RADFORD CITY SCHOOLS
TECHNOLOGY STANDARDS FOR
INSTRUCTIONAL PERSONNEL

Teacher Name: _____ School:_____

I certify that I will complete all Standards and activities independently.

_____ _____
Signature   Date of Submission

Standards may be completed in any order. As each standard is completed, have the principal or administrator sign off on it. After the completion of all Standards (1 through 8), the administrator will submit a copy of this form to the Director of Technology indicating your completion of the State Technology Standards for Instructional Personnel requirements. 35 points will be awarded – 30 for the standards and 5 for Internet Safety

Standard 1: Operate a computer system and utilize software.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 2: Apply knowledge of terms associated with educational computing and technology.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 3: Apply productivity tools for professional use.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 4: Use electronic technologies to access and exchange information.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 5: Identify, locate, evaluate, and use appropriate instructional technology-based resources (hardware and software) to support SOLs and other instructional objectives.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 6: Use educational technologies for data collection, information management, problem solving, decision making, communications, and presentations within the curriculum.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 7: Plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

Standard 8: Demonstrate knowledge of ethical and legal issues relating to the use of technology.

[ ] Accepted   Administrator's signature: _____ Date: _____
[ ] Further work needed: _____

November 2011

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The following criteria have been chosen to determine proficiency for each given Standard. Label each piece of work with your name, the number of the Standard it supports and the letter of the activity. **Keep the original work and files for verification of completion.** As each activity is completed or demonstrated for the Instructional Technology Resource Teacher (ITRT), have him/her initial beside the letter of that activity. After all requirements for a particular Standard are met, the ITRT will sign and date the appropriate blank. Submit this form to the administrator for final signature and approval upon completion of each Standard.

The same activity may be submitted for more than one Standard if it combines elements of more than one lettered activity. For example, one document may incorporate word processing and a spreadsheet and thereby satisfy two items. Likewise, if a word processed document contains a graphic it could satisfy requirements for both 5b and 6a. However, ONE printout of an image from a digital camera will not suffice for both 5b and 6j. Final judgment will be made by the ITRT or administrator reviewing the submissions.

STANDARD 1: Operate a computer system and utilize software. (<u>Four</u> of the following)

____ a. Demonstrate ability to save or burn files to a USB drive, CD, or DVD.
____ b. Demonstrate ability to move saved files from a hard drive to a network server.
____ c. Submit two original documents created with different software (i.e., MS Word, Excel, PowerPoint, Paint, etc.).
____ d. Demonstrate the ability to connect and utilize a digital projector.
____ e. Demonstrate the ability to set up a computer system (i.e., connect to the ethernet, change print cartridge, etc.).
____ f. Copy and paste text and graphics from the Internet to another program.
____ g. Demonstrate the ability to download and open files from the Internet.
____ h. Demonstrate the ability to use network printers.

Have an ITRT or designee sign below upon completion of Standard 1.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 2: Apply knowledge of terms associated with educational computing and technology. (Complete <u>all</u> of the following)

____ a. Successfully complete (score of 80% or better) "Technology Vocabulary Quiz" (available from any Instructional Technology Resource Teacher, ITRT).
____ b. Printout an activity or lesson developed to teach internet safety to your students.

Have an ITRT or designee sign below upon completion of Standard 2.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 3: Apply productivity tools for professional use. (<u>Four</u> of the following)

_____ a. Submit two professional word-processed documents. Detail should be given to proper use of formatting techniques; grammar, punctuation, and style (use an Arial font,). Suggestions: newsletter, list of directions, note to parents, unit outline, course syllabus or class worksheet.

_____ b. Submit a computer-generated grade report on a student or class group.

_____ c. Create and print a database of student information using the Student Information System gradebook.

_____ d. Create and print a spreadsheet used to record class or other professional information. This document should include at least 20 cells.

_____ e. Submit a printout of e-mail correspondence (your message and a reply) with a colleague about a professional or curricular issue.

_____ f. Submit a printout of web-based information retrieved for professional use (ex: lesson plan or professional article that relates to subject matter).

