

Technology Literacy Curriculum based on 3 Standards:

Standard 1. Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.

This standard includes: proficiency in basic productivity tools such as word processing, spreadsheet, database, electronic research, e-mail, and applications for presentations and graphics; conceptual understandings of the nature and operation of technology systems; and learning and adapting to new and emerging technology tools.

Standard 2. Demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media at home, in school, and in society.

This standard relates to social, ethical, and human issues. It promotes positive attitudes toward the uses of technology, as well as responsible use of information. This standard also includes recognition of technology's impact on civic participation, the democratic process, and the environment; aims to ensure that students understand general rules for safe Internet practices, including how to protect their personal information on the Internet; is to help students develop an awareness of the personal image that they convey through the information they post on the Internet; aims to ensure that students understand federal and state laws regarding computer crimes; and supports students in exhibiting leadership for digital citizenship.

Standard 3. Demonstrate the ability to use technology for research, critical thinking, problem solving, decision making, communication, collaboration, creativity, and innovation.

This standard focuses on applying a wide range of technology tools to student learning and everyday life; aims to ensure that students will be able to use technology to process and analyze information; is to help students develop skills for effective technology-based communication; includes the use of technology to explore and create new ideas, identify trends, and forecast possibilities; and aims to provide students with an awareness of how technology is used in the real world.

Kindergarten-Grade 2

	Kindergarten	Grade 1	Grade 2
Basic Operations	Demonstrate the beginning steps in using available hardware and applications (turn on a computer, launch a program, use a pointing device such as a mouse)		
	Identify icons (Recycle Bin/trash folder, etc)	Demonstrate the use of icons (recycle bin/trash folder)	Explain that icons (recycle bin/trash folder) are symbols used to signify a command, file, or application
	Identify the functions of basic file menu commands (New, Open, Close, Save, Print)	Recognize the functions of basic file menu commands (New, Open, Close, Save, Print)	Execute basic file menu commands (New, Open, Close, Save, Print)
	Kindergarten	First Grade	Second Grade
Word Processing and Desktop Publishing	Identify, discuss, and use word processing as a tool to enter letters, numbers and words	Identify, discuss, and use word processing as a tool to enter numbers, words, and phrases.	Recognize, discuss, and use word processing as a tool to enter/edit, print, and save assignments
	Identify, locate and use special keys (e.g., arrow keys, space bar, Shift, Enter/Return, Backspace, Delete), letters, and numbers on the keyboard.	Identify and use letters, numbers and special keys (e.g., arrow keys, space bar, Shift, Enter/Return, Backspace, Delete) on the keyboard.	Use and discuss basic word processing terms/concepts (e.g., desktop, menu/tool bar, document, text).
	Identify basic word processing terms (File, Menu Bar, cursor, open, save)	Identify and use basic word processing terms (File, Menu Bar, cursor, open, save)	Identify and use correct finger placement for home row keys
		Identify, discuss, and use menu/tool bar functions in word processing applications	Identify and use menu/tool bar features/functions in word processing documents.

	Kindergarten	First Grade	Second Grade
Database/Spreadsheet (Tables/Charts/Graphs)	Identify graphing as a tool for organizing information as a class	Identify graphing as a tool for organizing information	Identify and discuss print and electronic databases (e.g., phone book, automated circulation system, CD-ROM encyclopedias) as a way to collect, organize, and display data.
	Use Manipulative and graphing software to organize and display data as a class	Observe, discuss, and use software to enter, calculate, display data, and interpret results as a class/group	Identify and discuss terms/concepts sort, search/filter, keyword using electronic databases (e.g., automated circulation system, electronic encyclopedias).
			Identify and discuss spreadsheet terms/concepts (e.g., sort, classify, line graphs)
			Enter/edit data in a prepared spreadsheet as a class/group and observe the changes that occur to make predictions
			Enter/edit data in a prepared spreadsheet as a class/group and observe the changes that occur to make predictions

