

Wisconsin Model Academic Standards for Wisconsin Model Academic Standards
for Information & Technology Literacy
K- 12th Grade Benchmarks: Arranged by Grade Level
Campbellsport School District

CSD Performance Standards for Information/Technology Literacy describe what Campbellsport School District students will know and be able to do within this subject area. Each CSD performance standard is aligned to a corresponding content standard within the Wisconsin Model Academic Standards (WMAS) for Information/Technology Literacy.

Each grade level has a set of skill and information benchmarks based on these four performance standards in Information/Technology Literacy. As students progress through the district's curriculum, their performance of skills and their demonstration of knowledge within the content area will become more complex and sophisticated.

- A. **Media & Technology** - Students in Wisconsin will select and use media and technology to access, organize, create, and communicate information for solving problems and constructing new knowledge, products and systems.
- B. **Information & Inquiry** - Students in Wisconsin will access, evaluate, and apply information efficiently and effectively from a variety of sources in print, no-print, and electronic formats to meet personal and academic needs.
- C. **Independent Learning** - Students in Wisconsin will apply technological and information skills to issues of personal and academic interest by actively and independently seeking information, demonstrating critical and discriminating reading, listening, and viewing habits, and striving for personal excellence in learning and career pursuits.
- D. **The Learning Community** - Students in Wisconsin will demonstrate the ability to work collaboratively in teams or groups, use information and technology in a responsible manner, respect intellectual property rights, and recognize the importance of intellectual freedom and access to information in a democratic society.

By the end of Kindergarten, students will:

A.K.1 Use common media and technology terminology and equipment

- Demonstrate proper care and correct use of media and technology equipment
- Save and backup files on a computer hard drive, storage medium, or server

A.K.2 Identify and use common media formats

- Listen to and view common audio and video media
- Demonstrate how to open and run a software program from a local storage device or network server

A.K.3 Use a computer and productivity software to organize and create information

- Produce a document using a word processing program

B.K.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Choose resources appropriate to their interests, abilities, and information need

C.K.2 Appreciate and derive meaning from literature and other creative expressions of information

- Choose fiction and other literature of personal interest
- Recognize that award winning books reflect literary and artistic excellence

C.K.3 Develop competence and selectivity in reading, listening, and viewing

- Differentiate among written, oral, and visual forms of literature

C.K.4 Demonstrate self-motivation and increasing responsibility for their learning

- Contribute to group or classroom decisions about learning objectives

D.K.1 Participate productively in workgroups or other collaborative learning environments

- Share information and ideas with others

D.K.2 Use information, media, and technology in a responsible manner

- Return all borrowed materials on time
- Recognize the need for privacy of personal information

By the end of grade one, students will:

A.1.1 Use common media and technology terminology and equipment

- Identify and explain the functions of the components of a computer system (e.g., monitor central processing unit, storage device, keyboard, mouse, printer)
- Demonstrate proper care and correct use of media and technology equipment

A.1.2 Identify and use common media formats

- Incorporate graphics, pictures, and sound into another document

A.1.5 Use media and technology to create and present information

- Use draw, paint or graphics software to create simple signs, posters, banners, charts, visuals, etc.

B.1.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Recognize that graphics and images can be used to convey a message

B.1.6 Interpret and use information to solve the problem or answer the question

- Identify new information and integrate it with prior knowledge

B.1.7 Communicate the results of research and inquiry in an appropriate format

- Recognize the three common types of communication or presentation modes (written, oral, visual)

C.1.2 Appreciate and derive meaning from literature and other creative expressions of information

- Relate literature and other creative expressions of information to personal experiences

C.1.3 Develop competence and selectivity in reading, listening, and viewing

- Choose materials at appropriate developmental levels

D.1.2 Use information, media, and technology in a responsible manner

- Demonstrate use of the Internet and other on-line sources consistent with the school's acceptable use policy

By the end of grade two, students will:

A.2.1 Use common media and technology terminology and equipment

- Identify and define basic computer terminology (e.g., software, hardware, cursor, startup/shutdown, storage medium, file, memory)
- Develop touch keyboarding techniques using both hands

A.2.2 Identify and use common media formats

- Identify the wide variety of current media formats (e.g., video programs, magazines, computer software, audio cassettes, CD-ROM and DVD, newspapers, books, the Internet)

A.2.3 Use a computer and productivity software to organize and create information

