Information Technology and Literacy Standards
Grades 6-8

Introduction
The following is a summary of the Information Technology and Literacy Standards that will be addressed in the grades 6-8 Information Technology and Library/Literacy courses. The standards are from the DESE’s Technology Literacy Standards** and the Massachusetts School Library Association’s recommended standards. The standards are highlighted by the grade level for which major emphasis will be given. The first section is a list of the technology standards for Grades 6-8, the second section is a list of the library literacy standards. The third section is a break down of the standards group by grade level.

*For a complete list of the Massachusetts School Library Association’s Recommended Standards for Grades Pre-K - Grade 12 Information Literacy Skills please see: http://maschoollibraries.org/dmdocuments/MSLARelatedStandards.pdf.
**For a complete list of the Massachusetts Technology Literacy Standards and Expectations please see http://www.doe.mass.edu/edtech/standards/itstand.pdf

Massachusetts Technology Literacy Standards
Grades 6 through 8 – Technology Standards and Expectations

** Grade 6, Grade 7 and Grade 8: Grade levels where each standard is a major focus.**

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

Basic Operations
G6-8: 1:1 Use features of a computer operating system (e.g., determine available space on local storage devices and remote storage resources, access the size and format of files, identify the version of an application).

G6-8: 1.2 Identify successful troubleshooting strategies for minor hardware and software issues/problems (e.g., “frozen screen”).

G6-8: 1.3 Independently operate peripheral equipment (e.g., scanner, digital camera, camcorder), if available.

Links to standard G6-8: 3.3

G6-8: 1.4 Identify and use a variety of storage media (e.g., CDs, DVDs, flash drives, school servers, and online storage spaces), and provide a rationale for using a certain medium for a specific purpose.

G6-8: 1.5 Demonstrate keyboarding skills between 25-30 wpm with fewer than 5 errors. (For students with disabilities, demonstrate alternate input techniques as appropriate.)

At grade 6 a keyboarding program should be used regularly.
**Word Processing/Desktop Publishing**

**G6-8: 1.6** Demonstrate use of intermediate features in word processing applications (e.g., tabs, indents, headers and footers, end notes, bullet and numbering, tables).

Students should create a document with formatting and should include inserting an image.

**G6-8: 1.7** Create, save, open, and import a word processing document in different file formats (e.g., RTF, HTML).

Links to G6-8: 1.6 This discussion is important so student understand how to move documents between programs. Programs to focus on include open office, Microsoft Word, Microsoft Works, and Pages.

**Database**

**G6-8: 1.8** Describe the structure and function of a database, using related terms appropriately.

Linked to G6-8: 1.9 and 3.5

**G6-8: 1.9** Create a simple database, defining field formats and adding new records.

Linked to G6-8: 1.8 and MSLA 4.4

Students should great a simple spreadsheet with a focus on terminology.

**G6-8: 1.10** Perform simple operations in a database (i.e., browse, sort, filter, search on selected criteria, delete data, enter data).

Linked to G6-8: 1.9, 3.5 and MSLA 1.11 and 2.15

**G6-8: 1.11** Plan and develop database reports to organize and display information.

Linked to G6-8: 1.9, 3.5 and MSLA 1.13, and 2.15

**Spreadsheet**

**G6-8: 1.12** Describe the use of spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings.

Linked to G6-8: 1.9, 3.5 and MSLA 1.22, 4.12 and 4.15

**G6-8: 1.13** Create an original spreadsheet, using formulas.

Linked to G6-8: 1.9 and 3.5

**G6-8: 1.14** Use various number formats (e.g., scientific notation, percentages, exponents) as appropriate.

Linked to G6-8: 1.9 and 3.5

**G6-8: 1.15** Produce simple charts and graphs from a spreadsheet.

Linked to G6-8: 1.9 and 3.5

**G6-8: 1.16** Distinguish among different types of charts and graphs, and choose the most appropriate type to represent given data.

Linked to G6-8: 1.9 and 3.5
Apply advanced formatting features to customize tables, charts, and graphs.

Linked to G6-8: 1.9 and 3.5

Internet, Networking, and Online Communication

Use Web browsing to access information (e.g., enter a URL, access links, create bookmarks/favorites, print Web pages).

Linked to MSLA 1.14, 2.16, 3.10 and 8.16

Identify probable types and locations of Web sites by examining their domain names, and explain that misleading domain names are sometimes created in order to deceive people (e.g., .edu, .com, .org, .gov, .au).

Linked to G6-8: 1.18, 2.8 and MSLA 1.17 and 7.7
This is also part of digital citizenship

Explain and correctly use terms related to networks (e.g., LANs, WANs, servers, and routers) and Internet connectivity (e.g., DSL, T1, T3).

Linked to G6-8: 2.10, 2.12 and 2.13

Explain and correctly use terms related to online learning (e.g., IP address, post, thread, Intranet, discussion forum, drop box, account, password).

Grade 6 - Introduce students to Moodle as a resource to find information, have student participation a forum or two
Grade 7 - Students will use Moodle to post to forums and turn in assignments, at least once a quarter.
Grade 8 - Students will use Moodle to post to forums and turn in assignments, at least once a quarter.

