



Illinois Standards Aligned Instruction for Libraries

-Technology Specific Version-

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The Illinois School Library Media Association (ISLMA) would like to express its appreciation to the following groups and individuals in assisting with the design and development of this project:

**The Alliance Library System (ALS)**  
ALS Focus Group

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## Purpose:

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To empower, educate, and encourage school library media specialists to utilize this tool to teach information literacy skills to their students; thereby preparing the students for college and an information fluent society.

## Vision:

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It is the vision of the ISLMA Standards Committee that this curriculum would also be used to aid in demonstrating the cross-curricular value of school libraries. If used properly, this curriculum along with collaboration of other classroom teachers will provide the data many administrators use for decision-making.

## History:

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Annually, the Alliance Library System consulting staff conducts site visits at each of the member libraries. In 2007 one trend noticed by the staff was the need for an information literacy or library skills curriculum aligned with the Illinois Learning Standards and the new American Association for School Librarians (AASL) standards. In January 2008 a focus group researched sample curricula and drafted the format of the final tool. In August 2008 the Alliance Library System staff, with the help of member librarians, published the first version in CD format and as a wiki online. In October 2008 the curriculum was presented to the Illinois School Library Media Association (ISLMA) for adoption as a statewide model.

# I-SAIL Standards

Standard 1: Accesses information efficiently and effectively to inquire, think critically, and gain knowledge

- Recognizes the need for information
- Formulates questions based on information needs
- Identifies a variety of potential sources of information
- Develops and uses successful strategies for locating information
- Seeks information from diverse sources, contexts, disciplines and cultures

Standard 3: Uses information accurately, creatively, and ethically to share knowledge and participate ethically and productively as members of our democratic society

- Organizes information for practical application
- Integrates new information into one's own knowledge
- Produces and communicates information and ideas in appropriate formats
- Devises strategies for revising and improving process and product
- Practices ethical behavior in regard to information and information technology (including freedom of speech, censorship, copyright and plagiarism)

Standard 5: Understands and practices Internet safety when using any social electronic media for educational or leisure purposes.

- Practices strategies that promote personal safety and protect online and offline reputation
- Recognizes a variety of networked environments as public places that are governed by codes of behavior
- Knows how to protect electronic devices from harm in an online environment

Standard 2: Evaluates information critically and competently to draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge

- Determines accuracy, relevance, and comprehensiveness
- Distinguishes among fact, point of view, and opinion
- Identifies inaccurate and misleading information
- Selects information appropriate to the problem or question at hand

Standard 4: Appreciates literature and other creative expressions of information and pursues information related to personal interests and aesthetic growth

- Is a competent and self-motivated reader
- Develops a background in types of literature and literary elements
- Derives meaning from information presented creatively in a variety of formats
- Seeks information related to personal well-being, such as career interests, community involvement, health matters, and recreational pursuits
- Designs, develops and evaluates information products and solutions related to personal interests

## A Note on the Purpose and Use of the Technology Related Version:

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During the creation of the I-SAIL document, the committee was questioned specifically about how the contents would address the needs of school librarians looking for resources that address the Illinois General Assembly's requirement for schools to have an Internet Safety Curriculum (Public Act 095-0869) or those looking to meet other technology standards.

To meet this need, the technology version of the document was created. While the I-SAIL Standards, Benchmarks, and Objectives in this document have remained the same as in the original version, those items that pertain directly to technology have been bolded. In the final two columns that contain the Illinois State Learning Standards and the AASL Standards, only those standards that relate to technology have been included. Additionally, we have been graciously allowed to include the NETS Standards that we feel may guide instruction.

ISLMA has a task force in place to develop a more specific document relating to Internet Safety. When this document is completed, it will be integrated into I-SAIL as a fully developed Standard 5. Please watch for its release and continue to provide feedback for improving the document and its usefulness.

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# Technology Related Standards for Grades 9 - 12

Technology Grades 9-12:

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## Standard 1: Accesses information safely, efficiently and effectively to inquire, think critically, and gain knowledge.