- Identify and define basic word processing terminology (e.g., cursor, open, save, file, I-beam, window, document, cut, copy, paste)
- Edit a word processed document using a spell checker

A.2.4 Use a computer and communications software to access and transmit information

- Log on and view information from pre-selected sites on the Internet

B.2.2 Develop information seeking strategies

- Recognize different ways to organize ideas, concepts, and phrases

B.2.3 Locate and access information sources

- Recognize that materials in the school library media center are organized in a systematic manner
- Locate information from pre-selected Internet sites and web pages

B.2.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Differentiate between fiction and non-fiction resources

B.2.6 Interpret and use information to solve the problem or answer the question

- Select information applicable to the information question
- Seek additional information if needed

B.2.7 Communicate the results of research and inquiry in an appropriate format

- Develop a product or presentation to communicate the results of the research

C.2.2 Appreciate and derive meaning from literature and other creative expressions of information

- Compare their own interpretations of literature and other creative expression of information with those of others

C.2.4 Demonstrate self-motivation and increasing responsibility for their learning

- Apply prescribed criteria for judging success of learning projects

D.2.1 Participate productively in workgroups or other collaborative learning environments

- Respect the ideas of others

D.2.2 Use information, media, and technology in a responsible manner

- Employ proper etiquette in all forms of communication

By the end of grade three, students will:

A.3.1 Use common media and technology terminology and equipment

- Solve problems using the basic four arithmetic functions of a calculator when appropriate
- Operate basic audio and video equipment to listen to and view media programs

A.3.2 Identify and use common media formats

- Recognize the common organizational characteristics of print media (e.g., drawing programs, utilities, word processing, simulations)
- Differentiate among the common types of computer software (e.g., drawing programs, utilities, word processing, simulations)
- Access information using common electronic reference sources (specifically, on-line catalogs, others per local district)

A.3.3 Use a computer and productivity software to organize and create information

- Demonstrate the text editing features of a word processing program (e.g., bold face, italics, underline, double spacing, different size and style of fonts) to produce a finished product
- Explore special formatting features (e.g., borders, shading, centering, justification) of a word processing program

A.3.5 Use media and technology to create and present information

- Plan a multimedia production using an outline or storyboard
- Create and present a short video or hypermedia program

A.3.6 Evaluate the use of media and technology in a production or presentation

- Identify the media and technology used

B.3.1 Define the need for information

- Identify the information problem or question to be resolved

- Determine what is already known about the information problem or question
- Formulate initial questions to define what additional information is needed
- Determine a specific focus for the information search questions

B.3.2 Develop information seeking strategies

- Identify possible sources of information including print, non-print, electronic, and human resources

B.3.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Distinguish between fact and opinion

B.3.5 Record and organize information

- Take notes or record information in their own words
- Organize information using simple outlining techniques

B.3.6 Interpret and use information to solve the problem or answer the question

- Determine if information is relevant to the information question
- Apply the information gathered to solve the information problem or question

B.3.7 Communicate the results of research and inquiry in an appropriate format

- Identify the audience for the product or presentation
- Identify whether the purpose of the product or presentation is to inform, entertain, or persuade

B.3.8 Evaluate the information product and process

- Review the criteria to be used in judging both the product (or presentation) and the process
- Review the process based on the criteria
- Suggest ways in which the process and product can be improved

C.3.1 Pursue information related to various dimensions of personal well-being and academic success

- Identify topics of interest and seek relevant information about them
- Recognize that information can be used to make decisions or satisfy personal interest
- Recognize that accurate information is basic to sound decisions

C.3.3 Develop competence and selectivity in reading, listening, and viewing

- Recognize that media can be constructed to convey specific messages, viewpoints, and values

C.3.4 Demonstrate self-motivation and increasing responsibility for their learning

- Identify topics suitable for independent learning or in-depth exploration
- Establish goals and determine steps for completing a project
- Assess progress and quality of work

D.3.1 Participate productively in workgroups or other collaborative learning environments

- Articulate workgroup goals and individual responsibilities within the group
- Participate in the development of individual and workgroup tasks and priorities
- Recognize that individual achievement is linked to the successful completion of workgroup projects
- Review workgroup projects and suggest improvements

D.3.2 Use information, media, and technology in a responsible manner

- Recognize that altering or destroying another person's program or file constitutes unacceptable behavior
- Differentiate between copying and summarizing
- Recognize that using media and technology to defame another person or group constitutes unacceptable behavior

