

A 21<sup>st</sup> Century Technology Framework For BVSD Faculty revision 2.5

TECHNOLOGY USE	Transformational		Transactional	
	Inventive	Effective	Intentional	Essential
Teaching and Learning with Technology	<ul style="list-style-type: none"> <li>Enhances student skills in leadership, group cooperation, and self-discipline through project-based learning activities using technology</li> <li>Creates digital content for classroom implementation</li> <li>Challenges students to develop electronic products to demonstrate content mastery through a variety of media including video, audio, images, and Web 2.0 applications</li> <li>Combines different technology resources to create an effective learning environment that contributes to measurable academic achievement</li> <li>Serves as a mentor for other teachers in using technology in teaching and learning</li> </ul>	<ul style="list-style-type: none"> <li>Allows for self directed use of technology by students</li> <li>Capitalizes on student interests and talents related to technology</li> <li>Uses technology as an integrated tool to advance student understanding of Essential Learnings</li> <li>Enables students to communicate ideas through a variety of media including video, audio, and images</li> <li>Uses the most appropriate resource (digital or traditional media) based on the setting, the students, and appropriateness</li> <li>Uses technology in ways that contribute to measurable academic achievement</li> <li>Uses technology to facilitate <u>differentiated instruction</u> for student achievement</li> <li>Participates in an ongoing professional learning group, works with a mentor, or enrolls in online or graduate level coursework in technology</li> </ul>	<ul style="list-style-type: none"> <li>Models the use of technology for own learning and materials production</li> <li>Ensures that technology resources (software, websites, digital content) reflect knowledge and respect for diversity</li> <li>Evaluates, selects, and uses technology in classroom activities and assignments several times a month</li> <li>Consistently provides opportunities for students to document learning through word processing documents, presentations, or graphics</li> <li>Supplements textbook with online content</li> <li>Chooses a specific technology tool because it would be difficult to accomplish a learning target without the technology</li> <li>Attends relevant conferences and/or district-offered professional development opportunities in technology</li> </ul>	<ul style="list-style-type: none"> <li>Is knowledgeable about technology, building and district core software, and digital content available within the school and district</li> <li>Employs technology, software, and digital content in classroom lessons once a month</li> <li>Allows students to use technology as an option for learning, researching or presenting</li> <li>Has a clear instructional purpose/advantage in mind when employing technology</li> <li>Use of technology is connected to content standards</li> <li>Attends school-offered professional development opportunities in technology</li> </ul>

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Communicating with Technology	<ul style="list-style-type: none"> <li>Moves away from solely using email by posting critical content to SharePoint</li> <li>Utilizes new and emerging communications technologies</li> <li>Leads in establishing online learning communities and net meetings</li> <li>Creates new ways to communicate or combines technologies to create new communications mashups</li> <li>Able to forward school voicemail notification to personal cell phone</li> <li>Fully employs Web 2.0 tools with students to encourage communication and collaboration in and outside of the classroom</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates effective and efficient email management by using contacts, distribution lists and listservs</li> <li>Organizes email using personal folders</li> <li>Uses Teacher Messenger to send messages via email to parents or students</li> <li>Employs Missing Assignments Notification to provide parents with automatic notification of missing work</li> <li>Able to save, recall, or forward voicemail messages</li> <li>Effectively uses SharePoint and other Web 2.0 tools for professional advantage</li> <li>Begins involving students with Web 2.0 communication tools both within and outside of the classroom</li> <li>Promotes email etiquette practices with colleagues, students, and parents</li> <li>Avoids using websites or contributing personal information to sources that increase incidents of spam</li> </ul>	<ul style="list-style-type: none"> <li>Uses email daily</li> <li>Easily able to forward, save, or file email</li> <li>Knows different ways to send larger files (zip files, posting on SharePoint)</li> <li>Updates gradebook information into Infinite Campus more frequently than required by the school.</li> <li>Checks voicemail several times a day for messages; is able to access voicemail from external locations</li> <li>Begins to experiment with Web 2.0 tools used in conjunction with SharePoint for professional use (blogs, wikis, podcasts, RSS feeds, tags and tag clouds, or other)</li> <li>Deliberately models email etiquette consistent with official BVSD style and usage guidelines</li> <li>Manages junk folder and Notifier email filter to prevent unwanted spam and permit approved email</li> </ul>	<ul style="list-style-type: none"> <li>Uses email for routine communication several times a week;</li> <li>Is easily able to create, delete, send, reply to, and print email</li> <li>Is able to send and open attachments</li> <li>Updates grade and assignment information into Infinite Campus at the frequency level required by the school</li> <li>Uses voicemail for routine communication</li> <li>Checks voicemail for messages once daily</li> <li>Is able to erase messages, leave a greeting, and change passwords for voicemail</li> <li>Uses common-sense etiquette when using email (concise, polite, necessary, and targeted)</li> <li>Is able to move email from junk folder or Notifier email filter to the inbox</li> <li>Manages email storage space by deleting older email and saving larger attachments</li> </ul>