- Recognizes the need for information
- Formulates questions based on information needs
- **Identifies a variety of potential sources of information**
- **Develops and uses successful strategies for locating information**
- **Seeks information from diverse sources, contexts, disciplines and cultures**

LIBRARY BENCHMARKS	OBJECTIVES	ILLINOIS STATE LEARNING STANDARDS	AASL STANDARDS & NETS-S
<p><b>A. Understands scope, depth and potential usefulness of more advanced, sophisticated and diverse resources</b></p> <p><b>B. Develops and executes successful strategies to access information to efficiently and effectively</b></p>	<ol style="list-style-type: none"> <li>1. Articulates an information need</li> <li>2. Formulates questions to refine an information need</li> <li>3. Develops purpose or thesis statement</li> <li>4. <b>Identifies potential print and/or non-print sources of information</b></li> <li>5. <b>Identifies and uses various strategies and techniques to execute and refine successful searches</b></li> <li>6. <b>Navigates within print and electronic resources effectively and independently</b></li> </ol>	<p><b><u>English</u></b></p> <p><b>1.C.4c</b> Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal)</p> <p><b>1.C.5c</b> Critically evaluate information from multiple sources</p> <p><b>5.A.5a</b> Develop a research plan using multiple forms of data</p> <p><b>5.A.4b</b> Design and present a project (e.g., research report, scientific study, career/higher education opportunities) using various formats from multiple sources</p> <p><b>5.B.4a</b> Choose and evaluate primary and secondary sources (print and non print) for a variety of purposes</p> <p><b>5.B.4b</b> Use multiple sources and multiple formats; cite according to standard style manuals</p> <p><b>5.C.4a</b> Plan, compose, edit and revise information (e.g., brochures, formal reports, proposals, research summaries, analyses, editorials, articles, overheads, multimedia displays) for presentation to an audience</p> <p><b>5.C.5a</b> Using contemporary technology, create a research presentation or prepare a</p>	<p><b><u>AASL Standards</u></b></p> <p><b>1.1.4</b> Find, evaluate, and select appropriate sources to answer questions.</p> <p><b>1.1.5</b> Evaluate information found in selected sources on the basis of accuracy, validity, and appropriateness for needs, importance, and social and cultural context.</p> <p><b>1.1.6</b> Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning.</p> <p><b>1.1.7</b> Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias.</p> <p><b>1.1.8</b> Demonstrate mastery of technology tools for accessing information and pursuing inquiry.</p> <p><b>1.2.1</b> Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts.</p> <p><b>1.2.2</b> Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.</p> <p><b>1.2.3</b> Demonstrate creativity by using multiple resources and formats.</p> <p><b>1.2.4</b> Maintain a critical stance by questioning the</p>



documentary related to academic, technical or occupational topics and present the findings in oral or multimedia formats

**5.C.4b** Produce oral presentations and written documents using supportive research and incorporating contemporary technology

**5.C.5b** Support and defend a thesis statement using various references including media and electronic resources

### Math

**10.B.4** Design and execute surveys or experiments, gather data to answer relevant questions, and communicate results and conclusions to an audience using traditional methods and contemporary technology

**10.B.5** Design a statistical experiment to answer a question about a realistic situation, conduct the experiment, use statistics to interpret the data, and communicate the results, individually and as members of a team

### Social Sciences

**16.C.5B W** Describe how historical trends in population, urbanization, economic development and technological advancements have caused change in world economic systems

**16.D.4W** Identify significant events and developments since 1500 that altered world social history in ways that persist today, including colonization, Protestant Reformation, industrialization, the rise of technology and human rights movements.

validity and accuracy of all information.

**1.2.5** Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.

**1.2.6** Display emotional resilience by persisting in information searching despite challenges.

**1.3.1** Respect copyright/intellectual property rights of creators and producers.

**1.3.3** Follow ethical and legal guidelines in gathering and using information.

**1.3.4** Contribute to the exchange of ideas within the learning community.

**1.3.5** Use information technology responsibly.

**1.4.1** Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary.

**1.4.3** Monitor gathered information, and assess for gaps and weaknesses.

**1.4.4** Seek appropriate help when it is needed.

### NETS-S

#### **3. Research and Information Fluency**

Students apply digital tools to gather, evaluate, and use information. Students:

**a.** plan strategies to guide inquiry.

**b.** locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

**c.** evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

#### **4. Critical Thinking, Problem Solving, and Decision Making**

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

**a.** identify and define authentic problems and significant questions for investigation.

**b.** plan and manage activities to develop a solution or complete a project.

c. collect and analyze data to identify solutions and/or make informed decisions.

d. use multiple processes and diverse perspectives to explore alternative solutions.

