

NJTAP SCOPE & SEQUENCE

STANDARD 8.1 (COMPUTER AND INFORMATION LITERACY) ALL STUDENTS WILL USE COMPUTER APPLICATIONS TO GATHER AND ORGANIZE INFORMATION AND TO SOLVE PROBLEMS

Descriptive Statement: Using computer applications and technology tools students will conduct research, solve problems, improve learning, achieve goals, and produce products and presentations in conjunction with standards in all content areas, including career education and consumer family, and life skills. They will also develop, locate, summarize, organize, synthesize, and evaluate information for lifelong learning.

8.1.4.A. Basic Computer Skills and Tools Grade 4	8.1.8.A. Basic Computer Skills and Tools Grade 8	8.1.12.A. Basic Computer Skills and Tools Grade 12
8.1.4.A.1. Use basic technology vocabulary.	8.1.8.A.1. Use appropriate technology vocabulary.	→
a. Login (log in)/ Logout (log out)	a. Directory	
b. Cursor	b. Multiple windows open	
c. Icon	c. File formats of doc, rtf, gif, jpg, stk, ins, xls, and dot (template)	
d. Scroll bar	d. Save in multiple locations and devices	
e. Busy Icon	e. Electronic mail (e-mail)	
f. Word processor	f. Telecommunication	
g. Internet	g. Database	
h. Minimize	h. Query	
i. Maximize	i. Field	
j. Network	j. Record	
k. Open File		
l. Edit		
m. Hardware		
n. Software		
o. Copyright		
p. Software piracy		
q. Desktop publishing		
r. Multimedia		
s. Spreadsheet		
t. Cell		
u. Column		
v. Row		
x. Formula		
y. Blog		
z. Short Cut		

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aa. Task bar		
ab. Names parts of the computer such as monitor, keyboard, screen and mouse properly.		

<i>World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career Education 9.2.4.C.3; 9.2.8.A.1-5; 9.2.8.C.2; 9.2.12.A.1,3, 4, 5; 9.2.12.C.2; 9.2.12.C.2</i>		
8.1.4.A.2. Use basic features of an operating system (e.g., accessing programs, identifying and selecting a printer, finding help).	8.1.8.A.2. Use common features of an operating system (e.g., creating and organizing files and folders).	→
a. Identify basic computer hardware components and peripheral devices:	a. Identify basic computer hardware components and peripheral devices:	a. Use basic computer hardware components and peripheral devices.
(1) Keyboard, Pointing Device & Mouse	(1) RAM	(1) Format a disk
(2) Monitor		(2) Create a new directory
(3) Printer		(3) Delete file/directory
(4) Headphones/Speakers		(4) Move a file
(5) CD/DVD ROM		(5) Rename files/directories
(6) Microphone		(6) Backup files
(7) Hard drive		(7) Check for and remove viruses
(8) Storage Device		(8) Retrieve files
(9) Server		(9) Change directories
		(10) Differentiate between application files and data files
		(11) Associate files in file management directories with applications
		(12) Compare and contrast popular computer systems
		(13) Load and run software for specific instructional objectives
b. Care and appropriate use of hardware:	b. Care and appropriate use of hardware:	→
(1) Demonstrate appropriate care and use of keyboard, pointing device & mouse	(1) Demonstrate appropriate care, use and selection of printer	
(2) Demonstrate appropriate care and use of computer storage devices	(2) Demonstrate appropriate care and use of peripherals (for example: digital cameras, scanners)	
(3) Demonstrate appropriate care and use of CD or DVD ROM		
(4) Demonstrate ability to turn computer off/on independently	→	
(5) Demonstrate appropriate care and use of special keyboard		