Explain that some Web sites require the use of plug-ins and specific browser versions to access content.

This is ongoing, pointing out flash, java, shockwave and other plugins as you come across them in web pages.

Use e-mail functions and features (e.g., replying, forwarding, attachments, subject lines, signature, and address book.) The use of e-mail is at the school district’s discretion and may be a class-wide activity if students do not have individual accounts.

Grade 6 - mypbs accounts may be introduced – would ultimately like this to be a goal to give email accounts after digital Citizenship unit
Grade 7 - Introduced to mybps.me and used periodically. Email accounts should be linked to other accounts – Discovery Streaming, Moodle, etc.
Grade 8 - Used regularly in class to send in assignments and to communicate with teachers

Create a multimedia presentation using various media as appropriate (e.g., audio, video, animations, etc.).

Grade 6 - Create 3-4 slides with text, background and transition
Grade 7 - Create 3-4 slides with text, background, images and transitions
Grade 8 - Create 4-6 slides with text, background, images, video, audio and transitions.
G6-8: 1.25 Use a variety of technology tools (e.g., dictionary, thesaurus, grammar-checker, calculator) to maximize the accuracy of work.

Linked to MSLA 3.12

Grade 6 these tools will be specifically targeted so students learn their use, in Grade 7 and 8 students will be reminded to use these 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.

Ethics

G6-8: 2.1 Explain ethical issues related to privacy, plagiarism, spam, viruses, hacking, and file sharing.

Links to MSLA 4.22 and 7.6

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises.

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises.

G6-8: 2.2 Explain how copyright law protects the ownership of intellectual property, and explain possible consequences of violating the law.

Links to MSLA 4.23

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

G6-8: 2.3 Explain fair use guidelines for using copyrighted materials (e.g., images, music, video, text) in school projects.

Links to MSLA 4.22 and 7.8

In general when students create projects there should be a discussion about where the product will be shared and how it will be used as this will determine what type of media and sources can be used to be compliant with fair use.

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out
research, or use image, video and audio.

**G6-8: 2.4** Describe appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, and wikis).

Links to MSLA 7.9

**Grade 6** – Within Moodle student will use Chats and IM, this is also covered in the Digital Citizenship unit. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis.

**Grade 7** – Within Moodle student will use Chats and IM, this should also covered in the Digital Citizenship review. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis. Students should participate in a class blog or wiki for particular project.

**Grade 8** – Within Moodle student will use Chats and IM, this should also covered in the Digital Citizenship review. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis. Students should participate in a class blog or wiki for particular project.

**Society**

**G6-8: 2.5** Identify and discuss the technology proficiencies needed in the workplace, as well as ways to prepare to meet these demands.

Linked to G6-8: 2.4 and MSLA 2.15
Part of Digital Citizenship

**G6-8: 2.6** Identify and describe the effect technological changes have had on society.

Linked to G6-8: 2.4 and MSLA 2.15
Part of Digital Citizenship

**G6-8: 2.7** Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.

Linked to G6-8: 2.4 and MSLA 2.17 and 5.7

In general this will be part of the ongoing discussions as students interact and collaborate using the tools provided – Moodle, email, Google apps.

**G6-8: 2.8** Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information.

Linked to G6-8: 1.19, 2.1 and MSLA 1.15 and 7.10
Specific lessons should be place in grade 7 and grade 8, but every opportunity to point out or discuss this should be made in grades 6, 7 and 8.

**Grade 7**: A lesson based on how images can be manipulated should be included.
**Grade 8**: A lesson based on how images and ads placed on a web page or with a news article can influence how the text is interpreted.
Give examples of hardware and applications that enable people with disabilities to use technology.

In general this can be a discussion about different tools that can be used for access. For example you can examine different types of keyboards, mice and touch screens. Students can experiment with the accessibility features in windows, learn how to increase view, use a web tool such a Readability to increase font size and remove clutter. Discussion and experimentation can include text to speech, close captioning, etc.

**Health and Safety**

**G6-8: 2.10** Explain the potential risks associated with the use of networked digital information (e.g., Internet, mobile phones, wireless, LANs).

Linked to G6-8: 1.20 and is part of Digital Citizenship

**G6-8: 2.11** Provide examples of safe and unsafe practices for sharing personal information via e-mail and the Internet.

Linked to G6-8: 1.21, 1.24

Part of Digital Citizenship

**G6-8: 2.12** Explain why computers, networks, and information need to be protected from viruses, intrusion, and vandalism.

Linked to G6-8: 2.1

In general this will be part of Digital Citizenship though at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

**G6-8: 2.13** Explain terms associated with the safe, effective, and efficient use of telecommunications/Internet (e.g., password, firewalls, spam, security, Acceptable Use Policy).

Linked to G6-8: 1.20 and MSLA 4.16

In general at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

**G6-8: 2.14** Describe how cyber bullying can be blocked.

Linked to G6-8: 2.1 and 2.4

In general this is part of Digital Citizenship. When cyber bulling makes the news teachers should take the time discuss these events with the students.