### **5. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.

b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

c. demonstrate personal responsibility for lifelong learning.

d. exhibit leadership for digital citizenship.

### **6. Technology Operations and Concepts**

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. understand and use technology systems.

b. select and use applications effectively and productively.

d. transfer current knowledge to learning of new technologies.

# Technology Grades 9-12:

## Standard 2: Evaluates information critically and competently to draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge

- Determines accuracy, relevance, and comprehensiveness
- Distinguishes among fact, point of view, and opinion
- Identifies inaccurate and misleading information
- Selects information appropriate to the problem or question at hand

LIBRARY BENCHMARKS	OBJECTIVES	ILLINOIS STATE LEARNING STANDARDS	AASL STANDARDS & NETS-S
<p><b>A. Identify main, supporting, and conflicting information using multiple sources to support interpretation or point of view.</b></p> <p><b>B. Critically examine and analyze relevant information from a variety of sources to discover relationships and patterns among ideas</b></p>	<p>1. Reads, views, listens to information critically</p> <p>2. Applies evaluative criteria to print and/or non-print materials to determine the relative value of the information relevancy, suitability, authority, objectivity, currency</p> <p>3. Identifies information relevant and essential to the information need</p> <p>4. Uses paraphrasing, highlighting or other extraction techniques or strategies to identify and record relevant information</p> <p>5. Combine ideas and information to develop an demonstrate new understanding</p> <p>6. Works with others to</p>	<p><b>English</b></p> <p><b>1.C.4c</b> Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal)</p> <p><b>1.C.5c</b> Critically evaluate information from multiple sources</p> <p><b>5.A.5a</b> Develop a research plan using multiple forms of data</p> <p><b>5.A.4b</b> Design and present a project (e.g., research report, scientific study, career/higher education opportunities) using various formats from multiple sources</p> <p><b>5.B.4a</b> Choose and evaluate primary and secondary sources (print and non print) for a variety of purposes</p> <p><b>5.B.4b</b> Use multiple sources and multiple formats; cite according to standard style manuals</p> <p><b>5.B.5b</b> Credit primary and secondary sources in a form appropriate for presentation or publication for a particular audience</p> <p><b>5.C.4a</b> Plan, compose, edit and revise information (e.g., brochures, formal reports,</p>	<p><b>AASL Standards</b></p> <p><b>2.1.4</b> Use technology and other information tools to analyze and organize information.</p> <p><b>2.1.6</b> Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.</p> <p><b>2.2.1</b> Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.</p> <p><b>2.3.2</b> Consider diverse and global perspectives in drawing conclusions.</p> <p><b>2.3.3</b> Use valid information and reasoned conclusions to make ethical decisions.</p> <p><b>2.4.1</b> Determine how to act on information (accept, reject, modify).</p> <p><b>2.4.2</b> Reflect on systematic process, and assess for completeness of investigation.</p> <p><b>2.4.3</b> Recognize new knowledge and understanding.</p> <p><b>2.4.4</b> Develop directions for future investigations.</p>

- select, organize, and integrate information and ideas from a variety of sources and formats.**
7. **Uses technology tools, online environments, and other collaborative tools to create and share information**
8. **Cites all sources used according to standard documentation formats (such as MLA or APA)**
- 5.C.5a Using contemporary technology, create a research presentation or prepare a documentary related to academic, technical or occupational topics and present the findings in oral or multimedia formats
- 5.C.4b Produce oral presentations and written documents using supportive research and incorporating contemporary technology
- 5.C.5b Support and defend a thesis statement using various references including media and electronic resources

### Math

- 7.B.4 Estimate and measure the magnitude and directions of physical quantities (e.g., velocity, force, slope) using rulers, protractors and other scientific instruments including timers, calculators and computers
- 9.C.4a Construct and test logical arguments for geometric situations using technology where appropriate
- 10.A.4b Analyze data using mean, median, mode, range, variance and standard deviation of a data set, with and without the use of technology
- 10.A.4c Predict from data using interpolation, extrapolation and trend lines, with and without the use of technology
- 10.B.4 Design and execute surveys or experiments, gather data to answer relevant questions, and communicate results and conclusions to an audience using traditional methods and contemporary technology
- 10.B.5 Design a statistical experiment to answer a question about a realistic situation, conduct the experiment, use statistics to interpret the data, and communicate the results, individually and as members of a

### NETS-S

#### **1. Creativity and Innovation**

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- apply existing knowledge to generate new ideas, products, or processes.
- create original works as a means of personal or group expression.
- use models and simulations to explore complex systems and issues.

