ISAIL

Illinois Standards-Aligned Instruction for Libraries

2018

7th Grade

Aligned with Illinois Common Core Standards,
Next Generation Science Standards,
AASL National School Library Standards for Learners, School Librarians, and School Libraries,
and ISTE Standards for Students

AISLE
Association of Illinois School Library Educators

Permissions and Acknowledgements

Permission has been obtained from the following organizations to use their materials in this document:

Iowa City Community School District

American Association of School Librarians (AASL): Excerpted from *National School Library Standards for Learners, School Librarians, and School Libraries- AASL Standards Framework for Learners* by the American Association of School Librarians, a division of the American Library Association, copyright © 2018 American Library Association. Used with permission. Available for free download at standards.aasl.org/learners.

ISTE: International Society for Technology in Education: ISTE Standards for Students, ©2016, ISTE®, www.iste.org. All rights reserved.

***Next Generation Science Standards (NGSS) is a registered trademark of Achieve.**

Purpose

To empower, educate, and encourage school library information specialists to plan strategically with other teachers to incorporate information literacy skills in lessons and thereby provide college and career readiness for students.

Vision

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

History

Annually, the Alliance Library System consulting staff (now part of RAILS-Reaching Across Illinois Library System) conducted site visits at each of its member libraries. In 2007, the staff noticed a 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 an online wiki. In October 2008, the framework was presented to the Illinois School Library Media Association (ISLMA) for adoption as a statewide model. The 2011 revision occurred as a response to the adoption of the Illinois Common Core Standards in English and Math, and in 2015 another revision occurred in response to the Next Generation Science Standards. A 2018 revision updated both the ISTE and AASL standards after new versions were published. The I-SAIL document will continue to be revised as needed to maintain its currency and usefulness.

Abbreviation Key

Common Core State Standards:

English/Language Arts Strand Code: RL=Reading Literature; RI=Reading Informational Text; RF=Reading Foundational Skills; W=Writing; SL=Speaking and Listening; L=Language; RH=Reading in History/Social Studies; RST=Reading in Science and Technical Subjects; WHST=Writing in History/Social Studies, Science, and Technical Subjects; CC=Common Core

Math Standards Code: OA=Operations and Algebraic Thinking; NBT=Number and Operations in Base 10; MD=Measurements and Data; G=Geometry; NF=Number and Operations-Fractions; RP=Ratios and Proportional Relationships; NS=Number System; EE=Expressions and Equations; SP=Statistics and Probability; A=Algebra

AASL National School Library Standards for Learners, School Librarians, and School Libraries:

Shared Foundations and Key Commitments are denoted with Roman numerals, followed by an alphabetical indicator denoting the Domain and Competencies, followed by a number indicating the competency.

I-SAIL Standards

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

- Recognize the need for information
- Formulate questions based on information needs
- Identify various potential sources of information
- Develop and use successful strategies for locating information
- Seek information from diverse sources

Standard 2: Evaluate information critically and competently

- Determine accuracy, relevance, and comprehensiveness of information
- Distinguish among fact, point of view, and opinion
- Identify inaccurate and misleading information
- Select information appropriate to the problem or question

Standard 3: Use information accurately, creatively, and ethically to share knowledge and to participate collaboratively and productively as a member of a democratic society

- Organize information for practical application
- Integrate new information into own schema
- Produce and communicate information and ideas in appropriate formats
- Use problem-solving techniques to devise strategies for improving process or product
- Practice ethical behavior when using print and digital resources (including freedom of speech, intellectual freedom, copyright, and plagiarism)

Standard 4: Appreciate literature and other creative expressions of thoughts and ideas and pursue knowledge related to personal interests and aesthetic growth

- Cultivate a love of reading and become a self-motivated reader
- Develop a knowledge of genres and literary elements
- Derive meaning from informational texts in various formats

Standard 5: Understand and practice Internet safety when using any electronic media for educational, social, or recreational purposes

- Practice strategies that promote personal safety and protect online and offline reputation
- Recognize that networked environments are public places governed by codes of ethical behavior
- Practice positive digital citizenship
- Distinguish website authority, validity, and purpose
- Understand the need for protecting personal privacy when using public access to digital sources
- Protect personal information and electronic devices in an online environment