	Kindergarten	First Grade	Second Grade
Multimedia/ Presentation	Identify and discuss characteristics of multimedia (e.g., text, sound, images, color) as a class.	Recognize the characteristics of multimedia (e.g., text, sound, images, color) as a class.	Identify and use multimedia terms/concepts (e.g., storyboard, linear/sequential, audio/video clips, images).
	Identify and discuss multimedia terms/concepts beginning, middle, and end by arranging pictures in linear/sequential order as class/group	Identify and discuss multimedia terms/concepts (eg., slide/card, link/button, text box, navigate, transition) as a class/group activity	Identify and discuss issues (e.g., personal information, images, appropriateness and accuracy of information) to consider in selection and use of materials for multimedia projects.
	Use multimedia software to identify and practice letters, numbers, shapes, and colors as a class/group	Recognize and discuss responsible uses of multimedia resources	Identify and use multimedia tools to combine text and graphics as a class/group assignment.
		Recognize, discuss, and cite various types of resources as a class	Identify, discuss, and cite resources for a class/group multimedia project.
		Use multimedia software to illustrate words/phrases/concepts	Modify/edit an existing linear/sequential multimedia story to include student narration as a class/group activity.
		Identify the purpose of a media message (to inform, persuade or entertain).	

	Kindergarten	First Grade	Second Grade
Internet	Identify and discuss the internet as a source of information at school and home.	Identify and discuss terms/concepts (e.g., bookmarks/favorites, information).	Identify terms/concepts (e.g., online, browser, navigation, resources, web address, webpage, weblinks).
	Identify and discuss terms and concepts (online, digital information, Internet, links).	Identify and discuss ownership of creative work online of individuals/groups/companies/and the importance of citing sources as a class.	Identify responsible and safe online behavior and discuss why it is important.
	Use teacher-selected Internet resources/information to explore, identify, and discuss responsible use as a class activity	Explore Internet resources and information using teacher-created bookmarks/favorites and discuss the variety and types of information found as a class activity.	Identify online resources as the work of individuals/groups/companies and discuss why citing resources is necessary.
	Use teacher-selected internet resources/information to discuss ownership of creative works of individuals/groups/companies/as a class activity	Use teacher-selected internet resources/information to identify, discuss, and chart elements that make an online resource useful, appropriate, and safe as a class.	Identify and discuss telecommunications/Internet as a tool for communication and collaboration as a class.
Ethics	Introduce classroom rules for the responsible use of computers, peripheral devices and resources	Review classroom rules for the responsible use of computers, peripheral devices and resources	Follow classroom rules for the responsible use of computers, peripheral devices and resources.
Classroom/Society	Introduce why there are rules for using technology at home and at school	Review rules for using technology at home and at school	Explain why there are rules for using technology at home and at school.
Health/Safety	Introduce the school rules for safe and ethical internet use	Review the school rules for safe and ethical internet use.	Review and follow the school rules for safe and ethical internet use.
	Explain the security purpose of a password	Explain that a password help protect privacy of information	Explain why it is important to not share your password with anyone.

	Grade 3	Grade 4	Grade 5
Basic Operations	Identify the function of common computing devices (e.g., input, output, processing).	Recognize, discuss, and use network terms/concepts (e.g., stand alone, network, file server, LANs, network resources).	Recognize, discuss, and use terms/concepts related to the protection of computers, networks and information (e.g., virus protection, network security, passwords, firewalls, privacy laws).
	Select and use appropriate features and functions of hardware and software for class assignments.	Identify and discuss the benefits of non-networked and networked computers.	Identify and discuss appropriate technology tools (virus software) to protect computers, networks, and information from vandalism and intrusion.
	Discuss and select appropriate technology tools (e.g., probeware, digital cameras, handhelds) to collect, analyze, and display data	Discuss and select appropriate technology tools (e.g., probeware, digital camera, scanners) to collect, analyze, and display information for content assignments.	Select and use appropriate technology tools (e.g., probeware, digital camera, scanners) to collect, analyze, and display information for content assignments.
	Introduce basic steps in using available hardware and applications (e.g., log into a computer, connect/disconnect peripherals, and upload files from peripherals).	Review basic steps in using available hardware and applications (e.g., log into a computer, connect/disconnect peripherals, upload files from peripherals).	Demonstrate without assistance basic steps in using available hardware and applications (e.g., log into a computer, connect/disconnect peripherals, and upload files from peripherals).
	Introduce various operating system features (e.g., open more than one application/program, work with menus, use the taskbar/dock).	Review various operating system features (e.g., open more than one application/program, work with menus, use the taskbar/dock).	Demonstrate various operating system features (e.g., open more than one application/program, work with menus, use the taskbar/dock).
	Demonstrate correct finger placement for home row keys.	Demonstrate beginner (8-10 wpm) keyboarding skills and proper keyboarding techniques	Demonstrate intermediate (12-15 wpm) keyboarding skills and proper keyboarding techniques
	Identify and use formatting terms/concepts (e.g., font size/style, line spacing, margins, italic).		