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

**Research**

**G6-8: 3.1** Explain and demonstrate effective searching and browsing strategies when working on projects.

Linked to G6-8: 1.8. 1.9 and MSLA 1.16

Students should be exposed to different search engines and how to use the advanced search features.
**G6-8.3.2** Collect, organize, and analyze digital information from a variety of sources, with attribution.

Links to MSAL 1.17, 2.17, 3.11, 4.5 and 7.6

In each project students complete they should correctly site the sources of images, information and media. Students should be shown various tools to create citations.

**Grade 7:** Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, writing and formatting a document including parenthetical citations and a correctly format bibliography. This format should be consistent with the Language Arts department.

**G6-8.3.3** Use a variety of computing devices (e.g., probeware, handheld computers, digital cameras, scanners) to collect, analyze, and present information for curriculum assignments.

This standard linked to G6-8: 1.3 and MSLA 1.17 and 4.12

In completing projects students should use cameras to take stills and/or video and incorporate these, students should correctly give themselves credit for the images and video. Students should also learn how to scan drawings and incorporate them into documents or multimedia projects.

**Problem Solving**

**G6-8.3.4** Independently use appropriate technology tools (e.g., graphic organizer) to define problems and propose hypotheses.

In preparing for the research project students can use graphic organizers to help choose a topic, and organize their work. Storyboarding should also be used to plan media projects.

**G6-8.3.5** Use and modify databases and spreadsheets to analyze data and propose solutions.

Linked to G6-8: 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 and MSLA 3.12

It would be good to be able to link this to math or science data that has been collected. Students can use the data to create charts, graphs and can use formulas. For example in grade 7, students study how light, color and insulation effect temperature change. Or a lesson from atomic learning, or collecting and analyzing data would be appropriate. This should be done in grades 7 & 8. Tools to use open office and/or Google spreadsheets.

**G6-8.3.6** Develop and use guidelines to evaluate the content, organization, design, use of citations, and presentation of technologically enhanced projects.

Linked G6-8: 1.18, 1.19, 2.1, 2.8, 3.1, 3.2, 3.4, 3.7 and MSLA 3.13 and 7.5

**Grade 7:** Students should be provided with and use rubrics to guide and evaluate the creation of text and multimedia projects.

**Grade 8:** Students should collaborate and create a rubric to guide and evaluate the creation of text and multimedia projects.
Communication

**G6-8.3.7** Plan, design, and develop a multimedia product to present research findings and creative ideas effectively, citing sources.

This is linked to standards Linked G6-8: 1.18, 1.19, 2.1, 2.2, 2.3, 2.8, 3.1, 3.2., 3.4, 3.6 and MSLA 4.14 and 5.9

**Grade 7:** Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, and a correctly citing source. This format should be consistent with the Language Arts department. This project would be a slide show project, using open office.

**Grade 8:** Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, and a correctly citing source. This format should be consistent with the Language Arts department. This project could be a slide show project using open office, voicethread, animoto or similar tool. This project could also be a video. This is an opportunity to allow students to explore other ways/tools to create multimedia.

**G6-8.3.8** Identify differences between various media and explain issues associated with repurposing information from one medium to another (e.g., from print to the Web).

This standard is linked to G6-8: 2.1, 2.2, 2.3 and MSLA 6.11. The discussion should include discussing The content of media and the audience it is intended to connect with. This will determine best media to use and how fair use applies.

**G6-8.3.9** Use a variety of telecommunication tools (e.g., e-mail, discussion groups, web pages, blogs, web conferences) to collaborate and communicate with peers, experts, and other audiences (at district’s discretion).

This standard is linked to G6-8: 2.4, 2.7 but adds web conferencing and MSL 1.17, 4.15, 4.5 and 5.9. Setting up a skype call or other web conferencing tool should be included.
Library Literacy Standards  
Grades 6-8

The following Standards are taken from The Massachusetts School Library Association’s  
*Recommended Standards for Grades Pre-K - Grade 12 Information Literacy Skills*. Those listed  
below are for students in grades 5-8. The information below also shows how the MSLA:  
Information Literacy Skills are linked to the Massachusetts DESE’s Technology Literacy  
Standards.

**Standard 1. Define an Information Task.**  
Students will be able to define problems competently and identify the needed information.

<table>
<thead>
<tr>
<th>MSLA: Information Literacy Skills</th>
<th>Linked to MTLS</th>
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<tbody>
<tr>
<td>1.11 Understand the criteria for the research assignment.</td>
<td>1.10, 3.4</td>
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<tr>
<td>1.12 Explain what the final product will look like.</td>
<td>1.16</td>
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<tr>
<td>1.13 Select a topic from a range of possibilities.</td>
<td>1.11</td>
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<tr>
<td>1.14 Use the teacher provided essential question to develop a topic focus, or develop a self-selected essential question.</td>
<td>1.18</td>
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<tr>
<td>1.15 With assistance, develop a thesis statement.</td>
<td>2.18</td>
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<tr>
<td>1.16 Identify pre-existing knowledge, as well as additional information necessary to solve the problem.</td>
<td>3.1</td>
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<tr>
<td>1.17 Read, listen, and watch from all relevant and appropriate sources to gain an overview of the topic</td>
<td>1.19, 3.2, 3.3, 3.4</td>
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**Standard 2. Develop Information Seeking Strategies.**  
Students will be able to develop strategies to find information relevant to their question or personal need.