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<b>Digital Management</b>	<ul style="list-style-type: none"> <li>▪ Integrates Microsoft Office products with each other to achieve high productivity in managing workload</li> <li>▪ Uses RSS feeds, Alerts, tag clouds, social bookmarking, and other emerging Web 2.0 tools to obtain needed information</li> <li>▪ Uses MediaCAST to compile playback queues, composite lessons, and multi-media mashups</li> <li>▪ Contributes digital content to the district or school collection; governs student contribution of content</li> <li>▪ Uses advanced peripherals and storage media in innovative ways, discovering new solutions and strategies</li> <li>▪ Shares, exchanges, or converts teaching / learning resources into varied digital formats</li> <li>▪ Expects students to use public, drop and handouts folders on the school server</li> </ul>	<ul style="list-style-type: none"> <li>▪ Efficiently uses all Microsoft Office products to manage most teaching administrative responsibilities</li> <li>▪ Uses advanced Boolean logic and searching strategies to rapidly find and pinpoint needed information</li> <li>▪ Uses MediaCAST to meet ad hoc instructional demands</li> <li>▪ Uses MediaCAST to produce resource lists, study guides, or make-up lessons,</li> <li>▪ Is proficient using and troubleshooting advanced peripherals and storage media</li> <li>▪ Stores and retrieves all teaching / learning resources in digital format or on SharePoint</li> <li>▪ Able to burn DVDs</li> <li>▪ Encourages students to use public, drop and handouts folders on the school server</li> </ul>	<ul style="list-style-type: none"> <li>▪ Uses other Office products (Excel, PowerPoint, Publisher) for basic classroom needs; selects the appropriate tool for the task</li> <li>▪ Uses basic searching and bookmarking techniques to find needed information quickly and easily</li> <li>▪ Supports students in their use of the library catalog and MediaCAST to locate, identify availability, and reserve/schedule resources</li> <li>▪ Is comfortable with more peripherals and storage media: probes, document cameras, handhelds, clickers, iPods, Interactive white boards, and DVD or flash/USB media</li> <li>▪ Stores and retrieves most teaching / learning resources in digital format</li> <li>▪ Uses drop and handouts folders on the school server</li> <li>▪ Requests permanent or short-term blocking/ unblocking of educationally valid web sites for students and staff through Heat Self-service or email to <a href="mailto:it.helpdesk@bvsd.org">it.helpdesk@bvsd.org</a></li> </ul>	<ul style="list-style-type: none"> <li>▪ Uses Microsoft Word to create documents for basic classroom needs</li> <li>▪ Uses a browser and comfortably navigates the Internet</li> <li>▪ Uses basic search engines to conduct research</li> <li>▪ Uses library automation and MediaCAST to locate, identify availability, and reserve/schedule resources</li> <li>▪ Is comfortable with common peripherals and storage media: printers, digital still and video cameras, projectors, graphing calculators, and CD or flash/USB media</li> <li>▪ Stores, retrieves and manages frequently used teaching / learning resources in digital format; can burn CDs</li> <li>▪ Uses public and private folders on the school server</li> <li>▪ Uses teacher password override to access blocked Internet sites that are educationally valid</li> </ul>

