

~UNIFIED TECHNOLOGY STANDARDS~

TECHNOLOGY OPERATION

- 1.0 Basic Operations and Concepts:** *Students demonstrate a sound understanding of the nature, operation, and use of technology systems.*

TECHNOLOGY ISSUES

- 1.0 Social, Ethical, and Cultural Issues:** *Students use technology to support lifelong learning, collaboration, personal pursuits, and productivity. They understand the societal ethical, and cultural issues related to technology and practice responsible use of technology systems, information, and software.*

TECHNOLOGY CURRICULUM INTEGRATION

- 1.0 Technology Productivity Tools:** *Students use technology tools to enhance learning, increase productivity, and promote creativity.*
- 2.0 Technology Communication Tools:** *Students use a variety of media and formats to collaborate, publish, and interact with peers, experts, and other multiple audiences.*
- 3.0 Technology Research Tools:** *Students will use technology to locate, evaluate, collect, and process information from a variety of sources. They will evaluate and select information resources and technological innovations based on the appropriateness to specific tasks.*
- 4.0 Technology Problem-Solving and Decision-Making Tools:** *Students will use technology in the development of strategies both for solving problems and making informed decisions in the classroom and the real world.*

TECHNOLOGY OPERATION STRAND LEVEL 3

1.0 Basic Operations and Concepts - Students demonstrate a sound understanding of the nature, operation, and use of technology systems.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use keyboard.

- θ Use correct touch-typing techniques.
- θ Use all special function keys; proper mouse techniques.

1.2 Use input devices.

- θ Introduced to digital cameras, scanners, and other input devices to capture and edit images.

1.3 Use window functions.

- θ Minimize and maximize windows.
- θ Open and close applications.

1.4 Use local and network operations.

- θ Introduced to logging in and out of the network, print to a local or networked printer.

1.5 Access files.

- θ Locate, save, and retrieve files from/to floppy diskette and hard drive.

1.6 Access the Internet.

- θ Introduced to the fact that Internet access requires connectivity outside the school and home (e.g., modem, service provider, and network connection).
- θ Aware that worldwide computers are being accessed.

TECHNOLOGY ISSUES STRAND LEVEL 3

1.0 Social, ethical, and cultural issues - Students demonstrate positive attitudes about using technology to support lifelong learning, collaboration, personal pursuits, and productivity. They understand the social, ethical, and cultural issues related to technology and practice responsible use of technology systems, information, and software.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Understand the PUSD Acceptable Use Agreement.

- θ Understand and sign the PUSD Acceptable Use Agreement.
- θ Aware of consequences associated with violating the agreement.

1.2 Recognize network connectivity.

- θ Aware that the network extends beyond the classroom.
- θ Aware that a student's actions can affect others.
- θ Aware that Internet resources originate from people with a wide variety of national, ethical, and cultural backgrounds.

1.3 Identify advantages and disadvantages of technology.

- θ Use correct terminology to define and identify technologies.
- θ Aware of dependence of science, technology, and society upon one another; describe how technology affects daily life.

1.4 Aware of career implications.

- θ Identify technologies in the work place.

TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 3

1.0 Technology Productivity Tools - Students use technology tools to enhance learning, increase productivity, and promote creativity.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use word processing applications.

- θ Create, save, and print a document; create a document containing both text and graphics.

1.2 Use presentation applications.

- θ Design, create, save, and print presentation.
- θ Develop presentation layout to include text, graphics, and sound.

1.3 Use subject-specific applications.

- θ Use subject-specific software to assist in learning PUSD unifying standards.

1.4 Apply productivity tools.

- θ Identify and apply software application and hardware tools that support the PUSD unifying standards.
- θ Create presentations.

2.0 Technology Communications Tools - Students use a variety of media and formats to collaborate, publish, and interact with peers, experts, and other multiple audiences.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 2.0 by the end of grade twelve:

2.1 Use email.

- θ Apply the PUSD Acceptable Agreement.
- θ Send and receive and properly address.
- θ Use reply and forward functions.

2.2 Safely use Internet-based tools.

- θ Apply the PUSD Acceptable Agreement.
- θ Understand safety associated with distributing personal information including pictures, addresses, phone numbers, and real names when using newsgroups, chat rooms, and discussion boards.
- θ Tell parent or teacher about any uncomfortable online experiences.
- θ Recognize that chat groups, discussion board postings, and newsgroups can be viewed and joined worldwide.

2.3 Apply communication tools.

- θ Work with classroom and distant partners to create collaborative products that support the PUSD unifying standards.
- θ Use applications that support both classroom and distant collaboration (e.g., email, chat, video conferencing, facsimiles and other collaboration tools).

