

## ~Vocabulary Reference Diagram~

**TECHNOLOGY CURRICULUM INTEGRATION STRAND**  
**LEVEL: HIGH SCHOOL**

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

**STRAND**

Students in high school are expected to acquire knowledge and apply the skills necessary to meet the following learning objectives in order to meet the Unifying Standard 1.0 by the end of grade twelve:

**STANDARD**

**1.1 Manage information** -- use multiple devices and/or applications to organize personal and professional information (e.g., bookmarks, schedules, address books, personal informational managers, etc.)

**Learning**

**1.2 Apply technology** -- use technology applications to investigate worldwide situations (e.g., stock market software, science Internet-based data collections, etc); use applications to access primary resources (e.g., chat online with experts, accessing original manuscripts, listserv, etc.)

**Objective**

**1.3 Apply multiple productivity applications** -- understands the capabilities and/or limitations of how software applications work together (e.g., complementary tools and application suites)

**1.4 Apply multiple presentation applications** -- integrate various technologies to demonstrate student learning (e.g., portfolios, class projects or presentations, etc.); combine and integrate various applications to do a specific task (e.g., cut and paste word processing document into presentation software, etc.)

## ~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 OPERATIONS STRAND LEVEL 6

**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 6 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.**

- o Use correct touch typing techniques.
- o Use special function keys (e.g., alt-tab, shift-click, and control-v...).
- o Use right/left mouse buttons.

**1.2 Navigate network.**

- o Properly log into and out of the network using personal user identification and password.
- o Access network from several on-site locations.

**1.3 Troubleshoot workstation problems.**

- o Understand how to properly close a non-responding application.
- o Understand how to shutdown a non-responding computer.
- o Recognize network connection.

**1.4 Troubleshoot printer problems.**

- o Understand the difference between local and networked printer.
- o Selecting the appropriate printer.
- o Stop a print job in progress.
- o Understand basic printer operations including adding paper, form feed, and online/offline settings.

**1.5 Computer management skills.**

- o Copy, move, and delete files on both local and networked drives.
- o Create folders to organize documents.
- o Save and retrieve files from local, network, and remote sites.
- o Navigate between multiple opened applications.

**1.6 Combine multiple-peripheral tools.**

- o Operate digital camera.
- o Access and use a scanner.
- o Use technology tools to create and save sound and video files.
- o Operate video conferencing equipment
- o Operate a presentation device (e.g. projection unit).

**1.7 Comprehend connectivity.**

- o Define connectivity.
- o Understand that the Internet extends beyond school, community and national boundaries.
- o Understand that network resources can be accessed throughout the school.

**TECHNOLOGY ISSUES STRAND  
LEVEL 6**

**1.0 Social, Ethical, and Cultural issues** - Students have 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 6 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 Identify the global nature of technology.**

- o Understand that Internet information represents different ethical, cultural, and societal perspectives.
- o Communicate respect for ideas and beliefs of other technology users.
- o Understand the limits of technology.

**1.1 Understand PUSD Acceptable Use Agreement.**

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

**1.2 Aware of career implications.**

- o Understand that as technology evolves new skills must be learned.
- o Speculate on possible future technologies.

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 6

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

With **teacher assistance**, students in level 6 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 Apply multiple-productivity applications.

- o Identify specific tasks that productivity applications support.
- o Integrate multiple software applications in support of subject curriculum standards.
- o Use word processing software; create charts and graphs using spreadsheets.
- o Input data and create reports using a database.

### 1.2 Apply multiple-communication applications.

- o Identify specific tasks that communication applications support.
- o Integrate multiple communication applications in support of subject curriculum.
- o Use desktop publishing software.
- o Use email.
- o Use web-authoring software.
- o Use online tools (e.g., discussion board...).

### 1.3 Apply multiple-presentation applications.

- o Identify specific tasks that presentation applications support.
- o Integrate multiple presentation applications (e.g. PowerPoint, HyperStudio) in support of subject curriculum standards.
- o Design and implement presentations.
- o Create audio and video clips.
- o Import graphs, charts and graphics into presentations.

### 1.4 Apply supporting hardware tools.

- o Identify specific tasks that supporting hardware tools support.
- o Integrate multiple hardware tools in support of subject curriculum standards.
- o Use a digital camera, scanner, and sound/video capturing devices.

**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.

With **teacher assistance**, students in level 6 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:

**2.1 Collaborate using multiple-communication tools.**

- o Use communication tools to collaborate with primary resources, community, and peers.
- o Share understanding of subject curriculum standards by using communication tools (e.g., videoconferencing, email, on-line tools).

