Technology Applications Standards

FINAL

Approved on May 5, 2000

TECHNOLOGY APPLICATIONS STANDARDS

Standard I.   All teachers use technology-related terms, concepts, data input strategies, and ethical practices to make informed decisions about current technologies and their applications.

Standard II.   All teachers identify task requirements, apply search strategies, and use current technology to efficiently acquire, analyze, and evaluate a variety of electronic information.

Standard III.   All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions, and evaluate results in a way that supports the work of individuals and groups in problem-solving situations.

Standard IV.   All teachers communicate information in different formats and for diverse audiences.

Standard V.   All teachers know how to plan, organize, deliver, and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills (TEKS) into the curriculum.

Standard VI.   The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.

Standard VII.   The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in desktop publishing, in addition to the content described in Technology Applications Standards I–V.

Standard VIII.   The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital graphics/animation, in addition to the content described in Technology Applications Standards I–V.

Standard IX.   The multimedia teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in multimedia, in addition to the content described in Technology Applications Standards I–V.

Standard X.   The video technology teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in video technology, in addition to the content described in Technology Applications Standards I–V.

Standard XI.   The Web mastering teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in Web mastering, in addition to the content described in Technology Applications Standards I–V.

Standard I. **All teachers use technology-related terms, concepts, data input strategies, and ethical practices to make informed decisions about current technologies and their applications.**

Teacher Knowledge: What All Teachers Know

Teachers of Students in Grades EC–12

The beginning teacher knows and understands:

1.1k   the appropriate use of hardware components, software programs, and their
        connections;

1.2k   data input skills appropriate to the task; and

1.3k   laws and issues regarding the use of technology in society.

Application: What A
Teachers of Students in Grades EC–12

The begi5ning teacher

Standard III. **All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions, and evaluate results in a way that supports the work of**

Standard III. **All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions, and evaluate results in a way that supports the work of individuals and groups in problem-solving situations.**

Standard IV. **All teachers communicate information in different formats and for diverse audiences.**

Teacher Knowledge: What All Teachers Know

Teachers of Students in Grades EC–12

The beginning teacher knows and understands:

4.1k   how to format digital information for appropriate and effective communication;

4.2k   how to deliver a product electronically in a variety of media; and

4.3k   how to evaluate communication in terms of both process and product.

Application: What All Teachers Can Do

Teachers of Students in Grades EC–12

The beginning teacher is able to:

4.1s   use productivity tools, such as slide shows, posters, multimedia presentations, newsletters, brochures, or reports, to create effective document files for defined audiences;

4.2s   demonstrate the use of a variety of layouts in a database, including horizontal and vertical layouts, to communicate information appropriately;

4.3s   create a variety of spreadsheet layouts containing descriptive labels and page settings;

4.4s   demonstrate appropriate use of fonts, styles, and sizes, as well as effective use of graphics and page design to communicate effectively;

4.5s   match the chart style to the data when creating and labeling charts;

4.6s   publish information in a variety of ways, including, but not limited to, printed

Standard IV. **All teachers communicate information in different formats and for diverse audiences.**

	Application: What All Teachers Can Do
	Teachers of Students in Grades EC–12 (continued)
	4.11s select representative products to be collected and stored in an electronic evaluation tool; and
	4.12s evaluate products for relevance to the assignment or task.

Standard V. **All teachers know how to plan, organize, deliver, and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills (TEKS) into the curriculum.**

Teacher Knowledge: What All Teachers Know

Teachers of Students in Grades EC–12

The beginning teacher knows and understands:

5.1k   planning techniques to ensure that students have time to learn the Technology
        Applications TEKS in order to meet grade-level benchmark expectations;

5.2k   where to find and how to utilize technological resources to implement the
        TEKS, to support instruction, to extend communication, to enhance
        classroom management, and to become more productive in daily tasks;

5.3k   instructional strategies for teaching the Technology Applications TEKS and
        integrating them into the curriculum;