	Third Grade	Fourth Grade	Fifth Grade
Word Processing/Desktop Publishing	Recognize that Copyright Laws protect creative works of individuals/groups/companies.	Recognize and discuss the importance of citing sources of copyrighted materials in documents.	Recognize and explain the advantages and disadvantages of using word processing to create content area projects/products.
	Use menu/tool bar functions (e.g., font size/style, line spacing) to format and change the appearance of word processing documents as a class/group.	Use published documents (e.g., letter, memo, newspaper) to identify and discuss document design and layout as a class.	Demonstrate appropriate use of copyrighted materials in word processing documents used for content projects/assignments.
	Use word processing as a tool to write, edit, and publish sentences, paragraphs, and stories.	Identify, discuss, and use terms/concepts of menu/tool bar (e.g., print preview, WYSIWIG , page setup, Spell Check, thesaurus) in word processing documents as a class.	Identify, discuss and use WP/DTP menu/tool bar terms/concepts (e.g., import, portrait, landscape, copy and paste between two documents) to describe assignments/projects.
		Use word processing as a tool for writing, editing, and publishing paragraphs, stories, and assignments	Demonstrate knowledge of WP/DTP tools to develop documents, which include data imported from a spreadsheet/database as a class/group.
		Use menu/tool bar features (e.g., print preview, Spell Check, thesaurus) to edit and make corrections to documents as a class/group activity.	Select and use WP/DTP menu/tool bar features to edit/revise and change existing documents/projects/assignments.

	Third Grade	Fourth Grade	Fifth Grade
Database	Identify, discuss, and visually represent uses of databases in the community (e.g., school, grocery, pharmacy, business) to collect, organize, and display information.	Identify, discuss, and visually represent how and why databases are used in Massachusetts (e.g., schools, government, business, and science) to collect and organize information.	Recognize and discuss how and why databases are used in society
	Identify, discuss, and use database terms (e.g., data entry, field, record, list, sort, search/filter, keyword).	Sort and search/filter a prepared content area database for information and use correct terms/concepts to explain strategies used as a class activity.	Use knowledge of database terms/concepts and functions to find information in prepared content area databases and describe strategies used.
	Use prepared databases to search/filter and sort alphabetically/numerically in ascending/descending order.	Plan and use two criteria to search/filter prepared databases to locate and organize information for content assignments.	Cite sources of information from content area databases used in assignments.
	Modify prepared databases to enter/edit additional information and cite the source.	Use databases to analyze and evaluate information in content areas and cite sources.	Create/modify simple content area databases to enter/edit, collect, organize, and display content data for class/group assignment/project, citing resources.
	Plan, discuss, and use keyword search/filter using one criterion in prepared databases.	Discuss, plan, and develop simple databases in content area to enter/edit, collect, organize, and display content data as a class.	Select and use search strategies with two or more criteria in prepared databases to locate, organize, and present information for content area assignments.
			Use content area databases to analyze, evaluate, organize, and compare information for assignments.

