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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Table of Contents:

Section 1- I-SAIL

Purpose:

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:

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:

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 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 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 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

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

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

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.

Technology Related Standards for Grades K-2

Technology Grades K-2:

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
A. Understands basic organizational pattern of library **B. Locates parts of a book**	1. Defines difference between fiction and nonfiction 2. Recognizes call number and begins to understand grouping of materials by call number 3. Asks a question about finding a book 4. Identifies author, title, title page, illustrator, cover, spine	**English** **1.B.1b** Identify genres (forms and purposes) of fiction, nonfiction, poetry and electronic literary forms **Math** **10.B.1a** Formulate questions of interest and design surveys or experiments to gather data **Social Sciences** **16.A.1b** Ask historical questions and seek out answers from historical sources (e.g., myths, biographies, stories, old photographs, artwork, other visual or electronic sources) **17.A.1b** Identify the characteristics and purposes of geographic representations including maps, globes, graphs, photographs, software, digital images and be able to locate specific places using each	**AASL Standards** **1.1.4** Find, evaluate, and select appropriate sources to answer questions. **1.1.6** Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. **1.2.3** Demonstrate creativity by using multiple resources and formats. **NETS-S** **3. Research and Information Fluency** Students apply digital tools to gather, evaluate, and use information. Students: **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.

Technology Grades K-2:

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
A. Differentiates between fact and fiction **B. Identifies appropriate sources of information** **C. Finds facts to answers in more than one source.**	1. Uses headings, subheadings, table of contents, index **2. Identifies the appropriate use of reference materials, e.g. print and/or non-print encyclopedia, atlas, non-fiction book, website, etc.** **3. Identifies the names of sources used.** 4. Organizes information into different forms 5. Draw a conclusion about the main idea **6. Create individual or collaborative projects to share with others**	**English** **5.A.1b** Locate information using a variety of resources **5.B.1b** Cite sources used **5.C.1b** Use print, non-print, human and technological resources to acquire and use information **Math** **10.B.1a** Formulate questions of interest and design surveys or experiments to gather data **7.A.1b** Measure units of time using appropriate instruments (e.g., calendars, clocks, watches—both analog and digital) **9.C.1** Draw logical conclusions and communicate reasoning about simple geometric figures and patterns using concrete materials, diagrams and contemporary technology **10.B.1c** Analyze data, draw conclusions and communicate the results **Social Sciences** **16.A.1b** Ask historical questions and seek out answers from historical sources (e.g.,	**AASL Standards** **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **NETS-S** **1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: **b.** create original works as a means of personal or group expression. **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: **a.** interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. **b.** communicate information and ideas effectively to multiple audiences using a variety of

	myths, biographies, stories, old photographs, artwork, other visual or electronic sources)	media and formats. **d.** 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: **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: **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. **6. Technology Operations and Concepts** Students demonstrate a sound understanding of technology concepts, systems, and operations. Students: **a.** understand and use technology systems.

Technology Grades K-2:

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
A. Communicates results of information search in format appropriate for content **B. Understands the need for citing sources of information (copyright)** **C. Applies Internet guidelines and protocols as defined in the district's policies**	**1. Edits, formats, spell checks, saves, proofreads, and prints original documents using a word processor** **2. Collaborates with other students to solve information problems** 3. Organizes information using such techniques as graphic organizers, storyboarding or webbing **4. Creates products using multimedia techniques** **5. Presents the results of information search in a new form** **6. Presents, performs or shares a product successfully** 7. Evaluates projects **8. Recognizes the need for**	**English** **3.C.1b** Create media compositions or productions which convey meaning visually for a variety of purposes **4.A.1d** Use visually oriented and auditory based media **5.A.1b** Locate information using a variety of resources **5.B.1a** Select and organize information from various sources for a specific purpose **5.B.1b** Cite sources used **5.C.1b** Use print, non print, human and technological resources to acquire and use information **Math** **7.A.1b** Measure units of time using appropriate instruments (e.g., calendars, clocks, watches—both analog and digital) **7.B.1b** Compare estimated measures to actual measures taken with appropriate measuring instruments **10.A.1a** Organize and display data using	**AASL Standards** **1.3.1** Respect copyright/intellectual property rights of creators and producers. **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **3.1.4** Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess. **3.1.6** Use information and technology ethically and responsibly. **3.3.6** Use information and knowledge in the service of democratic values **4.3.1** Participate in the social exchange of ideas, both electronically and in person. **4.3.4** Practice safe and ethical behaviors in personal electronic communication and interaction **NETS-S** **1. Creativity and Innovation**

citing sources and begins to make simple bibliographies

9. Respects different points of view and opinions
10. **Understands and follows Internet safety guidelines in regards to social networking sites, email, chat applications, bulletin boards.**
11. **Reports and/or avoids harassing, deceptive, fraudulent, or illegal resources and communication.**

pictures, tallies, tables, charts or bar graphs

Social Sciences

14.C.1 Identify concepts of responsible citizenship including respect for the law, patriotism, civility and working with others

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

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

b. create original works as a means of personal or group expression.

