

West Virginia Learning Skills and Technology Tools

Grades 5, 6, 7, 8

Adopted 2008

Information and Communication Skills

- 1. The student will access, analyze, manage, integrate, evaluate, and create information in a variety of forms using appropriate technology skills and communicate that information in an appropriate oral, written, or multimedia format. 21C.S.5-8.1**

Learning Skills

- LS1.** Student, when presented with a problem, identifies the information needed, uses text, people, online databases and search engines to filter relevant information efficiently, analyzes information for biases, synthesizes information gathered and creates an effective and efficient response to the problem **21C.O.5-8.1.LS1**
- LS2.** Student interprets abstract visuals and creates products (e.g. digital storytelling) that reflect a growing understanding of visual language and require the effective use of tools (e.g. cropped photos, original charts and graphs, well-chosen images from databases, video clips). **21C.O.5-8.1.LS2**
- LS3.** Student presents thoughts, ideas, and conceptual understanding efficiently, accurately and in a compelling manner and enhances the oral or written presentation through the use of technology. **21C.O.5-8.1.LS3**

Technology Tools

- TT1.** Student connects peripheral devices (e.g., scanners, digital cameras, video projectors, USB drives, printers, media storage devices) to computers and uses them efficiently and effectively. Student accesses server and/or network resources (e.g., file folders/software programs, bookmarked sites). **21C.O.5-8.1.TT1**
- TT2.** Student increases keyboarding facility and uses mouse and keyboard shortcut techniques and identified assistive technology to improve speed and accuracy. **21C.O.5-8.1.TT2**
- TT3.** Student recognizes different file format extensions (e.g., .doc, .xls, .ppt, .rft, .pdf, .jpeg, .gif, .mpg, .wav, .mp3) and can import the different formats into documents, presentations, spreadsheets and databases. **21C.O.5-8.1.TT3**
- TT4.** Student uses audio, video, pictures, clip art, moviemaker programs, webpage design software, electronic documents, and other files to create and publish electronic products to communicate with various audiences inside and outside the classroom. **21C.O.5-8.1.TT4**
- TT5.** Student uses advanced features and utilities of word processing software (e.g., bullets, numbering, tables, find and replace, thesaurus, help menus and toolbars). **21C.O.5-8.1.TT5**
- TT6.** Student uses advanced features and utilities of spreadsheet software, (e.g. functions, formulas, filters, sorts, creates graphs and charts), to perform calculations and to organize, analyze and report data. **21C.O.5-8.1.TT6**
- TT7.** Student uses advanced features and utilities of presentation software (e.g., design templates, design layouts (fonts/colors/backgrounds) animation and graphics, inserting pictures, objects, movies, sound, charts, hyperlinks, and graphs) to create an original product. **21C.O.5-8.1.TT7**

- TT8. Student enters data relevant to class assignments into a database and performs simple queries. [21C.0.5-8.1.TT8](#)
 - TT9. Student uses telecommunications tools (e.g., email, web pages, blogs, discussion groups, list-servs, etc.) to learn academic content and to gather, share and publish information to various audiences. [21C.0.5-8.1.TT9](#)
 - TT10. Student uses Internet browsers, various search engines, book marking features, and advanced search techniques to gather information; student evaluates the information for validity, bias, appropriateness, content and usefulness. [21C.0.5-8.1.TT10](#)
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Thinking and Reasoning Skills

- 2. The student will demonstrate the ability to explore and develop new ideas, to intentionally apply sound reasoning processes and to frame, analyze and solve complex problems using appropriate technology tools.** [21C.S.5-8.2](#)

Learning Skills

- LS1. Student engages in a critical thinking process that supports synthesis and conducts evaluations by applying comprehensive criteria. [21C.0.5-8.2.LS1](#)
- LS2. Student draws conclusions from a variety of data sources to analyze and interpret systems. [21C.0.5-8.2.LS2](#)
- LS3. Student engages in a problem solving process that divides complex problems into simple parts in order to devise solutions. [21C.0.5-8.2.LS3](#)
- LS4. Student creates thoughtful ideas and solutions and takes risks as he/she works toward goal despite mistakes. Student begins to consistently think of all the possibilities and diverges to become more expansive with his/her thoughts/ideas that lead to the creation of original products. [21C.0.5-8.2.LS4](#)

