

**RADFORD COMPLEX SCHOOLS
TECHNOLOGY SCOPE & SEQUENCE
GRADES K-6**

The learner will understand important issues of a technology-based society and will exhibit ethical behavior in the use of computer technology			The learner will demonstrate knowledge and skills using computer technology							The learner will apply technology skills as consumer and producer of information	
Grade Level	Technology and its implications in everyday life	Ethics and Legal Issues (physical network and network responsibility)	Components of technological equipment	Keyboarding	Word Processing	Draw & Paint	Database	Spreadsheet	Telecommunications/ Information Retrieval	Product Assessment	
Gr. K	Identify the computer as a machine that helps people work and play	For all grade levels, any student receiving instruction or accessing the Internet must have the DOE Internet Users Policy forms signed by a parent or guardian. Demonstrate proper care and use of technological equipment and software	Locate and identify the physical components of a computer system: monitor, keyboard, mouse, disk drive, printer. Identify audio and video equipment: cassette tapes, videotapes, CDs, computer disks. Open and use applications. Point, click and drag with a mouse. Use an option from a menu	Use proper posture. Use two hands while typing (right hand-right side of keyboard, left hand-left side of keyboard).	Distinguish between upper and lower case letters. Space between words. Identify and use special function keys: spacebar, return, shift, option, command, caps lock. Locate and use letter and number keys. Enter name on computer.	Explore basic draw & paint tools in programs such as “Kid Pix”.				Create a simple drawing using a drawing program that includes the student’s first and last name. (eg. name place cards or greeting cards etc.) Use commercial software in various curriculum areas (Millie’s Mathhouse, Sticky Bear Shapes, Early Learning Games, etc.)	

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Gr. 1	Identify technology tools: computer, video camera, VCR, etc.	Recognize and respect ownership of another person's work.	Recognize and use fundamental computer terms differentiating software from hardware. Identify Input/Output peripherals: keyboard, monitor, disk drive, printer, disk.	Reinforce and expand skills introduced at preceding levels.	Use periods and question marks at the end of sentences. Space correctly after end punctuation. Use capital letters when appropriate Reinforce and expand skills introduced at preceding levels. Use word wrap.	Explore basic draw & paint tools in programs such as "Kid Pix".				Create a simple drawing using a drawing program. Then use a simple word processing program to write a short story about the drawing.

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Gr. 2	Identify uses of technology in school, home, and community: calculator, microwave oven, video games, check-out registers, etc.	Reinforce and expand skills introduced at preceding levels.	Locate and identify inside parts of a computer system and know computer functions: motherboard, power source, CPU processor, memory (ROM & RAM).	Use home row keys Reinforce and expand skills introduced at preceding levels.	Space correctly after comma. Reinforce and expand skills introduced at preceding levels.	Explore basic draw and paint tools (e.g. Kid Pix, ClarisWorks, Kid Works2) Place graphics into WP from built-in graphic library. Teacher assistance provided if using the copy and paste method.			Recognize uses of telecommunication, media, e-mail, fax, Internet, TV, radio.	Use a simplified word processing program to publish a writing piece illustrated with graphics.	

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Gr. 3	Identify ways technology has changed lives of people in communities.	<p>Recognize and respect another person's right to privacy (Email, not opening someone else's file, etc.)</p> <p>Recognize that one must have permission to copy another person's work.</p> <p>Recognize that reference materials must be put in own words or cited.</p>	<p>Exposure to the use of different types of audio and video equipment: scanners, digital cameras, video cameras, CDs, etc.</p> <p><u>Science Equip:</u> Electronic scale Microscopes: •compound •stereo •video w/connection to VCR to record observations Timers (Not for all students)</p>	<p>Formal keyboarding skills introduced. (Suggested keys learned: J K L ; RETURN A S D F I T PERIOD)</p> <p>Keyboard with suggested speed of 10 wpm.</p> <p>Reinforce and expand skills introduced at preceding levels.</p>	<p>Demonstrate how to place cursor. Identify word processing terms like cursor, load, save, print. Use tab key to indent paragraph. Leave blank line between heading and rest of document. Use spell checker. Apply style changes: bold underline, size, font Use justification: center titles, left justify, right justify Save and retrieve files.</p>	<p>Use basic draw and paint tools (e.g. Kid Pix, ClarisWorks, Kid Works2)</p> <p>Place graphics into WP from built-in graphic library or Scrapbook in apple menu using the copy and paste method.</p>	<p>Is aware of the need for keeping and using data on the computer through teacher modeling. (eg. data related to science/ social studies curriculum, library online search, attendance)</p>	<p>Answer questions using spreadsheet graph/chart.</p>	<p>Identify community resources that use telecommunication equipment in everyday activities.</p>	<p>Use a word processor to publish a report/writings with imported graphics.</p> <p>Use a spreadsheet chart to interpret data.</p> <p>Use commercial software in various areas (e.g. electronic encyclopedia, database) to access and organize information.</p>	