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<tr>
<td>2.15 Understand the library’s organization of resources.</td>
<td>1.10, 1.11, 2.5, 2.6</td>
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<tr>
<td>2.16 With assistance, select and modify keywords and phrases for information seeking purposes.</td>
<td>1.18</td>
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<tr>
<td>2.17 Understand the difference between, and the uses of, primary and secondary sources</td>
<td>2.7, 3.2</td>
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Standard 3. Locate and Access Information.
Students will be able to access and gather information efficiently and effectively.

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<tr>
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<tbody>
<tr>
<td>3.11 Independently choose information from print and electronic sources.</td>
<td>1.18</td>
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<tr>
<td>3.12 Use cross-references to locate additional information.</td>
<td>3.2</td>
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<tr>
<td>3.13 Recognize inadequacies or gaps in information.</td>
<td>1.25, 3.5, 3.6</td>
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Standard 4. Use Information
Students will be able to:
4a. evaluate resources for their appropriateness
4b. select the best and most relevant information
4c. practice ethical behavior and respect for intellectual property rights

4a. evaluate resources for their appropriateness

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<td>4.4 Independently develop criteria for relevant information, including authority, accuracy, objectivity, relevancy, and currency of source.</td>
<td>1.18</td>
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<tr>
<td>4.5 Independently discriminate between primary and secondary sources.</td>
<td>3.2</td>
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4b. select the best and most relevant information

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<td>4.12 Independently take notes.</td>
<td>1.12, 3.3</td>
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<tr>
<td>4.13 Independently summarize and paraphrase information.</td>
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<tr>
<td>4.14 Choose appropriate order for information, e.g., chronological, alphabetical, hierarchical in terms of importance, persuasive position.</td>
<td>3.7</td>
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<tr>
<td>4.15 Make inferences from data.</td>
<td>1.12</td>
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<tr>
<td>4.16 Collaborate with others, including using technology to share information.</td>
<td>2.13, 3.9</td>
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4c. practice ethical behavior and respect for intellectual property rights

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<td>4.22 Independently create correct citations for text and images used.</td>
<td>2.1, 2.2</td>
</tr>
<tr>
<td>4.23 With assistance begin to demonstrate understanding of copyright law, e.g., fair use and intellectual property rights.</td>
<td>2.3</td>
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Standard 5. Synthesize Information
Students will organize new information from multiple sources to construct a product that communicates the results of their research.

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<td>5.7 Use appropriate medium to produce an original product to communicate research results.</td>
<td>2.7</td>
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<tr>
<td>5.8 Collaborate with peers in sharing information.</td>
<td>3.9</td>
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<tr>
<td>5.9 Understand that communicating information is a life long skill.</td>
<td>3.7</td>
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Standard 6. Participate in Collaborative Activities
Students participate effectively in groups to pursue and generate information.

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<tr>
<td>6.14 Use provided guidelines and the group’s work to improve content and delivery.</td>
<td>3.8</td>
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Standard 7. Evaluate the Process and the Product
Students will evaluate both the research process and the final product. This may include both self and peer evaluation.

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<td>7.5 Analyze the evaluation results to improve their communications through developing evaluation criteria and doing self and peer evaluations.</td>
<td>3.4</td>
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<tr>
<td>7.6 With assistance, describe the ethical use of information.</td>
<td>2.1, 3.2</td>
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<tr>
<td>7.7 Use critical and creative thinking skills to analyze, synthesize and evaluate relevance, reliability, and authority of sources.</td>
<td>1.19</td>
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<tr>
<td>7.8 Using predetermined criteria, evaluate the effectiveness of the communication of research results.</td>
<td>2.5</td>
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<tr>
<td>7.9 Review and evaluate the process of transforming information into knowledge.</td>
<td>2.4</td>
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<tr>
<td>7.10 Summarize new knowledge gained through peer presentations.</td>
<td>2.8</td>
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Standard 8. Appreciate Literature
Students will gain an increased enjoyment of literature and grow in their abilities to locate and select appropriate reading material independently.

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<td>8.15 Incorporate critical and creative thinking skills to evaluate literary elements and conventions.</td>
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<tr>
<td>8.16 Display knowledge of various types of print material, of genres, and of selection aids.</td>
<td>1.18</td>
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<td>8.17 Identify and read from a variety of genres, e.g., historical, realistic, fantasy, fiction, folklore, poetry, biography, nonfiction.</td>
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<tr>
<td>8.18 Recognize reading as a lifelong pursuit.</td>
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<tr>
<td>8.19 Recognize characteristic styles of various authors and illustrators.</td>
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Information Technology and Literacy Standards
Grade 6

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

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Links to G6-8: 1.6 This discussion is important so student understand how to move documents between programs. Programs to focus on include open office, Microsoft Word, Microsoft Works, and Pages.

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Internet, Networking, and Online Communication

G6-8: 1.18 Use Web browsing to access information (e.g., enter a URL, access links, create bookmarks/favorites, print Web pages).