2.4 Create presentations and exhibitions.

- θ Combine software and hardware devices to create presentations/exhibitions that support PUSD unifying standards.
- θ Apply appropriate presentation skills.
- θ Include a logical presentation sequence.

3.0 Technology Research Tools - Students will use technology to locate, evaluate, collect, and process information from a variety of sources. They will evaluate and select information resources and technological innovations based on the appropriateness to specific tasks.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 3.0 by the end of grade twelve:

3.1 Locate information.

- θ Identify and use local and networked research tools (e.g., CD-ROM, laser discs, and the Internet).

3.2 Utilize primary resources.

- θ Use Internet-based tools and video conferencing to communicate and reference primary resources (e.g., area experts, original documents).

3.3 Evaluate information.

- θ Determine currency of information.

4.0 Technology Problem-Solving and Decision-Making Tools - Students will use technology in the development of strategies both for solving problems and making informed decisions in the classroom and the real world.

With **teacher assistance**, students in level 3 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 4.0 by the end of grade twelve:

4.1 Informed and contributing citizens.

- θ Understand that technology tools can connect individuals across nations, cultures, and beliefs.
- θ Use technology tools to share their views with an extended audience.

4.2 Participate in collaborative problem solving.

- θ Use online tools to build relationships with classroom and distant partners.
- θ Share problem solutions and consequences with classroom and distant partners.
- θ Locate and use primary resources to assist in solving problems (e.g., area experts, original documents).

TECHNOLOGY OPERATION STRAND LEVEL 4

1.0 Basic Operations and Concepts - Students demonstrate a sound understanding of the nature, operation, and use of technology systems.

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use keyboard.

- θ Use correct touch-typing techniques.
- θ Use special function keys, including return, space bar, shift, alt, and control; proper mouse techniques.

1.2 Use input devices.

- θ Capture and edit images using digital cameras, scanners, and other input devices.

1.3 Use window functions.

- θ Minimize and maximize windows.
- θ Open and close applications.

1.4 Use local and network operations.

- θ Log in and out of the network.
- θ Print to a local or networked printer.

1.5 Access files.

- θ Locate, save, and retrieve files from/to floppy diskette and hard drive.
- θ Locate, save, and retrieve files from/to network drives.

1.6 Access the Internet.

- θ Know that Internet access requires connective outside the school and home (e.g., modem, service provider, network connection).
- θ Know that worldwide computers are being accessed.

TECHNOLOGY ISSUES STRAND LEVEL 4

1.0 Social, ethical, and cultural issues - Students demonstrate positive attitudes about using technology to support lifelong learning, collaboration, personal pursuits, and productivity. They understand the social, ethical, and cultural issues related to technology and practice responsible use of technology systems, information, and software.

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Understand the PUSD Acceptable Use Agreement.

- θ Read, understand, and sign the PUSD Acceptable Use Agreement.
- θ Understand the consequences associated with violating the agreement.

1.2 Recognize network connectivity.

- θ Understand that the network extends beyond the classroom.
- θ Understand that a student's actions can affect others.
- θ Understand that Internet resources originate from people with a wide variety of national, ethical, and cultural backgrounds.

1.3 Identify advantages and disadvantages of technology.

- θ Demonstrate use of correct terminology to define and identify technologies.
- θ Aware of dependence of science, technology, and society upon one another; describe how technology affects daily life.
- θ Speculate on future technologies.

1.4 Aware of career implications.

- θ Identify technologies in the work place.
- θ Aware that new technology skills will need to be continually learned.

TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 4

1.0 Technology Productivity Tools - Students use technology tools to enhance learning, increase productivity, and promote creativity.

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use word processing applications.

- θ Create, save, and print a document.
- θ Create a document containing both text and graphics.
- θ Apply layout and formatting attributes (e.g., bold, underline, and spacing).

1.2 Use spreadsheet applications.

- θ Create, save, and print simple tables.
- θ Create a chart that contains both text and numerical values.

1.3 Use presentation applications.

- θ Design, create, save, and print presentation.
- θ Develop presentation layout to include text, graphics, and sound.

1.4 Use Web authoring applications.

- θ Design, create, save, and publish web-based projects including text and graphics.

1.5 Use subject-specific applications.

- θ Use subject-specific software to assist in learning PUSD unifying standards.

1.6 Apply productivity tools.

- θ Identify and apply software application and hardware tools that support the PUSD unifying standards.
- θ Identify and select appropriate tool for the task.
- θ Combine software and hardware applications to create documents, presentations, and online projects/exhibitions.

2.0 Technology Communications Tools - Students use a variety of media and formats to collaborate, publish, and interact with peers, experts, and other multiple audiences

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 2.0 by the end of grade twelve:

2.1 Use email.

- θ Apply the PUSD Acceptable Agreement.
- θ Send, receive, and properly address.
- θ Attach a document, and a signature.