#### **2. Communication and Collaboration**

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- contribute to project teams to produce original works or solve problems.

#### **3. Research and Information Fluency**

Students apply digital tools to gather, evaluate, and use information. Students:

- plan strategies to guide inquiry.
- locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- process data and report results.

#### **4. Critical Thinking, Problem Solving, and Decision Making**

Students use critical thinking skills to plan and conduct research, manage projects, solve

team

- 10.C.4b** Design and conduct simulations (e.g., waiting times at restaurant, probabilities of births, likelihood of game prizes), with and without the use of technology

### Science

- 13.B.4b** Analyze a particular occupation to identify decisions that may be influenced by a knowledge of science
- 13.B.5b** Analyze and describe the processes and effects of scientific and technological breakthroughs
- 13.B.4c** Analyze ways that resource management and technology can be used to accommodate population trends
- 13.B.5c** Design and conduct an environmental impact study, analyze findings and justify recommendations

### Social Science

- 15.C.4B** Explain the importance of research, development, invention, technology and entrepreneurship to the United States economy
- 15.D.5C** Explain how technology has affected trade in the areas of transportation, communication, finance and manufacturing
- 17.C.4A** Explain the ability of modern technology to alter geographic features and the impacts of these modifications on human activities
- 18.A.5** Compare ways in which social systems are affected by political, environmental, economic and technological changes

problems, and make informed decisions using appropriate digital tools and resources. Students:

- a.** identify and define authentic problems and significant questions for investigation.
- b.** plan and manage activities to develop a solution or complete a project.
- c.** collect and analyze data to identify solutions and/or make informed decisions.
- d.** use multiple processes and diverse perspectives to explore alternative solutions.

### **5. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a.** advocate and practice safe, legal, and responsible use of information and technology.
  - b.** exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
  - c.** demonstrate personal responsibility for lifelong learning.
  - d.** exhibit leadership for digital citizenship.
- 6. Technology Operations and Concepts**
- Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:
- a.** understand and use technology systems.
  - b.** select and use applications effectively and productively.
  - c.** troubleshoot systems and applications.
  - d.** transfer current knowledge to learning of new technologies.

# Technology Grades 9-12:

## Standard 3: Uses information accurately, creatively, and ethically to share knowledge and participate ethically and productively as members of our democratic society

- Organizes information for practical application
- Integrates new information into one's own knowledge
- Produces and communicates information and ideas in appropriate formats
- Devises strategies for revising and improving process and product
- Practices ethical behavior in regard to information and information technology (including freedom of speech, censorship, copyright and plagiarism)