Linked to MSLA 1.14, 2.16, 3.10 and 8.16
G6-8: 1.19 Identify probable types and locations of Web sites by examining their domain names, and explain that misleading domain names are sometimes created in order to deceive people (e.g., .edu, .com, .org, .gov, .au).

Linked to G6-8: 1.18, 2.8 and MSLA 1.17 and 7.7
This is also part of digital citizenship

G6-8: 1.20 Explain and correctly use terms related to networks (e.g., LANs, WANs, servers, and routers) and Internet connectivity (e.g., DSL, T1, T3).

Linked to G6-8: 2.10, 2.12 and 2.13

G6-8: 1.21 Explain and correctly use terms related to online learning (e.g., IP address, post, thread, Intranet, discussion forum, drop box, account, password).

Grade 6- Introduce students to Moodle as a resource to find information, have student participation a forum or two

G6-8: 1.22 Explain that some Web sites require the use of plug-ins and specific browser versions to access content.

This is ongoing, pointing out flash, java, shockwave and other plugins as you come across them in web pages.

G6-8: 1.23 Use e-mail functions and features (e.g., replying, forwarding, attachments, subject lines, signature, and address book.) The use of e-mail is at the school district’s discretion and may be a class-wide activity if students do not have individual accounts.

Grade 6 – mypbs accounts may be introduced – would ultimately like this to be a goal to give email accounts after digital Citizenship unit

Multimedia
G6-8: 1.24 Create a multimedia presentation using various media as appropriate (e.g., audio, video, animations, etc.).

Grade 6 – Create 3-4 slides with text, background and transition

G6-8: 1.25 Use a variety of technology tools (e.g., dictionary, thesaurus, grammar-checker, calculator) to maximize the accuracy of work.

Linked to MSLA 3.12

Grade 6 these tools will be specifically targeted so students learn their use, in Grade 7 and 8 students will be reminded to use these 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.

Ethics
G6-8: 2.1 Explain ethical issues related to privacy, plagiarism, spam, viruses, hacking, and file sharing.

Links to MSLA 4.22 and 7.6

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises
G6-8: 2.2 Explain how copyright law protects the ownership of intellectual property, and explain possible consequences of violating the law.

Links to MSLA 4.23

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

G6-8: 2.3 Explain fair use guidelines for using copyrighted materials (e.g., images, music, video, text) in school projects.

Links to MSLA 4.22 and 7.8

In general when students create projects there should be a discussion about where the product will be shared and how it will be used as this will determine what type of media and sources can be used to be compliant with fair use.

Grade 6 – This would be the primary grade that this would be introduced and covered in the Digital Citizenship unit, as well as, ongoing discussion at the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

G6-8: 2.4 Describe appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, and wikis).

Links to MSLA 7.9

Grade 6 – Within Moodle student will use Chats and IM, this is also covered in the Digital Citizenship unit. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis.

Society

G6-8: 2.5 Identify and discuss the technology proficiencies needed in the workplace, as well as ways to prepare to meet these demands.

Linked to G6-8: 2.4 and MSLA 2.15
Part of Digital Citizenship

G6-8: 2.6 Identify and describe the effect technological changes have had on society.

Linked to G6-8: 2.4 and MSLA 2.15
Part of Digital Citizenship

G6-8: 2.7 Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.

Linked to G6-8: 2.4 and MSLA 2.17 and 5.7

In general this will be part of the ongoing discussions as students interact and collaborate using the tools provided – Moodle, email, Google apps.
Health and Safety

G6-8: 2.10 Explain the potential risks associated with the use of networked digital information (e.g., Internet, mobile phones, wireless, LANs).
Linked to G6-8: 1.20 and is part of Digital Citizenship

G6-8: 2.11 Provide examples of safe and unsafe practices for sharing personal information via e-mail and the Internet.
Linked to G6-8: 1.21, 1.24
Part of Digital Citizenship

G6-8: 2.12 Explain why computers, networks, and information need to be protected from viruses, intrusion, and vandalism.
Linked to G6-8: 2.1

In general this will be part of Digital Citizenship though at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

G6-8: 2.13 Explain terms associated with the safe, effective, and efficient use of telecommunications/Internet (e.g., password, firewalls, spam, security, Acceptable Use Policy).
Linked to G6-8: 1.20 and MSLA 4.16

In general at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

G6-8: 2.14 Describe how cyber bullying can be blocked.
Linked to G6-8: 2.1 and 2.4

In general this is part of Digital Citizenship. When cyber bulling makes the news teachers should take the time discuss these events with the students.

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

Research

G6-8: 3.1 Explain and demonstrate effective searching and browsing strategies when working on projects.
Linked to G6-8: 1.8, 1.9 and MSLA 1.16
Students should be exposed to different search engines and how to use the advanced search features.
Information Technology and Literacy Standards  
Grade 7

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

Basic Operations
G6-8: 1.3 Independently operate peripheral equipment (e.g., scanner, digital camera, camcorder), if available.

Links to standard G6-8: 3.3

Database
G6-8: 1.10 Perform simple operations in a database (i.e., browse, sort, filter, search on selected criteria, delete data, enter data).

Linked to G6-8: 1.9, 3.5 and MSLA 1.11 and 2.15
G6-8: 1.11 Plan and develop database reports to organize and display information.