5.4k   strategies that students with diverse strengths and needs can use to determine
        word meaning in content-related texts;

5.5k   strategies that students with diverse strengths and needs can use to develop
        content-area vocabulary;

5.6k   strategies that students with diverse strengths and needs can use to facilitate
        comprehension before, during, and aftcs: 611x
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Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Computer Science Know

Teachers of Students in Grades 8–12

The beginning teacher of computer science knows and understands:

Foundations

6.1k   the appropriate use of hardware components, software programs, and their connections;

Application: What Teachers of Computer Science Can Do

Teachers of Students in Grades 8–12

The beginning teacher of computer science is able to:

Foundations

6.1s   use necessary vocabulary related to computer science;

6.2k   data input skills appropriate to a given task;

6.3k   pertinent laws and issues regarding the use of technology in society;

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Computer Science Know	Application: What Teachers of Computer Science Can Do
Information Acquisition	**Information Acquisition**
6.4k a variety of strategies for acquiring information from electronic resources;	6.10s design and document sequential search algorithms for digital information storage and retrieval;
	6.11s construct searching algorithms, including linear and binary searches;
	6.12s construct sorting algorithms, including quadratic algorithms such as selection, bubble and insertion, and more efficient algorithms such as merge, shell, and quick sorts;
	6.13s compare and contrast searching and sorting algorithms for space and time requirements;
6.5k how to acquire electronic information in a variety of formats;	6.14s acquire information in and knowledge about a variety of electronic formats, including text, audio, video, and graphics;
	6.15s use a variety of resources, including foundation and enrichment curricula, together with various productivity tools to gather authentic data as a basis for individual and group programming projects;
6.6k how to evaluate acquired electronic information;	6.16s determine and employ methods to evaluate the design and functionality of information acquisition processes and algorithms, using effective coding, design, and test data;
	6.17s implement methods for the evaluation of acquired information using defined rubrics;

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Computer Science Know	Application: What Teachers of Computer Science Can Do
Work in Solving Problems	**Work in Solving Problems**
6.7k how to use appropriate computer-based productivity tools to create and modify solutions to problems;	6.18s apply problem-solving strategies such as design specifications, modular top-down design, step-wise refinement, and algorithm development;
	6.19s use visual organizers such as flowcharts and schematic drawings to design solutions to problems;
	6.20s develop sequential and iterative algorithms and code programs in prevailing computer languages to solve practical problems modeled from school and community;
	6.21s demonstrate effective use of predefined input and output procedures for lists of computer instructions, including procedures to protect from invalid input;
	6.22s develop coding with correct and efficient use of expressions and assignment statements, including the use of standard/user-defined functions, data structures, operators/proper operator precedence, and sequential/conditional/ repetitive control structures;
	6.23s create and use libraries of generic modular code to be used for efficient programming;
	6.24s identify actual and formal parameters and use value and reference parameters;
	6.25s use control structures such as conditional statements and iterated, pretest, and post-test loops;
	6.26s use sequential, conditional, selection, and repetition execution control structures such as menu-driven programs that branch and allow user input;
	6.27s identify and use structured data types of one-dimensional arrays, records, and text files;

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Application: What Teachers of Computer Science Can Do

Work in Solving Problems (Continued)

6.28s   use recursion appropriately and trace program design comparing invariant, iterative, and recug

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work i**(eo)-nh[ )6The co)-4mpu8ti(hTc2Tw8dg

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Application: What Teachers of Computer Science Can Do

Work in Solving Problems (Continued)

6.45s   create technology specifications for tasks/evaluation rubrics and demonstrate

Standard VI. **The computer science teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in computer science, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Computer Science Know	Application: What Teachers of Computer Science Can Do
Communication	**Communication**
6.10k how to format digital information for appropriate and effective communication;	6.50s create interactive documents using modeling, simulation, and hypertext;
6.11k how to deliver a product electronically in a variety of media; and	6.51s publish information in a variety of ways, including, but not limited to, software, Internet documents, and video;
6.12k how to evaluate communication in terms of both process and product.	6.52s write technology specifications for planning/evaluation rubrics documenting variables, prompts, and programming code internally and externally;
	6.53s seek and respond to advice from colleagues and other professionals in evaluating a programming product; and
	6.54s debug and solve problems using reference materials and effective strategies.