	Third Grade	Fourth Grade	Fifth Grade
Spreadsheet	Recognize spreadsheets as a tool to organize, calculate, and graph information to make predictions.	Identify and discuss how spreadsheets are used to calculate and graph data in a variety of settings (e.g., schools, government, business, industry).	Recognize, discuss, and explore how spreadsheets are used to calculate, graph, and represent data in a variety of settings (e.g., schools, government, business, industry, mathematics, science).
	Identify and discuss spreadsheet terms/concepts (e.g., cell, column, row, values, labels, chart, graph).	Identify, discuss, and use the spreadsheet terms/concepts (e.g., cell, column, row, values, labels, graph, formula).	Use spreadsheet terms/concepts and functions (e.g., median, range, mode) to calculate, represent, and explain content area assignments.
	Enter/edit data in a prepared spreadsheet to perform calculations. Identify and discuss the changes that occur as a class/group.	Enter/edit data in prepared spreadsheets to perform calculations using simple formulas (+, -, *, /) and observe the changes that occur.	Modify/create and use spreadsheets to solve problems by performing calculations using simple formulas and functions (e.g., +, -, *, /, average).
	Recognize, discuss, and use graphs to display and interpret data in prepared spreadsheets; identify and cite sources.	Use spreadsheets and graphs to organize, calculate, and display data in content areas.	Create/modify simple content area spreadsheets to enter/edit, calculate, organize, and display content data for class/group assignment/project, citing resources.
	Enter/edit data in a prepared spreadsheet to perform calculations and determine which graph best represents the data as a class/group.	Enter data into prepared spreadsheets and select graph to best represent data and cite sources of data	Cite sources of copyrighted data used in spreadsheets to analyze, interpret, and display findings in content areas.
		Use spreadsheet data and graphs to make predictions, solve problems, and make decisions in content areas as a class/group.	Enter/edit data into a spreadsheet to test simple "what if..." statements to solve problems and make decisions in content area.

	Third Grade	Fourth Grade	Fifth Grade
Multimedia/Presentation	Identify and discuss guidelines for media (e.g., personal information, images, content, language) to consider in developing multimedia projects as a class.	Identify and discuss the use of multimedia tools to report content area information.	Recognize and explain the advantages and disadvantages of using multimedia to develop content area projects/products.
	Identify and discuss use of rubrics to define and evaluate elements (e.g., content, purpose, usefulness) of class multimedia projects.	Recognize, discuss, and use multimedia terms/concepts (e.g., navigation buttons, transitions, links/hyperlinks, animation).	Identify and discuss multimedia terms/concepts (e.g., menu, branching, navigation, multimedia, design).
	Identify, discuss, and use multimedia tools (e.g., capture, create, edit, publish).	Recognize, discuss, and use Copyright and Fair Use Guidelines in multimedia projects by explaining selection and use of resources as a class.	Demonstrate knowledge of Copyright and Fair Use Guidelines by explaining selection and use of resources in content projects/assignments.
	Modify/edit an existing multimedia project to include branching and identify added sources as a class.	Recognize and discuss guidelines for media (e.g., personal information, images, content, language) to consider in developing multimedia projects as a class/group.	Use menus and branching to modify/create non-linear projects/products in content areas.
	Identify, discuss, and use multimedia to present ideas/concepts/information in a variety of ways as a class.	Storyboard and modify multimedia projects with menus, branching and/or multiple outcomes for content areas, citing sources as a group activity.	Use student-generated rubrics to evaluate multimedia presentations for elements (e.g., organization, content, design, presentation, citation).
		Recognize, discuss, and use rubrics to evaluate elements (e.g., content, organization, appropriateness of materials, citations) of multimedia projects/products.	Recognize, discuss, and establish ethical guidelines for use of personal and copyrighted media (e.g., images, music, video, content, language) in multimedia projects and presentations as a

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Internet, Networking, and Online Communication	Identify, discuss, and use terms/concepts (e.g., web browser, URL, keyword, search engine, weblinks).	Recognize and discuss telecommunications terms/concepts (e.g., browser, keyword, URL, hypertext, www)	Recognize, discuss, and use online terms/concepts (e.g., search strategies, citing resources, filters, AUP/IUP).
	Recognize, discuss, and demonstrate responsible and safe online behavior as a class/group.	Recognize, discuss, and model responsible and safe behavior using online resources as a class/group/individual.	Model and explain the importance of ethical, responsible, and safe behavior when using networked digital information (e.g., Internet, mobile phone, wireless, LANs).
	Identify cyber-bullying and describe strategies to deal with such a situation	Identify cyber-bullying and describe strategies to deal with such a situation	Identify cyber-bullying and describe strategies to deal with such a situation
	Cite sources of information (print and nonprint) for a class project.	Plan, discuss, and use search strategies with two or more criteria to find information online about Massachusetts as a class/group.	Select, discuss and evaluate digital resources and information for content, accuracy, usefulness and cite sources.
	Identify and discuss collaborative tools (e.g., email, messaging, videoconferencing).	Identify, discuss, and use online collaborative tools (e.g., email, surveys, videoconferencing) to collect data for content area assignments/projects.	Recognize, discuss, and/or use email/videoconferencing/webconferencing as a means of interactive communications
	Investigate teacher-selected Internet resources about communities; discuss and compare findings for usefulness as a class.	Locate, select, organize, and present content area information from the Internet for a specific purpose and audience, citing sources.	Use evaluation tools to select Internet resources and information for content and usefulness in content area assignments.
		Use a rubric as a guide to select, evaluate digital resources and information for content and usefulness in content area assignments as a class.	