7TH GRADE

Standard 1 - Access information efficiently and effectively to inquire, think critically, and gain knowledge	**LIBRARY BENCHMARKS**
● Recognize the need for information ● Formulate questions based on information needs ● Identify various potential sources of information ● Develop and use successful strategies for locating information ● Seek information from diverse sources	A. Demonstrate skill in using an electronic catalog B. Locate materials on library shelves by call number C. Use print and electronic sources to access, extract, and process information D. Understand scope, depth, and potential usefulness of various available information resources E. Use search and navigational features of print and electronic sources to access information efficiently
	LIBRARY OBJECTIVES
	1. Independently practice articulating information needs and formulating questions to refine search strategies 2. Practice locating information within a source using navigational tools (e.g., table of contents, glossary, index, site map, FAQs) 3. Choose broader or narrower keywords to refine search results 4. Practice locating materials and information using databases in addition to the library catalog 5. Identify rationale for using specific types of resources

Common Core Standards	NGSS	AASL National School Library Standards for Learners	ISTE Standards for Students
Reading Informational Text ***Key Ideas and Details*** CC.7.RI.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. CC.7.RI.2 Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text. **Writing** ***Text Types and Purposes*** CC.7.W.1.a Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically. CC.7.W.1.b Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text. CC.7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. ***Research to Build and Present Knowledge*** CC.7.W.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation. CC.7.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the	**Physical Science** ***Matter and Its Interactions*** MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. ***Motion and Stability: Forces and Interactions*** MS-PS2-2. Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. MS-PS2-5. Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact. ***Energy*** MS-PS3-4. Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	**I. Inquire** ***Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.*** **A. Think - Learners display curiosity and initiative by:** I.A.1. Formulating questions about a personal interest or a curricular topic. **B. Create - Learners engage with new knowledge by following a process that includes:** I.B.1. Using evidence to investigate questions. I.B.2. Devising and implementing a plan to fill knowledge gaps. **IV. Curate** ***Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.*** **A. Think - Learners act on an information need by:** IV.A.1. Determining the need to gather information. IV.A.2. Identifying possible sources of information. IV.A.3 Making critical choices about information sources to use.	**2. Digital Citizen** **Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.** **Students:** 2c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **3. Knowledge Constructor** **Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.** **Students**: 3a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. 3b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.

credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CC.7.W.9.b Apply grade 7 Reading standards to literary nonfiction (e.g. “Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims”).

Range of Writing

CC.7.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Language

Vocabulary Acquisition and Use

CC.7.L.4.c Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.

Reading in Science and Technical Subjects

Key Ideas and Details

CC.6-8.RST.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Writing in History/Social Studies, Science, and Technical Subjects

Text Types and Purposes

CC.6-8.WHST.2.b Develop the topic with relevant, well-chosen facts, definitions,

Life Science

From Molecules to Organisms: Structures and Processes

MS-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS1-6. Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

Ecosystems: Interactions, Energy, and Dynamics

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Biological Evolution: Unity and

B. Create - Learners gather information appropriate to the task by:

IV.B.1. Seeking a variety of sources.

IV.B.3. Systematically questioning and assessing the validity and accuracy of information.

D. Grow - Learners select and organize information for a variety of audiences by:

IV.D.1. Performing ongoing analysis of and reflection on the quality, usefulness, and accuracy of curated resources.

Explore

Discover and innovate in a growth mindset developed through experience and reflection.

A. Think - Learners develop and satisfy personal curiosity by:

V.A.3. Engaging in inquiry-based processes for personal growth..

3c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

concrete details, quotations, or other information and examples.

Production and Distribution of Writing

CC.6-8.WHST.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

Research to Build and Present Knowledge

CC.6-8.WHST.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CC.6-8.WHST.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

Diversity

MS-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

MS-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

MS-LS4-5. Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.

Earth and Space Science

Earth's Place in the Universe

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

Earth's Systems

MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

Earth and Human Activity

MS-ESS3-1. Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

MS-ESS3-2. Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

MS-ESS3-5. Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

Engineering, Technology, and Applications of Science

Engineering Design

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

7TH GRADE

Standard 2 - Evaluate information critically and competently	LIBRARY BENCHMARKS
● Determine accuracy, relevance, and comprehensiveness of information ● Distinguish among fact, point of view, and opinion ● Identify inaccurate and misleading information ● Select information appropriate to the problem or question	A. Use print and electronic sources to access, extract, and process information B. Assess scope, depth, and potential usefulness of various available information resources C. Recognize search and navigational features of resources to access information efficiently D. Recognize point of view and opinion
	LIBRARY OBJECTIVES
	1. Locate information efficiently within print and/or nonprint sources 2. Recognize the point of view or opinion of the author 3. Reflect and refine their searches 4. Show awareness of the scope and depth of various resources 5. Demonstrate skill using the electronic library catalog 6. Navigate within print and electronic resources to locate and access information 7. Practice distinguishing between the web, databases, and electronic catalogs