Standard VII. The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and

Standard VII. **The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in desktop publishing, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Desktop Publishing Know

Information Acquisition

7.4k   a variety of strategies for acquiring information from electronic resources;

7.5k   how to acquire electronic information in a variety of formats;7.5k

Standard VII. **The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in desktop publishing, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Desktop Publishing Know

Work in Solving Problems

7.7k   how to use appropriate computer-based productivity tools to create and
          modify solutions to problems;

Application: What Teachers of Desktop Publishing Can Do

Work in Solving Problems

7.13s

7.8k   how to use research skills and electronic communication to create new
          knowledge;

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Standard VII. **The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in desktop publishing, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Desktop Publishing Know	**Application: What Teachers of Desktop Publishing Can Do**
Communication	**Communication**
7.10k how to format digital information for appropriate and effective communication;	7.29s define the purpose of a desktop publishing product and identify the specified audience;
	7.30s use terms related to typography, including categories of type and type contrasts, appropriately;
	7.31s use principles of page design, including, but not limited to, leading/kerning, automatic text flow into linked columns, widows/orphans, and text wrap, to create a product;
	7.32s compare and contrast the rules of visual composition such as rule of thirds and the golden section/rectangle with respect to harmony and balance as well as discord and drama;
	7.33s create a master template to include page specifications and other repetitive tasks;
	7.34s apply the basics of type measurement for inches and picas;
	7.35s use type techniques such as drop cap, decorative letters, and embedded-text frames as graphic elements;
	7.36s apply color principles to communicate the mood of the product for a specific audience;
	7.37s incorporate the principles of basic design, including, but not limited to, balance, contrast, dominant element, use of white space, consistency, repetition, alignment, and proximity;
	7.38s identify pictorial qualities in a design such as shape and form, space and depth, and pattern and texture to create visual unity and desired effects in designs;

Standard VII. **The desktop publishing teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in desktop publishing, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Desktop Publishing Know

Communication (Continued)

7.11k   how to deliver a product electronically in a variety of media; and

7.12k   how to evaluate communication in terms of both process and product.

Application: What Teachers of Desktop Publishing Can Do

Communication (Continued)

7.39s   identify the parts and kinds of pages, including inside margin, outside margin, gutter, title, and inside pages;

7.40s   use a variety of strategies, such as varying line widths and patterns, and use manipulation tools to stretch, bend, screen, rotate, follow a path, and mirror type to create effective designs;

7.41s   use appropriate media for creating a knowledge base with a broad perspective and for communicating information and delivering a product to the worldwide community;

7.42s   use printing options such as tiling, color separations, collation, and previewing;

7.43s   distinguish design and printing requirements as they relate to purposes, audiences, and final output;

7.44s   use styles (style sheets), including a variety of type specifications such as typeface, style, size, alignment, indents, and tabs;

7.45s   identify and employ a method to evaluate a desktop publishing project for

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Standard VIII. **The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving**

Standard VIII. **The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital graphics/animation, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Digital Graphics/Animation Know	**Application: What Teachers of Digital Graphics/Animation Can Do**
Foundations (Continued)	**Foundations (Continued)**
8.3k pertinent laws and issues regarding the use of technology in society;	8.11s model respect for intellectual property when manipulating, morphing, and editing graphics, video, text, and sound;
	8.12s research digital graphics as an art form and the impact of digital graphics on society;

Standard VIII. **The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital graphics/animation, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Digital Graphics/Animation Know

Work in Solving Problems

8.7k   how to use appropriate computer-based productivity tools to create and modify solutions to problems;

Application: What Teachers of Digital Graphics/Animation Can Do

Work in Solving Problems

8.21s   combine graphics, images, and sound for foundation and enrichment curricular projects;