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keys (Shift, Arrow, Spacebar, Return)		
(6) Demonstrate appropriate care and use of special keyboard keys. (Command, Control, Option, Delete, Tab)	→	→
(7) Identifies printer available on computer		
(8) Prints from a word-processing application		
c. Identify the functions and advantages of computer productivity software	c. Identify the functions and advantages of computer productivity software	→
(1) Word processing	(1) Telecommunications (E-mail & Internet)	
(2) Drawing/Graphics programs		
(3) Spreadsheet		
(4) Database		
(5) Presentation software		
d. Use basic computer management skills	d. Use basic computer management skills	
(1) Demonstrate ability to access and exit software	(1) Demonstrate ability to organize files on a hard drive and CD/DVD	
(2) Demonstrate ability to manage files (saving, retrieving)	(2) Demonstrate ability to use storage device utilities (formatting, copying, deleting, creating backup, saving)	
	(3) Demonstrate the ability to switch among open windows, maximize, minimize, restore and copy, cut and paste.	
	(4) Demonstrate ability to sign onto network, when applicable.	→
8.1.4.A.3. Input and access text and data, using appropriate keyboarding techniques or other input devices.	8.1.8.A.3. Demonstrate effective input of text and data, using touch keyboarding with proper technique.	
a. Uses appropriate keyboarding techniques	a. Uses appropriate keyboarding techniques	
(1) Identify keys on right and left hand	(1) Identify keys on right and left hand	
(2) Recognize letters in capital and lower case	(2) Recognize letters in capital and lower case	
(3) Identify location and function of enter key, escape key, spacebar, shift key, arrow keys, tab key, and backspace key	(3) Identify location and function of enter key, escape key, spacebar, shift key, arrow keys, tab key, and backspace key	
(4) Use correct posture	(4) Use correct posture	
(5) Use thumb on the space bar	(5) Use thumb on the space bar	
(6) Key simple sentences with hands on home row	(6) Eyes on the printed copy	
(7) Uses capital and lower case letters properly	(7) Keys with a smooth rhythm	

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by English standards		
	b. Key reports consisting of paragraphs with hands on home row	
8.1.4.A.4. Produce a simple finished document using word processing software.	8.1.8.A.4. Input and access data and text efficiently and accurately through proficient use of other input devices, such as the mouse.	→
(a) Creating a first draft at the computer, edit and finalize through printing		
	8.1.8.A.5. Create documents with advanced text-formatting and graphics using word processing.	8.1.12.A.1. Create a multi-page document with citations using word processing software in conjunction with other tools that demonstrates the ability to format, edit, and print.
	a. Use word processing software to format documents, edit, and print	a. Use word processing software to format documents, edit, and print
	(1) Format letters, memos, tables, and reports using text boxes and format section breaks	(1) Format letters, memos, tables, and reports that include citations
	(2) Import graphics into document	(2) Merge graphics, tables, and charts into text
	(3) Format graphics in terms of layout and size	(3) Use a template
	(4) Manipulate ruler for variable format changes in document	(4) Create and use simple macros
	(5) Use spell check, thesaurus, and grammar checks	(5) Print envelopes with the computer and printer
	(6) Compose a paragraph from rough draft to final copy using a computer	(6) Use software specific help menus
		b. Use a word processor in a real world context
		(1) Create a resume
	(2) Create a formal report, using a specific format (for example: MLA)	
	8.1.8.A.6. Create a file containing customized information by merging documents.	8.1.12.A.2. Create documents including a resume and a business letter using professional format.
a. Create and save new and/or existing documents	a. Create and save new and/or existing documents	a. Use a word processor in a real world context
(1) Identify document purpose through the title	(1) Save to public/network folders	(1) Create a resume
(2) Use save and save as when naming files	(2) Save in proper cross-platform format	(2) Create a formal report, using a specific format (for

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		example: MLA)
b. Open, view and print documents	b. Open, view and print documents	
(1) Print entire file	(1) Print selected parts	→
(2) Use print preview		
(3) Select printer depending on printing needs		
c. Format documents	c. Format documents	
(1) Selecting font style, color & size	(1) Margins	→
(2) Word spacing	(2) Setting tabs	
(3) Indenting	(3) Using headers, footers, & pagination	
(4) Justifying text	(4) Adjusting toolbars	
(5) Line spacing	(5) Use page breaks	
(6) Change case		
(7) Selecting page orientation	→	→
(8) Uses bold, italics and other simple formatting		
d. Edit text	d. Edit text	
(1) Changing font style, color & size	(1) Using find & replace feature	
(2) Cutting, copying, pasting, & deleting text		
(3) Using electronic spell check	→	
(4) Using electronic thesaurus		
	e. Use desktop publishing techniques	
	(1) Inserting graphics (local & downloaded)	
	(2) Sizing graphics	
	(3) Setting up columns, background, and borders	
	(4) Use of tables	
	(5) Using themes and templates	
		8.1.12.A.9. Merge information from one document to another. See 8.1.12.A.2; 8.1.12.1A.5; 8.0.12.3.C.2; 8.1.12. 3.d.2
<i>LAL 3.2.1.A.10; 3.2.2.A.13; 3.2.2.D.4; 3.2.3.A.11; 3.2.4.A.9; 3.2.4.C.10; 3.2.5.A.12; 3.2.5.C.9; 3.2.A.11; 3.2.6.C.9; 3.2.7.A.6; 3.2.7.C.7; 3.2.8.C.7; 3.2.12.A.5; 3.2.12.C.7; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career 9.1.8.B.2; 9.1.12.A.4</i>		
8.1.4.A.5. Produce and interpret a simple graph or chart by entering and editing data on a prepared spreadsheet template.	8.1.8.A.7. Construct a simple spreadsheet, enter data, and interpret the information.	8.1.12.A.3. Construct a spreadsheet, enter data, use mathematical or logical functions to manipulate and process data, generate charts and graphs, and interpret the results.
a. Create and save spreadsheet	a. Create and save spreadsheet	a. Create and save spreadsheet
(1) Identify document purpose through the title	(1) Create and label columns and rows	(1) Set cell attributes
(2) Enter and edit data (at least five numbers into a spreadsheet)		(2) Enter text and numbers into a spreadsheet cell
(3) Reads a simple bar graph for minimum and		(3) Create and enter formulas into a spreadsheet cell