Common Core Standards	NGSS	AASL National School Library Standards for Learners	ISTE Standards for Students
Reading Literature ***Key Ideas and Details*** CC.7.RL.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. CC.7.RL.2 Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text. CC.7.RL.3 Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot). ***Integration of Knowledge and Ideas*** CC.7.RL.7 Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film). CC.7.RL.9 Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history. **Reading Informational Text** ***Key Ideas and Details*** CC.7.RI.1 Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. CC.7.RI.2 Determine two or more central ideas in a text and analyze their development	**Physical Science** ***Matter and Its Interactions*** MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures. MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed. ***Motion and Stability: Forces and Interactions*** MS-PS2-2. Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. MS-PS2-4. Construct and present arguments using evidence to support the claim that gravitational interactions are	**I. Inquire** ***Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.*** **B. Create - Learners engage with new knowledge by following a process that includes:** I.B.1. Using evidence to investigate questions. I.B.2. Devising and implementing a plan to fill knowledge gaps. **C. Share - Learners adapt, communicate, and exchange learning products with others in a cycle that includes:** I.C.1. Interacting with content presented by others. **D. Grow - Learners participate in an ongoing inquiry-based process by:** I.D.4. Using reflection to guide informed decisions. **II. Include** ***Demonstrate an understanding of and commitment to inclusiveness and respect for diversity in the learning community.*** **A. Think- Learners contribute a balanced perspective when**	**1. Empowered Learner** **Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students**: 1c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways. **3. Knowledge Constructor** **Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.** **Students:** 3b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources. **5. Computational Thinker** **Students develop and employ strategies for understanding and solving problems in ways that leverage the power of**

over the course of the text; provide an objective summary of the text.

CC.7.RI.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).

Craft and Structure

CC.7.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.

CC.7.RI.6 Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.

Integration of Knowledge and Ideas

CC.7.RI.7 Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).

CC.7.RI.8 Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.

CC.7.RI.9 Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

Writing

Text Types and Purposes

CC.7.W.1.b Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.

attractive and depend on the masses of interacting objects.

MS-PS2-5. Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.

Energy

MS-PS3-1. Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.

MS-PS3-2. Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

MS-PS3-4. Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

Waves and Their Applications in Technologies for Information Transfer

MS-PS4-1. Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.

MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or

participating in a learning community by:

II.A.2. Adopting a discerning stance toward points of view and opinions expressed in information resources and learning products.

III. Collaborate

Work effectively with others to broaden perspectives and work toward common goals.

C. Share- Learners work productively with others to solve problems by:

III.C.2. Involving diverse perspectives in their own inquiry processes.

IV. Curate

Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.

A. Think - Learners act on an information need by:

IV.A.2 Identifying possible sources of information.

IV.A.3 Making critical choices about information sources to use.

B. Create - Learners gather information appropriate to the task by:

IV.B.1. Seeking a variety of sources.

IV.B.2. Collecting information representing diverse perspectives.

IV.B.3. Systematically questioning and assessing the

technological methods to develop and test solutions.

Students:

5b.collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

CC.7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CC.7.W.2.b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

Research to Build and Present Knowledge

CC.7.W.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

CC.7.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CC.7.W.9.b Apply grade 7 Reading standards to literary nonfiction (e.g. “Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims”).

Range of Writing

CC.7.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration

CC.7.SL.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, transmitted through various materials.

MS-PS4-3. Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals.

Life Science

From Molecules to Organisms: Structures and Processes

MS-LS1-1. Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.

MS-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS1-6. Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of validity and accuracy of information.

C. Share - Learners exchange information resources within and beyond their learning community by:

IV.C.1. Accessing and evaluating collaboratively constructed information sites.

D. Grow - Learners select and organize information for a variety of audiences by:

IV.D.1. Performing ongoing analysis of and reflection on the quality, usefulness, and accuracy of curated resources.

.

V. Explore

Discover and innovate in a growth mindset developed through experience and reflection.

A. Think - Learners develop and satisfy personal curiosity by:

V.A.2. Reflecting and questioning assumptions and possible misconceptions.

D. Grow - Learners develop through experience and reflection by:

V.D.2. Recognizing capabilities and skills that can be developed, improved, and expanded.