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<p><b>Digital Management</b> (Administrative Systems)</p>	<ul style="list-style-type: none"> <li>▪ Supports and governs student-created websites and content</li> <li>▪ Uses lesson plan copier within IC to roll assignments forward to the following school year.</li> <li>▪ Submits solutions to the BVSD I.T. online knowledge base to help others proactively solve technical or application problems</li> <li>▪ Integrates Outlook Calendar (requires Client) with cell phone, PDA, or other devices.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Designs and maintains a classroom website with usable learning content for students</li> <li>▪ Uses advanced features in IC such as customizing seating charts.</li> <li>▪ Uses the BVSD I.T. online knowledge base to proactively solve technical or application problems</li> <li>▪ Uses Outlook Calendar for sharing and comparing schedules, scheduling rooms and resources</li> <li>▪ Uses Outlook Calendar to schedule meetings with others</li> </ul>	<ul style="list-style-type: none"> <li>▪ Posts a static classroom website on SharePoint</li> <li>▪ Runs reports in Infinite Campus to get student data such as attendance, portal usage, and student summary</li> <li>▪ Is comfortable with using the basic seating chart</li> <li>▪ Adds grading comments on assignments</li> <li>▪ Uses Heat Self-Service for tracking technical problems submitted to the support center: <a href="http://bvsupport/heatselfservice">http://bvsupport/heatselfservice</a></li> <li>▪ Uses Outlook calendar for personal scheduling</li> <li>▪ Manages personal and job related information using Lawson Employee Self Service <a href="http://lawweb.admin.bvsd.k12.co.us/lawson/portal/">http://lawweb.admin.bvsd.k12.co.us/lawson/portal/</a></li> </ul>	<ul style="list-style-type: none"> <li>▪ Accesses district and school web site for basic information</li> <li>▪ Is comfortable with Infinite Campus access from home or work. Able to navigate easily, and use the attendance and grade book functions</li> <li>▪ Uses appropriate process for reporting technical problems, e.g., (contacting the support center at x5065, or sending email to <a href="mailto:it.helpdesk@bvsd.org">it.helpdesk@bvsd.org</a>, and/or following preferred school-based process)</li> <li>▪ Uses the sub request system to request a substitute when needed (voicemail system 303-245-5929; web-based system <a href="https://subrequest.bvsd.org">https://subrequest.bvsd.org</a> )</li> <li>▪ Manages own professional development needs (registration, drop/add, accessing certificates/transcripts) through "Avatar" professional development system <a href="http://princeton.bvsd.org">http://princeton.bvsd.org</a></li> </ul>

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Assessing with Technology	<ul style="list-style-type: none"> <li>▪ Designs new assessment approaches using technology</li> <li>▪ Collaborates with other teachers to create a unified, standards-based grading system for your course</li> <li>▪ Uses Data for Decisions and <u>Aligned Assessments</u> report to analyze, interpret and improve individual student performance</li> <li>▪ Improves own instructional practice through use of data, analysis and reflection</li> <li>▪ Uses technology to enable student self assessment and ownership for learning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Uses multiple assessment tools to measure and improve student performance</li> <li>▪ Identifies, procures, and evaluates technology resources to aid in collection, analysis and interpretation of data</li> <li>▪ Uses grade book reports and web site to communicate about student performance to parents and students</li> <li>▪ Accesses the <u>Aligned Assessments</u> as needed from Infinite Campus</li> <li>▪ Uses Data for Decisions or interim assessments to analyze results for patterns in learning</li> <li>▪ Monitors and adjusts teaching strategies based on assessed results</li> <li>▪ Uses technology to provide "Assessment AS Learning"</li> <li>▪ Uses technology to involve students in peer assessment</li> <li>▪ Uses technology to involve parents as a partner in assessment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Selects and uses appropriate technologies for classroom assessment, including diagnostic tools, surveys, online assessments, clickers, or other</li> <li>▪ Updates grade book information into Infinite Campus portal more frequently than required by the school.</li> <li>▪ Filters the <u>Student Assessment Summary</u> to display specific assessments or subjects in Infinite Campus</li> <li>▪ Directs new Data for Decisions queries to school TOSA or district office</li> <li>▪ Uses technology to provide formative feedback for students</li> </ul>	<ul style="list-style-type: none"> <li>▪ Knows which technology-based assessment tools are currently available for use in the <u>school</u> or <u>district</u></li> <li>▪ Uses any technology-based assessment tools required by the <u>school</u> or <u>district</u></li> <li>▪ Uses electronic grade book and employs standards-based grading practices on Infinite Campus</li> <li>▪ Updates grade book information into Infinite Campus portal at the frequency level required by the school</li> <li>▪ Accesses the <u>Student Assessment Summary</u> as needed from Infinite Campus</li> <li>▪ Uses technology for initial diagnosis and summative assessment of learning (Assessment OF Learning)</li> </ul>

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<b>Responsible Use</b>	<ul style="list-style-type: none"> <li>Helps to identify, design, communicate, and enforce policies and practices that ensure the responsible use of technology resources in the educational environment</li> </ul>	<ul style="list-style-type: none"> <li>Promotes the safe, secure, ethical, and legal use of district technology resources with others</li> </ul>	<ul style="list-style-type: none"> <li>Deliberately models the use of technology resources in a safe, secure, ethical, and legal manner as described in the district acceptable use agreement</li> <li>Stays abreast of the latest developments in Internet safety and district security requirements</li> <li>Models appropriate boundaries when communicating electronically with students via email, blog, social network, or cell phone</li> </ul>	<ul style="list-style-type: none"> <li>Uses technology resources in a safe, secure, ethical, and legal manner as described in the district acceptable use agreement</li> <li>Follows BVSD data privacy and security procedures when sending e-mail or taking employee or student information home</li> <li>Recognizes appropriate boundaries when communicating electronically with students via email, blog, social network, or cell phone</li> <li>Communicates in a professional manner, as defined by the style and usage guidelines for e-mail</li> </ul>