D.3.3 Respect intellectual property rights

- Explain the concept of intellectual property rights
- Recognize that reports or articles they write must be put in their own words

D.3.4 Recognize the importance of intellectual freedom and access to information in a democratic society

- Acknowledge the right of classmates to express opinions different from their own

By the end of grade four, students will:

A.4.1 Use common media and technology terminology and equipment

- Demonstrate the use of still and video cameras and scanners

A.4.2 Identify and use common media formats

- Describe the purpose and use of a virus detection program
- Create, save, move, copy, retrieve, and delete electronic files

A.4.3 Use a computer and productivity software to organize and create information

- Identify a database and explain basic database terms (e.g., file, record, field)
- Use a prepared database template to enter and edit data, and to locate records
- Identify a spreadsheet and explain basic spreadsheet terms (e.g., column, row, cell)
- Use a prepared spreadsheet template to enter and edit data, and to produce and interpret a simple graph or chart

A.4.4 Use a computer and communications software to access and transmit information

- Describe and explain an on-line information network
- Generate, send, retrieve, save, and organize electronic messages
- Use the functions of a web browser to navigate and save World Wide Web sites
- Identify and use simple search engines and directories

A.4.6 Evaluate the use of media and technology in a production or presentation

- Explain how well the media and technology contributed to its impact
- Identify simple criteria for judging the quality of a production or presentation
- Judge how well a particular production meets the identified criteria
- Suggest ways to improve future productions or presentations

B.4.2 Develop information seeking strategies

- Evaluate possible sources based on currency, genre, and relevance to topic
- Select more than one resource when appropriate
- Identify keywords and phrases for each information source
- List steps to follow in carrying out the information search

B.4.3. Locate and access information sources

- Locate materials using the classification system of the school library media center
- Identify and use printed or electronic catalogs to access materials in the school library media center
- Search for information by keyword, author, title, and topic or subject
- Use an encyclopedia, dictionary, almanac, and atlas in print, or electronic formats
- Use the index or table of contents of a book, magazine, or reference set to locate specific information

B.4.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Preview selected resources using table of contents, index, and other simple scanning strategies
- Determine timeliness and validity of information sources
- Identify the sponsoring organization or author for all resources

B.4.5 Record and organize information

- Record the sources of information as notes are taken
- Recognize the need to identify the author of any information copied verbatim
- Arrange notes to help answer the information problem or question
- List basic bibliographic sources for information used

B.4.7 Communicate the results of research and inquiry in an appropriate format

- Choose a presentation form (e.g., speech, paper, web page, video, hypermedia)

B.4.8 Evaluate the information product and process

- Determine how well the product or presentation meets the original information need based on the criteria

C.4.3 Develop competence and selectivity in reading, listening, and viewing

- Identify materials which reflect diverse perspectives

D.4.1 Participate productively in workgroups or other collaborative learning environments

- Complete workgroup projects to meet an established timeline

D.4.2 Use information, media, and technology in a responsible manner

- Identify the school's rules on student use of the Internet and other resources

D.4.3 Respect intellectual property rights

- Describe how copyright protects the right of an author or producer to control the distribution, performance, display, or copying of original works
- Recognize that the copying of commercial or licensed media is a violation of the copyright law
- Identify violations of the copyright law as a crime for which there are serious consequences
- Explain why the use of all or parts of another person's work required prior permission or citation
- Recognize that a quoted work must be stated in the author's exact words
- List sources quoted verbatim and visuals used in a presentation

D.4.4 Recognize the importance of intellectual freedom and access to information in a democratic society

- Define the concept of intellectual freedom
- Identify examples of censorship
- Recognize the importance of free and open access to information for all citizens

- Describe situations or conditions where information is repressed or restricted

By the end of grade five, students will:

A.5.1 Use common media and technology terminology and equipment

- Identify and define computer and networking terms (e.g., modem, file server, client station, LAN, Internet/Intranet, data storage device)
- Demonstrate the correct operation of a computer system on a network
- Demonstrate touch keyboarding skills at acceptable speed and accuracy levels (suggested range 20-25 wpm)
- Organize and backup files on a computer disk, drive, server, or other storage device
- Scan, crop, and save a graphic using a scanner, digital camera, or other digitizing equipment

A.5.2 Identify and use common media formats

- Describe the operating and file management software of a computer (e.g. desktop, file, window folder, directory, pull-down menu, dialog box)
- Identify the various organizational patterns used in different kinds of reference books
- Define the basic types of learning software (e.g., drill and practice, tutorial, simulation)
- Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select information