VI. Engage

Demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in

quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

CC.7.SL.3 Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.

Reading in History/Social Studies

Key Ideas and Details

CC.6-8.RH.2 Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

CC.6-8.RH.3 Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

Craft and Structure

CC.6-8.RH.4 Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.

CC.6-8.RH.6 Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

Integration of Knowledge and Ideas

CC.6-8.RH.8 Distinguish among fact, opinion, and reasoned judgment in a text.

CC.6-8.RH.9 Analyze the relationship between a primary and secondary source on the same topic.

Reading in Science and Technical Subjects

Key Ideas and Details

CC.6-8.RST.2 Determine the central ideas or conclusions of a text; provide an accurate

organisms.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

Ecosystems: Interactions, Energy, and Dynamics

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Heredity: Inheritance and Variation of Traits

MS-LS3-1. Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

MS-LS3-2. Develop and use a model to describe why asexual reproduction results in offspring with identical genetic

a community of practice and an interconnected world.

A. Think - Learners follow ethical and legal guidelines for gathering and using information by:

VI.A.3. Evaluating information for accuracy, validity, social and cultural context, and appropriateness for need.

B. Create - Learners use valid information and reasoned conclusions to make ethical decisions in the creation of knowledge by:

VI.B.1. Ethically using and reproducing others' work.

VI.B.2. Acknowledging authorship and demonstrating respect for the intellectual property of others.

summary of the text distinct from prior knowledge or opinions.

CC.6-8.RST.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Craft and Structure

CC.6-8.RST.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

CC.6-8.RST.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

Integration of Knowledge and Ideas

CC.6-8.RST.8 Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

CC.6-8.RST.9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Writing in History/Social Studies, Science, and Technical Subjects

Text Types and Purposes

CC.6-8.WHST.1.b Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.

CC.6-8.WHST.1.c Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.

CC.6-8.WHST.1.d Establish and maintain a formal style.

CC.6-8.WHST.1.e Provide a concluding statement or section that follows from and supports the argument presented.

information and sexual reproduction results in offspring with genetic variation.

Biological Evolution: Unity and Diversity

MS-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

MS-LS4-3. Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.

MS-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

MS-LS4-5. Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in

CC.6-8.WHST.2.b Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.

CC.6-8.WHST.2.c Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.

CC.6-8.WHST.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

CC.6-8.WHST.2.e Establish and maintain a formal style and objective tone.

Production and Distribution of Writing

CC.6-8.WHST.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

CC.6-8.WHST.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

Research to Build and Present Knowledge

CC.6-8.WHST.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CC.6-8.WHST.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

organisms.

Earth and Space Science

Earth's Place in the Universe

MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

MS-ESS1-4. Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history

Earth's Systems

MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

Earth and Human Activity

CC.6-8.WHST.9 Draw evidence from informational texts to support analysis reflection, and research.	MS-ESS3-1. Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes. MS-ESS3-2. Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects. MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment. MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems. **Engineering Design** MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions. MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem. MS-ETS1-3. Analyze data from tests

	to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	

7TH GRADE

Standard 3 - Use information accurately, creatively, and ethically to share knowledge and to participate collaboratively and productively as a member of a democratic society ● Organize information for practical application ● Integrate new information into own schema ● Produce and communicate information and ideas in appropriate formats ● Use problem-solving techniques to devise strategies for revising and improving process and product ● Practice ethical behavior when using print and digital resources (including freedom of speech, intellectual freedom, copyright, and plagiarism)	**LIBRARY BENCHMARKS** A. Organize and synthesize information from multiple sources B. Create and effectively communicate information and ideas to others C. Understand the concept of plagiarism and cite sources properly **LIBRARY OBJECTIVES** 1. Organize information from multiple sources in a logical sequence using a graphic organizer 2. Select an appropriate format for communicating ideas 3. Create a product using technology when appropriate 4. Present, perform, share, and evaluate the results of information searches in a new form 5. Avoid plagiarism by observing copyright guidelines 6. Cite print and nonprint sources in a properly formatted bibliography