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maximum values)		
b. Retrieve data	b. Retrieve data	b. Retrieve data
(1) Create chart(s) (ex.: pie chart from a set of numbers)	(1) Format printing with page setup	(1) Sort data
(2) Print spreadsheet		(2) Using headers, footers, borders & pagination
	c. Edit data	c. Edit data
	(1) Insert column or row	(1) Determine and create appropriate type of graph
	(2) Delete column or row	(2) Incorporate graphs in word processing
	(3) Use fill down/across	(3) Copy and move data within spreadsheet
		d. Use a spreadsheet in a real world context
		(1) Draw conclusions from spreadsheet data
		(2) Integrate a spreadsheet into a word processing document
		(3) Routinely use spreadsheets to solve problems or explore concepts in science and mathematics classes
<i>LAL 3.5.1.A.5; 3.5.2.A.3; 3.5.4.A.3; 3.5.6.A.2; Mathematics 4.5.F.2.1; 4.5.F.2.2; 4.5.F.3; Science 5.1.8.B.3; 5.3.4.D.1; 5.3.8.D.4; 5.3.12.D.1; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply</i>		
8.1.4.A.6. Create and present a multimedia presentation using appropriate software.	8.1.8.A.8. Design and produce a basic multimedia project.	8.1.12.A.5. Produce a multimedia project using text, graphics, moving images, and sound.
a. Prepare a multimedia presentation	a. Prepare a multimedia presentation	→
(1) Create and edit slides/screens/cards (ex.: at least three slides/ screen/ cards)	(1) Design a presentation using multiple forms of media including research in a real world context	
(2) Add and edit text (font, size, color, and spell check)		
b. Change the look of your multimedia presentation	b. Change the look of your multimedia presentation	
(1) Customize the background	(1) Use graphics software to enhance titles or to create original art	
(2) Arrange objects on the slide/screen		
(3) Insert graphics, clip art, and/or digital images		
c. Customize	c. Customize	a. Customize
(1) Add transitions to your presentation	(1) Use sounds to enhance your presentation	(1) Place digital images in your presentation
(2) Choose a slide layout	(2) Save a new or existing presentation and close the location	(2) Insert and/or create sound to a presentation
(3) Arrange slides/screens in a logical and appropriate order		(3) Create a hyper-link to at least one website
		(4) Animate text and/or graphics to add impact