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 6

**1.0 Technology research tools** - Students will use technology to locate, evaluate, and 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 6 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 Integrate multiple-research tools.

- o Identify specific tasks and select appropriate research tool.
- o Locate data/information using CD-ROMs, Internet resources, probeware, and other collection devices.
- o Organize and analyze data using spreadsheets and databases.
- o Create reports using a database; create charts and visuals using spreadsheet; apply curriculum specific simulation software.

### 1.2 Information literacy.

- o Select and apply appropriate information tools (e.g., CD-ROM, Internet...).
- o Learn to formulate a central question, develop a set of supporting questions, develop a list of key words, and apply search operators (+, -, AND, OR).
- o Apply multiple search techniques to locate information; locate subject specific information archives (e.g., art museums, government collections, newspaper, and archives...).
- o Evaluate validity of information by determining currency of information, identify the author and/or contributing organization of information, evaluate the point of view of the author and/or contributing organization, and distinguish between fact and non-fact.

### 1.3 Utilize distant partners.

- o Seek information using email and online discussion (e.g., discussion boards, chat, and newsgroups...).
- o Evaluate and apply information to solve problems; evaluate the point of view of the online resource.

**TECHNOLOGY CURRICULUM INTEGRATION STRAND  
LEVEL 6**

**1.0 Technology problem-solving and decision-making tools** - Students will use technology in the development of strategies for both solving problems and making informed decisions in the classroom and the real world.

With **teacher assistance**, students in level 6 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 Integrate multiple-applications.**

- o Understand that multiple tools can be used to create a document.
- o Match problem solution with specific technology applications.
- o Identify limits of technology.

**1.2 Apply multiple-information technologies.**

- o Select and integrate multiple information technology tools to complete a given task (e.g., CD-ROM, Internet, and Laser Discs).
- o Recognize that the Internet brings global issues into the classroom.
- o Obtain multiple perspective on a single issue.
- o Share possible problem solutions and consequences with a global community by creating web pages and using online tools (e.g., discussion boards, chats, newsgroups, and videoconferencing....).

**1.3 Informed and contributing citizens.**

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

## TECHNOLOGY OPERATIONS STRAND

### LEVEL 7

**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 7 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.

- o Use correct touch typing techniques; use special function keys (e.g., alt-tab, shift-click, and control-v...).
- o Use right/left mouse buttons.

#### 1.2 Navigate network.

- o Properly log into and out of the network using personal user identification and password
- o Access network from several on-site locations.

#### 1.3 Troubleshoot workstation problems.

- o Understand how to properly close a non-responding application.
- o Understand how to shutdown a non-responding computer.
- o Recognize network connection.

#### 1.4 Troubleshoot printer problems.

- o Understand the difference between local and networked printer.
- o Selecting the appropriate printer.
- o Stop a print job in progress.
- o Understand basic printer operations including adding paper, form feed, and online/offline settings.

#### 1.5 Computer management skills.

- o Copy, move, and delete files on both local and networked drives.
- o Create folders to organize documents.
- o Save and retrieve files from local, network, and remote sites.
- o Navigate between multiple opened applications.
- o Exposed to installing or uninstalling software applications (e.g., upgrading applications, downloading software, plug-ins, and sounds...).

#### 1.6 Combine multiple-peripheral tools.

- o Operate digital camera.
- o Access and use a scanner.
- o Use technology tools to create and save sound and video files.
- o Operate video conferencing equipment.
- o Operate a presentation device (e.g., projection unit).

**1.7 Comprehend connectivity.**

- o Define connectivity.
- o Understand that the Internet extends beyond school, community and national boundaries.
- o Understand that network resources can be accessed throughout the school

**TECHNOLOGY ISSUES STRAND  
LEVEL 7**

**1.0 Social, Ethical, and Cultural issues** - Students have 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 7 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. Identify the global nature of technology.**

- o Understand that Internet information represents different ethical, cultural, and societal perspectives.
- o Communicate respect for ideas and beliefs of other technology users.
- o Understand the limits of technology.

**1.2 Understand PUSD Acceptable Use Agreement.**

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

**1.3 Aware of career implications.**

- o Understand that as technology evolves new skills must be learned.
- o Speculate on possible future technologies.

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 7

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

With **decreasing assistance**, students in level 7 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 Apply multiple-productivity applications.**

- o Identify specific tasks that productivity applications support.
- o Integrate multiple software applications in support of subject curriculum standards.
- o Use word processing software.
- o Create charts and graphs using spreadsheets.
- o Input data and create reports using a database.