LIBRARY BENCHMARKS	OBJECTIVES	ILLINOIS STATE LEARNING STANDARDS	AASL STANDARDS & NETS-S
<p><b>A. Organizes and synthesizes information from multiple sources</b></p> <p><b>B. Creates and effectively communicates information and ideas to others</b></p> <p><b>C. Understands and respects the concepts of intellectual freedom, intellectual property and plagiarism</b></p> <p><b>D. Applies Internet guidelines and protocols as defined in the district's policies</b></p>	<p><b>1. Analyzes information and identifies topics, subtopics and relationships</b></p> <p>2. Organizes information in a logical sequence</p> <p><b>3. Selects an appropriate format for communicating ideas</b></p> <p><b>4. Develops a formal outline or storyboard</b></p> <p>5. Creates a product that clearly expresses ideas</p> <p><b>6. Uses appropriate resources and technology in creating products</b></p> <p><b>7. Revises and refines as necessary</b></p> <p><b>8. Presents, performs or shares information and ideas successfully</b></p> <p>9. Evaluates product or presentation</p>	<p><b>1.B.4b</b> Analyze, interpret and compare a variety of texts for purpose, structure, content, detail and effect</p> <p><b>1.C.4c</b> Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal)</p> <p><b>1.C.5c</b> Critically evaluate information from multiple sources</p> <p><b>2.B.4a</b> Critique ideas and impressions generated by oral, visual, written and electronic materials</p> <p><b>3.A.4</b> Use standard English to edit documents for clarity, subject/verb agreement, adverb and adjective agreement and verb tense; proofread for spelling, capitalization and punctuation; and ensure that documents are formatted in final form for submission and/or publication</p> <p><b>3.A.5</b> Produce grammatically correct documents using standard manuscript specifications for a variety of purposes and audiences</p> <p><b>3.B.5</b> Using contemporary technology, produce</p>	<p><b><u>AASL Standards</u></b></p> <p><b>1.3.1</b> Respect copyright/intellectual property rights of creators and producers.</p> <p><b>2.1.6</b> Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.</p> <p><b>2.3.3</b> Use valid information and reasoned conclusions to make ethical decisions</p> <p><b>3.1.2</b> Participate and collaborate as members of a social and intellectual network of learners.</p> <p><b>3.1.4</b> Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess.</p> <p><b>3.1.6</b> Use information and technology ethically and responsibly.</p> <p><b>4.3.1</b> Participate in the social exchange of ideas, both electronically and in person.</p> <p><b>4.3.4</b> Practice safe and ethical behaviors in personal electronic communication and interaction</p> <p><b><u>NETS-S</u></b></p> <p><b>1. Creativity and Innovation</b></p>



<p><b>10. Does not plagiarize</b></p> <p><b>11. Observes copyright guidelines</b></p> <p><b>12. Cites print and non-print sources in a properly formatted bibliography</b></p> <p><b>13. Respects intellectual freedom and recognizes various viewpoints</b></p> <p><b>14. Understands and follows Internet safety guidelines in regards to social networking sites, e-mail, chat applications, bulletin boards.</b></p> <p><b>15. Reports and/or avoids harassing, deceptive, fraudulent, or illegal resources and communication.</b></p>	<p>documents of publication quality for specific purposes and audiences; exhibit clarity of focus, logic of organization, appropriate elaboration and support and overall coherence</p> <p><b>3.B.4b</b> Produce, edit, revise and format work for submission and/or publication (e.g., manuscript form, appropriate citation of sources) using contemporary technology</p> <p><b>3.C.4a</b> Write for real or potentially real situations in academic, professional and civic contexts (e.g., college applications, job applications, business letters, petitions)</p> <p><b>3.C.5a</b> Communicate information and ideas in narrative, informative and persuasive writing with clarity and effectiveness in a variety of written forms using appropriate traditional and/or electronic formats; adapt content, vocabulary, voice and tone to the audience, purpose and situation</p> <p><b>3.C.4b</b> Using available technology, produce compositions and multimedia works for specified audiences</p> <p><b>3.C.5b</b> Write for real or potentially real situations in academic, professional and civic contexts (e.g., applications, job applications, business letters, resume, petitions)</p> <p><b>4.B.4a</b> Deliver planned informative and persuasive oral presentations using visual aids and contemporary technology as individuals and members of a group; demonstrate organization, clarity, vocabulary, credible and accurate supporting evidence</p> <p><b>4.B.5a</b> Deliver planned and impromptu oral presentations, as individuals and members of a group, conveying results of research, projects or literature studies to a variety of audiences (e.g., peers, community, business/industry, local organizations) using appropriate visual aids and available technology</p>	<p>Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:</p> <p><b>a.</b> apply existing knowledge to generate new ideas, products, or processes.</p> <p><b>b.</b> create original works as a means of personal or group expression.</p> <p><b>2. Communication and Collaboration</b> Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:</p> <p><b>a.</b> interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.</p> <p><b>b.</b> communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p><b>d.</b> contribute to project teams to produce original works or solve problems.</p> <p><b>3. Research and Information Fluency</b> Students apply digital tools to gather, evaluate, and use information. Students:</p> <p><b>a.</b> plan strategies to guide inquiry.</p> <p><b>b.</b> locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.</p> <p><b>c.</b> evaluate and select information sources and digital tools based on the appropriateness to specific tasks.</p> <p><b>d.</b> process data and report results.</p> <p><b>4. Critical Thinking, Problem Solving, and Decision Making</b> Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:</p> <p><b>b.</b> plan and manage activities to develop a solution or complete a project.</p> <p><b>c.</b> collect and analyze data to identify solutions</p>
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**.A.5a** Develop a research plan using multiple forms of data