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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

d. 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:

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

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

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. **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 K-2:

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
A. Uses both text and visuals to understand literature **B. Selects a "Just Right" book independently for personal reading** **C. Distinguishes between different types and elements of literature** **D. Analyzes and understands information presented creatively in a variety of non-textual formats** **E. Seeks information related to personal interests** **F. Selects resources and materials based on interest, need and appropriateness**	1. Applies guidelines for choosing a "Just Right" book during literature selection 2. Reads or listens to traditional world literature/folklore (nursery rhymes, fairy tales, pourqoui tales, trickster tales, fables, tall tales, legends, myths) 3. Reads or listens to types of fiction in picture book and novel format (realistic fiction, historical fiction, fantasy, science fiction) 4. Reads or listens to nonfiction (biography, information books, poetry) 5. Increases understanding	**English** **1.B.1b** Identify genres (forms and purposes) of fiction, nonfiction, poetry and electronic literary forms **5.A.1b** Locate information using a variety of resources **5.B.1a** Select and organize information from various sources for a specific purpose **5.B.1b** Cite sources used **5.C.1b** Use print, non print, human and technological resources to acquire and use information **Math** **9.C.1** Draw logical conclusions and communicate reasoning about simple geometric figures and patterns using concrete materials, diagrams and contemporary technology	**AASL Standards** **2.2.1** 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. **4.1.1** Read, view, and listen for pleasure and personal growth. **4.1.3:** Respond to literature and creative expressions of ideas in various formats and genres. **4.1.4:** Seek information for personal learning in a variety of formats and genres. **4.2.1**: Display curiosity by pursuing interests through multiple resources. **4.2.2**: 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. **4.3.2**: Recognize that resources are created for a variety of purposes.

of literary elements of plot, character, setting, theme, point of view

6. Increases understanding of literature by participating in discussion (opinions & responses, compare/contrast, inferences, predictions)
7. Reads or listens to a variety of authors and illustrators
8. Engages in an in-depth study of an author's and/or illustrator's body of work
9. Is acquainted with award-winning literature
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
11. **Is introduced to and utilizes a variety of formats (magazines, books, non-print, electronic resources, newspapers)**
12. **Reads for pleasure, to learn and to solve information needs**
13. **Seeks answers to questions**
14. **Explores topics of interest**
15. **Uses libraries, library**

NETS-S

1. Creativity and Innovation

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

c. 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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

3. Research and Information Fluency

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

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

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:

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

	resources, the Internet, and other information sources	technology that supports collaboration, learning, and productivity. **c**. demonstrate personal responsibility for lifelong learning. **6. Technology Operations and Concepts** Students demonstrate a sound understanding of technology concepts, systems, and operations. Students: **b.** select and use applications effectively and productively. **d.** transfer current knowledge to learning of new technologies.

Technology Grades K-2:

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

Technology Related Standards for Grades 3 - 5

Technology Grades 3-5:

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
A. Explains an information need **B. Understands the concept of keywords**	**1. Asks a question about finding a book or locating information in a print or non-print source** **2. Begins to use print and/or non-print dictionary, encyclopedia, atlas** 3. Begins to use table of contents and index **4. Identifies author, title, title page, illustrator, cover, spine, publisher, copyright date of print and/or non-print resources** **5. Begins to determine possible print and/or non-print resources and select the most**	**English** **5.A.1b** Locate information using a variety of resources **5.B.1a** Select and organize information from various sources for a specific purpose **5.B.1b** Cite sources used **5.C.1b** Use print, non print, human and technological resources to acquire and use information **5.A.2b** Organize and integrate information from a variety of sources (e.g., books, interviews, library reference materials, web- sites, CD/ROMs) **5.B.2a** Determine the accuracy, currency and reliability of materials from various sources **5.B.2b** Cite sources used **5.C.2a** Create a variety of print and non print documents to communicate acquired information for specific audiences and purposes **Social Sciences** **16.A.2c** Ask questions and seek answers by collecting and analyzing data from historic documents, images and other literary and	**AASL Standards** **1.1.4** Find, evaluate, and select appropriate sources to answer questions. **1.1.6** Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. **1.1.8** Demonstrate mastery of technology tools for accessing information and pursuing inquiry. **1.2.3** Demonstrate creativity by using multiple resources and formats. **1.2.7** Display persistence by continuing to pursue information to gain a broad perspective. **1.4.1** Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary. **1.4.4** Seek appropriate help when it is needed. **NETS-S** **1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative

	appropriate **6. Uses strategies to identify keywords** **7. Begins to use the electronic library catalog** 8. Locates materials on library shelves by call number **9. Begins to understand that information can be found in a variety of sources and formats and recognizes the unique features of each**	non-literary sources **17.A.2b** Use maps and other geographic representations and instruments to gather information about people, places and environments	products and processes using technology. Students: **c.** 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: **a.** interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. **b.** communicate information and ideas effectively to multiple audiences using a variety of media and formats. **c.** develop cultural understanding and global awareness by engaging with learners of other cultures. **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: **c.** collect and analyze data to identify solutions and/or make informed decisions. **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 3-5:

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
A. Identifies appropriate sources of information **B. Identify facts and details that support main ideas** **C. Analyze and evaluate new information based on previous experience and knowledge** **D. Find similar ideas in more than one source** **E. Question the differences between sources**	**1. Uses headings, subheadings, table of contents, index** 2. Learns beginning note-taking skills **3. Identifies the appropriate use of reference materials, e.g. print and/or non-print encyclopedia, atlas, non-fiction book, website, etc.** **4. Uses different clues to determine important ideas in illustrations and text** **5. Use common organizational patterns to make sense of information** **6. Work in groups to**	**English** **1.C.2f** Connect information presented in tables, maps and charts to printed or electronic text **5.A.1a** Identify questions and gather information **5.A.1b** Locate information using a variety of resources **5.B.1a** Select and organize information from various sources for a specific purpose **5.C.1b** Use print, non print, human and technological resources to acquire and use information **5.A.2b** Organize and integrate information from a variety of sources (e.g., books, interviews, library reference materials, web- sites, CD/ROMs) **5.B.2a** Determine the accuracy, currency and reliability of materials from various sources **5.B.2b** Cite sources used **5.C.2a** Create a variety of print and non print documents to communicate acquired infor-mation for specific audiences and purposes	**AASL Standards** **2.2.1** 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. **2.3.2** Consider diverse and global perspectives in drawing conclusions. **2.4.1** Determine how to act on information (accept, reject, modify). **NETS-S** **1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: **a.** apply existing knowledge to generate new ideas, products, or processes. **b**. create original works as a means of personal or group expression. **c.** use models and simulations to explore complex systems and issues.

create and evaluate projects and information products

7. **Cites sources used**

Math

10.A.2b Using a data set, determine mean, median, mode and range, with and without the use of technology

10.B.2a Formulate questions of interest and select methods to systematically collect data

10.B.2d Interpret results or make relevant decisions based on the data gathered

10.C.2c Determine the probability of an event involving "and", "or" or "not"

Science

11.B.2b Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology)

11.B.2c Build a prototype of the design using available tools and materials

11.B.2d Test the prototype using suitable instruments, techniques and quantitative measurements to record data

11.B.2e Assess test results and the effectiveness of the design using given criteria and noting possible sources of error

13.B.2a Explain how technology is used in science for a variety of purposes (e.g., sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information)

13.B.2b Describe the effects on society of scientific and technological innovations (e.g., antibiotics, steam engine, digital computers)

13.B.2c Identify and explain ways that science and technology influence the lives and careers of people

13.B.2e Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants)

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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

d. 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:

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.

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

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 3-5:

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
A. Communicates results of information search in format appropriate for content **B. Understands the need for citing sources of information (copyright)** **C. Applies Internet guidelines and protocols as defined in the district's policies**	**1. Edits, formats, spell checks, saves, proofreads, and prints original documents using a word processor** **2. Collaborates with other students to solve information problems** 3. Organizes information using such techniques as graphic organizers, storyboarding or webbing **4. Creates products using multimedia techniques** **5. Presents the results of information search in a new way** **6. Presents, performs or shares a product successfully**	**English** **1.C.3c** Compare, contrast and evaluate ideas and information from various sources and genres **3.B.3b** Edit and revise for word choice, organization, consistent point of view and transitions among paragraphs using contemporary technology and formats suitable for submission and/or publication **3.C.3b** Using available technology, produce compositions and multimedia works for specified audiences **4.B.3a** Deliver planned oral presentations, using language and vocabulary appropriate to the purpose, message and audience; provide details and supporting information that clarify main ideas; and use visual aids and contemporary technology as support **4.B.3b** Design and produce reports and multimedia compositions that represent group projects **5.A.3a** Identify appropriate resources to solve problems or answer questions through research	**AASL Standards** **1.3.1** Respect copyright/intellectual property rights of creators and producers. **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **3.1.2** Participate and collaborate as members of a social and intellectual network of learners. **3.1.4** Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess. **3.1.6** Use information and technology ethically and responsibly. **3.3.6** Use information and knowledge in the service of democratic values. **3.3.7** Respect the principles of intellectual freedom. **4.3.1** Participate in the social exchange of ideas, both electronically and in person. **4.3.4** Practice safe and ethical behaviors in personal electronic communication and interaction.

7. Evaluates projects
8. **Recognizes the need for citing sources and begins to make simple bibliographies**
9. **Respects different points of view and opinions**
10. **Understands and follows Internet safety guidelines in regards to social networking sites, email, chat applications, bulletin boards**
11. **Reports and/or avoids harassing, deceptive, fraudulent, or illegal resources and communication**

5.B.3a Choose and analyze information sources for individual, academic and functional purposes

5.B.3b Identify, evaluate and cite primary sources

5.C.3a Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources

5.C.3c Take notes, conduct interviews, organize and report information in oral, visual and electronic formats

Math

9.A.2c Describe and draw representations of geometric relationships, patterns, symmetries, and designs in two- and three-dimensions with and without technology

10.A.2a Organize and display data using pictures, tallies, tables, charts, bar graphs, line graphs, line plots and stem-and-leaf graphs

10.B.2b Collect, organize and display data using tables, charts, bar graphs, line graphs, circle graphs, line plots and stem-and-leaf graphs

Science

11.A.2c Construct charts and visualizations to display data

11.A.2e Report and display the results of individual and group investigations

11.B.2b Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology)

11.B.2c Build a prototype of the design using available tools and materials

11.B.2f Report test design, test process and test results

13.A.2c Explain why keeping accurate and detailed records is important

13.B.2a Explain how technology is used in science for a variety of purposes (e.g.,

NETS-S

1. Creativity and Innovation

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

a. apply existing knowledge to generate new ideas, products, or processes.

b. create original works as a means of personal or group expression.