Common Core Standards	NGSS	AASL National School Library Standards for Learners	ISTE Standards for Students
Reading Literature ***Integration of Knowledge and Ideas*** CC.7.RL.7 Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film). **Reading Informational Text** ***Integration of Knowledge and Ideas*** CC.7.RI.7 Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words). CC.7.RI.8 Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims. CC.7.RI.9 Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts. **Writing** ***Text Types and Purposes*** CC.7.W.1.c Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.	**Physical Science** ***Matter and Its Interactions*** MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures. MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed. MS-PS1-5. Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. MS-PS1-6. Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes. ***Motion and Stability: Force and Interactions*** MS-PS2-1. Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects. MS-PS2-4. Construct and present arguments using evidence to	**I. Inquire** ***Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.*** **A. Think - Learners display curiosity and initiative by:** I.A.1. Formulating questions about a personal interest or curricular topic. I.A.2. Recalling prior and background knowledge as context for new meaning. **B. Create - Learners engage with new knowledge by following a process that includes:** I.B.2. Devising and implementing a plan to fill knowledge gaps. I.B.3. Generating products that illustrate learning. **C. Share - Learners adapt, communicate, and exchange learning products with others in a cycle that includes:** I.C.1. Interacting with content presented by others. I.C.4. Sharing products with an authentic audience.	**1. Empowered Learner** **Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.** **Students:** a. articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes. d. understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies. **2. Digital Citizenship** **Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.** **Students:**

CC.7.W.1.e Provide a concluding statement or section that follows from and supports the argument presented.

CC.7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CC.7.W.2.a Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

CC.7.W.2.b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

CC.7.W.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

CC.7.W.2.f Provide a concluding statement or section that follows from and supports the information or explanation presented.

CC.7.W.3.e Provide a conclusion that follows from and reflects on the narrated experiences or events.

Production and Distribution of Writing

CC.7.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

CC.7.W.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose

support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.

MS-PS2-5. Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.

Energy

MS-PS3-1. Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.

MS-PS3-2. Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

MS-PS3-3. Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

MS-PS3-5. Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.

Waves and Their Applications in Technologies for Information Transfer

MS-PS4-1. Use mathematical representations to describe a simple model for waves that includes how the amplitude of a

II. Include

Demonstrate an understanding of and commitment to inclusiveness and respect of diversity in the learning community.

B. Create- Learners adjust their awareness of the global learning community by:

II.B.1. Interacting with learners who reflect a range of perspectives.

III. Collaborate

Work effectively with others to broaden perspectives and work toward common goals.

B. Create - Learners participate in personal, social, and intellectual networks by:

III.B.1. Using a variety of communication tools and resources.

IV. Curate

Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.

B. Create - Learners gather information appropriate to the task by:

IV.B.4. Organizing information by priority, topic, or other systematic scheme.

b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

4. Innovative Designer

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.

Students:

a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

d. exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Students:

b.collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate

and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grade 7 on page 53.)

CC.7.W.6 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

Research to Build and Present Knowledge

CC.7.W.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

CC.7.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CC.7.W.9.a Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history").

Range of Writing

CC.7.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration

wave is related to the energy in a wave.

MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

MS-PS4-3. Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals.

Life Science

From Molecules to Organisms: Structures and Processes

MS-LS1-2. Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.

MS-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS1-6. Construct a scientific explanation based on evidence for the role of photosynthesis in the

C. Share- Learners exchange information resources within and beyond their learning community by:

IV.C.2. Contributing to collaboratively constructed information sites by ethically using and reproducing others' work.

D. Grow - Learners select and organize information for a variety of audiences by:

IV.D.1. Performing ongoing analysis of and reflection on the quality, usefulness, and accuracy of curated resources.

IV.D.2. Integrating and depicting in a conceptual knowledge network their understanding gained from resources.

V. Explore

Discover and innovate in a growth mindset developed through experience and reflection.

A. Think - Learners develop and satisfy personal curiosity by:

V.A.2. Reflecting and questioning assumptions and possible misconceptions.

B. Create- Learners construct new knowledge by:

problem-solving and decision-making.

c.break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:

a.choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

b.create original works or responsibly repurpose or remix digital resources into new creations.

c.communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

d.publish or present content that customizes the message and medium for their intended audiences.

CC.7.SL.1.a Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

CC.7.SL.1.b Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.

CC.7.SL.1.c Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.

CC.7.SL.1.d Acknowledge new information expressed by others and, when warranted, modify their own views.

Presentation of Knowledge and Ideas

CC.7.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

CC.7.SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points

CC.7.SL.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Reading in History/Social Studies

Key Ideas and Details

CC.6-8.RH.1 Cite specific textual evidence to support analysis of primary and secondary sources.

Integration of Knowledge and Ideas

cycling of matter and flow of energy into and out of organisms.