A.5.3 Use a computer and productivity software to organize and create information

- Explain the use of basic word processing functions (e.g., menu, tool bars, dialog boxes, radio buttons, spell checker, thesaurus, page layout, headers and footers, word count, tabs)
- Use the spell checker and thesaurus functions of a word processing program
- Use a graphical organizer program to construct outlines or webs that organize ideas and information

A.5.4 Use a computer and communications software to access and transmit information

- Define basic on-line searching and Internet terminology (e.g., website, HTML, home page, hypertext link, bookmark, URL address)
- Access information using a modem or network connection to the Internet or other on-line information services
- View, print, save, and open a document from the Internet or other on-line sources
- Use basic search engines and directories to locate resources on a specific topic
- Demonstrate efficient Internet navigation

A.5.5 Use media and technology to create and present information

- Design and produce a multimedia production

B.5.1 Define the need for information

- Relate what is already known to the information need

B.5.2 Develop information seeking strategies

- Organize ideas, concepts, and phrases using webbing, outlines, trees, or other visual or graphical tools
- Focus search strategies on matching information needs with available resources

B.5.3 Locate and access information sources

- Identify the classification system used in the school library media center, public library, and other local libraries
- Locate materials using the classification systems of the school library media center and the public library
- Use an on-line catalog and other databases of print and electronic resources
- Search for information by subject, author, title, and keyword
- Use a search engine to locate appropriate Internet or Intranet resources

B.5.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Analyze and evaluate information presented in charts, graphs, and tables
- Locate indicators of authority for all sources of information
- Select resources in formats appropriate to content and information need and compatible with their own learning style

B.5.5 Record and organize information

- Organize and compare information using graphic organizers, storyboarding, and other relational techniques

B.5.6 Interpret and use information to solve the problem or answer the question

- Compare and integrate new information with prior knowledge

B.5.7 Communicate the results of research and inquiry in an appropriate format

- Determine the audience and purpose for the product or presentation

B.5.8 Evaluate the information product and process

- Identify the criteria to be used in judging both the product (or presentation) and the process

C.5.2 Appreciate and derive meaning from literature and other creative expressions of information

- Recognize that reviews, evaluations, and guidance from teachers, library media specialists, and others assist in the selection of appropriate literature and creative expressions of information
- Identify and use personal criteria for choosing literature and other creative expressions of information
- Relate literature and creative expressions of information to personal experiences

C.5.3 Develop competence and selectivity in reading, listening, and viewing

- Choose materials at appropriate developmental levels
- Identify characteristics of common literacy forms

C.5.4 Demonstrate self-motivation and increasing responsibility for their learning

- Participate in decisions about group and classroom projects and learning objectives
- Identify and select topics of personal interest to expand classroom learning projects

D.5.1 Participate productively in workgroups or other collaborative learning environments

- Collaborative with others to identify information needs and seek solutions
- Demonstrate acceptance to new ideas and strategies from workgroup members

D.5.2 Use information, media, and technology in a responsible manner

- Return all borrowed materials on time
- Describe and explain the school policy on technology and network use, media borrowing, and Internet access
- Demonstrate responsible use of the Internet and other electronic resources consistent with the schools acceptable use policy
- Recognize the need for privacy and protection of personal information

D.5.3 Respect intellectual property rights

- Cite the source for words which are quoted verbatim and for pictures, graphics, and audio or video segments which are used in a product or presentation

By the end of grade six, students will:

A.6.1 Use common media and technology terminology and equipment

- Recognize and solve routine computer hardware and software problems

A.6.2 Identify and use common media formats

- Describe the various applications of productivity software programs (e.g., word processing, database, spreadsheet, presentation, communication, drawing, desktop publishing)

A.6.3 Use a computer and productivity software to organize and create information

- Move textual and graphics data from one document to another
- Compose a class report using advanced text formatting and layout styles (e.g., single and double spacing, different size and style of fonts, indents, headers and footers, pagination, table of contents, bibliography)
- Construct a simple spreadsheet, enter data, and interpret the information
- Plot and use different types of charts and graphs (e.g., line, bar, stacked, scatter diagrams, area, pie charts, pictogram) from a spreadsheet program

A.6.4 Use a computer and communications software to access and transmit information