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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

d. 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:

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

d. process data and report results.

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,

sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information)

13.B.2b Describe the effects on society of scientific and technological innovations (e.g., antibiotics, steam engine, digital computer)

13.B.2c Identify and explain ways that science and technology influence the lives and careers of people

13.B.2e Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants)

Social Science

14.C.2 Describe and evaluate why rights and responsibilities are important to the individual, family, community, workplace, state and nation (e.g., voting, protection under the law)

18.B.2a Describe interactions of individuals, groups and institutions in situations drawn from the local community (e.g., local response to state and national reforms)

18.B.2b Describe the ways in which institutions meet the needs of society

14.F.2 Identify consistencies and inconsistencies between expressed United States political traditions and ideas and actual practices (e.g., freedom of speech, right to bear arms, slavery, voting rights)

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

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 3-5:

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
A. Uses both text and visuals to understand literature **B. Selects a "Just Right" book independently for personal reading** **C. Distinguishes between different types and elements of literature** **D. Analyzes and understands information presented creatively in a variety of non-textual formats** **E. Seeks information related to personal interests** **F. Selects resources and materials based on interest, need and appropriateness**	1. Applies guidelines for choosing a "Just Right" book during literature selection 2. Reads or listens to traditional world literature/folklore (nursery rhymes, fairy tales, pourqoui tales, trickster tales, fables, tall tales, legends, myths) 3. Reads or listens to types of fiction in picture book and novel format (realistic fiction, historical fiction, fantasy, science fiction) 4. Reads or listens to nonfiction (informational text including biography and poetry)	**English** **2.A.2c** Identify definitive features of literary forms (e.g., realistic fiction, historical fiction, fantasy, narrative, nonfiction, biography, plays, electronic literary forms) **5.A.2b** Organize and integrate information from a variety of sources (e.g., books, interviews, library reference materials, websites, CD/ROMs) **5.B.2a** Determine the accuracy, currency and reliability of materials from various sources **5.B.2b** Cite sources used **5.C.2a** Create a variety of print and non print documents to communicate acquired information for specific audiences and purposes **Math** **9.A.2c** Describe and draw representations of geometric relationships, patterns, symmetries, and designs in two- and three-dimensions with and without technology **10.A.2a** Organize and display data using pictures, tallies, tables, charts, bar graphs, line graphs, line plots and stem-and-leaf	**AASL Standards** **2.2.1** 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. **4.1.7:** Use social networks and information tools to gather and share information. **4.2.1**: Display curiosity by pursuing interests through multiple resources. **4.2.2:** 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. **4.3.2:** Recognize that resources are created for a variety of purposes. **4.3.3**: Seek opportunities for pursuing personal and aesthetic growth. **4.4.6**: Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.

5. Increases understanding of literary elements of plot, character, setting, theme, point of view
6. **Increases understanding of literature by participating in discussion (opinions & responses, compare/contrast, inferences, predictions)**
7. **Reads or listens to a variety of authors and illustrators**
8. Engages in an in-depth study of an author's and/or illustrator's body of work
9. Is acquainted with award-winning literature
10. Responds to literature by participating in a variety of activities such as storytelling, drama, puppetry, fingerplays, songs, poetry, reader's theater or visual arts
11. **Is introduced to and utilizes a variety of formats (magazines, books, non-print, electronic resources, newspapers)**
12. **Reads for pleasure, to learn and to solve**

graphs

10.B.2b Collect, organize and display data using tables, charts, bar graphs, line graphs, circle graphs, line plots and stem-and-leaf graphs

Social Sciences

18.A.2 Explain ways in which language, stories, folk tales, music, media and artistic creations serve as expressions of culture

NETS-S

3. Research and Information Fluency

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

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:

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:

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

c. demonstrate personal responsibility for lifelong learning.

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.

	information needs **13. Seeks answers to questions** **14. Explores topics of interest** 15. **Uses libraries, library resources, the Internet, and other information sources**	

Technology Grades 3-5:

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

Technology Related Standards for Grades 6 - 8

Technology Grades 6-8:

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
A. Demonstrates skill in using electronic catalog **B. Locates materials on library shelves by call number** **C. Uses print and electronic sources to safely access, extract and process information** **D. Understands scope, depth and potential usefulness of a variety of available information resources** **E. Uses search and navigational features of print and electronic sources to efficiently access information**	1. Formulates a question about a topic **2. Identifies appropriate keywords to use as access points in an information search within print and/or non-print sources** **3. Generates a list of possible resources and determines which are useful** **4. Searches library catalog by keyword, author, title** 5. Identifies and records call numbers 6. Locates materials on library shelves by call number **7. Finds information within print and/or non-print sources**	**English** **5.A.3a** Identify appropriate resources to solve problems or answer questions through research **5.A.3b** Design a project related to contemporary issues (e.g., real-world math, career development, community service) using multiple sources **5.B.3a** Choose and analyze information sources for individual, academic and functional purposes **5.B.3b** Identify, evaluate and cite primary sources **5.C.3a** Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources **5.C.3c** Take notes, conduct interviews, organize and report information in oral, visual and electronic formats **Math** **9.C.3b** Develop and solve problems using geometric relationships and models, with	**AASL Standards** **1.1.4** Find, evaluate, and select appropriate sources to answer questions. **1.1.6** Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. **1.1.7** Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias. **1.1.8** Demonstrate mastery of technology tools for accessing information and pursuing inquiry. **1.2.3** Demonstrate creativity by using multiple resources and formats. **1.3.3** Follow ethical and legal guidelines in gathering and using information. **1.3.5** Use information technology responsibly. **1.4.1** Monitor own information-seeking processes for effectiveness and progress, and adapt as necessary. **1.4.4** Seek appropriate help when it is needed.

