

ADMINISTRATIVE SUPPORT TECHNOLOGY
COURSE CODE: 5122
Academic Standards and Indicators (Alignment Reference)

English and Language Arts

SC Standard A1. Reading: Literary Text

Reading-Literary Text: Principles of Reading (P)

Standard 1: Demonstrate understanding of the organization and basic features of print.

Standard 2: Demonstrate understanding of spoken words, syllables, and sounds.

Standard 3: Know and apply grade-level phonics and word analysis skills when decoding words.

Standard 4: Read with sufficient accuracy and fluency to support comprehension.

Reading-Literary Text: Meaning and Context (MC)

Standard 5: Determine meaning and develop logical interpretations by making predictions, inferring, drawing conclusions, analyzing, synthesizing, providing evidence, and investigating multiple interpretations.

Standard 6: Summarize key details and ideas to support analysis of thematic development.

Standard 7: Analyze the relationship among ideas, themes, or topics in multiple media and formats, and in visual, auditory, and kinesthetic modalities.

Standard 8: Analyze characters, settings, events, and ideas as they develop and interact within a particular context.

Reading-Literary Text: Language, Craft, and Structure (LCS)

Standard 10: Apply a range of strategies to determine and deepen the meaning of known, unknown, and multiple-meaning words, phrases, and jargon; acquire and use general academic and domain-specific vocabulary.

Reading-Literary Text: Range and Complexity (RC)

Standard 13: Read independently and comprehend a variety of texts for the purposes of reading for enjoyment, acquiring new learning, and building stamina; reflect and respond to increasingly complex text over time.

SC Standard A2. Reading: Informational Text (RI)

Reading-Informational Text: Principles of Reading (P)

Standard 1: Demonstrate understanding of the organization and basic features of print.

Standard 2: Demonstrate understanding of spoken words, syllables, and sounds.

Standard 3: Know and apply grade-level phonics and word analysis skills when decoding words.

Standard 4: Read with sufficient accuracy and fluency to support comprehension.

Reading-Informational Text: Meaning and Context (MC)

Standard 5: Determine meaning and develop logical interpretations by making predictions, inferring, drawing conclusions, analyzing, synthesizing, providing evidence, and investigating multiple interpretations.

Standard 6: Summarize key details and ideas to support analysis of central ideas.

Reading-Informational Language, Craft, and Structure (LCS)

Standard 9: Apply a range of strategies to determine and deepen the meaning of known, unknown, and multiple-meaning words, phrases, and jargon; acquire and use general academic and domain-specific vocabulary.

Standard 10: Analyze and provide evidence of how the author's choice of purpose and perspective shapes content, meaning, and style.

Standard 11: Analyze and critique how the author uses structures in print and multimedia texts to craft informational and argument writing.

Reading-Informational Text: Range and Complexity (RC)

Standard 12: Read independently and comprehend a variety of texts for the purposes of reading for enjoyment, acquiring new learning, and building stamina; reflect and respond to increasingly complex text over time.

SC Standard A3. Reading: Building Vocabulary

Reading-Informational Text: Principles of Reading (P)

Standard 2: Demonstrate understanding of spoken words, syllables, and sounds

Standard 3: Know and apply grade-level phonics and word analysis skills when decoding words.

Reading-Informational Text: Language, Craft, and Structure (LCS)

Standard 9: Interpret and analyze the author's use of words, phrases, and conventions, and how their relationships shape meaning and tone in print and multimedia texts.

SC Standard A4. Writing: Developing Written Communications (W)

Writing: Meaning, Context, and Craft (MCC)

Standard 1: Write arguments to support claims with clear reasons and relevant evidence.

Standard 2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

SC Standard A5. Writing: Producing Written Communications in a Variety of Forms

Writing: Meaning, Context, and Craft (MCC)

Standard 3: Write narratives to develop real or imagined experiences or events using effective techniques, well-chosen details, and well-structured event sequences.