- Send an e-mail message with an attachment to several persons simultaneously

A.6.5 Use media and technology to create and present information

- Plan and deliver a presentation using media and technology appropriate to topic, audience, purpose, or content

A.6.6 Evaluate the use of media and technology in a production or presentation

- Determine the purpose of a specific production or presentation
- Judge how well the production or presentation meets identified criteria

B.6.1 Define the need for information

- Identify the information problem or question to be resolved

B.6.2 Develop information seeking strategies

- Identify relevant resources of information including print, non-print, electronic, human, and community resources
- Focus search strategies on matching information needs with available resources

B.6.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Examine selected resources for pertinent information using previewing techniques to scan for major concepts and keywords
- Distinguish between fact and opinion; recognize point of view or bias

B.6.5 Record and organize information

- Use note taking strategies including summarizing and paraphrasing
- Record concise notes in a prescribed manner, including bibliographic information

B.6.6 Interpret and use information to solve the problem or answer the question

- Analyze information for relevance to the question
- Draw conclusions to address the problem or question

B.6.7 Communicate the results of research and inquiry in an appropriate format

- Develop an original product or presentation which addresses the information problem or question

B.6.8 Evaluate the information product and process

- Identify the criteria to be used in judging both the product (or presentation) and the process

- Summarize ways in which the process and product can be improved

C.6.1 Pursue information related to various dimensions of personal well-being and academic success

- Identify topics of interest and seek relevant information about them
- Identify information appropriate for decision-making and personal interest
- Recognize that accurate and complete information is basic to sound decisions in both personal and academic pursuits

C.6.4 Demonstrate self-motivation and increasing responsibility for their learning

- Recommend criteria for judging success of learning projects
- Evaluate progress and quality of personal learning

D.6.1 Participate productively in workgroups or other collaborative learning environments

- Determine workgroup goals and equitable distribution of individual or subgroup responsibilities and tasks
- Complete workgroup projects on time

D.6.2 Use information, media, and technology in a responsible manner

- Identify and define the consequences of violations to the schools policies on media and technology use

D.6.3 Respect intellectual property rights

- Define the purpose of copyright and copyright law
- Identify what kinds of works of authorship can be copyrighted
- Relate examples of copyright violations
- Explain and differentiate the purposes of a patent, trademark, and logo

By the end of grades seven/eight, students will:

A.MS.1 Use common media and technology terminology and equipment

- Use basic content-specific tools (e.g., environmental probes, measurement sensors) to provide evidence/support in a class project
- Use simple graphic calculator functions to solve a problem
- Capture, edit, and combine video segments using a multimedia computer with editing software or a video editing system

A.MS.2 Identify and use common media formats

- Identify common integrated software packages or application suites
- Use a graphics program to create or modify detail to an image or picture.

A.MS.3 Use a computer and productivity software to organize and create information

- Use graphics software to import pictures, images, and charts into documents
- Classify collected data and construct a simple database by defining fields, entering and sorting data, and producing a report
- Incorporate database and spreadsheet information (e.g. charts, graphs, lists) in word processed documents

A.MS.4 Use a computer and communications software to access and transmit information

- Organize World Wide Web bookmarks by subject or topic

A.MS.5 Use media and technology to create and present information

- Use draw, paint, or graphics software to create visuals that will enhance a class project or report

A.MS.6 Evaluate the use of media and technology in a production or presentation

- Describe the effectiveness of the media and technology used in a production or presentation
- Identify criteria for judging the technical quality of a production or presentation
- Recommend ways to improve future productions or presentations

B.MS.1 Define the need for information

- Formulate general and specific research questions using a variety of questioning skills
- Revise and narrow the information questions to focus on the information need

B.MS.2 Develop information seeking strategies

- Evaluate possible sources of information based on criteria of timeliness, genre, point of view, bias, and authority
- Select multiple sources that reflect differing or supporting points of view
- Identify and select keywords and phrases for each source, recognizing that different sources use different terminology for similar concepts

B.MS.3 Locate and access information sources

- Recognize differences in searching bibliographic records, abstracts, or full text databases
- Use Boolean operators with human or programmed guidance to narrow or broaden searches
- Use biographical dictionaries, thesauri, and other common reference tools in both print and electronic formats

B.MS.4 Evaluate and select information from a variety of print, non-print, and electronic formats

- Differentiate between primary and secondary sources
- Determine if information is timely, valid, accurate, comprehensive, and relevant