8.22s   integrate productivity tools, including, but not limited to, word processor,

Standard VIII. **The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital graphics/animation, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Digital Graphics/Animation Know	Application: What Teachers of Digital Graphics/Animation Can Do
Work in Solving Problems (Continued)	**Work in Solving Problems (Continued)**
	8.31s edit files using appropriate digital editing tools and established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style;
	8.32s use a variety of techniques to edit, manipulate, and change sounds;
8.8k how to use research skills and electronic communication to create new knowledge;	8.33s use technology to participate in self-directed, meaningful activities in the larger community and society;
	8.34s demonstrate proficiency in, appropriate use of, and navigation of local area networks (LANs), wide area networks (WANs), the Internet, and intranet for research and for sharing resources;
	8.35s participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;
8.9k how to use technology applications to facilitate evaluation of work, including both process and product;	8.36s create technology specifications for problem-solving tasks and rubrics to evaluate digital graphics/animation products and product quality against established criteria;
	8.37s design and implement procedures to track trends, set time lines, and review/evaluate problem-solving progress;
	8.38s evaluate data using criteria appropriate for the purpose;
	8.39s resolve information conflicts and validate information through accessing, researching, and comparing data;
	8.40s seek and respond to advice from colleagues and other professionals in delineating technological tasks related to solving problems in digital graphics/animation;

Standard VIII. **The digital graphics/animation teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in digital graphics/animation, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Digital Graphics/Animation Know

Communication

8.10k   how to format digital information for appropriate and effective communication;

8.11k   how to deliver a product electronically in a variety of media; and

8.12k   how to evaluate communication in terms of both process and product.

Application: What Teachers of Digital Graphics/Animation Can Do

Communication

8.41s   identify pictorial qualities in a design, such as shape and form, space and depth, and pattern and texture, to create visual unity and desired effects in designs;

8.42s   use a variety of lighting techniques, including shadows and shading to create an effect;

8.43s   define the design attributes and requirements of products created for a variety of purposes, including posters, billboards, business cards, stationery, book jackets, folders, booklets, pamphlets, brochures, and magazines;

8.44s   use proximity and alignment to create a visual connection with other elements;

8.45s   publish information in a variety of formats;

8.46s

Standard IX.

Standard IX. **The multimedia teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in multimedia, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Multimedia Know	**Application: What Teachers of Multimedia Can Do**
Foundations (Continued)	**Foundations (Continued)**
9.2k data input skills appropriate to a given task;	9.10s demonstrate proficiency in the use of a variety of electronic input devices by creating files for multimedia products;
	9.11s use strategies that conserve memory and retain image integrity when digitally capturing files;
	9.12s differentiate among types of audio input;
9.3k pertinent laws and issues regarding the use of technology in society;	9.13s model respect for intellectual property when manipulating, morphing, and editing graphics, video, text, and sound;
	9.14s provide examples of the role of multimedia in society;
9.4k a variety of strategies for acquiring information from electronic resources;	
9.5k how to acquire electronic information in a variety of formats;	9.15s acquire information in electronic formats, including text, audio, video, and graphics, citing the source;
	9.16s identify, create, and use available file formats, including text, image, video, and audio files;
9.6k how to evaluate acquired electronic information;	9.17s identify and employ a method to evaluate the design, functionality, and accuracy of acquired information;
	9.18s use fundamental concepts of graphic design, including visual composition and lighting when analyzing multimedia;

Standard IX. **The multimedia teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in multimedia, in addition to the content described in Technology Applications Standards I–V.**

Standard IX. **The multimedia teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in multimedia, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Multimedia Know

Work in Solving Problems (Continued)

Application: What Teachers of Multimedia Can Do

Work in Solving Problems (Continued)

9.28s   integrate and use efficiently and effectively a variety of multimedia programs and tools including linear/nonlinear authoring tools, image/video editing tools, compression programs, and draw/paint/text creation tools;

9.29s   extend the learning environment beyond the classroom through the creation and linking of multimedia products via electronic networks;

9.30s   develop technical documentation related to multimedia;

9.31s   participate in different roles and jobs of a multimedia production crew, including project manager, lead programmer, writer, art director, sound engineer, researcher, animator, and presenter;

9.32s   distinguish among and app.2(o)-1ofecti in5TJTT13rp.28((fec)- -1.1497 TD TDl7 0(p.28(a to co dndomos inos inmunnmda prus;

9.