**5.A.4b** Design and present a project (e.g., research report, scientific study, career/higher education opportunities) using various formats from multiple sources

**5.B.4a** Choose and evaluate primary and secondary sources (print and non print) for a variety of purposes

**5.B.5a** Evaluate the usefulness of information, synthesize information to support a thesis, and present information in a logical manner in oral and written forms

**5.B.4b** Use multiple sources and multiple formats; cite according to standard style manuals

**5.B.5b** Credit primary and secondary sources in a form appropriate for presentation or publication for a particular audience

**5.C.4a** Plan, compose, edit and revise information (e.g., brochures, formal reports, proposals, research summaries, analyses, editorials, articles, overheads, multimedia displays) for presentation to an audience

**5.C.5a** Using contemporary technology, create a research presentation or prepare a documentary related to academic, technical or occupational topics and present the findings in oral or multimedia formats

**5.C.4b** Produce oral presentations and written documents using supportive research and incorporating contemporary technology

**5.C.5b** Support and defend a thesis statement using various references including media and electronic resources

### **Math**

**7.C.4c** Convert within and between measurement systems and monetary systems using

and/or make informed decisions.

**d.** use multiple processes and diverse perspectives to explore alternative solutions.

### **5. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

**a.** advocate and practice safe, legal, and responsible use of information and technology.

**b.** exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

**c.** demonstrate personal responsibility for lifelong learning.

**d.** exhibit leadership for digital citizenship.

### **6. Technology Operations and Concepts**

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

**a.** understand and use technology systems.

**b.** select and use applications effectively and productively.

**c.** troubleshoot systems and applications.

**d.** transfer current knowledge to learning of new technologies.



technology where appropriate

**8.B.4a** Represent algebraic concepts with physical materials, words, diagrams, tables, graphs, equations and inequalities and use appropriate technology

**8.D.4** Formulate and solve linear and quadratic equations and linear inequalities algebraically and investigate nonlinear inequalities using graphs, tables, calculators and computers

**9.A.4b** Make perspective drawings, tessellations and scale drawings, with and without the use of technology

**9.A.5** Use geometric figures and their properties to solve problems in the arts, the physical and life sciences and the building trades, with and without the use of technology

**9.C.4b** Construct and communicate convincing arguments for geometric situations

**9.C.4c** Develop and communicate mathematical proofs (e.g., two-column, paragraph, indirect) and counter examples for geometric statements

**9.C.5a** Perform and describe an original investigation of a geometric problem and verify the analysis and conclusions to an audience

**9.D.5** Analyze and solve problems involving periodic patterns (e.g., sound waves, tide variations) using circular functions and communicate results orally and in writing

**10.A.4a** Represent and organize data by creating lists, charts, tables, frequency distributions, graphs, scatterplots and box-plots

**10.A.5** Construct a statistics-based presentation, individually and as members of a team, to communicate and justify the results of a project

**10.B.4** Design and execute surveys or experiments, gather data to answer

relevant questions, and communicate results and conclusions to an audience using traditional methods and contemporary technology

- 10.B.5** Design a statistical experiment to answer a question about a realistic situation, conduct the experiment, use statistics to interpret the data, and communicate the results, individually and as members of a team

### **Science**

- 11.A.4f** Using available technology, report, display and defend to an audience conclusions drawn from investigations
- 11.B.5f** Using available technology, prepare and present findings of the tested design solution to an audience that may include professional and technical experts
- 11.B.4g** Using available technology, report to an audience the relative success of the design based on the test results and criteria

### **Social Science**

- 14.F.5** Interpret how changing geographical, economic, technological and social forces affect United States political ideas and traditions (e.g., freedom, equality and justice, individual rights)
- 14.F.4B** Describe how United States' political ideas, practices and technologies have extended rights for Americans in the 20th century (e.g., suffrage, civil rights, motor-voter registration)
- 16.E.5AW** Analyze how technological and scientific developments have affected human productivity, human comfort and the environment
- 17.A.5** Demonstrate how maps, other geographic instruments and technologies are used to solve spatial problems (e.g.,

land use, ecological concerns)