Writing: Language (L)

Standard 4: Demonstrate command of the conventions of standard English grammar and usage when writing and speaking.

Standard 5: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Writing: Range and Complexity (RC)

Standard 6: Write independently, legibly, and routinely for a variety of tasks, purposes, and audiences over short and extended time frames.

SC Standard A6. Researching: Applying the Skills of Inquiry and Oral Communication

Inquiry-Based Literacy Standards (I)

Standard 1: Formulate relevant, self-generated questions based on interests and/or needs that can be investigated.

Standard 2: Transact with texts to formulate questions, propose explanations, and consider alternative views and multiple perspectives.

Standard 3: Construct knowledge, applying disciplinary concepts and tools, to build deeper understanding of the world through exploration, collaboration, and analysis.

Standard 4: Synthesize information to share learning and/or take action.

Standard 5: Reflect throughout the inquiry process to assess metacognition, broaden understanding, and guide actions, individually and collaboratively.

Reading-Informational Text: Meaning and Context (MC)

Standard 7: Analyze the relationship among ideas, themes, or topics in multiple media and formats, and in visual, auditory, and kinesthetic modalities.

Communication: Meaning and Context (MC)

Standard 1: Interact with others to explore ideas and concepts, communicate meaning, and develop logical interpretations through collaborative conversations; build upon the ideas of others to clearly express one's own views while respecting diverse perspectives.

Standard 2: Articulate ideas, claims, and perspectives in a logical sequence using information, findings, and credible evidence from sources.

Standard 3: Communicate information through strategic use of multiple modalities and multimedia to enrich understanding when presenting ideas and information.

Language, Craft, and Structure (LCS)

Standard 4: Critique how a speaker addresses content and uses stylistic and structural craft techniques to inform, engage, and impact audiences.

Standard 5: Incorporate craft techniques to engage and impact audience and convey messages.

MATHEMATICS ACADEMIC STANDARDS

Elementary Algebra (Algebra 1, Foundations in Algebra, Intermediate algebra, Algebra 2)

SC Standard A7. The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation. **(SCEA-1)**

Arithmetic with Polynomials and Rational Expressions

AAPR.1* 1A.AAPRI* A2.AAPR.1* Add, subtract, and multiply polynomials and understand that polynomials are closed under these operations.

Creating Equations

A1ACE.1* FA.ACE.1* 1A.ACE.1* Create and solve equations and inequalities in one variable that model real-world problems involving linear, quadratic, simple rational, and exponential relationships. Interpret the solutions and determine whether they are reasonable.

SC Standard A8. The student will demonstrate through the mathematical processes an understanding of relationships and functions. **(SCEA-3)**

Building Functions

FBF.1* Write a function that describes a relationship between two quantities.

- b. Combine functions using the operations addition, subtraction, multiplication, and division to build new functions that describe the relationship between two quantities in mathematical and real-world situations.

GEOMETRY

SC Standard A9. The student will understand and utilize the mathematical processes of problem solving, reasoning, and proof, communication, connections, and representation. **(SCG-1)**

- Communicate knowledge of geometric relationship using mathematical terminology appropriately.
- Demonstrate understanding of how geometry applies in real-world contexts (including architecture, construction, farming, and astronomy).

SC Standard A10. The student will demonstrate through the mathematical processes an understanding of the properties of basic geometric figures and the relationships between and among them. (SCG.2)

Probability and Statistics

SC Standard A12. The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation. (SCPS-1)

Conditional Probability and Rules of Probability

SPCR.1 Describe events as subsets of a sample space and

- a. Use Venn diagrams to represent intersections, unions, and complements.
- b. Relate intersections, unions, and complements to the words and, or, and not.
- c. Represent sample spaces for compound events using Venn diagrams.

SC Standard A13. The student will demonstrate through the mathematical processes an understanding of the design of a statistical study. (SCPS-2)

Making Inferences and Justifying Conclusions

PS.SPMJ.2* Distinguish between experimental and theoretical probabilities. Collect data on a chance event and use the relative frequency to estimate the theoretical probability of that event. Determine whether a given probability model is consistent with experimental results.