9.9k   how to use technology applications to facilitate evaluation of work, including both process and product;

Standard IX. **The multimedia teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in multimedia, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Multimedia Know

Communication

9.10k   how to format digital information for appropriate and effective communication;

9.11k   how to deliver a product electronically in a variety of media; and

9.12k

Standard X. **The video technology teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in video technology, in additi**

Standard X. **The video technology teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in video technology, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Video Technology Know	Application: What Teachers of Video Technology Can Do
Foundations (Continued)	**Foundations (Continued)**
	10.10s engage in preproduction planning by surveying sites and obtaining necessary permits and release forms;
10.6k how to evaluate acquired electronic information;	10.11s demonstrate skill in testing the accuracy and validity of acquired information;

Standard X. **The video technology teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology A**

Standard X. **The video technology teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in video technology, in addition to the content described in Technology Applications Standards I–V.**

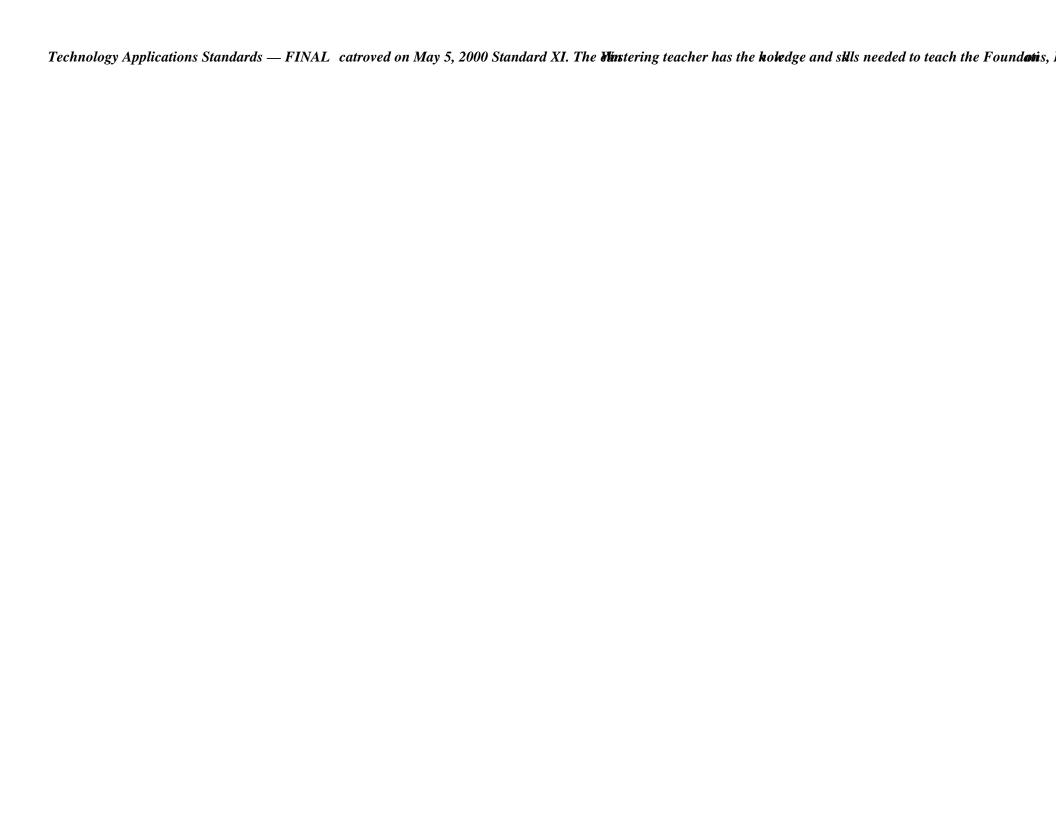**Teacher Knowledge: What Teachers of Video Technology Know**