**17.A.4B** Use maps and other geographic instruments and technologies to analyze spatial patterns and distributions on earth

**Social & Emotional Learning**

**SEL- 3A:** Consider ethical, safety, and societal factors in making decisions

**SEL-3B:** Apply decision-making skills to deal responsibly with daily academic and social situations

# Technology Grades 9-12:

## Standard 4: Appreciates literature and other creative expressions of information and pursues information related to personal interests and aesthetic growth

- Is a competent and self-motivated reader
- Develops a background in types of literature and literary elements
- **Derives meaning from information presented creatively in a variety of formats**
- **Seeks information related to personal well-being, such as career interests, community involvement, health matters, and recreational pursuits**
- **Designs, develops and evaluates information products and solutions related to personal interests**

LIBRARY BENCHMARKS	OBJECTIVES	ILLINOIS STATE LEARNING STANDARDS	AASL STANDARDS & NETS-S
<p><b>A. Uses both text and visuals to understand literature</b></p> <p><b>B. Selects a "just right" book independently for personal reading</b></p> <p><b>C. Distinguishes between different types and elements of literature</b></p> <p><b>D. Analyzes and understands information presented creatively in a variety of non-textual formats</b></p> <p><b>E. Seeks information related to personal interests</b></p> <p><b>F. Selects resources and materials based on interest, need and appropriateness</b></p>	<p>1. Applies guidelines for choosing a "just right" book during literature selection</p> <p>2. Reads or listens to traditional world literature/folklore (nursery rhymes, fairy tales, pourquoi tales, trickster tales, fables, tall tales, legends, myths)</p> <p>3. Reads or listens to types of fiction in picture book and novel format (realistic fiction, historical fiction, fantasy, science fiction)</p> <p>4. Reads or listens to nonfiction (biography, information books, poetry)</p> <p>5. Increases</p>	<p><b>English</b></p> <p><b>1.B.5b</b> Analyze the defining characteristics and structures of a variety of complex literary genres and describe how genre affects the meaning and function of the texts</p> <p><b>1.C.4c</b> Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal)</p> <p><b>1.C.5c</b> Critically evaluate information from multiple sources</p> <p><b>1.C.4d</b> Summarize and make generalizations from content and relate them to the purpose of the material</p> <p><b>1.C.5d</b> Summarize and make generalizations from content and relate them to the purpose of the material</p> <p><b>2.A.4a</b> Analyze and evaluate the effective use of literary techniques (e.g., figurative language, allusion, dialogue, description, symbolism, word choice, dialect) in classic and contemporary literature representing a variety of forms and media</p> <p><b>2.B.4a</b> Critique ideas and impressions</p>	<p><b><u>AASL Standards</u></b></p> <p><b>2.2.1</b> Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.</p> <p><b>4.1.1</b> Read, view, and listen for pleasure and personal growth.</p> <p><b>4.1.3</b> Respond to literature and creative expressions of ideas in various formats and genres.</p> <p><b>4.1.4</b> Seek information for personal learning in a variety of formats and genres.</p> <p><b>4.1.7</b> Use social networks and information tools to gather and share information.</p> <p><b>4.2.1</b> Display curiosity by pursuing interests through multiple resources.</p> <p><b>4.2.2</b> Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.</p> <p><b>4.3.2</b> Recognize that resources are created for a</p>