**1.2 Apply multiple-communication applications.**

- o Identify specific tasks that communication applications support.
- o Integrate multiple communication applications in support of subject curriculum.
- o Use desktop publishing software.
- o Use email.
- o Use web-authoring software.
- o Use online tools (e.g., discussion board...).

**1.3 Apply multiple-presentation applications.**

- o Identify specific tasks that presentation applications support.
- o Integrate multiple presentation applications (e.g., PowerPoint, HyperStudio, and KidPix...) in support of subject curriculum standards.
- o Design and implement presentations.
- o Create audio and video clips.
- o Import graphs, charts and graphics into presentations.

**1.4 Apply supporting hardware tools.**

- o Identify specific tasks that supporting hardware tools support.
- o Integrate multiple hardware tools in support of subject curriculum standards.
- o Use a digital camera, scanner, and sound/video capturing devices.

**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.

With **decreasing assistance**, students in level 7 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:

**2.1 Collaborate using multiple-communication tools.**

- o Use communication tools to collaborate with primary resources, community, and peers.
- o Share understanding of subject curriculum standards by using communication tools (e.g., videoconferencing, email, and on-line tools).

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 7

**1.0 Technology research tools** - Students will use technology to locate, evaluate, and 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 7 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 Integrate multiple-research tools.

- o Identify specific tasks and select appropriate research tool.
- o Locate data/information using CD-ROMs, Internet resources, probeware, and other collection devices.
- o Organize and analyze data using spreadsheets and databases.
- o Create reports using a database.
- o Create charts and visuals using spreadsheet.
- o Apply curriculum specific simulation software.

### 1.2 Information literacy.

- o Select and apply appropriate information tools (e.g., CD-ROM, Internet...).
- o Learn to formulate a central question, develop a set of supporting questions, develop a list of key words, and apply search operators (+, -, AND, OR).
- o Apply multiple search techniques to locate information.
- o Locate subject specific information archives (e.g. art museums, government collections, and newspaper archives...).
- o Evaluate validity of information by determining currency of information, identify the author and/or contributing organization of information, evaluate the point of view of the author and/or contributing organization, and distinguish between fact and non-fact.

### 1.3 Utilize distant partners.

- o Seek information using email and online discussion (e.g. discussion boards, chat, and newsgroups...).
- o Evaluate and apply information to solve problems.
- o Evaluate the point of view of the online resource.

**2.0 Technology problem-solving and decision-making tools** - Students will use technology in the development of strategies for both solving problems and making informed decisions in the classroom and the real world.

With **decreasing assistance**, students in level 7 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:

**2.1 Integrate multiple-applications.**

- o Understand that multiple tools can be used to create a document.
- o Match problem solution with specific technology applications.
- o Identify limits of technology.

**2.2 Apply multiple-information technologies.**

- o Select and integrate multiple information technology tools to complete a given task (e.g. CD-ROM, Internet, and Laser Discs).
- o Recognize that the Internet brings global issues into the classroom.
- o Obtain multiple perspective on a single issue.
- o Share possible problem solutions and consequences with a global community by creating web pages and using online tools (e.g., discussion boards, chats, newsgroups, and videoconferencing....).

**2.3 Informed and contributing citizens.**

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

**TECHNOLOGY OPERATIONS STRAND  
LEVEL 8**

<b>1.0 Basic operations and concepts</b> - Students demonstrate a sound understanding of the nature, operation, and use of technology systems.
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Students in level 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 1.0 by the end of grade twelve:

**1.1 Use keyboard.**

- o Use correct touch typing techniques; use special function keys (e.g., alt-tab, shift-click, and control-v...).
- o Use right/left mouse buttons.

**1.2 Navigate network.**

- o Properly log into and out of the network using personal user identification and password.
- o Access network from several on-site locations.

**1.3 Troubleshoot workstation problems.**

- o Understand how to properly close a non-responding application.
- o Understand how to shutdown a non-responding computer.
- o Recognize network connection.

**1.4 Troubleshoot printer problems.**

- o Understand the difference between local and networked printer.
- o Selecting the appropriate printer.
- o Stop a print job in progress.
- o Understand basic printer operations including adding paper, form feed, and online/offline settings.

**1.5 Computer management skills.**

- o Copy, move, and delete files on both local and networked drives.
- o Create folders to organize documents.
- o Save and retrieve files from local, network, and remote sites.
- o Navigate between multiple opened applications.
- o Correctly install or uninstall software applications (e.g. upgrading applications, downloading software, plug-ins, and sounds...).

**1.6 Combine multiple-peripheral tools.**

- o Operate digital camera.
- o Access and use a scanner.
- o Use technology tools to create and save sound and video files.
- o Operate video conferencing equipment.
- o Operate a presentation device (e.g. projection unit).