MS-LS1-7. Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

MS-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

Ecosystems: Interactions, Energy, and Dynamics

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Heredity: Inheritance and Variation of Traits

MS-LS3-1. Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral

V.B.1. Problem solving through cycles of design, implementation, and reflection.

C. Share- Learners engage with the learning community by:

V.C.2. Co-constructing innovative means of investigation.

Grow - Learners develop through experience and reflection by:

V.D.1. Iteratively responding to challenges.

VI. Engage

Demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice and an interconnected world.

A. Think - Learners follow ethical and legal guidelines for gathering and using information by:

VI.A.1. Responsibly applying information, technology, and media to learning.

VI.A.2. Understanding the ethical use of information, technology, and media.

VI.A.3. Evaluating information for accuracy, validity, social and cultural context, and appropriateness for need.

CC.6-8.RH.7 Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Reading in Science and Technical Subjects

Key Ideas and Details

CC.6-8.RST.1 Cite specific textual evidence to support analysis of science and technical texts.

CC.6-8.RST.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

Craft and Structure

CC.6-8.RST.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

CC.6-8.RST.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

Integration of Knowledge and Ideas

CC.6-8.RST.8 Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

CC.6-8.RST.9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Writing in History/Social Studies, Science, and Technical Subjects

Text Types and Purposes

CC.6-8.WHST.1 Write arguments focused on discipline-specific content.

CC.6-8.WHST.1.a Introduce claim(s) about a topic or issue, acknowledge and

effects to the structure and function of the organism.

MS-LS3-2. Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.

Biological Evolution: Unity and Diversity

MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

MS-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

MS-LS4-5. Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.

Earth and Space Sciences

Earth's Place in the Universe

MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.

B. Create - Learners use valid information and reasoned conclusions to make ethical decisions in the creation of knowledge by*:*

VI.B.1. Ethically using and reproducing others' work.

VI.B.2. Acknowledging authorship and demonstrating respect for the intellectual property of others.

VI.B.3. Including elements in personal-knowledge products that allow others to credit content appropriately.

C. Share - Learners responsibly, ethically, and legally share new information with a global community by:

VI.C.1. Sharing information resources in accordance with modification, reuse, and remix policies.

VI.C.2. Disseminating new knowledge through means appropriate for the intended audience.

D. Grow- Learners engage with information to extend personal learning by:

VI.D.1. Personalizing their use of information and information technologies.

VI.D.2. Reflecting on the process of ethical generation of knowledge.

distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.

CC.6-8.WHST.1.b Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.

CC.6-8.WHST.1.c Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.

CC.6-8.WHST.1.d Establish and maintain a formal style.

CC.6-8.WHST.1.e Provide a concluding statement or section that follows from and supports the argument presented.

CC.6-8.WHST.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

CC.6-8.WHST.2.a Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

CC.6-8.WHST.2.b Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.

CC.6-8.WHST.2.c Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.

CC.6-8.WHST.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

CC.6-8.WHST.2.e Establish and maintain a formal style and objective tone.

MS-ESS1-4. Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.

Earth's Systems

MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

MS-ESS2-4. Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

MS-ESS2-6. Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.

Earth and Human Activity

MS-ESS3-1. Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ESS3-4. Construct an argument supported by evidence for how increases in human population

Production and Distribution of Writing

CC.6-8.WHST.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CC.6-8.WHST.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

CC.6-8.WHST.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

Research to Build and Present Knowledge

CC.6-8.WHST.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CC.6-8.WHST.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

CC.6-8.WHST.9 Draw evidence from informational texts to support analysis reflection, and research.

and per-capita consumption of natural resources impact Earth's systems.

Engineering Design

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

7th GRADE

Standard 4 - Appreciate literature and other creative expressions of thoughts and ideas and pursue knowledge related to personal interests and aesthetic growth ● Cultivate a love of reading and become a self-motivated reader ● Develop a knowledge of genres and literary elements ● Derive meaning from informational texts in various formats	**LIBRARY BENCHMARKS** A. Use both text and visuals to understand literature B. Select an appropriate book of interest for personal enjoyment C. Distinguish between different types and elements of literature D. Analyze and understand information presented creatively in various nontextual formats E. Seek information related to personal interests and goals F. Select resources and materials based on need and appropriateness **LIBRARY OBJECTIVES** 1. Self-select reading material appropriate for a specific purpose 2. Read literature from a diversity of places and perspectives 3. Read various genres 4. Read and comprehend informational texts 5. Distinguish various literary elements within works 6. Participate in and/or lead discussions about literature to share opinions and responses 7. Develop individual taste in series, author, and genre reading 8. Use literary awards to help guide personal reading selections 9. Appreciate information presented creatively in various formats 10. Read for pleasure, seek answers, and explore topics of personal interest 11. Access libraries, library staff, and library resources both personally and virtually