Linked to G6-8: 1.9, 3.5 and MSLA 1.13, and 2.15

Spreadsheet
G6-8: 1.12 Describe the use of spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings.

Linked to G6-8: 1.9, 3.5 and MSLA 1.22, 4.12 and 4.15
G6-8: 1.13 Create an original spreadsheet, using formulas.

Linked to G6-8: 1.9 and 3.5
G6-8: 1.14 Use various number formats (e.g., scientific notation, percentages, exponents) as appropriate.

Linked to G6-8: 1.9 and 3.5
G6-8: 1.15 Produce simple charts and graphs from a spreadsheet.

Linked to G6-8: 1.9 and 3.5
G6-8: 1.16 Distinguish among different types of charts and graphs, and choose the most appropriate type to represent given data.

Linked to G6-8: 1.9 and 3.5
G6-8: 1.17 Apply advanced formatting features to customize tables, charts, and graphs.

Linked to G6-8: 1.9 and 3.5

Internet, Networking, and Online Communication
G6-8: 1.21 Explain and correctly use terms related to online learning (e.g., IP address, post, thread, Intranet, discussion forum, drop box, account, password).
Grade 7 – Students will use Moodle to post to forums and turn in assignments, at least once a quarter.

G6-8: 1.22 Explain that some Web sites require the use of plug-ins and specific browser versions to access content.

This is ongoing, pointing out flash, java, shockwave and other plugins as you come across them in web pages.

G6-8: 1.23 Use e-mail functions and features (e.g., replying, forwarding, attachments, subject lines, signature, and address book.) The use of e-mail is at the school district’s discretion and may be a class-wide activity if students do not have individual accounts.

Grade 7 – Introduced to mybps.me and used periodically. Email accounts should be linked to other accounts – Discovery Streaming, Moodle, etc.

Multimedia

G6-8: 1.24 Create a multimedia presentation using various media as appropriate (e.g., audio, video, animations, etc.).

Grade 7 – Create 3-4 slides with text, background, images and transitions

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.

Ethics

G6-8: 2.1 Explain ethical issues related to privacy, plagiarism, spam, viruses, hacking, and file sharing.

Links to MSLA 4.22 and 7.6

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises.

G6-8: 2.2 Explain how copyright law protects the ownership of intellectual property, and explain possible consequences of violating the law.

Links to MSLA 4.23

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

G6-8: 2.3 Explain fair use guidelines for using copyrighted materials (e.g., images, music, video, text) in school projects.

Links to MSLA 4.22 and 7.8

In general when students create projects there should be a discussion about where the product will be shared and how it will be used as this will determine what type of media and sources can be used to be compliant with fair use.

Grade 7 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.
Describe appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, and wikis).

Links to MSLA 7.9

**Grade 7** – Within Moodle student will use Chats and IM, this should also covered in the Digital Citizenship review. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis. Students should participate in a class blog or wiki for particular project.

**Society**

G6-8: 2.7 Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.

Linked to G6-8: 2.4 and MSLA 2.17 and 5.7

In general this will be part of the ongoing discussions as students interact and collaborate using the tools provided – Moodle, email, Google apps.

G6-8: 2.8 Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information.

Linked to G6-8: 1.19, 2.1 and MSLA 1.15 and 7.10

Specific lessons should be place in grade 7 and grade 8, but every opportunity to point out or discuss this should be made in grades 6, 7 and 8.

**Grade 7** – A lesson based on how images can be manipulated should be included.

G6-8: 2.9 Give examples of hardware and applications that enable people with disabilities to use technology.

In general this can be a discussion about different tools that can be used for access. For example you can examine different types of keyboards, mice and touch screens. Students can experiment with the accessibility features in windows, learn how to increase view, use a web tool such a Readability to increase font size and remove clutter. Discussion and experimentation can include text to speech, close captioning, etc.

**Health and Safety**

G6-8: 2.12 Explain why computers, networks, and information need to be protected from viruses, intrusion, and vandalism.

Linked to G6-8: 2.1

In general this will be part of Digital Citizenship though at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.
G6-8: 2.13 Explain terms associated with the safe, effective, and efficient use of telecommunications/Internet (e.g., password, firewalls, spam, security, Acceptable Use Policy).

Linked to G6-8: 1.20 and MSLA 4.16

In general at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

G6-8: 2.14 Describe how cyber bullying can be blocked.

Linked to G6-8: 2.1 and 2.4

In general this is part of Digital Citizenship. When cyber bulling makes the news teachers should take the time discuss these events with the students.

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

Research
G6-8: 3.1 Explain and demonstrate effective searching and browsing strategies when working on projects.

Linked to G6-8: 1.8, 1.9 and MSLA 1.16
Students should be exposed to different search engines and how to use the advanced search features.

G6-8: 3.2 Collect, organize, and analyze digital information from a variety of sources, with attribution.

Links to MSAL 1.17, 2.17, 3.11, 4.5 and 7.6
In each project students complete they should correctly site the sources of images, information and media. Students should be shown various tools to create citations.

Grade 7: Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, writing and formatting a document including parenthetical citations and a correctly format bibliography. This format should be consistent with the Language Arts department.