### Legend:

**A. Grey Column:** The shaded gray column signifies those professional competencies that are both essential and minimal for a BVSD professional educator. These competencies represent a good starting point for planning professional growth

**B. Color Code Differences:** Colors signify a common strand within the rubric as it move from column to column

**C. Strand Appropriateness:** Although the above skill strands apply to most BVSD faculty, some strands may not be appropriate due to differences in grade level, student populations served, or content areas taught

### Glossary:

**Assessment AS Learning:** Classroom-based assessment that is seamlessly delivered within a lesson; often ungraded, authentic, or peer or self-assessed

**Assessment OF Learning:** *Summative assessment*, showing what students have mastered at a given time or interval

**Blog:** *Weblog*: an online journal or newsletter which is updated frequently

**Boolean:** A *logic*, a way of thinking when searching for online information by key word with "AND," "OR," "NOT" commands

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<b>Browser:</b> A software program that allows users to view content on the Internet and World Wide Web, i.e., Internet Explorer
<b>CD:</b> <i>Compact Disc</i> ; A storage medium supporting recording and playback of digital data and computer files
<b>Clickers:</b> <i>Classroom response system</i> . Facilitates instruction with teacher generated questions; students respond with a remote ‘clicker’
<b>DIGITAL CONTENT:</b> <i>Digital content Initiative</i> ; District initiative to digitize content (video, stills, animations) to be available to all classrooms through the BVSD network and through the MediaCAST software available on your computer
<b>Document Camera:</b> A camera mounted on a stand, allowing for capture of text or 3-dimensional objects. The image is typically displayed through an LCD projector
<b>DVD:</b> The current generation of optical disc storage technology. It's essentially a bigger, faster CD that can hold cinema-like video, better-than-CD audio, and computer data
<b>E-mail:</b> <i>Electronic Mail</i> : a store-and-forward method of writing, sending, receiving and saving messages over electronic communication systems
<b>Flash/USB media:</b> A removable device or card used to store data that plugs into a computer’s USB port, e.g., a memory stick, pen drive, flash drive, or SD card and reader
<b>Handhelds:</b> Hand held computers; examples are modern cellular/mobile phones and PDAs (personal digital assistant)
<b>IC:</b> <i>Infinite Campus</i> ; student information system
<b>Interactive White Board:</b> an interactive display that connects to a computer and projector. The users control the computer on the whiteboard using a pen, finger or other device. Comes in three sizes: wall size, desktop panel size, and personal student tablet size
<b>iPod:</b> a pocket-sized device used to play multimedia files, i.e., an MP3 player
<b>Mashups:</b> The compounding (“mashing”) of two or more web sites to create new, merged information
<b>Missing Assignments Notification:</b> A capability within Infinite Campus which notifies parents (via e-mail or voicemail) of any student assignments marked as “missing” in the IC gradebook
<b>MediaCAST:</b> Digital content web-based software that enables teachers and students to manipulate, store, retrieve, play, and present digital video, audio, or still graphics.
<b>Podcasting:</b> method of distributing multimedia files that is updated frequently and available for automatic download
<b>RSS:</b> A way frequently updated works such as blog entries, news headlines, audio, or video can be subscribed to and automatically sent to your browser
<b>SharePoint:</b> BVSD software used to create teacher web sites
<b>Spam:</b> Unwanted e-mail messages, frequently with commercial content, sent in large quantities sent to your e-mail inbox
<b>Teacher Messenger:</b> An Infinite Campus capability which allows teachers to send e-mail and voicemail messages to students and/or their families
<b>Transactional:</b> Activities and skills needed to do our daily work efficiently
<b>Transformational:</b> Activities and skills that transform our work, our relationships, or our organization to reach new levels of effectiveness
<b>Voicemail:</b> A computerized system for answering and routing telephone calls; telephone messages can be recorded, stored, and forwarded
<b>Web 2.0:</b> A second generation of web-based communities, consumer-generated media, and hosted services that aims to facilitate creativity, collaboration, and sharing between users, e.g. blogs, wikis, podcasting. <b>Blog:</b> <i>Weblog</i> : an online journal or newsletter which is updated frequently <b>Wiki:</b> online collaboration model and tool that allows any user to edit content of web pages through an internet browser. <b>Podcasting:</b> method of distributing multimedia files that is updated frequently and available for automatic download
<b>Wiki:</b> online collaboration model and tool that allows any user to edit content of web pages through an internet browser
<b>Zip File:</b> A file or folder that has been compressed, to reduce file size for purposes of emailing