8. Uses table of contents, index and glossary
9. **Recognizes author, title, publisher, copyright date of print and/or non-print resources**
10. Begins to understand visual literacy clues
11. Articulates an information need
12. Formulates questions to refine an information need
13. **Generates appropriate keywords to use as access points in a search**
14. **Is aware of the scope and depth of various resources**
15. **Demonstrates skill using the electronic library catalog**
16. **Conducts effective searches using electronic resources**
17. **Accesses internet information effectively**
18. **Navigates within print and electronic resources to locate and access information**

and without the use of technology

10.A.3c Test the reasonableness of an argument based on data and communicate their findings

10.B.3 Formulate questions (e.g., relationships between car age and mileage, average incomes and years of schooling), devise and conduct experiments or simulations, gather data, draw conclusions and communicate results to an audience using traditional methods and contemporary technologies

Social Science

17.A.3b Explain how to make and use geographic representations to provide and enhance spatial information including maps, graphs, charts, models, aerial photographs, satellite images

NETS-S

1. Creativity and Innovation

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

c. 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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

c. develop cultural understanding and global awareness by engaging with learners of other cultures.

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.

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

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.

Technology Grades 6-8:

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
A. Evaluates search process **B. Examines and evaluates information sources** **C. Extracts relevant and essential information from sources** **D. Compare and contrast information found in different sources.** **E. Draw conclusions based on explicit and implied information.** **F. Use common organizational patterns to organize information in order to draw conclusions**	**1. Determines authenticity and relevance of print and non-print information** 2. Uses paraphrasing, note taking and other strategies to record results of information searching **3. Identifies and extracts relevant information in print and electronic resources** **4. Selects appropriate resources from a list of "hits" obtained in an electronic catalog search** **5. Uses conventions of the source to determine usefulness**	**English** **5.A.3b** Design a project related to contemporary issues (e.g., real-world math, career development, community service) using multiple sources **5.B.3a** Choose and analyze information sources for individual, academic and functional purposes **5.B.3b** Identify, evaluate and cite primary sources. **5.C.3a** Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources **5.C.3c** Take notes, conduct interviews, organize and report information in oral, visual and electronic formats **Math** **8.B.3** Use graphing technology and algebraic methods to analyze and predict linear relationships and make generalizations from linear patterns **8.C.3** Apply the properties of numbers and	**AASL Standards** **2.1.3** Use strategies to draw conclusions from information and apply knowledge to curricular areas, real-world situations, and further investigations. **2.2.1** 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. **2.3.3** Use valid information and reasoned conclusions to make ethical decisions. **2.4.1** Determine how to act on information (accept, reject, modify). **NETS-S** **1. Creativity and Innovation** Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: **a.** apply existing knowledge to generate new ideas, products, or processes.

6. **Reads, views, listens to information critically and competently**
7. **Applies evaluative criteria to print and/or non-print materials to determine the usefulness, relevancy, suitability, authority, objectivity, currency**
8. **Identifies information relevant and essential to the information need**
9. **Works in teams to understand concepts and solve problems.**
10. **Cites all sources used.**

operations including inverses in algebraic settings derived from economics, business and the sciences

9.C.3b Develop and solve problems using geometric relationships and models, with and without the use of technology

10.A.3a Construct, read and interpret tables, graphs (including circle graphs) and charts to organize and represent data

10.A.3b Compare the mean, median, mode and range, with and without the use of technology

10.A.3c Test the reasonableness of an argument based on data and communicate their findings

10.B.3 Formulate questions (e.g., relationships between car age and mileage, average incomes and years of schooling), devise and conduct experiments or simulations, gather data, draw conclusions and communicate results to an audience using traditional methods and contemporary technologies

Science

13.B.3b Identify important contributions to science and technology that have been made by individuals and groups from various cultures

13.B.3c Describe how occupations use scientific and technological knowledge and skills

13.B.3f Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality

Social Science

16.A.3b Make inferences about historical events and eras using historical maps and other historical sources.

b. create original works as a means of personal or group expression.

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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

3. Research and Information Fluency

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

a. plan strategies to guide inquiry.

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.

	16.A.3c Identify the differences between historical fact and interpretation **16.C.3a (W)** Describe major economic trends from 1000 to 1500 CE including long distance trade, banking, specialization of labor, commercialization, urbanization and technological and scientific progress	**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 6-8:

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
A. Organizes and synthesizes information from multiple sources **B. Creates and effectively communicates information and ideas to others** **C. Understands the concept of plagiarism and cites sources properly** **D. Applies Internet guidelines and protocols as defined in the district's policies**	1. Organizes information from multiple sources in a logical sequence using a graphic organizer **2. Selects an appropriate format for communicating ideas** 3. Develops a storyboard **4. Creates a product using technology when appropriate** **5. Presents, performs or shares information and ideas successfully** 6. Evaluates product or presentation **7. Avoids plagiarism by ethically using information** **8. Observes copyright**	**English** **3.B.3b** Edit and revise for word choice, organization, consistent point of view and transitions among paragraphs using contemporary technology and formats suitable for submission and/or publication **3.C.3b** Using available technology, produce compositions and multimedia works for specified audiences **4.B.3a** Deliver planned oral presentations, using language and vocabulary appropriate to the purpose, message and audience; provide details and supporting information that clarify main ideas; and use visual aids and contemporary technology as support **4.B.3b** Design and produce reports and multi-media compositions that represent group projects **5.A.3a** Identify appropriate resources to solve problems or answer questions through research **5.A.3b** Design a project related to con-	**AASL Standards** **1.3.1** Respect copyright/intellectual property rights of creators and producers. **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **2.3.3** Use valid information and reasoned conclusions to make ethical decisions. **3.1.2** Participate and collaborate as members of a social and intellectual network of learners. **3.1.4** Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess. **3.1.6** Use information and technology ethically and responsibly. **3.3.2** Respect the differing interests and experiences of others, and seek a variety of viewpoints. **3.3.6** Use information and knowledge in the service of democratic values. **3.3.7** Respect the principles of intellectual

guidelines

9. **Cites print and non-print sources in a properly formatted bibliography**
10. **Understands and follows Internet safety guidelines in regards to social networking sites, email, chat applications, bulletin boards.**
11. **Reports and/or avoids harassing, deceptive, fraudulent, or illegal resources and communication.**

temporary issues (e.g., real-world math, career development, community service) using multiple sources

5.B.3a Choose and analyze information sources for individual, academic and functional purposes

5.B.3b Identify, evaluate and cite primary sources

5.C.3a Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources

5.C.3c Take notes, conduct interviews, organize and report information in oral, visual and electronic formats

Math

8.B.3 Use graphing technology and algebraic methods to analyze and predict linear relationships and make generalizations from linear patterns

9.A.3b Draw transformation images of figures, with and without the use of technology

9.C.3b Develop and solve problems using geometric relationships and models, with and without the use of technology

10.A.3a Construct, read and interpret tables, graphs (including circle graphs) and charts to organize and represent data

10.A.3b Compare the mean, median, mode and range, with and without the use of technology

10.A.3c Test the reasonableness of an argument based on data and communicate their findings

10.B.3 Formulate questions (e.g., relationships between car age and mileage, average incomes and years of schooling), devise and conduct experiments or simulations, gather data, draw conclusions and communicate results to an audience using traditional methods and contemporary technologies

freedom.

4.3.1 Participate in the social exchange of ideas, both electronically and in person.

4.3.4 Practice safe and ethical behaviors in personal electronic communication and interaction

NETS-S

1. Creativity and Innovation

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

a. apply existing knowledge to generate new ideas, products, or processes.

b. create original works as a means of personal or group expression.

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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

d. 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:

a. plan strategies to guide inquiry.

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

d. process data and report results.

5. Digital Citizenship

Students understand human, cultural, and

Science

11.A.3f Interpret and represent results of analysis to produce findings

11.A.3g Report and display the process and results of a scientific investigation

11.B.3f Using available technology, report the relative success of the design based on the test results and criteria

Social Science

14.D.3 Describe roles and influences of individuals, groups and media in shaping current Illinois and United States public policy (e.g., general public opinion, special interest groups, formal parties, media)

16.A.3c Identify the differences between historical fact and interpretation

16.C.3c (W) Describe the impact of technology (e.g., weaponry, transportation, printing press, microchips) in different parts of the world, 1500 - present

17.A.3b Explain how to make and use geographic representations to provide and enhance spatial information including maps, graphs, charts, models, aerial photographs, satellite images

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

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 6-8:

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

- Strives to be 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
A. Uses both text and visuals to understand literature **B. Selects a "Just Right" book independently for personal reading** **C. Distinguishes between different types and elements of literature** **D. Analyzes and understands information presented creatively in a variety of non-textual formats** **E. Seeks information related to personal interests and goals** **F. Selects resources and materials based on need and appropriateness**	1. Applies guidelines for choosing a "Just Right" book during literature selection 2. Reads or listens to traditional world literature/folklore (nursery rhymes, fairy tales, pourqoui tales, trickster tales, fables, tall tales, legends, myths) 3. Reads or listens to types of fiction in picture book and novel format (realistic fiction, historical fiction, fantasy, science fiction) 4. Reads or listens to nonfiction (biography, information books,	**English** **5.A.3a** Identify appropriate resources to solve problems or answer questions through research **5.A.3b** Design a project related to contemporary issues (e.g., real-world math, career development, community service) using multiple sources **5.B.3a** Choose and analyze information sources for individual, academic and functional purposes **5.B.3b** Identify, evaluate and cite primary sources **5.C.3a** Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources **5.C.3c** Take notes, conduct interviews, organize and report information in oral, visual and electronic formats **Math** **8.B.3** Use graphing technology and algebraic methods to analyze and predict linear relationships and make generalizations from	**AASL Standards** **2.2.1** 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. **4.1.1** Read, view, and listen for pleasure and personal growth **4.1.7.** Use social networks and information tools to gather and share information. **4.2.1.** Display curiosity by pursuing interests through multiple resources. **4.2.2.** 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. **4.3.2.** Recognize that resources are created for a variety of purposes. **4.3.3.** Seek opportunities for pursuing personal and aesthetic growth. **4.4.6.** Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs

poetry)
5. Increases understanding of literary elements of plot, character, setting, theme, point of view
6. Increases understanding of literature by participating in discussion (opinions & responses, compare/contrast, inferences, predictions)
7. Reads or listens to a variety of authors and illustrators
8. Engages in an in-depth study of an author's and/or illustrator's body of work
9. Gains knowledge and appreciation for award-winning literature
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
11. **Utilizes a variety of formats (magazines, books, non-print, electronic**

linear patterns

9.A.3b Draw transformation images of figures, with and without the use of technology