	Third Grade	Fourth Grade	Fifth Grade
Ethics	Explain compliance with school rules (Acceptable Use Policy) regarding responsible use of computers and networks	Review compliance with school policy rules (Acceptable Use Policy) regarding responsible use of computers and networks.	Demonstrate compliance with school rules(Acceptable Use Policy) regarding responsible use of computers and networks.
	Introduce how hardware and applications can enable people with disabilities to learn.	Explain how hardware and applications can enable people with disabilities to learn.	Explain how hardware and applications can enable people with disabilities to learn.

	Sixth Grade	Seventh Grade	Eighth Grade
Basic Operations	Identify and discuss minor hardware and software issues/problems as a class/group.	Identify and describe the effect technological changes have had on business, transportation, communications, industry, and agriculture in a global society	Demonstrate, discuss, and visually represent knowledge of changes in information technologies and the effect those changes have on Massachusetts and society.
	Identify and discuss technology skills needed in the workplace and how they impact school students today as a class/group.	Use network terms and concepts related to local and wide area networks (LANs, WANs) and Internet connectivity.	Use technology terms/concepts to describe and explain strategies used to collect, organize, and present findings for assignments/projects.
	Recognize, discuss, and use multi-tasking concepts (e.g., windows, toggle between two windows on the desktop, copy and paste data between two windows on the desktop).	Investigate technology knowledge and skills needed for the workplace now and in the future.	Investigate computer/technology-related careers/occupations, past, present, and future.
	Investigate, discuss, and explain why computers, networks, and information must be protected from viruses, vandalism and intrusion, both malicious and mischievous (AUP/IUP).	Demonstrate knowledge of strategies for identifying and solving minor hardware and software problems.	Recognize and describe strategies for identifying, solving, and preventing minor hardware and software problems.
	Select and use responsibly a variety of computing devices (e.g., probeware, handhelds, digital cameras, scanners) to collect, analyze and present content area information	Select and use appropriate technology tools to solve problems and make decisions in content areas.	Select and use a variety of technology tools to collect, analyze, and present information.

	Sixth Grade	Seventh Grade	Eighth Grade
Word Processing/ Desktop Publishing	Identify, discuss and use WP/DTP terms/concepts (e.g., minimize document, resize document, toggle between two open documents on the desktop).	Demonstrate knowledge of the advantages/disadvantages of using word processing to develop, publish, and present information to a variety of audiences.	Demonstrate knowledge of the advantages/disadvantages of using word processing to develop, publish, and present information to a variety of audiences.
	Demonstrate appropriate use of copyrighted materials in word processing documents used for content projects/assignments.	Demonstrate knowledge and use of WP/DTP terms/concepts (e.g., columns, tables, using multiple files and/or applications) to create and publish assignments/projects.	Review and use WP/DTP terms/concepts to describe and explain how assignments/projects were created.
	Use proper keyboarding techniques to improve accuracy, speed and general efficiency in computer operation	Demonstrate appropriate use of copyrighted materials in word processing documents used for content projects/assignments.	Demonstrate appropriate use of copyrighted materials in word processing documents used for content projects/assignments.
	Use WP/DTP menu/tool bar features to publish for a specific audience and purpose.	Use proper keyboarding techniques to improve accuracy, speed, and general efficiency in computer operation.	Use proper keyboarding techniques to improve accuracy, speed, and general efficiency in computer operation.
	Demonstrate knowledge of the advantages/disadvantages of using multimedia	Demonstrate knowledge and use of WP/DTP features (e.g., columns, tables, headers/footers) to format and publish content projects/products	Select and use WP/DTP features/functions to develop, edit/revise, and publish documents/assignments.
	Demonstrate knowledge of the advantages/disadvantages of using word processing to develop, publish, and present information to a variety of audiences.	Demonstrate use of WP/DTP features/functions to design, format, layout, and publish assignments.	Develop and use rubrics to evaluate the quality of published documents/projects for content, design, and appropriate use of resources.
	Select and use WP/DTP features/functions to design, format, and publish assignments/products.		