SC Standard A14. The student will demonstrate through the mathematical processes an understanding of the methodology for collecting, organizing, displaying, and interpreting data. (SCPS-3)

Interpreting Data

PS.SPID.1* Select and create an appropriate display, including dot plots, histograms, and box plots, for data that includes only real numbers.

SC Standard A15. The student will demonstrate through the mathematical processes and understanding of basic statistical methods of analyzing data. (SCPS-4)

Using Probability to Make Decisions

PS.SPMD.4* Use probability to evaluate outcomes of decisions by finding expected values and determine if decisions are fair.

PS.SPMD.5* Use probability to evaluate outcomes of decisions. Use probabilities to make fair decisions.

PS.SPMD.6* Analyze decisions and strategies using probability concepts.

SCIENCE ACADEMIC STANDARDS

Biology

SC Standard A17. The student will demonstrate an understanding that ecosystems are complex, interactive systems that include both biological communities and physical components of the environment. (SC B-2)

B-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

B-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. **recycling**

B-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on biodiversity and ecosystem health.

B-LS2-8. Evaluate evidence for the role of group behavior on individual and species' chances to survive and reproduce. **ergonomics**

Chemistry - none

Physics

SC Standards A24. Students explain and predict interactions between objects and within systems of objects. **(SC P-2)**

P-PS2-3. Apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the effect of a force on a macroscopic object during a collision.

P-PS2-5. Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current.

P-PS2-6. Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials. **hot/cold, storage, supplies**

SC Standards A25. Students will demonstrate an understanding how energy is transferred and used to send and store information. **(SC P-3)**

P-PS4-2. Design, evaluate, and refine a solution for improving how digital devices store and transmit information.

P-PS-4-5. Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

Earth and Space Science

SC Standard A27. The student will demonstrate an understanding of the impact of human activity on natural resources and Earth's systems. **(SC ESPS-2)**

E-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources and occurrence of natural hazards have influenced human activity.

E-ESS3-2. Evaluate competing design solutions that address the impacts of developing, managing, and using Earth's energy and mineral resources.

E-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

E-ESS3-7. Create an argument, based on evidence that describes how changes in climate on Earth have affected human activity.

SOCIAL STUDIES ACADEMIC STANDARDS

Economics and Personal Finance

SC Standard A28. The student will demonstrate an understanding of fundamental economic concepts at an individual, business, and governmental level. **(SC ECON-1)**

EPF.1.ER Examine how scarcity of time and resources necessitates decision-making.

EPF.1.IN Research and utilize evidence to explain how various economic systems address the basic economic questions regarding distribution of resources.

EFP.1.IP Evaluate how short-term goals allow individuals and institutions to make rational decisions using marginal analysis.

SC Standard A29. The student will demonstrate an understanding of how scarcity and choice influence individual financial decisions. **(SC ECON-2)**

EPF.2.ER Research and analyze the factors that impact personal income and long-term earning potential.

EPF.2.IP Develop a personal finance strategy for investing, protecting, purchasing, and saving resources.

SC Standard A30. The student will demonstrate an understanding of basic microeconomic principles. **(SC ECON-3)**

EPF.3.IN Compare and contrast how the organization of various market structures affects decisions and outcomes of individuals and firms.

EPF.3.IP Research and evaluate geopolitical influences on employment trends and issues at the state and national level.

SC Standard A31. The student will demonstrate an understanding of basic macroeconomic principles. **(SC ECON-4)**

EPF.4.ER Identify and analyze important economic indicators and data used to gauge the economic well-being of a society.

EPF.4.CC Evaluate the impact of globalization and trade on the economic well-being of a country.