9.C.3a Construct, develop and communicate logical arguments (informal proofs) about geometric figures and patterns

10.A.3a Construct, read and interpret tables, graphs (including circle graphs) and charts to organize and represent data

10.B.3 Formulate questions (e.g., relationships between car age and mileage, average incomes and years of schooling), devise and conduct experiments or simulations, gather data, draw conclusions and communicate results to an audience using traditional methods and contemporary technologies

Fine Arts

25.A.3e Visual Arts: Analyze how the elements and principles can be organized to convey meaning through a variety of media and technology

NETS-S

1. Creativity and Innovation

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

a. apply existing knowledge to generate new ideas, products, or processes.

b. create original works as a means of personal or group expression.

c. 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:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

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

	resources, newspapers) **12. Reads for pleasure, to learn and to solve information needs** **13. Seeks answers to questions** **14. Explores topics of interest** 15. **Uses libraries, library resources, the Internet, and other information sources**	solution or complete a project. **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: **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: **d.** transfer current knowledge to learning of new technologies.

Technology Grades 6-8:

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

Technology Related Standards for Grades 9 - 12

Technology Grades 9-12:

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
A. Understands scope, depth and potential usefulness of more advanced, sophisticated and diverse resources **B. Develops and executes successful strategies to access information to efficiently and effectively**	1. Articulates an information need 2. Formulates questions to refine an information need 3. Develops purpose or thesis statement **4. Identifies potential print and/or non-print sources of information** **5. Identifies and uses various strategies and techniques to execute and refine successful searches** 6. **Navigates within print and electronic resources effectively and independently**	**English** **1.C.4c** Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal) **1.C.5c** Critically evaluate information from multiple sources **5.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.4b** Use multiple sources and multiple formats; cite according to standard style manuals **5.C.4a** Plan, compose, edit and revise information (e.g., brochures, formal reports, proposals, research summaries, analyses, editorials, articles, overheads,	**AASL Standards** **1.1.4** Find, evaluate, and select appropriate sources to answer questions. **1.1.5** Evaluate information found in selected sources on the basis of accuracy, validity, and appropriateness for needs, importance, and social and cultural context. **1.1.6** Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning. **1.1.7** Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias. **1.1.8** Demonstrate mastery of technology tools for accessing information and pursuing inquiry. **1.2.1** Display initiative and engagement by posing questions and investigating the answers beyond the collection of superficial facts. **1.2.2** Demonstrate confidence and self-direction by making independent choices in the

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

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

selection of resources and information.

1.2.3 Demonstrate creativity by using multiple resources and formats.

1.2.4 Maintain a critical stance by questioning the 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:

	technology and human rights movements.	**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
A. Identify main, supporting, and conflicting information using multiple sources to support interpretation or point of view. **B. Critically examine and analyze relevant information from a variety of sources to discover relationships and patterns among ideas**	**1. Reads, views, listens to information critically** **2. Applies evaluative criteria to print and/or non-print materials to determine the relative value of the information relevancy, suitability, authority, objectivity, currency** 3. **Identifies information relevant and essential to the information need** 4. Uses paraphrasing, highlighting or other extraction techniques or strategies to identify and record relevant information 5. Combine ideas and information to develop an demonstrate new understanding **6. Works with others to**	**English** **1.C.4c** Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal) **1.C.5c** Critically evaluate information from multiple sources **5.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.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,	**AASL Standards** **2.1.4** Use technology and other information tools to analyze and organize information. **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **2.2.1** 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. **2.3.2** Consider diverse and global perspectives in drawing conclusions. **2.3.3** Use valid information and reasoned conclusions to make ethical decisions. **2.4.1** Determine how to act on information (accept, reject, modify). **2.4.2** Reflect on systematic process, and assess for completeness of investigation. **2.4.3** Recognize new knowledge and understanding. **2.4.4** Develop directions for future investigations.