**1.7 Comprehend connectivity.**

- o Define connectivity.
- o Understand that the Internet extends beyond school, community and national boundaries.
- o Understand that network resources can be accessed throughout the school.

**TECHNOLOGY ISSUES STRAND  
LEVEL 8**

**1.0 Social, ethical, and cultural issues** - Students have 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 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 1.0 by the end of grade twelve:

**1.2 Identify the global nature of technology.**

- o Understand that Internet information represents different ethical, cultural, and societal perspectives.
- o Communicate respect for ideas and beliefs of other technology users.
- o Understand the limits of technology.

**1.3 Understand PUSD Acceptable Use Agreement.**

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

**1.4 Aware of career implications.**

- o Understand that as technology evolves new skills must be learned.
- o Speculate on possible future technologies.

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 8

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

Students in level 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 1.0 by the end of grade twelve:

**1.1 Apply multiple-productivity applications.**

- o Identify specific tasks that productivity applications support.
- o Integrate multiple software applications in support of subject curriculum standards.
- o Use word processing software; create charts and graphs using spreadsheets.
- o Input data and create reports using a database.

**1.2 Apply multiple-communication applications.**

- o Identify specific tasks that communication applications support.
- o Integrate multiple communication applications in support of subject curriculum (e.g., desktop publishing software, email, web-authoring software).
- o Use online tools (e.g. discussion board...).

**1.3 Apply multiple-presentation applications.**

- o Identify specific tasks that presentation applications support.
- o Integrate multiple presentation applications (e.g. PowerPoint, HyperStudio,) in support of subject curriculum standards.
- o Design and implement presentations.
- o Create audio and video clips.
- o Import graphs, charts and graphics into presentations.

**1.4 Apply supporting hardware tools.**

- o Identify specific tasks that supporting hardware tools support.
- o Integrate multiple hardware tools in support of subject curriculum standards.
- o Use a digital camera, scanner, and sound/video capturing devices.

**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

Students in level 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 2.0 by the end of grade twelve:

**2.1 Collaborate using multiple-communication tools.**

- o Use communication tools to collaborate with primary resources, community, and peers.
- o Share understanding of subject curriculum standards by using communication tools (e.g. videoconferencing, email, online tools).

## TECHNOLOGY CURRICULUM INTEGRATION STRAND LEVEL 8

**3.0 Technology research tools** - Students will use technology to locate, evaluate, and 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 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 3.0 by the end of grade twelve:

### **3.1 Integrate multiple-research tools.**

- o Identify specific tasks and select appropriate research tool.
- o Locate data/information using CD-ROMs, Internet resources, probeware, and other collection devices.
- o Organize and analyze data using spreadsheets and databases.
- o Create reports using a database.
- o Create charts and visuals using spreadsheet.
- o Apply curriculum specific simulation software.

### **3.2 Information literacy.**

- o Select and apply appropriate information tools (e.g. CD-ROM, Internet...).
- o Learn to formulate a central question, develop a set of supporting questions, develop a list of key words, and apply search operators (+, -, AND, OR).
- o Apply multiple search techniques to locate information; locate subject specific information archives (e.g. art museums, government collections, newspaper archives...).
- o Evaluate validity of information by determining currency of information, identify the author and/or contributing organization of information, evaluate the point of view of the author and/or contributing organization, and distinguish between fact and non-fact.

### **3.3 Utilize distant partners.**

- o Seek information using email and online discussion (e.g. discussion boards, chat, and newsgroups...).
- o Evaluate and apply information to solve problems.
- o Evaluate the point of view of the online resource.

**4.0 Technology problem-solving and decision-making tools** - Students will use technology in the development of strategies for both solving problems and making informed decisions in the classroom and the real world.

Students in level 8 are expected to know and apply the following objectives in order to achieve the Unifying Standard 4.0 by the end of grade twelve:

**4.1 Integrate multiple-applications.**

- o Understand that multiple tools can be used to create a document.
- o Match problem solution with specific technology applications.
- o Identify limits of technology.

**4.2 Apply multiple-information technologies.**

- o Select and integrate multiple information technology tools to complete a given task (e.g. CD-ROM, Internet, and Laser Discs).
- o Recognize that the Internet brings global issues into the classroom.
- o Obtain multiple perspectives on a single issue.
- o Share possible problem solutions and consequences with a global community by creating web pages and using online tools (e.g. discussion boards, chats, newsgroups, and videoconferencing....).

**4.3 Informed and contributing citizens.**

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