Common Core Standards	NGSS	AASL National School Library Standards for Learners	ISTE Standards for Students
Reading Literature ***Craft and Structure*** CC.7.RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama. CC.7.RL.5 Analyze how a drama's or poem's form or structure (e.g., soliloquy, sonnet) contributes to its meaning. CC.7.RL.6 Analyze how an author develops and contrasts the points of view of different characters or narrators in a text. ***Integration of Knowledge and Ideas*** CC.7.RL.7 Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film). CC.7.RL.9 Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history. **Reading Informational Text** ***Key Ideas and Details*** CC.7.RI.3 Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence	**Physical Science** ***Matter and Its Interactions*** MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. ***Waves and Their Applications in Technologies for Information Transfer*** MS-PS4-3. Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals. **Life Science** ***Ecosystems: Interactions, Energy, and Dynamics*** MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. ***Biological Evolution: Unity and Diversity*** MS-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in	**I. Inquire** ***Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.*** **D. Grow - Learners participate in an ongoing inquiry-based process by:** I.D.1. Continually seeking knowledge. I.D.2. Engaging in sustained inquiry. **II. Include** ***Demonstrate an understanding of and commitment to inclusiveness and respect for diversity in the learning community.*** **A. Think - Learners contribute a balanced perspective when participating in a learning community by:** II.A.2. Adopting a discerning stance toward points of view and opinions expressed in information resources and learning products. ***B. Create - Learners adjust their awareness of the global learning community by:***	**1. Empowered Learner** **Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.** **Students**: a. articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes. **3. Knowledge Constructor** **Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.** **Students**: a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

ideas or events).

Craft and Structure

CC.7.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.

CC.7.RI.6 Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.

Integration of Knowledge and Ideas

CC.7.RI.7 Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).

CC.7.RI.9 Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

Writing

Text Types and Purposes

CC.7.W.2.a Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

Research to Build and Present Knowledge

CC.7.W.9.a Apply grade 7 Reading standards to literature (e.g., "Compare and contrast a fictional portrayal of a time, place, or character and a historical

the past.

MS-LS4-3. Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.

Earth and Space Sciences

Earth's Place in the Universe

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

Earth's Systems

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

Earth and Human Activity

MS-ESS3-2. Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects

Engineering Design

MS-ETS1-3. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

II.B.2. Evaluating a variety of perspectives during learning activities.

II.B.3. Representing a variety of perspectives during learning activities.

C. Share - Learners exhibit empathy with and tolerance for diverse ideas by:

II.C.1. Engaging in informed conversation and active debate.

D. Grow - Learners demonstrate empathy and equity in knowledge building within the global learning community by:

II.D.1. Seeking interactions with a range of learners.

II.D.2. Demonstrating interest in other perspectives during learning activities.

III. Collaborate

Work effectively with others to broaden perspectives and work toward common goals.

A. Think - Learners identify collaborative opportunities by:

III.A.2. Developing new understandings through engagement in a learning group.

D. Grow - Learners actively participate with others in learning situations by:

III.D.1. Actively contributing to

account of the same period as a means of understanding how authors of fiction use or alter history").

CC.7.W.9.b Apply grade 7 Reading standards to literary nonfiction (e.g. "Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims").

Reading in History/Social Studies

Craft and Structure

CC.6-8.RH.5 Describe how a text presents information (e.g., sequentially, comparatively, causally).

Reading in Science and Technical Subjects

Craft and Structure

CC.6-8.RST.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

CC.6-8.RST.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

group discussions.

IV. Curate

Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.

B. Create - Learners gather information appropriate to the task by:

IV.B.1. Seeking a variety of sources.

IV.B.2. Collecting information representing diverse perspectives.

V. Explore

Discover and innovate in a growth mindset developed through experience and reflection.

A. Think - Learners develop and satisfy personal curiosity by:

V.A.1. Reading widely and deeply in multiple formats and write and create for a variety of purposes.

C. Share - Learners engage with the learning community by:

V.C.1. Expressing curiosity about a topic of personal interest or curricular relevance.

D. Grow - Learners develop through experience and reflection by:

V.D.2. Recognizing capabilities

and skills that can be developed, improved, and expanded.