G6-8: 3.3 Use a variety of computing devices (e.g., probeware, handheld computers, digital cameras, scanners) to collect, analyze, and present information for curriculum assignments.

This standard it linked to G6-8: 1.3 and MSLA 1.17 and 4.12

In completing projects students should use cameras to take stills and/or video and incorporate these, students should correctly give themselves credit for the images and video. Students should also learn how to scan drawings and incorporate them into documents or multimedia projects.

Problem Solving
G6-8: 3.4 Independently use appropriate technology tools (e.g., graphic organizer) to define problems and propose hypotheses.

In preparing for the research project students can us graphic organizers to help choose a topic, and organize their work. Storyboarding should also be used to plan media projects.
G6-8: 3.5 Use and modify databases and spreadsheets to analyze data and propose solutions.

Linked to G6-8: 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 and MSLA 3.12

It would be good to be able to link this to math or science data that has been collected. Students can use the data to create charts, graphs and can use formulas. For example in grade 7, students study how light, color and insulation effect temperature change. Or a lesson from atomic learning, or collecting and analyzing data would be appropriate. This should be done in grades 7 & 8. Tools to use open office and/or Google spreadsheets.

G6-8: 3.6 Develop and use guidelines to evaluate the content, organization, design, use of citations, and presentation of technologically enhanced projects.

Linked G6-8: 1.18, 1.19, 2.1, 2.8, 3.1, 3.2, 3.4, 3.7 and MSLA 3.13 and 7.5

Grade 7: Students should be provided with and use rubrics to guide and evaluate the creation of text and multimedia projects.

Communication

G6-8: 3.7 Plan, design, and develop a multimedia product to present research findings and creative ideas effectively, citing sources.

This is linked to standards Linked G6-8: 1.18, 1.19, 2.1, 2.2, 2.3, 2.8, 3.1, 3.2, 3.4, 3.6 and MSLA 4.14 and 5.9

Grade 7: Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, and a correctly citing source. This format should be consistent with the Language Arts department. This project would be slide show project, using open office.

G6-8: 3.8 Identify differences between various media and explain issues associated with repurposing information from one medium to another (e.g., from print to the Web).

This standard is linked to G6-8: 2.1, 2.2, 2.3 and MSLA 6.11. The discussion should include discussing The content of media and the audience it is intended to connect with. This will determine best media to use and how fair use applies.

G6-8: 3.9 Use a variety of telecommunication tools (e.g., e-mail, discussion groups, web pages, blogs, web conferences) to collaborate and communicate with peers, experts, and other audiences (at district’s discretion).

This standard it linked to G6-8: 2.4, 2.7 but adds web conferencing and MSL 1.17, 4.15, 4.5 and 5.9. Setting up a skype call or other web conferencing tool should be included.
Information Technology and Literacy Standards
Grade 8

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

Internet, Networking, and Online Communication

G6-8: 1.21 Explain and correctly use terms related to online learning (e.g., IP address, post, thread, Intranet, discussion forum, drop box, account, password).

Grade 8 – Students will use Moodle to post to forums and turn in assignments, at least once a quarter.

G6-8: 1.22 Explain that some Web sites require the use of plug-ins and specific browser versions to access content.

This is ongoing, pointing out flash, java, shockwave and other plugins as you come across them in web pages.

G6-8: 1.23 Use e-mail functions and features (e.g., replying, forwarding, attachments, subject lines, signature, and address book.) The use of e-mail is at the school district’s discretion and may be a class-wide activity if students do not have individual accounts.

Grade 8 – Used regularly in class to send in assignments and to communicate with teachers

Multimedia

G6-8: 1.24 Create a multimedia presentation using various media as appropriate (e.g., audio, video, animations, etc.).

Grade 8 – Create 4-6 slides with text, background, images, video, audio and transitions.

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.

Ethics

G6-8: 2.1 Explain ethical issues related to privacy, plagiarism, spam, viruses, hacking, and file sharing.

Links to MSLA 4.22 and 7.6

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises.

G6-8: 2.2 Explain how copyright law protects the ownership of intellectual property, and explain possible consequences of violating the law.

Links to MSLA 4.23

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.
G6-8: 2.3 Explain fair use guidelines for using copyrighted materials (e.g., images, music, video, text) in school projects.

Links to MSLA 4.22 and 7.8

In general when students create projects there should be a discussion about where the product will be shared and how it will be used as this will determine what type of media and sources can be used to be compliant with fair use.

Grade 8 - At the beginning of the year there will be review of Digital Citizenship, as well as, ongoing discussion as the opportunity arises - emphasis will be given when students carry out research, or use image, video and audio.

G6-8: 2.4 Describe appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, and wikis).

Links to MSLA 7.9

Grade 8 – Within Moodle student will use Chats and IM, this should also covered in the Digital Citizenship review. When students search/evaluate websites, student will need to identify type of web pages; static, blog and wikis. Students should participate in a class blog or wiki for particular project.

Society

G6-8: 2.7 Explain how technology can support communication and collaboration, personal and professional productivity, and lifelong learning.