_____ g. Submit a printout of a Web page and the URL utilized as a resource for students and/or parents.

_____ h. Provide evidence of an electronic calendar use. This can be an online calendar.

_____ i. Create a web page for a specific subject area. This can be an HTML site, blog, wiki, ….

Have an ITRT or designee sign below upon completion of Standard 3.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 4: Use electronic technologies to access and exchange information. (<u>Four</u> of the following)

_____ a. Submit a lesson plan that incorporates students' active use of the World Wide Web.

_____ b. Submit a print out of a blog that was designed for instructional communication.

_____ c. Provide evidence of the use of a site that enhances communication with students and parents. (example Schoolnotes.com, edmodo.com, etc.)

_____ d. Provide evidence where email was accessed from a remote site.

_____ e. Demonstrate the ability to send email that includes attachments.

_____ f. Demonstrate the ability to access voice mail through the division's telephone system.

_____ g. Submit strategies used to access specific information from the web or from an information database. Include key words, path, final URL and information obtained.

_____ h. Submit a printout of a thread from a professional listserv. Indicate the name of the listserv.

Have an ITRT or designee sign below upon completion of Standard 4.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 5: Identify, locate, evaluate, and use appropriate instructional technology-based resources (hardware and software) to support SOLs and other instructional objectives. (Four of the following)

_____ a. Provide at least three reviews of web sites that relate to grade level or subject area. Include URL, title of site, and a brief summary of the site.

_____ b. Submit a digital camera image produced for a curriculum related activity.

_____ c. Submit a document containing a scanned image produced for a curriculum related activity.

_____ d. Submit a lesson plan that incorporates web based materials retrieved by the teacher for instructional purposes. Include the date of the lesson and the SOL that was covered.

_____ e. Submit a document that incorporates streaming video as an instructional tool. Include date of the lesson and the SOL that was covered.

_____ f. Submit a lesson plan that incorporates the use of a presentation device (ex. digital projector, T.V. monitor, Elmo) as an instructional tool. Include date of the lesson and the SOL that was covered.

_____ g. Review three instructional software programs. Include title, publisher, a brief summary of each program, and determination of grade level appropriateness.

_____ h. Demonstrate the use of a camcorder or video recorder in an instructional setting.

_____ i. Demonstrate the ability to incorporate the use of SmartBoard software.

Have an ITRT or designee sign below upon completion of Standard 5.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 6: Use educational technologies for data collection, information management, problem solving, decision making, communications, and presentations within the curriculum. (Three of the following)

_____ a. Submit a word-processing document that contains a graphic or table.

_____ b. Submit an example of a database used for maintaining student information and provide documentation as to how the information was shared with parents and students.

_____ c. Submit an example of a spreadsheet used for organizing class assignments.

_____ d. Submit a multimedia presentation that aligns with the curriculum.

_____ e. Submit a lesson plan that requires students to create a multimedia presentation.

_____ f. Submit a lesson plan that requires students to create a word processed document.

Have an ITRT or designee sign below upon completion of Standard 6.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 7: Plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings. (Complete all of the following)

_____ a. Have the school principal document the use of technology as a tool for enhancing and differentiating instruction in the classroom.
Signature: _____Date: _____

_____ b. Submit a lesson plan that incorporates the use of mobile devices in the regular classroom.

_____ c. Submit lesson plan that utilizes the computer lab.

Have an ITRT or designee sign below upon completion of Standard 7.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

STANDARD 8: Demonstrate knowledge of ethical and legal issues relating to the use of technology. (Complete all of the following)

_____ a. Read the Internet Safety Guidelines for Students and Teachers found on the Radford City School's Web Page at www.rcps.org.

_____ b. Provide documentation that you have visited at least three URLs provided in the Guidelines.

_____ c. Complete the on-line Internet Safety course provided through I-Safe America. www.isafe.org

_____ d. Submit a printout of a Web site which deals with ethical and legal issues relating to technology (please include the URL) and discuss the issues with your students.

Have an ITRT or designee sign below upon completion of Standard 8.
Submit this form to the administrator for final signature and approval.

ITRT or Designee's signature: _____Date completed: _____

TECHNOLOGY TERMINOLOGY

buffering – Memory used to temporarily store output or input data.

blog - A user-generated website where entries are made in journal style and displayed in a reverse chronological order.

browser - A program that lets you locate, view, and retrieve information on the World Wide Web using a graphical user interface.