B.MS.5 Record and organize information

- Cite the source of specific quotations or visuals using footnotes, endnotes, or internal citation formats
- Organize information in a systematic manner appropriate to question, audience, and intended format of presentation
- Record sources of information in a standardized bibliographic format

B.MS.6 Interpret and use information to solve the problem or answer the question

- Analyze findings to determine need for additional information
- Gather and synthesize additional information as needed

B.MS.7 Communicate the results of research and inquiry in an appropriate format

- Identify possible communication or production formats
- Select a presentation format appropriate to the topic, audience, purpose, content, and technology available

B.MS.8 Evaluate the information product and process

- Assess the process based on identified criteria

C.MS.2 Appreciate and derive meaning from literature and other creative expressions of information

- Relate literature and creative expressions of information to other literature or creative expressions of information

C.MS.3 Develop competence and selectivity in reading, listening, and viewing

- Identify and select materials that reflect diverse perspectives
- Recognize how words, images, sounds, and illustrations can be constructed to convey specific messages, viewpoints, and values

C.MS.4 Demonstrate self-motivation and increasing responsibility for their learning

- Establish goals and develop a plan for completing projects on time and within the scope of the assignment
- Establish personal goals in pursuit of individual interest, academic requirements, and career paths

D.MS.1 Participate productively in workgroups or other collaborative learning environments

- Plan for the efficient use and allocation of time
- Evaluate completed projects to determine how the workgroup could have functioned more efficiently and productively

D.MS.2 Use information, media, and technology in a responsible manner

- Recognize that using media and technology to defame or libel another person or group constitutes unacceptable behavior

D.MS.3 Respect intellectual property rights

- Explain the concept of fair use as it pertains to the copyright law
- Recognize that the fair use provisions may differ depending on the media format

D.MS.4 Recognize the importance of intellectual freedom and access to information in a democratic society

- Explain the concept of intellectual freedom
- Identify examples and explain the implications of censorship in the United States and in other countries
- Explain the importance of the principle of equitable access to information
- Compare and contrast freedom of the press in different situations and geographic areas
- Recognize that the free-flow of information contributes to an informed citizenry resulting in sound decisions for the common good

By the end of grade nine, students will:

A.9.1 Use common media and technology terminology and equipment

- Identify and define basic on-line and telecommunications terminology or concepts (e.g., bandwidth, satellite dish, distance learning, desktop conferencing, listserv, downlink, teleconference, virtual reality)
- Demonstrate proper keyboarding mechanics and touch type accurately (suggested range 30-35 wpm)
- Use a camcorder, VCR, multimedia computer, or editing equipment to produce a short video program
- Identify common graphic, video, and sound file formats (e.g., JPEG, GIF, MPEG, QUICKTIME, WAV)

A.9.2 Identify and use common media formats

- Identify examples of agents, expert systems, or artificial intelligence (e.g., search engine, grammar checker, voice recognition, translators)

A.9.3 Use a computer and productivity software to organize and create information

- Proofread and edit a document using the spell, thesaurus, and grammar checking functions of a word processing program
- Manipulate graphics objects in a word processing program (e.g., select, move, modify, delete, duplicate, arrange)

A.9.4 Use a computer and communications software to access and transmit information

- Choose most appropriate search engines and directories to locate specific resources on the Internet or other on-line services

A.9.5 Use media and technology to create and present information

- Use draw, paint, graphics, or presentation software to visually communicate ideas or concepts
- Produce a multimedia program using text, graphics, moving images, and sound

B.9.3 Locate and access information sources

- Identify the different classification systems used in local school, public and post-secondary libraries, and resource agencies

- Locate information using the classification system and catalog in use at a variety of libraries and resource agencies
- Use increasingly complex organizational features of print and electronic resources such as cumulative and cross-database indexes
- Use different search strategies for bibliographic citations, abstracts, and full-text resources in electronic formats
- Construct effective electronic and manual searches using keywords, phrases, Boolean logic, and limiters
- Determine when to use general or specialized print and electronic reference tools
- Compare, evaluate, and select appropriate Internet search engines and directories

B.9.4 Evaluate and select information from a variety of print, nonprint, and electronic formats

- Select information clearly related to the problem or question

B.9.5 Record and organize information

- Credit sources for all quotations, visuals, major ideas, and specific facts or data using accepted citation formats
- Compile a bibliography in a format stipulated by an accepted manual of style

C.9.1 Pursue information related to various dimensions of personal well-being and academic success