understanding of literary elements of plot, character, setting, theme, point of view	generated by oral, visual, written and electronic materials	variety of purposes.
6. Increases understanding of literature by participating in discussion (opinions & responses, compare/contrast, inferences, predictions)	<b>5.A.5a</b> Develop a research plan using multiple forms of data	<b>4.3.3</b> Seek opportunities for pursuing personal and aesthetic growth.
7. Reads or listens to a variety of authors and illustrators	<b>5.A.4b</b> Design and present a project (e.g., research report, scientific study, career/higher education opportunities) using various formats from multiple sources	<b>4.4.6</b> Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.
8. Engages in an in-depth study of an author's and/or illustrator's body of work	<b>5.B.4a</b> Choose and evaluate primary and secondary sources (print and non print) for a variety of purposes	<b><u>NETS-S</u></b>
9. Is acquainted with award-winning literature	<b>5.B.5a</b> Evaluate the usefulness of information, synthesize information to support a thesis, and present information in a logical manner in oral and written forms	<b>1. Creativity and Innovation</b>
10. Responds to literature by participating in a variety of activities such as storytelling, drama, puppetry, finger plays, songs, poetry, reader's theater or visual arts	<b>5.B.4b</b> Use multiple sources and multiple formats; cite according to standard style manuals	Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:
<b>11. Utilizes a variety of formats (magazines, books, non-print, electronic resources, newspapers)</b>	<b>5.B.5b</b> Credit primary and secondary sources in a form appropriate for presentation or publication for a particular audience	<b>b.</b> create original works as a means of personal or group expression.
<b>12. Reads for pleasure, to learn and to solve information needs</b>	<b>5.C.4a</b> Plan, compose, edit and revise information (e.g., brochures, formal reports, proposals, research summaries, analyses, editorials, articles, overheads, multimedia displays) for presentation to an audience	<b>3. Research and Information Fluency</b>
<b>13. Seeks answers to</b>	<b>5.C.5a</b> Using contemporary technology, create a research presentation or prepare a documentary related to academic, technical or occupational topics and present the findings in oral or multimedia formats	Students apply digital tools to gather, evaluate, and use information. Students:
	<b>5.C.4b</b> Produce oral presentations and written documents using supportive research and incorporating contemporary technology	<b>a.</b> plan strategies to guide inquiry.
	<b>5.C.5b</b> Support and defend a thesis statement using various references including media and electronic resources	<b>b.</b> locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
	<b><u>Math</u></b>	<b>c.</b> evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
		<b>4. Critical Thinking, Problem Solving, and Decision Making</b>
		Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:
		<b>a.</b> identify and define authentic problems and significant questions for investigation.
		<b>b.</b> plan and manage activities to develop a solution or complete a project.
		<b>c.</b> collect and analyze data to identify solutions and/or make informed decisions.
		<b>d.</b> use multiple processes and diverse perspectives to explore alternative solutions.
		<b>5. Digital Citizenship</b>
		Students understand human, cultural, and

- questions**
- 14. Explores topics of interest**
- 15. Uses libraries, library resources, the Internet, and other information sources**
- 16. Is introduced to a variety of formats (magazines, books, non-print, electronic resources, newspapers)**

- 8.B.4a** Represent algebraic concepts with physical materials, words, diagrams, tables, graphs, equations and inequalities and use appropriate technology
- 8.D.4** Formulate and solve linear and quadratic equations and linear inequalities algebraically and investigate nonlinear inequalities using graphs, tables, calculators and computers
- 9.A.4b** Make perspective drawings, tessellations and scale drawings, with and without the use of technology
- 9.A.5** Use geometric figures and their properties to solve problems in the arts, the physical and life sciences and the building trades, with and without the use of technology
- 10.A.4a** Represent and organize data by creating lists, charts, tables, frequency distributions, graphs, scatterplots and box-plot
- 10.A.5** Construct a statistics-based presentation, individually and as members of a team, to communicate and justify the results of a project

### **Fine Arts**

- 26.B.4b**Drama: Create and perform an ensemble drama or theatre scene using research, collaboration, characterization and staging in combination with aural and visual technologies (e.g., video, lights, sets, costumes, makeup, sound, props)

- societal issues related to technology and practice legal and ethical behavior. Students:
- a.** advocate and practice safe, legal, and responsible use of information and technology.
  - b.** exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
  - c.** demonstrate personal responsibility for lifelong learning.
  - d.** exhibit leadership for digital citizenship.
- 6. Technology Operations and Concepts**
- Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:
- a.** understand and use technology systems.
  - b.** select and use applications effectively and productively.

# Technology Grades 9-12:

**Standard 5: Understands and practices Internet safety when using any social electronic media for educational or leisure purposes.**

- Practices strategies that promote personal safety and protect online and offline reputation
- Recognizes a variety of networked environments as public places that are governed by codes of behavior
- Knows how to protect electronic devices from harm in an online environment

LIBRARY BENCHMARKS	OBJECTIVES	ILLINOIS STATE LEARNING STANDARDS	AASL STANDARDS FOR THE 21ST CENTURY LEARNER

## WIKI Resources:

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