copying or receiving illegally copied software is wrong.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1. The student will identify the parts of a computer.**
  - ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.
- 2.2. The student will have a vocabulary of computer concepts.**
  - ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, hardware, and software.
- 2.3. The student will demonstrate the care of computers and diskettes.**
  - ◆ The student will contribute to a class discussion to create a list of class rules on computer care.
- 2.4. The student will identify various keys and symbols on a keyboard.**
  - ◆ The student will identify letters, numbers, symbols and other commonly used keys.
- 2.5. The student will start, use and exit software programs properly using the keyboard and mouse.**
  - ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)
- 2.6. The student will create personal projects using technology.**
  - ◆ The student will type, print and save documents.
- 2.7. The student will access and retrieve electronic information.**
  - ◆ The student will use CD-ROMs such as electronic encyclopedias and other curriculum-related titles.

- ◆ The student will communicate with other students using the Internet and will open a web site to search for information.

**2.8. The student will create tables and graphs for representing and analyzing data.**

- ◆ The student will use software to create simple tables and graphs representing data.

**2.9. The student will use computer graphic programs to draw pictures and to place graphics in documents.**

- ◆ The student will use software to draw pictures and place graphics in documents.

# Grade 4

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1. The student will identify the ways in which technology has changed the lives of people in California.**
  - ◆ The student will write a narrative describing what life in California would be like without computer technology.
- 1.2. The student will explain how copyright laws protect what a person or a company has created.**
  - ◆ The student will explain why copying or receiving illegally copied software is wrong.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1 The student will identify the parts of a computer.**
  - ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.
- 2.2 The student will have a vocabulary of computer concepts.**
  - ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, hardware, and software.
- 2.3 The student will demonstrate the care of computers and diskettes.**
  - ◆ The student will contribute to a class discussion to create a list of class rules on computer care.
- 2.4 The student will identify various keys and symbols on a keyboard.**
  - ◆ The student will identify letters, numbers, symbols and other commonly used keys.
- 2.5 The student will start, use and exit software programs properly using the keyboard and mouse.**
  - ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)
- 2.6 The student will create personal projects using technology.**
  - ◆ The student will type, print and save documents.

- 2.7 The student will access and retrieve electronic information.**
- ◆ The student will use CD-ROMs such as electronic encyclopedias and other curriculum-related titles.
  - ◆ The student will communicate with other students using the Internet and will open a web site to search for information.
- 2.8 The student will create tables and graphs for representing and analyzing data.**
- ◆ The student will use software to create simple tables and graphs representing data.
- 2.9 The student will use computer graphic programs to draw pictures and to place graphics in documents.**
- ◆ The student will use software to draw pictures and place graphics in documents.
- 2.10 The student will know basic capabilities and limitations of computers.**
- ◆ The student will explain the uses and limitations of computer technology.
- 2.11 The student will touch type using correct fingers on all keys.**
- ◆ The student will demonstrate keyboarding skills at the net rate of 15 words per minute, the use of correct fingers on keys, and eyes on copy while keyboarding.

# Grade 5

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1. The student will identify the ways in which technology has changed the lives of people in the United States.**
  - ◆ The student will write a narrative describing what changes computer technology has changed life in the United States.
  - ◆ The student will make a time line showing technological inventions and discuss how these events have influenced life in the United States.
- 1.2. The student will explain how copyright laws protect what a person or a company has created.**
  - ◆ The student will explain why copying or receiving illegally copied software is wrong.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1. The student will identify the parts of a computer.**
  - ◆ The student will identify: monitor, keyboard, disk drive, and printer, mouse.
- 2.2. The student will have a vocabulary of computer concepts.**
  - ◆ The student will define: monitor, keyboard, disk drive, printer, mouse, software, and hardware..
- 2.3. The student will demonstrate the care of computers and diskettes.**
  - ◆ The student will contribute to a class discussion to create a list of class rules on computer care.
- 2.4. The student will identify various keys and symbols on a keyboard.**
  - ◆ The student will identify letters, numbers, symbols and other commonly used keys.
- 2.5. The student will start, use and exit software programs properly using the keyboard and mouse.**
  - ◆ The student will demonstrate the use of special function keys and mouse skills. (i.e. return key, space bar, shift key, escape key, delete key, dragging, clicking, click and drag, click and hold.)
- 2.6. The student will create personal projects using technology.**
  - ◆ The student will type, print and save documents.

- 2.7. The student will access and retrieve electronic information.**
- ◆ The student will use CD-ROMs such as electronic encyclopedias and other curriculum-related titles.
  - ◆ The student will communicate with other students using the Internet and will open a web site to search for information.
- 2.8. The student will create tables and graphs for representing and analyzing data.**
- ◆ The student will use software to create simple tables and graphs representing data.
- 2.9. The student will use computer graphic programs to draw pictures and to place graphics in documents.**
- ◆ The student will use software to draw pictures and place graphics in documents.
- 2.10. The student will know basic capabilities and limitations of computers.**
- ◆ The student will explain the uses and limitations of computer technology.
- 2.11. The student will touch type using correct fingers on all keys.**
- ◆ The student will demonstrate keyboarding skills at the rate of 15 net words per minute, the use of correct fingers on keys, and eyes on copy while keyboarding.