- Identify topics of interest and seek relevant information about them
- Evaluate information for decision-making and personal interest

C.9.3 Develop competence and selectivity in reading, listening, and viewing

- Choose materials at appropriate developmental levels
- Identify and select materials that reflect diverse perspectives
- Contrast characteristics of common literary forms

D.9.2 Use information, media, and technology in a responsible manner

- Return all borrowed materials on time
- Assess the need for different information policies and user agreements in a variety of settings (e.g., private employer, university, government agency)
- Demonstrate use of the Internet and other resources consistent with acceptable use policies

- Recognize that using media or technology to defame, libel, or misrepresent another person or group constitutes unacceptable behavior
- Identify and define consequences of violations to the school's policies on media and technology use
- Recognize the need for privacy of certain data files or documents

D.9.3 Respect intellectual property rights

- Explain the difference between copyright and copyright registration
- Explain why "fair use" is permitted for educational purposes but not in "for profit" situations
- Recognize the legal consequences of plagiarism and the need for personal authenticity in their work
- Explain conditions under which permission must be obtained for the use of copyrighted materials
- Describe how to correspond with authors, publishers, or producers to obtain permission to use copyrighted materials in their work

By the end of grade ten, students will:

A.10.1 Use common media and technology terminology and equipment

- Use desktop or video conferencing equipment and systems

A.10.2 Identify and use common media formats

- Describe the common organizational patterns in different types of print media
- Identify and explain the use of common microforms
- Demonstrate how to import and export text, graphic, and sound files

A.10.3 Use a computer and productivity software to organize and create information

- Use an integrated program or applications suite to complete a class assignment
- Use desktop publishing and graphics software to produce page layouts in different formats (e.g., brochure, tri-fold, newsletter)

A.10.4 Use a computer and communications software to access and transmit information

- Use desktop conferencing, e-mail, or groupware to communicate with others regarding assignments or class projects

- Use desktop conferencing, e-mail, or groupware to communicate with others regarding assignments or class projects
- Establish access to primary sources and other experts for class reports or projects

B.10.1 Define the need for information

- State the information problem or question in clear and concise terms
- Relate prior knowledge to the problem or question

B.10.2 Develop information-seeking strategies

- Identify a full range of appropriate and available information from local, national, and global sources
- Determine and apply evaluative criteria to prioritizing potential sources
- Pursue a variety of resources reflecting differing points of view, cultures, and disciplines
- Identify and evaluate keywords, concepts, subject headings, and descriptors for each information source
- Organize ideas, concepts, and issues in a manner appropriate to the subject and purpose
- Develop a plan to obtain needed information using a variety of research and investigative strategies (e.g., interviews, questionnaires, experiments, surveys)

B.10.5 Record and organize information

- Follow standardized notetaking processes and compile bibliographic information in an approved format
- Organize information in systematic manner for unity, coherence, clarity, and emphasis

B.10.6 Interpret and use information to solve the problem or answer the question

- Interpret new information to formulate ideas which address the question or problem using comparison, evaluation, inference, and generalization skills
- Synthesize new ideas, evidence, and prior knowledge to address the problem or question
- Draw conclusions and support them with credible evidence

B.10.7 Communicate the results of research and inquiry in an appropriate format

- Determine the audience and purpose for communicating the information
- Compare strengths and weaknesses of possible presentation methods and products
- Select the most appropriate format for the product or presentation
- Develop a product or presentation that utilizes the strengths of the medium and supports the conclusions drawn in the research effort

B.10.8 Evaluate the information product and process

- Establish the criteria to be used in judging both the product (or presentation) and the process
- Assess how well the research conclusions and product satisfy the defined information need
- Critique the process and identify steps which need further study, skill development, or practice
- Evaluate how the research question or problem, search strategy, resources, and interpretation could have been expanded or modified

C.10.2 Appreciate and derive meaning from literature and other creative expressions of information

- Apply personal criteria for choosing literature and other creative expressions of information
- Relate literature and other creative expressions of information to personal experiences
- Compare and contrast examples of literature and creative expressions of information with other examples of literature and creative expressions of information

C.10.4 Demonstrate self-motivation and increasing responsibility for their learning

- Make decisions about group and classroom projects and learning objectives
- Identify topics for independent study to meet individual learning needs and interests
- Develop and apply criteria for judging success of learning projects
- Establish goals, plans, budgets, and timelines for completing a project
- Recognize gaps in personal knowledge and apply strategies for addressing them
- Evaluate progress and quality of personal learning
- Articulate personal goals in pursuit of individual interests, academic requirements, and career paths