- θ Use reply and forward functions.

2.2 Safely use Internet-based tools.

- θ Apply the PUSD Acceptable Agreement.
- θ Understand safety associated with distributing personal information including pictures, addresses, phone numbers, and real names when using newsgroups, chat rooms, and discussion boards.
- θ Tell parent or teacher about any uncomfortable online experiences.
- θ Recognize that chat groups, discussion board postings, and newsgroups can be viewed and joined worldwide.

2.3 Apply communication tools.

- θ Work with classroom and distant partners to create collaborative products that support the PUSD unifying standards.
- θ Use applications that support both classroom and distant collaboration (e.g., email, chat, video conferencing, facsimiles, and other collaboration tools).

2.4 Create presentations and exhibitions.

- θ Combine software and hardware devices to create presentations/exhibitions that support PUSD unifying standards.
- θ Apply appropriate presentation skills.
- θ Include a logical presentation sequence.

2.5 Create online projects.

- θ Use web-authoring tools to create online projects that support PUSD unifying standards.
- θ Follow appropriate guidelines for creating online documents.
- θ Upload documents to web server.

3.0 Technology Research Tools - Students will use technology to locate, evaluate, collect, and process information from a variety of sources. They will evaluate and select information resources and technological innovations based on the appropriateness to specific tasks.

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 3.0 by the end of grade twelve:

3.1 Locate information.

- θ Identify and use local and networked research tools (e.g., CD-ROM, laser discs, and the Internet).
- θ Use effective search strategies including formulating a central question, developing a list of keywords, and applying search operators (e.g., capitalization, +, -, AND, OR).

3.2 Utilize primary resources.

- θ Use Internet-based tools and video conferencing to communicate and reference primary resources (e.g., area experts, original documents).

3.3 Evaluate information.

- θ Determine currency of information.
- θ Identify the author and/or contributing organization of information.

3.4 Gather and evaluate numerical data.

- θ Use probeware and other input devices to collect data.
- θ Setup spreadsheets and/or databases.
- θ Enter data; organize data by sorting and filtering.

4.0 Technology Problem-Solving and Decision-Making Tools - Students will use technology in the development of strategies both for solving problems and making informed decisions in the classroom and the real world.

With **decreasing assistance**, students in level 4 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 4.0 by the end of grade twelve:

4.1 Informed and contributing citizens.

- θ Understand that technology tools can connect individuals across nations, cultures, and beliefs.
- θ Use technology tools to share their views with an extended audience.

4.2 Participate in collaborative problem solving.

- θ Use online tools to build relationships with classroom and distant partners.
- θ Investigate various issues and perspectives.
- θ Share problem solutions and consequences with classroom and distant partners.
- θ Locate and use primary resources to assist in solving problems (e.g., area experts, original documents).

TECHNOLOGY OPERATION STRAND LEVEL 5

1.0 Basic Operations and Concepts - Students demonstrate a sound understanding of the nature, operation, and use of technology systems.

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use keyboard.

- θ Use correct touch-typing techniques.
- θ Use special function keys, including return, space bar, shift, alt, and control.

1.2 Use input devices.

- θ Capture and edit images using digital cameras, scanners, and other input devices.
- θ Proper mouse techniques.

1.3 Use window functions.

- θ Minimize and maximize windows.
- θ Open and close applications.

1.4 Use local and network operations.

- θ Log in and out of the network.
- θ Introduced to changing print locations from local to network printer; print to a local or networked printer

1.5 Access files.

- θ Locate, save, and retrieve files from/to floppy diskette and hard drive.
- θ Locate, save, and retrieve files from/to network drives.
- θ Save and retrieve files stored on District server from remote location.

1.6 Access the Internet.

- θ Understand that Internet access requires connectivity outside the school and home (e.g., modem, service provider, and network connection).
- θ Aware that worldwide computers are being accessed.

TECHNOLOGY ISSUES STRAND LEVEL 5

1.0 Social, ethical, and cultural issues - Students demonstrate positive attitudes about using technology to support lifelong learning, collaboration, personal pursuits, and productivity. They understand the social, ethical, and cultural issues related to technology and practice responsible use of technology systems, information, and software.

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Understand the PUSD Acceptable Use Agreement.

- θ Read, understand and sign the PUSD Acceptable Use Agreement.
- θ Aware of consequences associated with violating the agreement.

1.2 Recognize network connectivity.

- θ Aware that the network extends beyond the classroom.
- θ Aware that a student's actions can affect others.
- θ Aware that Internet resources originate from people with a wide variety of national, ethical, and cultural backgrounds.

1.3 Identify advantages and disadvantages of technology.

- θ Use correct terminology to define and identify technologies.
- θ Aware of dependence of science, technology, and society upon one another; describe how technology affects daily life; identify limits of technology applications.
- θ Speculate on future technologies.