	Sixth Grade	Seventh Grade	Eighth Grade
Database	Recognize and discuss how and why databases are used to collect, organize, and analyze information in a variety of settings.	Demonstrate knowledge of why databases are used to collect, organize, and report information in a variety of settings	Demonstrate knowledge of and explain how databases are used in an information-intensive society.
	Identify and use database terms/concepts (e.g., reports, layout, format) to describe and explain findings.	Use knowledge of database terms/concepts, functions, and operations to describe and explain content area findings.	Use knowledge of database terms/concepts, functions, and operations to explain strategies used to organize, analyze, and report information in content area assignments.
	Cite sources of information used in content area databases.	Cite sources of information used in content area databases.	Cite sources of information used in content area databases
	Plan and develop database reports to organize, explain, and display findings in content areas as class/group.	Select and use two or more criteria to organize, interpret, and display content data and explain strategies used.	Modify/create and use databases to organize, report, and display data
	Develop and use search strategies with two or more criteria to solve problems and make decisions in content areas	Modify/edit databases to organize, analyze, interpret data, and create reports (e.g., documents, multimedia project, webpages).	Select and use appropriate database features and functions to collect, organize information to solve problem in content areas and explain strategies used
	Use database sort and search/filter strategies to organize, analyze, interpret, and evaluate findings in content areas and cite sources.	Evaluate and use database data and reports to solve problems and make decisions in content areas.	Modify/create and use databases to analyze, interpret, and evaluate data and report findings.

	Sixth Grade	Seventh Grade	Eighth Grade
Spreadsheet	Recognize and discuss use of spreadsheets to calculate, graph, and present data in a variety of settings (e.g., schools, government, business, industry, mathematics, science).	Demonstrate knowledge that spreadsheets are used to process information in a variety of settings (e.g., schools, government, business, industry, mathematics, science).	Recognize, discuss, and investigate how spreadsheets in a variety of settings (e.g., schools, government, business, industry, transportation, communications).
	Use spreadsheet terms/concepts and functions to calculate, represent, and explain content area findings.	Use spreadsheet and graphing terms/concepts to present and explain content area assignments	Use spreadsheet and graphing terms/concepts to present and explain content area assignments.
	Enter/ edit data and use spreadsheet features and functions to project outcomes and test simple “what if…” statements in content assignments.	Cite sources of information used in content area spreadsheets.	Use spreadsheet and graphing terms/concepts to present and explain content area assignments
	Select and use chart/graph functions to analyze and display findings in content projects, citing data sources.	Enter/edit data and use spreadsheet features and functions to project outcomes and test simple “what if…” statements in content assignments.	Cite sources of information used in content area spreadsheets.
	Modify/create spreadsheets to calculate and graph data to incorporate into content area projects (e.g., word processing, multimedia, webpages).	Modify/create spreadsheets and graphs/charts to analyze and interpret data for content assignments.	Use spreadsheet features/functions to calculate and present findings for content area assignments.
	Modify/create and use spreadsheets to solve problems, make decisions, support, and display findings in content areas projects.	Create/modify spreadsheets to test simple “what if…” statements to solve problems and make decisions in content areas.	Create/modify spreadsheets to analyze and interpret information, test simple “what if…”, solve problems, and make decisions in content areas.