Work in Solving Problems (Continued)

Application: What Teachers of Video Technology Can Do

Work in Solving Problems (Continued)

10.23s   utilize lighting techniques, including key, fill, and backlight, and using incident/reflected light, color temperatures, and filters;

10.24s   use audio techniques to create, edit and integrate digital sounds;

10.25s   participate in different roles and jobs of a production crew, including executive producer, producer, director, engineer, script writer, editor, camera person, presenter, and audio technician;

10.26s   apply appropriate postproduction techniques, including editing and creating control and/or time coded tracks, transitions, audio levels, background music, and special sound effects;

10.27s   apply 2-D, 3-D, and multidimensional animation effects to video;

10.28s   use character generators, fonts, colors, and principles of compositions to create graphic images;

10.29s   create captions and titles for video and graphics;

10.30s   use different compression techniques and programs;

10.31s   demonstrate knowledge in outputting digital video to analog and analog video to digital;

10.9k   how to use technology applications to facilitate evaluation of work, including both process and product;

10.32s   design and implement procedures to track trends, set time lines, and review/evaluate progress for continual improvement in work process and product;

10.33s   seek and respond to advice from colleagues and other professionals in

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Teacher Knowledge: What Teachers of Video Technology Know

Communication

10.10k   how to format digital information for appropriate and effective communication;

10.11k   how to deliver a product electronically in a variety of media; and

10.12k   how to evaluate communication in terms of both process and product.

Standard XI. **The Web mastering teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in Web mastering, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Web Mastering Know	**Application: What Teachers of Web Mastering Can Do**
Teachers of Students in Grades 8–12	*Teachers of Students in Grades 8–12*
The beginning teacher of Web mastering knows and understands:	The beginning teacher of Web mastering is able to:
Foundations	**Foundations**
11.1k the appropriate use of hardware components, software programs, and their connections;	11.1s make decisions regarding the selection, acquisition, and use of software related to Web mastering, taking into consideration its quality, appropriateness, effectiveness, and efficiency;
	11.2s delineate and make necessary adjustments regarding compatibility issues, including, but not limited to, digital file formats and cross-platform connectivity;
	11.3s use vocabulary related to Web mastering and differentiate between characteristics of the Internet and an intranet;
	11.4s plan and design Web pages that are accessible to diverse audiences (e.g., visually impaired, deaf and hearing impaired, learning disabled);
	11.5s summarize the technical needs for a World Wide Web (WWW) server;
	11.6s summarize the development of Internet protocols, including, but not limited to, Hypertext Transfer Protocol (HTTP), Gopher, File Transfer Protocol (FTP), telnet, and Wide Area Information System (WAIS);
11.2k data input skills appropriate to a given task;	11.7s demonstrate proficiency in the use of a variety of electronic input devices such as keyboard, scanner, voice/sound recorders, mouse, touch screen, and digital video by incorporating such components while publishing WWW pages;
11.3k pertinent laws and issues regarding the use of technology in society;	11.8s analyze the impact of the WWW on society through research, interviews, and personal observation;

Standard XI. **The Web mastering teacher has the knowledge and skills needed to teach the Foundations, Information Acquisition, Work in Solving Problems, and Communication strands of the Technology Applications Texas Essential Knowledge and Skills (TEKS) in Web mastering, in addition to the content described in Technology Applications Standards I–V.**

Teacher Knowledge: What Teachers of Web Mastering Know

Work in Solving Problems

11.7k   how to use appropriate computer-based productivity tools to create and modify solutions to problems;

Application: What Teachers of Web Mastering Can Do

Work in Solving Problems

11.16s

11.8k   how to use research skills and electronic communication to create new knowledge;

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Teacher Knowledge: What Teach

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