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		b. Save
		(1) Save as HTML for use on a web page
	d. Present	c. Use presentations software to create electronic reports and presentations several times during the year
	(1) Open an existing multi-media presentation	(1) Use presentation software in context of academic, career, and vocational courses
	(2) Deliver presentation skills using projection device	
<i>See Health & Physical Education 2.2.8.A.2; LAL 3.1.5.H.8; 3.1.6.H.6; LAL 3.2.4.D.12; 3.2.5.D.14; 3.2.6.D.12; 3.2.12.B.10; 3.3. 7.D.2; 3.3.8.D.2; 3.5.5.C.2; 3.5.6.C.2; 3.5.7. C.3; 3.5.8.C.3; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career Education 9.1.12further.3</i>		
8.1.4.A.7. Create and maintain files and folders.	8.1.8.A.10. Use network resources for storing and retrieving data.	→
a. Locate, create, and save files	a. Use the network	
(1) Move folders and documents	(1) Demonstrate appropriate use of log-in and log-out	
(2) Rename and delete documents	(2) Demonstrate appropriate use of network printing	
	(3) Save files to individual home directories	
	(4) Use multiple storage devices and directories	
	(5) Know the importance of password security	
	(6) Send/receive electronic mail	
8.1.4.A.8. Use a graphic organizer.	8.1.8.A.11. Choose appropriate electronic graphic organizers to create, construct, or design a document.	
a. Use a graphical organizer program to organize ideas and information and categorize objects.	a. Use a graphical organizer program to construct outlines or webs that organize ideas and information	
(1) Create a concept map with at least three components.		
<i>LAL 3.1.3.E. 4; 3.1.4.E.3; 3.1.5.E.5; 3.1.6.E.6; 3.2.2.A.6; 3.2.3.A.3; 3.2.4.A.3; 3.2.6.A.4; 3.2.7.A.3; 3.2.8.A.3; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply</i>		
8.1.4.A.9. Use basic computer icons.	8.1.8.A.12. Create, organize and manipulate shortcuts.	→
a. Use pull down menus and scroll bars		
b. Use basic icons related to programs appropriate for level		
c. Starts applications from the desktop		
d. Recognizes common icons (ex: print, save,	→	

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copy/paste)		
	8.1.8.A.9. Plan and create a simple database, define fields, input data, and produce a report using sort and query.	8.1.12.A.4. Given a database, define fields, input data from multiple records, produce a report using sort and query, and interpret the data.
	a. Create and save database	a. Create and edit data
	(1) Identify document purpose through the title	(1) Add fields to a record
	(2) Specify data organization	(2) Add and delete records from a database file
	(3) Name fields	(3) Delete a field from a record
	(4) Set field attributes	(4) Save updated records
	(5) Enter data in a consistent form	(5) Determine appearance of page
	(6) Edit data as needed	(6) Insert headers/footers
		(7) Arrange information using sorts and queries
		(8) Query a database for specific information
		(9) Manipulate numeric fields
		(10) Import and export database information to spreadsheets and documents
		(11) Create links within a relational database
		(12) Draw conclusions from a database query or report
	b. Retrieve data	
	(1) Sort	
	(2) Search for specific data by field	
	(3) Create and print reports	
	c. Edit data	
	(1) Add records to a file	
	(2) Determine appearance	
	d. Print report	
		6. Produce and edit page layouts in different formats using desktop publishing and graphics software.
		a. Use desktop publishing techniques
		(1) Prepare brochures and other desktop publications
		(2) Use hyperlinks in document
		7. Develop a document or file for inclusion into a website or web page.
		See 5.b.1 above
		8. Discuss and/or demonstrate the capability of emerging technologies and software in the

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		creation of documents or files.
		a. Choose a career areas and explain how technology and software is used in various jobs within the career cluster through a report or paper

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A. Application of Productivity Tools

8.1.4.B. Social Aspects Grade 4	8.1.8.B. Social Aspects Grade 8	8.1.12.B. Social Aspects Grade 12
1. Discuss the common uses of computer applications and identify their advantages and disadvantages.	1. Demonstrate an understanding of how changes in technology impact the workplace and society.	1. Describe the potential and implications of contemporary and emerging computer applications for personal, social, lifelong learning, and workplace needs.
a. Use a word processor in a real world context to:	a. Use a word processor in a real world context to:	→
(1) Write stories or poems	(1) Cite works	
(2) Type reports		
(3) Generate letters		
(4) Describe everyday uses for word processing, spreadsheet and presentation software		
(5) When given a task, choose the appropriate tool to use		
b. Identify uses of technology in the home and community	b. Identify uses of technology in various occupations and places of work in your community and society in general	
<i>LAL 3.5.4.B.1; 3.5.5.B.1; 3.5.6.B.1; 3.5.8.A.4; 3.5.8.B.1; 5.2.8.A.3; Science 5.1.8.B.2; 5.1.12.B.2; 5.1.12.B.2; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career Education 9.1.8.3; 9.1.12.A.5; 9.1.8.B.1; 9.1.12.Further.2; 9.1.12.A.5</i>		
2. Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including:	2. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.	2. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.
<ul style="list-style-type: none"> • Internet access • Copyrighted materials • On-line library resources • Personal security and safety issues • 		
a. Shows understanding of appropriate legal/ethical conduct by:	a. Shows understanding of appropriate legal/ethical conduct by:	→
(1) Knowing the importance of password security and uses password	(1) Demonstrating appropriate use of computers	