1.4 Aware of career implications.

- θ Identify technologies in the work place.
- θ Aware that new technology skills will need to be continually learned.

TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 5

1.0 Technology Productivity Tools - Students use technology tools to enhance learning, increase productivity, and promote creativity.

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 1.0 by the end of grade twelve:

1.1 Use word processing applications.

- θ Create, save, and print a document.
- θ Create a document containing both text and graphics.
- θ Apply layout and formatting attributes (e.g., bold, underline, and spacing).

1.2 Use spreadsheet applications.

- θ Create, save, and print simple tables.
- θ Create a chart that contains both text and numerical values.
- θ Perform simple mathematical formulas.
- θ Create charts and graphs that represent data.

1.3 Use presentation applications.

- θ Design, create, save, and print presentation.
- θ Develop presentation layout to include text, graphics, and sound.

1.4 Use Web authoring applications.

- θ Design, create, save, and publish web-based projects including text and graphics.

1.5 Use subject-specific applications.

- θ Use subject-specific software to assist in learning PUSD unifying standards.

1.6 Apply productivity tools.

- θ Identify and apply software application and hardware tools that support the PUSD unifying standards.
- θ Identify and select appropriate tool for the task.
- θ Combine software and hardware applications to create documents, presentations, and online projects/exhibitions.

2.0 Technology Communications Tools - Students use a variety of media and formats to collaborate, publish, and interact with peers, experts, and other multiple audiences

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 2.0 by the end of grade twelve:

2.1 Use email.

- θ Apply the PUSD Acceptable Agreement.
- θ Send and receive properly addressed.
- θ Attach a document.
- θ Attach a signature to use reply and forward functions.
- θ Create and maintain a personal address book.
- θ Create a distribution list.

2.2 Safely use Internet-based tools.

- θ Apply the PUSD Acceptable Agreement.
- θ Understand safety associated with distributing personal information including pictures, addresses, phone numbers, and real names when using newsgroups, chat rooms, and discussion boards.
- θ Tell parent or teacher about any uncomfortable online experiences.
- θ Recognize that chat groups, discussion board postings, and newsgroups can be viewed and joined worldwide.

2.3 Apply communication tools.

- θ Work with classroom and distant partners to create collaborative products that support the PUSD unifying standards.
- θ Use applications that support both classroom and distant collaboration (e.g., email, chat, video conferencing, facsimiles, and other collaboration tools).

2.4 Create presentations and exhibitions.

- θ Combine software and hardware devices to create presentations/exhibitions that support PUSD unifying standards.
- θ Apply appropriate presentation skills.
- θ Include a logical presentation sequence.

2.5 Create online projects.

- θ Use web-authoring tools to create online projects that support PUSD unifying standards.
- θ Follow appropriate guidelines for creating online documents; upload documents to web server.

3.0 Technology Research Tools - Students will use technology to locate, evaluate, collect, and process information from a variety of sources. They will evaluate and select information resources and technological innovations based on the appropriateness to specific tasks.

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 3.0 by the end of grade twelve:

3.1 Locate information.

- θ Identify and use local and networked research tools (e.g., CD-ROM, laser discs, the Internet).
- θ Use effective search strategies including formulating a central questions, developing a list of keywords and applying search operators (e.g., capitalization, +, -, AND, OR).
- θ Obtain information from distant partners including classmates, teachers, and the community.

3.2 Utilize primary resources.

- θ Use Internet-based tools and video conferencing to communicate and reference primary resources (e.g., area experts, original documents).

3.3 Evaluate information.

- θ Determine currency of information; identify the author and/or contributing organization of information.
- θ Evaluate the point of view of the author and/or contributing organization.

3.4 Gather and evaluate numerical data.

- θ Use probeware and other input devices to collect data.
- θ Setup spreadsheets and/or databases.
- θ Enter data; organize data by sorting and filtering.
- θ Create reports and/or graphs.

4.0 Technology Problem-Solving and Decision-Making Tools - Students will use technology in the development of strategies both for solving problems and making informed decisions in the classroom and the real world.

Students in level 5 are expected to know and apply the following objectives in order to make progress toward meeting the Unifying Standard 4.0 by the end of grade twelve:

4.1 Informed and contributing citizens.

- θ Understand that technology tools can connect individuals across nations, cultures, and beliefs.
- θ Understand the technology tools can assist them in finding information from various perspectives.
- θ Use technology tools to share their views with an extended audience.

4.2 Participate in collaborative problem solving.

- θ Use online tools to build relationships with classroom and distant partners; investigate various issues and perspectives.
- θ Share problem solutions and consequences with classroom and distant partners.
- θ Locate and use primary resources to assist in solving problems (e.g., area experts, original documents).