Human Geography

SC Standard A32. The student will demonstrate an understanding of the characteristics, distribution, and migration of human populations on Earth's surface. **(HG-1)**

HG.1.1HS Identify and analyze the spatial distributions and patterns of human population using maps and geographic models and representations.

HG.1.2. PR Explain the cultural, economic, environmental, and political conditions and connections that contribute to human migration patterns.

HG 1.3.HS Analyze historical population and migration maps and models through time to predict future trends and patterns.

HG.1.4.HS Analyze and evaluate population and migration issues and policies from the local to the global scale using geographic models and representations.

HG.1.5.HS Evaluate the cultural, economic, environmental, and political impacts of human migration on human settlements in various regions.

SC Standard A33. The student will demonstrate an understanding of the conditions, interconnections, and levels of economic development across Earth’s surface. **(HG-2)**

HG.2.1.PR Identify regions of varying degrees of economic development, and explain the factors that influence the location and spatial distribution of these regions at the local and global scales using maps and geographic models and representations.

HG.2.2.HS Compare and evaluate different measures of development, and analyze patterns and trends in various regions of economic development.

HG.2.4.PR Explain the conditions and connections that contribute to global interdependence of communications, economic, and transportation systems.

HG.2.5.ER Analyze the distribution and patterns of energy production and consumption over time, and evaluate the impacts and sustainability of different energy sources at varying scales.

SC Standard A34. The student will demonstrate an understanding of the characteristics of culture and cultural patterns and processes across Earth’s surface. **(HG-3)**

HG.3.1.HS Identify the characteristics of popular and folk culture, and explain the factors that influence the location and spatial distribution of these types of culture at the local and global scales using maps and geographic models and representations.

HG.3.2.HS Identify and analyze the spatial distribution, patterns, and diffusion of ethnic, linguistic, and religious cultural characteristics using maps and other geographic representations.

HG.3.3.PR Analyze and explain the conditions and connections that create ethnic, linguistic, and religious patterns at varying scales.

HG.3.4.HS Investigate and evaluate the cultural conditions in different regions that play a role in cooperation and conflict over time.

United States History and Constitution

SC Standard A37. The student will demonstrate the impact of America’s global leadership on technological advancements, the transition to a post-industrial society, and ongoing debates over identity in the period 1945–present. **(USHC-1)**

USHC.5.CX Contextualize domestic economic development and American national identity within global politics.

United States Government

SC Standard A40. Demonstrate an understanding of the rights and responsibilities associated with citizenship in the United States. **(USG-4)**

USG.4.IN Distinguish between various economic, personal, and political rights of citizens in the U.S., and how these rights can sometimes conflict with each other.

USG.4.CC Analyze contemporary issues and governmental responses at various levels in terms of how they have provided equal protection under the law and equal access to society’s opportunities and public facilities.

TECHNOLOGY STANDARDS

Empowered Learner

SC Standard A41. Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. **(ISTE-1)**

- Articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.
- Build networks and customize their learning environments in ways that support the learning process.
- Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
- 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.

Digital Citizen

SC Standard A42. 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. **(ISTE-2)**

- Cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.
- Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
- Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
- Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

Knowledge Constructor

SC Standard A43. 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. **(ISTE-3)**

- Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
- Evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
- Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
- Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

Innovative Designer

SC Standards A44. Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. **(ISTE-4)**

- Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
- Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
- Develop, test, and refine prototypes as part of a cyclical design process.
- Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

Computational Thinker

SC Standard A45. Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. **(ISTE-5)**

- Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.
- 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.
- Break problems into component parts, extract key information, and develop descriptive models to understand complex systems to facilitate problem-solving.
- Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

Creative Communicator

SC Standard A46. 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. **(ISTE-6)**

- Choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
- Create original works or responsibly repurpose or remix digital resources into new creations.
- Communicate complete ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
- Publish or present content that customizes the message and medium for their intended audiences.

Global Collaborator

SC Standard A47. Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. **(ISTE-7)**

- Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.
- Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.
- Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
- Explore local and global issues and use collaborative technologies to work with others to investigate solutions.

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