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8.1.4.B. Social Aspects Grade 4	8.1.8.B. Social Aspects Grade 8	8.1.12.B. Social Aspects Grade 12
(2) Demonstrates understanding of the district's Acceptable Use Policy	→	→
(3) Demonstrates understanding of copyright materials on the Internet		
(4) Identifies author and copyright information on a given web page		
(5) Exhibits understanding of guidelines regarding disclosure of personal information on the web.		
<i>LAL 3.5.7.B.2</i>		

	3. Explain the purpose of an Acceptable Use Policy and the consequences of inappropriate use of technology.	→
	a. Shows understanding of appropriate legal/ethical conduct by:	
	(1) Demonstrating appropriate use of computers	
3. Practice appropriate Internet etiquette.	4. Describe and practice safe Internet usage.	3. Make informed choices among technology systems, resources, and services in a variety of contexts.
a. Shows understanding of appropriate legal/ethical conduct by:	a. Shows understanding of appropriate legal/ethical conduct by:	a. Shows understanding of appropriate legal/ethical conduct by:
(1) Practicing appropriate Internet/telecommunications etiquette	(1) Demonstrating appropriate use of computers	(1) Send and receive e-mails
(2) Adhering to the district technology acceptable use policy		(2) Use Internet as a research tool
(3) Uses electronic mail in the appropriate manner for audience.		(3) Compress/decompress files for transfer over the Internet
		(4) Add attachments to e-mail document
		(5) Integrate Internet information into a word processing document or a presentation
	5. Describe and practice "etiquette" when using the Internet and electronic mail.	→
	a. Shows understanding of appropriate	

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	<p>legal/ethical conduct by:</p> <p>(1) Demonstrating appropriate use of computers</p>	
<p>4. Recognize the ethical and legal implications of plagiarism of copyrighted materials.</p>	→	→
<p>a. Shows understanding of appropriate legal/ethical conduct by:</p>		
<p>(1) Obeying copyright laws and identifies sources</p>		
<p>(2) Respects intellectual freedom and intellectual property rights</p>		
<p><i>LAL 3.1.6.A.3; 3.2.4.A.8; 3.2.12.D.4; 3.5.7.A.1; 3.5.7.A.; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply</i></p>		
		<p>4. Use appropriate language when communicating with diverse audiences using computer and information literacy.</p>
		<p>See 3 above</p>

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B. Application of Productivity Tools: Information Access and Research

3.1.4.B. Information Access and Research Grade 4	3.1.8.B. Information Access and Research Grade 8	3.1.12.B. Information Access and Research Grade 12
5. Recognize the need for accessing and using information.	6. Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to: <ul style="list-style-type: none"> • On-line resources and databases • Search engines and subject directories 	6. Identify new technologies and other organizational tools to use in personal, home, and/or work environments for information retrieval, entry, and presentation.
a. Accesses information efficiently and effectively:	a. Accesses information efficiently and effectively	→
(1) Recognizes need for accessing and using information sources (Internet, etc.)	(1) Identifies the need for information and formulate questions	
b. Accessing resources:	b. Accessing resources:	
(1) Selects Internet resources, web browsers, search engines, directories and online databases	(1) Select appropriate search tools	
(2) Identifies resources		
c. Evaluates resources and information:	c. Evaluates resources and information:	
(1) Recognize accuracy among fact, point of view and opinion	(1) Selects appropriate resources for specific information needs	
(2) Selects appropriate resources for specific information needs	(2) Evaluates resources as to accuracy, relevance and comprehensiveness	
(3) Explains the advantages and disadvantages of digital resources (ex.: Internet) and print materials.	(3) Evaluates Internet sites for current content appropriateness, and bias	
	d. Uses information accurately and creatively	
	(1) Identifies useful information from information to solve problems and make a decision	
	(2) Organizes information using electronic graphic organizers	
	(3) Uses information in critical thinking and problem solving, compares sources, and trends in data	
<i>LAL 3.1.3.H.1; 3.1.4.H.1; 3.1.5.H.1; 3.1.6.H.2; 3.1.7.H.4; 3.1.8.H.4; Science 5.1.B.3; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career Education 9.1.12.B.3</i>		