CD-ROM – Compact Disc – Read Only Memory - A tightly focused laser beam reads the presence or absence of tiny pits embedded on the surface of this disc.

clipboard – A temporary memory used by programs to hold text an images that are copied from other applications.

chat rooms - A term used primarily by mass media to describe any form of synchronous conferencing, occasionally even asynchronous conferencing.

compatible - When two devices are able to work together.

CPU – Central Processing Unit - The brain of the computer that processes instructions and manages the flow of information through a computer system. The computer case and it's boards, chips and processors.

database software - Programs that allow related information to be stored in an organized and useful manner and give the capacity to search, sort, revise and analyze information quickly and efficiently. An electronic filing cabinet. Example: Access

DSL – Digital Subcriber Line - Technology that provide digital data transmission over the wires of a local telephone network.

DS3 - A digital signal level 3 T-carrier. It may also be referred to as a T3 line.

FAQs – Frequently Asked Questions - A list of questions and answers to common questions. These lists are often prepared to help novice users as they begin to use computers or software.

fixed disk – A disk drive that is internal to the CPU, also known as the hard drive, usually labeled the C: drive (may also have other letters assigned to it).

font – The style of the individual letters – measured in points where 72 points is approximately 1 inch.

hardware - The electronic components, boards and equipment that make up your computer. The items you can touch.

HTML – Hyper Text Markup Language - A coding language used to create documents for the Web.

hyperlink - Underlined or otherwise emphasized text or images that, when clicked with the mouse, displays another document. For example, on the Internet your cursor turns into a hand and when clicked takes you to a new page.

input devices – Any device that allows you to enter information into the computer (be it text or image), for example: keyboard, mouse, digital camera, scanner, or microphone.

Internet - A world-wide network of computers through which people can exchange data and communications.

LAN – Local Area Network - The linkage of computers and/or peripherals confined to a limited area that may consist of a room, building, or campus.

modem - This device converts digital information into analog information and back again, allowing a computer to communicate over a telephone line.

multimedia - Any combination of video, sound, text, animation, and graphic images in a computer-based environment.

network - A group of computers connected to each other that share resources such as software, data and communications.

operating system - The overall controlling software for your system. For example: Windows 2000 or XP , or UNIX

output devices – Any device that allows the user to see or print information, for example: monitor, printer or speakers.

peripheral - A device attached to and controlled by a computer such as a printer, digital camera or scanner.

phishing – Attempts to fraudulently acquire sensitive information, such as passwords and credit card details, by masquerading as a trustworthy person or business in an electronic communication.

RAM – Random Access Memory - The temporary memory of the computer on which information is stored while the computer is on.

ROM – Read Only Memory - The "permanent" memory of the computer that is not effected by turning the machine on or off and stores information such as the operating system software and the programs.

select - To highlight a part or all of a document or image so the program can identify the material on which you want to perform the next operation.

server – The main computer that serves out files and programs to other computers on a network.

software - Individual programs and applications that tell the computer what to do.

Social networking - offering an interactive, user-submitted network of friends, personal profiles, blogs, groups, photos, music and videos.

Spam - Unsolicited or undesired bulk electronic messages.

spreadsheet software - Programs that have efficient and accurate methods of working with numbers. They are used to perform a wide variety of calculations and offer charting and graphing capabilities. Example: Excel

streaming - Multimedia data transferred in real time in a stream of packets that are interpreted and rendered by a software application as the packets arrive.

taskbar – The gray strip at the bottom of the screen/monitor – contains the start button on the left and the system tray on the right.

T-1 - A digital signal level 3 T-carrier. It may also be referred to as a T1 line.

URL – Uniform Resource Locator - A unique address assigned to each resource on the Web.

Universal Serial Bus (**USB**) - A serial bus standard to interface devices.

virus - A program that carries out unwanted or damaging operations on your computer. It can be picked up from downloading programs from the Internet or may be spread by shared disks.

WAN – Wide Area Network - A data communications linkage designed to connect computers over moderate to long distances (building to building, city to city, etc.)

WWW – World Wide Web - A network of computers that allows access to information sites all over the world using a standard, common interface to organize and search for information.