VI. Engage

Demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice and an interconnected world.

A. Think - Learners follow ethical and legal guidelines for gathering and using information by:

VI.A.1. Responsibly applying information, technology, and media to learning.

D. Grow- Learners engage with information to extend personal learning by:

VI.D.1. Personalizing their use of information and information technologies.

7TH GRADE

Standard 5 - Understand and practice Internet safety when using any electronic media for educational, social, or recreational purposes	LIBRARY BENCHMARKS
● Practice strategies that promote personal safety and protect online and offline reputation ● Recognize that networked environments are public places governed by codes of ethical behavior ● Practice positive digital citizenship ● Distinguish website authority, validity, and purpose ● Understand the need for protecting personal privacy when using public access to digital sources ● Protect personal information and electronic devices in an online environment	A. Understand the long-term impact of digital information B. Behave responsibly and respectfully in a networked environment C. Use electronic devices safely and appropriately **LIBRARY OBJECTIVES** 1. Acknowledge the permanence of online content, and understand that once information (including photos, videos, etc.) is posted online, it is no longer controlled by the original poster 2. Use the Internet to locate information safely 3. Foster a positive online reputation and abstain from inappropriate or illegal online behavior 4. Report inappropriate online behavior (harassment, cyberbullying, threats, etc.) 5. Recognize and avoid inappropriate content (advertising, malware, phishing, viruses, pornography, etc.) 6. Recognize and avoid potentially damaging or invasive content (malware, phishing scams, viruses, etc.) by using appropriate filters and antivirus software 7. Practice locating ethical and reputable sources downloading content 8. Understand the basics of online consumerism (identity theft, security, fraud, phishing, etc.) 9. Read and comprehend AUPs, privacy policies, and terms of use

Common Core Standards	AASL National School Library Standards for Learners	ISTE Standards for Students
Writing ***Production and Distribution of Writing*** CC.7.W.6 Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. ***Research to Build and Present Knowledge*** CC.7.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. **Speaking and Listening** ***Presentation of Knowledge and Ideas*** CC.7.SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points **Language** ***Vocabulary Acquisition and Use*** CC.7.L.4.c Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. **Reading in History/Social Studies** ***Integration of Knowledge and Ideas*** CC.6-8.RH.7 Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.	**Inquire** **Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.** ***Share - Learners adapt, communicate, and exchange learning products with others in a cycle that includes:*** I.C.1. Interacting with content presented by others. I.C.4. Sharing products with an authentic audience. **Collaborate** **Work effectively with others to broaden perspectives and work toward common goals.** ***Grow - Learners actively participate with others in learning situations by:*** III.D.2. Recognizing learning as a social responsibility. **Curate** **Make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance.** ***Share - Learners exchange information resources within and beyond their learning community by:*** IV.C.1. Accessing and evaluating collaboratively constructed information sites. IV.C.2. Contributing to collaboratively	**2. Digital Citizen** **Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students**: a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world. b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices. c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. d. manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. **6. Creative Communicator** **Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students**: a.choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

Writing in History/Social Studies, Science, and Technical Subjects

Production and Distribution of Writing

CC.6-8.WHST.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

Research to Build and Present Knowledge

CC.6-8.WHST.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

constructed information sites by ethically using and reproducing others' work.

Engage

Demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice and an interconnected world.

Think - Learners follow ethical and legal guidelines for gathering and using information by:

VI.A.1. Responsibly applying information, technology, and media to learning.

VI.A.2. Understanding the ethical use of information, technology, and media.

VI.A.3. Evaluating information for accuracy, validity, social and cultural context, and appropriateness for need.

Create - Learners use valid information and reasoned conclusions to make ethical decisions in the creation of knowledge by:

VI.B.1. Ethically using and reproducing others' work.

VI.B.2. Acknowledging authorship and demonstrating respect for the intellectual property of others.

Share - Learners responsibly, ethically, and legally share new information with a global community by:

VI.C.1. Sharing information resources in accordance with modification, reuse, and remix policies.

VI.C.2. Disseminating new knowledge through means appropriate for the intended audience.

b. create original works or responsibly repurpose or remix digital resources into new creations.

d. publish or present content that customizes the message and medium for their intended audiences.

	Grow- Learners engage with information to extend personal learning by: VI.D.1. Personalizing their use of information and information technologies. V1.D.2. Reflecting on the process of ethical generation of knowledge. VI.D.3. Inspiring others to engage in safe, responsible, ethical, and legal information behaviors.	