# Middle School Technology Content Standards/Curriculum

## Grades 6-8

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

- 1.1 The student will explore how technology relates to college and careers.**
  - ◆ The student can identify technology skills required for college and careers.
- 1.2 The student will practice ethical behavior.**
  - ◆ The student will demonstrate an understanding of the Tustin Unified School District Acceptable Use Policy and have a signed Acceptable Use of Electronic Resources form on file with the District.
  - ◆ The student will demonstrate an understanding of copyright laws, privacy issues and ethics in the use of computers and the Internet.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

- 2.1 The student will demonstrate basic computer literacy skills.**
  - ◆ The student is able to explain the parts of a computer and their function.
  - ◆ The student is able to demonstrate proper care of a computer and computer peripherals.
  - ◆ The student is able to recognize, understand and use technology vocabulary.
- 2.2 The student will write and publish original documents.**
  - 2.2.1 The student is able to keyboard using correct fingers on keys while keeping eyes on copy.**
    - ◆ The student can keyboard accurately with eyes on copy at 25 net words per minute.
  - 2.2.2 The student is able to use word processing in the writing process from origination to publication.**
    - ◆ The student will produce a completed, published piece demonstrating the use of the utilities of word processing software (i.e. spell check, thesaurus, font changes, etc.).
- 2.3. The student will learn Software Applications in order to support curricular activities in all content areas.**
  - 2.3.1 The student will use databases for storing and retrieving information.**
    - ◆ The student will create a database and will retrieve information from the database.

- 2.3.2 The student will use spreadsheets for performing mathematical calculations.**
  - ◆ The student will produce a spreadsheet that includes mathematical formulas.
- 2.3.3 The student will use software programs for creating and using graphics.**
  - ◆ The student will create a figure or graph in a word processing, spreadsheet or graphics program.
- 2.3.4 The student will create presentations using multimedia.**
  - ◆ The student will create a visual representation of a given topic.
- 2.4. The student will understand and use telecommunications.**
  - 2.4.1 The student will log on and use the Internet to retrieve information.**
    - ◆ The student will retrieve information from another computer.
  - 2.4.2 The student will communicate with another person using electronic communication.**
    - ◆ The student will send and receive a message from another person.
- 2.5. The student will conduct research using electronic reference tools.**
  - ◆ The student will use the Internet, CD-ROM's and/or laserdiscs for research.

# High School Technology Content Standards/Curriculum

## Grades 9-12

**Standard 1:** *The student will understand the relevancy of technology in everyday life and will practice ethical behavior in the use of technology.*

**1.3 The student will explore how technology relates to college and careers.**

- ◆ The student can identify technology skills required for college and careers.

**1.4 The student will practice ethical behavior.**

- ◆ The student will demonstrate an understanding of the Tustin Unified School District Acceptable Use Policy and have a signed Acceptable Use of Electronic Resources form on file with the District.
- ◆ The student will demonstrate an understanding of copyright laws, privacy issues and ethics in the use of computers and the Internet.

**Standard 2:** *The student will demonstrate knowledge and skills in using various technologies.*

**2.3 The student will demonstrate basic computer literacy skills.**

- ◆ The student is able to explain the parts of a computer and their function.
- ◆ The student is able to demonstrate proper care of a computer and computer peripherals.
- ◆ The student is able to recognize, understand and use technology vocabulary.

**2.4 The student will write and publish original documents.**

**2.2.2 The student is able to keyboard using correct fingers on keys while keeping eyes on copy.**

- ◆ The student can keyboard accurately with eyes on copy at 25 net words per minute.

**2.2.3 The student is able to use word processing in the writing process from origination to publication.**

- ◆ The student will produce a completed, published piece demonstrating the use of the utilities of word processing software (i.e. spell check, thesaurus, font changes, etc.).

**2.4. The student will learn Software Applications in order to support curricular activities in all content areas.**

**2.3.5 The student will use databases for storing and retrieving information.**

- ◆ The student will create a database and will retrieve information from the database.

- 2.3.6 **The student will use spreadsheets for performing mathematical calculations.**
  - ◆ The student will produce a spreadsheet that includes mathematical formulas.
- 2.3.7 **The student will use software programs for creating and using graphics.**
  - ◆ The student will create a figure or graph in a word processing, spreadsheet or graphics program.
- 2.3.8 **The student will create presentations using multimedia.**
  - ◆ The student will create a visual representation of a given topic.
- 2.5. **The student will understand and use telecommunications.**
  - 2.4.3 **The student will log on and use the Internet to retrieve information.**
    - ◆ The student will retrieve information from another computer.
  - 2.4.4 **The student will communicate with another person using electronic communication.**
    - ◆ The student will send and receive a message from another person.
- 2.6. **The student will conduct research using electronic reference tools.**
  - ◆ The student will use the Internet, CD-ROM's and/or laserdiscs for research.

**Standard 3:** *The student will demonstrate technological knowledge and skills to access, analyze, interpret, synthesize, apply and communicate information.*

- 3.1 **The student will be able to use software as a tool to learn and reinforce concepts.**
  - ◆ The student will use the appropriate software (i.e. CD-ROM, laser disc, graphing calculators, 2D and 3D graphics, animation, MIDI, Auto CAD, robotics, diagnostic applications, simulations, video) to complete a curricular specific assignment.
- 3.2 **The student will use multiple technologies.**
  - ◆ The student will integrate two or more technologies (i.e. computer, laser disc, LCD panel, video, cable) to create a single-topic presentation.
- 3.3 **The student will use the electronic resources of the Internet.**
  - ◆ The student will critically evaluate information from at least 3 sources on the Internet to create a presentation, project or paper.