	Sixth Grade	Seventh Grade	Eighth Grade
Multimedia Presentation	Demonstrate knowledge of multimedia tools/concepts used by media (e.g., games, video, radio/TV broadcasts, websites) to entertain, sell, and influence ideas and opinions.	Recognize, discuss, and establish ethical guidelines for use of personal and copyrighted media (e.g., images, music, video, content, language) in multimedia projects and presentations as a class/group	Demonstrate knowledge of multimedia tools/concepts used by media (e.g., games, video, radio/TV broadcasts, websites) to entertain, sell and influence ideas and opinions.
	Demonstrate knowledge of multimedia by using terms/concepts to describe and explain content projects/ products.	Recognize, discuss, and model correctly formatted citations for copyrighted materials and adhere to Fair Use Guidelines.	Use multimedia terms/concepts correctly to describe and explain projects/products.
	Recognize, discuss, and establish ethical guidelines for use of personal and copyrighted media (e.g., images, music, video, content, language) in multimedia projects and presentations as a class/group.	Demonstrate knowledge of multimedia tools/concepts used by media (e.g., games, video, radio/TV broadcasts, websites) to entertain, sell, and influence ideas and opinions.	Recognize, discuss, and establish ethical guidelines for use of personal and copyrighted media (e.g., images, music, video, content, language) in multimedia projects and presentations as a class/group.
	Recognize, discuss, and model correctly formatted citations for copyrighted materials and adhere to Fair Use Guidelines.	Demonstrate knowledge of multimedia by using terms/concepts to describe and explain content projects/products.	Recognize, discuss, and model correctly formatted citations for copyrighted materials and adhere to Fair Use Guidelines.
	Plan, design, and develop a multimedia product using data (e.g., graphs, charts, database reports) to present content information in the most effective way, citing sources.	Create/modify and use rubrics to evaluate multimedia presentations for elements (e.g., organization, content, design, appropriateness	Plan, design, and develop a multimedia product using data (e.g., graphs, charts, database reports) to present content information.
	Create/modify and use rubrics to evaluate multimedia presentations for elements (e.g., organization, content, design, appropriate for target audience, effectiveness, ethical use of sources).	Plan, design, and develop a multimedia product using data (e.g., graphs, charts, database reports) to present content information in the most effective way, citing sources.	Create/modify and use rubrics to evaluate multimedia presentations for content, design, appropriateness for target audience, and effective and ethical use of resources.

	Sixth Grade	Seventh Grade	Eighth Grade
Telecommunications /Internet	Identify and discuss terms/concepts associated with safe, effective, and efficient use of the telecommunications /Internet (e.g., password, firewalls, Spam, security, Fair Use, AUP/IUP's).	Recognize and use terms/concepts (e.g., IP address, Intranet, private networks, discussion forum, threaded discussion).	Use appropriate terms/concepts to describe telecommunications tools and resources used to develop and complete assignments.
	Demonstrate knowledge of Copyright and Fair Use Guidelines by explaining selection and use of Internet resources in content projects/assignments.	Demonstrate knowledge of responsible, safe, and ethical use of networked digital information (e.g., Internet, mobile phone wireless, LANs).	Demonstrate knowledge of responsible, safe, and ethical use of networked digital information (e.g., Internet, mobile phone wireless, LANs).
	Select and justify the use of appropriate online collaborative tools (e.g., surveys, email, discussion forums, webpages) to develop content area presentations for the intended audience and purpose	Demonstrate knowledge of Copyright and Fair Use Guidelines by explaining selection and use of Internet resources in content projects/ assignments.	Demonstrate knowledge of Copyright and Fair Use Guidelines by explaining selection and use of Internet resources in content projects/assignments.
	Plan, collect, evaluate, interpret, and use information from a variety of resources to develop assignments about the Geography of Africa.	Use a variety of collaborative tools to survey, collect, communicate information for content area assignments.	Select and justify use of appropriate collaborative tools to survey, collect, share, and communicate information in content areas.
	Use evaluation tools to select Internet resources and information for content and usefulness in content area assignments.	Select, evaluate, and use a variety of digital resources and information to research and present findings about Ancient Civilizations.	Plan, select, evaluate, interpret and use a variety of digital resources to develop assignments/projects about World History
		Use evaluation tools to select Internet resources and information for content and usefulness in content area assignments.	Use evaluation tools to select Internet resources and information for content and usefulness in content area assignments.