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6. Identify and use web browsers, search engines, and directories to obtain information to solve real world problems.	→	
a) Demonstrates an understanding of risks when using general search engines in terms of inaccuracy and age-appropriate information		
b) Uses child-safe search engines to research new topics.		
7. Locate specific information by searching a database.		5. Select and use specialized databases for advanced research to solve real world problems.
a) Searches a child-safe web database to find relevant information		See section on databases
<i>LAL 3.1.5.H.6</i>		
8. Recognize accuracy and/or bias of information.	7. Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources.	7. Evaluate information sources for accuracy, relevance, and appropriateness.
a. Accessing resources:	a. Accesses information efficiently and effectively:	→
(1) Internet resources, web browsers, search engines, directories, and online databases	(1) Recognize the need for accessing and using information sources (Internet, etc.)	→
	(2) Appropriate search tools	
b. Evaluates resources and information	b. Evaluates resources and information:	
(1) Recognize accuracy among fact, point of view and opinion	(1) Selects appropriate resources for specific information needs	
(2) Identifies web page author and discusses possible issues on bias and accuracy	(2) Evaluates resources as to accuracy, relevance and comprehensiveness	
	(3) Evaluates Internet sites for current content, appropriateness, and bias	
	c. Uses information accurately and creatively	
	(1) Identifies useful information to solve a problem and make a decision	
	(2) Organizes information using electronic graphic organizers	
		8. Compose, send, and organize e-mail

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		messages with and without attachments. See A.3.a above
<i>LAL 3.1.7.G.3; 3.1.12.H.1; 3.5.12.B.1; 3.5.12.C.1 & 3; 6.1.2.A.3; 6.1.4.A.3; Social Studies 6.1.8.A.2; 6.1.12.A.8; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply</i>		

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B. Application of Productivity Tools – Problem Solving and Decision Making

3.1.4.B. Problem Solving and Decision Making Grade 4	3.1.4.B. Problem Solving and Decision Making Grade 8	3.1.4.B. Problem Solving and Decision Making Grade 12
9. Solve problems individually and/or collaboratively using computer applications.	8. Use computer applications to modify information independently and/or collaboratively to solve problems.	9. Create and manipulate information, independently and/or collaboratively, to solve problems and design and develop products.
a. Use computers to solve problems visually	a. Use developmentally appropriate software and resources	→
(1) Identify, discuss, and visually present ways technology has changed the lives of people in New Jersey	(1) Select and use technology tools to collect, analyze, and display information for content assignments	→
b. Work cooperatively when using technology	b. Work cooperatively as part of a team when using technology	
(1) Works in a group setting on collaborative projects (such as a presentation or research)		
c. Use software programs to integrate learning across curricular areas in projects and presentations	c. Use software programs to integrate learning across curricular areas in projects, portfolios, and presentations	
10. Identify basic hardware problems and solve simple problems.	9. Identify basic hardware problems and demonstrate the ability to solve common problem.	10. Identify, diagnose, and suggest solutions for non-functioning technology systems.
a. Reboots computer to handle minor problems	a. Use basic trouble-shooting techniques: restart, force quit; cable check, etc.	→
b. Resolves minor software and web page errors		
	10. Determine when technology tools are appropriate to solve a problem and make a decision.	11. Identify a problem in a content area and formulate a strategy to solve the problem using brainstorming, flowcharting, and appropriate resources.

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3.1.4.B. Problem Solving and Decision Making Grade 4	3.1.4.B. Problem Solving and Decision Making Grade 8	3.1.4.B. Problem Solving and Decision Making Grade 12
	a. Explore careers that use computer and information literacy and types of technology tools used	a. Use technology to store examples of work in an electronic portfolio system
		12. Integrate new information into an existing knowledge base and communicate the results in a project or presentation.
		a. Use technology to complete a project or presentation
		(1) Use technology to store examples of work in an electronic portfolio system
<i>See Comprehensive Health and Physical Education 2.1.6.A.5, 2.1.12.A.4, 2.6.4.A.5, 2.6.12.C.3; 3.1.12.G.13; Mathematics 4.5.F.5; 4.5.F.6; Science 5.1.4.B.1; Science 5.5.12.C.3; 5.8.8.D.1; 5.8.8.D.2; 5.9.12.D.1; 5,10.12.B.2; Social Studies 6.6.8.D.1; 6.6.12.E.8; World Languages All use of interpretive, interpersonal, and presentational mode for communications and culture may apply; Career Education 9.2 8.A.4; 9.2.12.A.4; 9.2.B.2</i>		