Linked to G6-8: 2.4 and MSLA 2.17 and 5.7

In general this will be part of the ongoing discussions as students interact and collaborate using the tools provided – Moodle, email, Google apps.

G6-8: 2.8 Analyze and explain how media and technology can be used to distort, exaggerate, and misrepresent information.

Linked to G6-8: 1.19, 2.1 and MSLA 1.15 and 7.10

Specific lessons should be place in grade 7 and grade 8, but every opportunity to point out or discuss this should be made in grades 6, 7 and 8.

Grade 8: A lesson based on how images and ads placed on a web page or with a news article can influence how the text is interpreted.

G6-8: 2.9 Give examples of hardware and applications that enable people with disabilities to use technology.

In general this can be a discussion about different tools that can be used for access. For example you can examine different types of keyboards, mice and touch screens. Students can experiment with the accessibility features in windows, learn how to increase view, use a web tool such a Readability to increase font size and remove clutter. Discussion and experimentation can include text to speech, close captioning, etc.
Health and Safety

G6-8: 2.12 Explain why computers, networks, and information need to be protected from viruses, intrusion, and vandalism.

Linked to G6-8: 2.1

In general this will be part of Digital Citizenship though at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

G6-8: 2.13 Explain terms associated with the safe, effective, and efficient use of telecommunications/Internet (e.g., password, firewalls, spam, security, Acceptable Use Policy).

Linked to G6-8: 1.20 and MSLA 4.16

In general at the beginning of the year as students review the AUP and get set up on the network a discussion on how and why the school district must protect them and the network would be appropriated.

G6-8: 2.14 Describe how cyber bullying can be blocked.

Linked to G6-8: 2.1 and 2.4

In general this is part of Digital Citizenship. When cyber bulling makes the news teachers should take the time discuss these events with the students.

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

Research

G6-8: 3.1 Explain and demonstrate effective searching and browsing strategies when working on projects.

Linked to G6-8: 1.8, 1.9 and MSLA 1.16

Students should be exposed to different search engines and how to use the advanced search features.

G6-8: 3.2 Collect, organize, and analyze digital information from a variety of sources, with attribution.

Linked to MSAL 1.17, 2.17, 3.11, 4.5 and 7.6

In each project students complete they should correctly site the sources of images, information and media. Students should be shown various tools to create citations.

G6-8: 3.3 Use a variety of computing devices (e.g., probeware, handheld computers, digital cameras, scanners) to collect, analyze, and present information for curriculum assignments.

This standard it linked to G6-8: 1.3 and MSLA 1.17 and 4.12

In completing projects students should use cameras to take stills and/or video and incorporate these, students should correctly give themselves credit for the images and video. Students should also learn how to scan drawings and incorporate them into documents or multimedia projects.
Problem Solving

G6-8 3.4 Independently use appropriate technology tools (e.g., graphic organizer) to define problems and propose hypotheses.

In preparing for the research project students can use graphic organizers to help choose a topic, and organize their work. Storyboarding should also be used to plan media projects.

G6-8 3.5 Use and modify databases and spreadsheets to analyze data and propose solutions.

Linked to G6-8: 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 and MSLA 3.12

It would be good to be able to link this to math or science data that has been collected. Students can use the data to create charts, graphs and can use formulas. For example in grade 7, students study how light, color and insulation effect temperature change. Or a lesson from atomic learning, or collecting and analyzing data would be appropriate. This should be done in grades 7 & 8. Tools to use open office and/or Google spreadsheets.

G6-8 3.6 Develop and use guidelines to evaluate the content, organization, design, use of citations, and presentation of technologically enhanced projects.

Linked G6-8: 1.18, 1.19, 2.1, 2.8, 3.1, 3.2., 3.4, 3.7 and MSLA 3.13 and 7.5

Grade 8: Students should collaborate and create a rubric to guide and evaluate the creation of text and multimedia projects.

Communication

G6-8 3.7 Plan, design, and develop a multimedia product to present research findings and creative ideas effectively, citing sources.

This is linked to standards Linked G6-8: 1.18, 1.19, 2.1, 2.2, 2.3, 2.8, 3.1, 3.2., 3.4, 3.6 and MSLA 4.14 and 5.9.

Grade 8: Students should complete a research project linked to a core content area. Students should be guided through search strategies, web site evaluation, and a correctly citing source. This format should be consistent with the Language Arts department. This project could be slide show project using open office, voicethread, animoto or similar tool. This project could also be a video. This is an opportunity to allow students to explore other ways/tools to create multimedia.

G6-8 3.8 Identify differences between various media and explain issues associated with repurposing information from one medium to another (e.g., from print to the Web).

This standard is linked to G6-8: 2.1, 2.2, 2.3 and MSLA 6.11.

The discussion should include discussing The content of media and the audience it is intended to connect with. This will determine best media to use and how fair use applies.

G6-8 3.9 Use a variety of telecommunication tools (e.g., e-mail, discussion groups, web pages, blogs, web conferences) to collaborate and communicate with peers, experts, and other audiences (at district’s discretion).

This standard it linked to G6-8: 2.4, 2.7 but adds web conferencing and MSL 1.17, 4.15, 4.5 and 5.9.

Setting up a skype call or other web conferencing tool should be included.