D.10.1 Participate productively in workgroups or other collaborative learning environments

- Collaborate with others to design and develop information products and solutions
- Incorporate effective group processes and shared decision-making in project development
- Specify and detail workgroup goals and individual and subgroup responsibilities
- Finalize workgroup strategies, resources, budget, and timeline 10
- Allocate time for a project based on an inventory of the responsibilities of workgroup members
- Complete specific projects within a timeline and budget
- Critique completed projects and workgroup processes for future improvement

D.10.3 Respect intellectual property rights

- Distinguish among freeware, shareware, and commercial software

By the end of grade eleven, students will:

A.11.2 Identify and use common media formats

- Distinguish between an individual productivity program and an integrated software program or applications suite
- edit, import, and export movie or video files

A.11.3 Use a computer and productivity software to organize and create information

- Explain terminology and concepts connected with integrated software or an applications suite (e.g., tool palette, bulleted or numbered lists, macros, autocorrect, find-and-replace, stylesheets)

A.11.6 Evaluate the use of media and technology in a production or presentation

- Assess the purpose and effectiveness of a production or presentation
- Evaluate the appropriateness and effectiveness of the media and technology used
- Determine criteria for judging the delivery, pacing, focus, and technical quality of the production or presentation
- Judge how well the production or presentation meets specified criteria
- Specify ways to improve future productions or presentations

B.11.1 Define the need for information

- Develop specific research questions or a thesis statement based on the nature, purpose, and scope of project
- Conduct a preliminary search to determine if the research questions or thesis statement is clear and searchable; refine and revise if necessary

B.11.4 Evaluate and select information from a variety of print, nonprint, and electronic formats

- Evaluate information for stereotyping, prejudice, and misrepresentation
- Distinguish among fact, opinion, point of view, and inference

B.11.5 Record and organize information

- Analyze and relate information using a variety of relational techniques (e.g., graphic organizers, database reports, spreadsheet charts, graphs)

C.11.1 Pursue information related to various dimensions of personal well-being and academic success

- Recognize that accurate and complete information is essential to sound decisions in personal, academic, and career pursuits

By the end of grade twelve, students will:

A.12.3 Use a computer and productivity software to organize and create information

- Analyze data from a database and present conclusions in a document or report
- Construct a spreadsheet, enter data into cells, use mathematical functions to manipulate/process data, generate a chart or graph, and interpret the results
- use a computer and graphical organizer software to generate modifiable flow charts, project time lines, organizational charts, or calendars

A.12.4 Use a computer and communications software to access and transmit information

- Distinguish between "pull" and "push" or "broadcast" methods of acquiring information from an on-line source
- Employ FTP (file transfer protocol) to retrieve and download computer files from a remote computer
- Participate in an on-line discussion group or listserv appropriate to a content area
- Gather and organize statistical or survey data using e-mail, listservs, or on-line news or discussion groups

A.12.5 Use media and technology to create and present information

- Develop a document or file for inclusion into a website or web page
- Participate in a desktop conferencing session to present and share information with others

B.12.4 Evaluate and select information from a variety of print, nonprint, and electronic formats

- Determine if sources are authoritative, valid, reliable, accurate, relevant, and comprehensive
- Evaluate graphic images for misleading presentation and manipulated data
- Determine authorship for all resources and identify points of agreement and disagreement among sources
- Select information in formats and genre most appropriate to content

B.12.5 Record and organize information

- Use data-gathering strategies that include summarizing, paraphrasing, comparing, and quoting

C.12.2 Appreciate and derive meaning from literature and other creative expressions of information

- Recognize that core lists of classics and recommended titles for precollege reading provide for a well-rounded literary background

C.12.3 Develop competence and selectivity in reading, listening, and viewing

- Evaluate how words, images, sounds, and illustrations are constructed to convey specific messages, viewpoints, and values to shape attitudes and influence action

D.12.4 Recognize the importance of intellectual freedom and access to information in a democratic society

- Summarize how the basic principles of democracy relate to intellectual freedom
- Distinguish between intellectual freedom as it relates to children versus adults
- Investigate a specific censorship situation (e.g., challenge to a book or magazine in a local library)
- Recommend strategies for ensuring that others have equitable access to information, media resources, and technology
- Project what conditions might result if intellectual freedom were ignored in their own community or in the United States