Technology Tools

- TT1. Student solves problems related to hardware, software and networks by applying problem solving techniques (e.g., Task Manager to close tasks, Ctrl-Alt-delete, restarting the systems, accessing help menus, performing online searches, checking cable connections). [21C.0.5-8.2.TT1](#)
 - TT2. Student collaborates with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. [21C.0.5-8.2.TT2](#)
 - TT3. Student uses multiple technology tools for gathering information in order to solve problems, make informed decisions, and present and justify the solutions. [21C.0.5-8.2.TT3](#)
 - TT4. Student formulates a plan and uses technology tools and multiple media sources to compare and analyze information in order to solve real-world problems. [21C.0.5-8.2.TT4](#)
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Personal and Workplace Skills

- 3. The student will exhibit leadership, ethical behavior, respect for others; accept responsibility for personal actions considering the impact on others; take the initiative to plan and execute tasks; and interact productively as a member of a group.** **21C.S.5-8.3**

Learning Skills

- LS1.** Student manages emotions and behaviors, engages in collaborative work assignments requiring compromise, and demonstrates flexibility by assuming different roles and responsibilities within various team structures. **21C.0.5-8.3.LS1**
- LS2.** Student is flexible in approach to solving problems and completing tasks, considers alternative methods, solutions and perspectives, abandons strategies that do not work, and reallocates time and resources as priorities change. **21C.0.5-8.3.LS2**
- LS3.** Student sets challenging goals and strategically plans to reach those goals, monitors performance and adjusts effort and strategies, seeks assistance when needed, and demonstrates focused commitment to reaching the established goals. **21C.0.5-8.3.LS3**
- LS4.** Student demonstrates ethical behavior and works responsibly and collaboratively with others, in academic and social contexts, to accomplish both individual and team goals related to improved academic, extracurricular and co-curricular performances. **21C.0.5-8.3.LS4**
- LS5.** Student exhibits interpersonal and problem-solving skills when in the role of leader. He/she helps others stay focused on the goal, monitors-progress of the group, and successfully moves the group toward the goal. **21C.0.5-8.3.LS5**
- LS6.** Student maintains focus on larger project goal, frames appropriate questions, reflects on possible courses of action and their likely consequences, develops and initiates a plan of action with appropriate smaller objectives and benchmarks, and submits the completed project when due. **21C.0.5-8.3.LS6**

Technology Tools

- TT1.** Student protects software, hardware and network resources from viruses, vandalism, and unauthorized use and uses proper techniques to access, use and shut down technology equipment. **21C.0.5-8.3.TT1**
- TT2.** Student conducts online research and evaluates the accuracy, relevance, and appropriateness of electronic information sources **21C.0.5-8.3.TT2**
- TT3.** Student analyzes current information technologies and the effect these technologies have on the workplace and society. **21C.0.5-8.3.TT3**
- TT4.** Student complies with county acceptable use policy. Student discusses legal and ethical behaviors related to acceptable use of information and communication technology (e.g., privacy, security, copyright, file-sharing, plagiarism) and predicts the possible effects of unethical use of technology (e.g., consumer fraud, intrusion, spamming, virus setting, hacking) on the

individual and society, as well as identify methods for addressing these risks. [21C.0.5-8.3.TT4](#)

- TT5.** Student models ethical behavior relating to security, privacy, computer etiquette, passwords and personal information. Student demonstrates an understanding of copyright by citing sources of copyrighted materials in papers, projects and multi-media presentations. [21C.0.5-8.3.TT5](#)
- TT6.** Student applies productivity/multimedia tools and peripherals to support personal productivity, group collaboration, self-directed learning, lifelong learning, and assistance for individuals with disabilities including supplemental assistive technology tools. [21C.0.5-8.3.TT6](#)
- TT7.** Student develops an understanding of the need to protect his/her identity online, in email, and or websites, limits the distribution of personal information and pictures, and evaluates the authenticity of e-mail that solicit personal information. Student identifies the methodologies that individuals and businesses can employ to protect the integrity of technology systems. [21C.0.5-8.3.TT7](#)
- TT8.** Student recognizes personal limits in his/her knowledge and develops strategies and skills for using technology to seek information. [21C.0.5-8.3.TT8](#)