	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)**	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.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: **a.** apply existing knowledge to generate new ideas, products, or processes. **b**. create original works as a means of personal or group expression. **c.** 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: **a.** interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. **b.** communicate information and ideas effectively to multiple audiences using a variety of media and formats. **d.** 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: **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. **d.** 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
A. Organizes and synthesizes information from multiple sources **B. Creates and effectively communicates information and ideas to others** **C. Understands and respects the concepts of intellectual freedom, intellectual property and plagiarism** **D. Applies Internet guidelines and protocols as defined in the district's policies**	**1. Analyzes information and identifies topics, subtopics and relationships** 2. Organizes information in a logical sequence **3. Selects an appropriate format for communicating ideas** **4. Develops a formal outline or storyboard** 5. Creates a product that clearly expresses ideas **6. Uses appropriate resources and technology in creating products** **7. Revises and refines as necessary** **8. Presents, performs or shares information and ideas successfully** 9. Evaluates product or presentation	**1.B.4b** Analyze, interpret and compare a variety of texts for purpose, structure, content, detail and effect **1.C.4c** Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal) **1.C.5c** Critically evaluate information from multiple sources **2.B.4a** Critique ideas and impressions generated by oral, visual, written and electronic materials **3.A.4** 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 **3.A.5** Produce grammatically correct documents using standard manuscript specifications for a variety of purposes and audiences **3.B.5** Using contemporary technology, produce	**AASL Standards** **1.3.1** Respect copyright/intellectual property rights of creators and producers. **2.1.6** Use the writing process, media and visual literacy, and technology skills to create products that express new understandings. **2.3.3** Use valid information and reasoned conclusions to make ethical decisions **3.1.2** Participate and collaborate as members of a social and intellectual network of learners. **3.1.4** Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess. **3.1.6** Use information and technology ethically and responsibly. **4.3.1** Participate in the social exchange of ideas, both electronically and in person. **4.3.4** Practice safe and ethical behaviors in personal electronic communication and interaction **NETS-S** **1. Creativity and Innovation**

	10. Does not plagiarize **11. Observes copyright guidelines** **12. Cites print and non-print sources in a properly formatted bibliography** **13. Respects intellectual freedom and recognizes various viewpoints** **14. Understands and follows Internet safety guidelines in regards to social networking sites, e-mail, chat applications, bulletin boards.** **15. Reports and/or avoids harassing, deceptive, fraudulent, or illegal resources and communication.**	documents of publication quality for specific purposes and audiences; exhibit clarity of focus, logic of organization, appropriate elaboration and support and overall coherence **3.B.4b** Produce, edit, revise and format work for submission and/or publication (e.g., manuscript form, appropriate citation of sources) using contemporary technology **3.C.4a** Write for real or potentially real situations in academic, professional and civic contexts (e.g., college applications, job applications, business letters, petitions) **3.C.5a** 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 **3.C.4b** Using available technology, produce compositions and multimedia works for specified audiences **3.C.5b** Write for real or potentially real situ-ations in academic, professional and civic contexts (e.g., applications, job applications, business letters, resume, petitions) **4.B.4a** 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 **4.B.5a** 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	Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students: **a.** apply existing knowledge to generate new ideas, products, or processes. **b**. create original works as a means of personal or group expression. **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: **a.** interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. **b.** communicate information and ideas effectively to multiple audiences using a variety of media and formats. **d.** 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: **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. **d.** 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 problems, and make informed decisions using appropriate digital tools and resources. Students: **b.** plan and manage activities to develop a solution or complete a project. **c.** collect and analyze data to identify solutions

.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 measure-ment 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 boxplots

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
A. Uses both text and visuals to understand literature **B. Selects a "just right" book independently for personal reading** **C. Distinguishes between different types and elements of literature** **D. Analyzes and understands information presented creatively in a variety of non-textual formats** **E. Seeks information related to personal interests** **F. Selects resources and materials based on interest, need and appropriateness**	1. Applies guidelines for choosing a "just right" book during literature selection 2. Reads or listens to traditional world literature/folklore (nursery rhymes, fairy tales, pourqoui tales, trickster tales, fables, tall tales, legends, myths) 3. Reads or listens to types of fiction in picture book and novel format (realistic fiction, historical fiction, fantasy, science fiction) 4. Reads or listens to nonfiction (biography, information books, poetry) 5. Increases	**English** **1.B.5b** 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 **1.C.4c** Interpret, evaluate and apply information from a variety of sources to other situations (e.g., academic, vocational, technical, personal) **1.C.5c** Critically evaluate information from multiple sources **1.C.4d** Summarize and make generalizations from content and relate them to the purpose of the material **1.C.5d** Summarize and make generalizations from content and relate them to the purpose of the material **2.A.4a** 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 **2.B.4a** Critique ideas and impressions	**AASL Standards** **2.2.1** 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. **4.1.1** Read, view, and listen for pleasure and personal growth. **4.1.3** Respond to literature and creative expressions of ideas in various formats and genres. **4.1.4** Seek information for personal learning in a variety of formats and genres. **4.1.7** Use social networks and information tools to gather and share information. **4.2.1** Display curiosity by pursuing interests through multiple resources. **4.2.2** 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. **4.3.2** Recognize that resources are created for a

understanding of literary elements of plot, character, setting, theme, point of view

6. Increases understanding of literature by participating in discussion (opinions & responses, compare/contrast, inferences, predictions)
7. Reads or listens to a variety of authors and illustrators
8. Engages in an in-depth study of an author's and/or illustrator's body of work
9. Is acquainted with award-winning literature
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
11. **Utilizes a variety of formats (magazines, books, non-print, electronic resources, newspapers)**
12. **Reads for pleasure, to learn and to solve information needs**
13. **Seeks answers to**

generated by oral, visual, written and electronic materials

5.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

variety of purposes.

4.3.3 Seek opportunities for pursuing personal and aesthetic growth.

4.4.6 Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.

NETS-S

1. Creativity and Innovation

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

b. create original works as a means of personal or group expression.

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

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:

To view additional resources including lesson plans, webquests, booklists, and more visit the accompanying WIKI at http://isail.wikidot.com.

You may also add resources to this wiki by creating a free account and becoming a member of the WIKI.