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Gr. 4	Identify ways technology has changed lives of people in Hawaii.	Understand and respect the following laws regarding software use: 1) Public Domain- software that can be freely copied and distributed; 2) Shareware- software that can be copied and shared, but any user of the software is obligated to pay fee to the author; 3) Commercial software that is produced and sold by a company for profit with one backup copy allowed by publisher as described in software documentation.	Understand the physical components of a network: connection, users, system.	Keyboard with suggested speed of 12 wpm. (Suggested keys learned: O R N H E P) Use quotation marks and apostrophes. Reinforce and expand skills introduced at preceding levels.	Edit document. Change line spacing: double space, single space. Insert footer Insert header Use word processing tools to format a title page, table of contents and a 2-3 page report.	Merge/insert graphics from different applications and clip art programs, scanners and digital cameras with teacher assistance.	Participate in whole class and individual data gathering activities and creation of database. (eg. information on the islands) Save file Retrieve file	Create with teacher, a whole group spreadsheet and input information. Create with teacher, a whole group graph/chart. Learn spreadsheet terminology. Enter data on a formatted template. Use spreadsheet terminology (cell, row, column). Save file Retrieve file	Recognize the differences and advantages of using telecommunication equipment for accessing research information.	Create projects that involve: <ul style="list-style-type: none"> • researching a topic and organizing the information into a media presentation using available software applications & technology. (eg. video, slide show etc.) • using email to communicate. • accessing information from WWW with assistance from the teacher. 	

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Gr. 5	Describe the influence of technology on life in the United States through a comparative study of historical events in the United States.	<p>Recognize copyright symbols on electronic and written work (video).</p> <p>Recognize and respect basic copyright laws.</p> <p>Recognize that duplication of copyright materials is illegal without permission.</p> <p>Recognize terms: virus, virus protection, piracy, and security.</p> <p>Demonstrate responsible netiquette and Internet behavior: use language that does not include profanity, social sensitive remarks or insults.</p>	<p>Reinforce and expand skills introduced at preceding levels.</p> <p><u>Media production equipment:</u> A/V mixer VCR Microphones Lighting equip. (Not for all students)</p>	<p>Keyboard with suggested speed of 15 wpm.</p> <p>Type punctuation keys: semi-colon, colon</p> <p>(Suggested keys learned: W M C G Y , SHIFT)</p> <p>Reinforce and expand skills introduced at preceding levels.</p>	<p>Use a word processing program to copy and move text.</p> <p>Reinforce and expand skills introduced at preceding levels.</p> <p>Use word processing tools to format an outline & bibliography for a research report.</p>	<p>Reinforce and expand skills introduced at preceding levels.</p>	<p>Browse records by scrolling through a simple template record data in a predefined database under teacher supervision.</p> <p>Answer questions using a prepared database.</p>	<p>Create a simple spreadsheet with teacher assistance.</p> <p>Create a graph or chart using data from a spreadsheet with teacher assistance.</p>	<p>Use telecommunication tools to access information resources.</p>	<p>Participate in a telecommunication project. (eg. National Geographic Kids Network programs)</p> <p>Do a monthly writing project using a word processor. (eg. class newsletter)</p> <p>Create projects that involve:</p> <ul style="list-style-type: none"> • data gathering from the Internet or electronic encyclopedias • inserting graphics or photos to illustrate the report • spreadsheets and charts to compare and contrast findings from data gathering • videos with interviews to present the report 	

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Gr. 6	Describe the influence of technology on life globally. Awareness of careers that include computers and businesses or services that hire computer people.	Reinforce and expand skills introduced at preceding levels.	Reinforce and expand skills introduced at preceding levels.	Keyboard with suggested speed of 18-20 wpm. (Suggested keys learned: U B V X Q Z 4 1 9 \$! ? 3 5 7 0 () 2 6 8) Reinforce and expand skills introduced at preceding levels.	Reinforce and expand skills introduced at preceding levels.	Use basic draw and paint tools (e.g. Kid Pix, ClarisWorks) Merge/insert graphics into a document using a variety of sources and available technology.	Independently load, search, and sort a prepared database to find information. Create a simple data base with 4 fields and 5 records. Search for one attribute using the find function. Print a report containing appropriate information and formatting.	Set up a simple spreadsheet using simple formulas (addition, subtraction, multiplication or division) and functions to calculate results. Use charting and graphing functions to show information contained in a spreadsheet.	Reinforce and expand skills introduced at preceding levels.	Create a newsletter or brochure. Create projects that involve: • data gathering from the Internet or electronic encyclopedias • inserting graphics or photos to illustrate the report • spreadsheets and charts to compare and contrast findings from data gathering • videos with interviews to present the report

