

Based on the Illinois Learning and Early Learning Standards
Developed by the Illinois State Board of Education adopted July 1997

I. ILLINOIS LEARNING STANDARDS: EARLY CHILDHOOD THROUGH HIGH SCHOOL

1. ENGLISH/LANGUAGE ARTS

STATE GOAL 1:

Read with understanding and fluency.

Learning Standard A:

Apply word analysis and vocabulary skills to comprehend selections.

Benchmarks:

- Understand that pictures and symbols have meaning and that print carries a message.
- Understand that reading progresses from left to right and top to bottom.
- Identify labels and signs in the environment.
- Identify some letters, including those in own name.
- Make some letter-sound matches.
- Apply word analysis skills to recognize new words.
- Comprehend unfamiliar words using context clues and prior knowledge.
- Read and comprehend unfamiliar words using root words, synonyms, word origins and derivations.
- Clarify word meaning using context clues and a variety of resources including glossaries, dictionaries.
- Apply knowledge of word origins to comprehend words used in specific content areas.

Learning Standard B:

Apply reading strategies to improve understanding and fluency.

Benchmarks:

- Predict what will happen next using pictures and content for guides.
- Begin to develop phonological awareness by participating in rhyming activities.
- Recognize separable and repeating sounds in spoken language.
- Establish purposes for reading, make predictions, connect ideas and link text to previous knowledge.
- Identify genres of fiction, nonfiction, poetry and electronic literary forms.
- Continuously check and clarify for understanding (reread, read ahead, use visual clues, retell).
- Read age-appropriate material aloud with fluency and accuracy.
- Establish purposes for reading; survey materials, ask questions, make predictions, clarify/extend ideas.
- Identify structure (describe, compare/contrast, cause/effect, sequence of nonfiction for comprehension).
- Preview reading materials, make predictions and relate reading to information from other sources.
- Identify text structure and create a visual representation (outline, drawing) to use while reading.
- Continuously check and clarify for understanding to draw comparisons to other readings.

Learning Standard C:

Comprehend a broad range of reading materials.

Benchmarks:

- Retell information from a story.
- Respond to simple questions about reading material.
- Demonstrate understanding of literal meaning of stories by making comments.
- Use information to form questions and verify predictions.
- Identify important themes and topics.
- Make comparison across reading selections.
- Summarize content of reading material using text organization.
- Identify how authors and illustrators express their ideas in text, graphics (dialogue, conflict, characters).
- Use information presented in simple tables, maps and charts to form an interpretation.
- Use information to form and refine questions and predictions.
- Make and support inferences and form interpretations about main themes and topics.
- Compare and contrast the content and organization of selections.
- Summarize and make generalizations from content and relate to purpose and material.
- Explain how authors and illustrators use text and art to express ideas (point of view, metaphor).
- Interpret and analyze entire narrative text using story elements, point of view and theme.
- Compare, contrast and evaluate ideas and information from various sources and genres.
- Explain how authors and illustrators use text and art across materials to express ideas (foreshadowing flashbacks, color, strong verbs, language that inspires).

STATE GOAL 2:

Read and understand literature representative of various societies, era and ideas.

Learning Standard A:

Understand how literacy elements and techniques are used to convey meaning.

Benchmarks:

- Understand that different text forms, such as magazines, notes, lists, letters, and storybooks, are used for different purposes.
- Identify the literary elements of theme, setting, plot and character within literary works.
- Classify literary works as fiction or nonfiction.
- Describe differences between prose and poetry.
- Identify literary elements and literary techniques (characterization, use of narration, use of dialogue) in a variety of literary works.
- Describe how literary elements (theme, character, setting, plot, tone, conflict) are used in literature to create meaning.
- Identify definitive features of literary forms (realistic fiction, historical fiction, fantasy, narrative, nonfiction, biography, plays, electronic literary forms).
- Identify and analyze a variety of literary techniques (figurative language, allusion, dialogue) within classical and contemporary works in a variety of genres.
- Describe how the development of theme, character, plot and setting contribute to overall impact of a piece of literature.
- Identify characteristics and authors of literary forms (short stories, novel, drama, fables, biographies, poetry, science fiction).
- Identify ways that an author uses language structure, word choice and style to convey the viewpoint.

Learning Standard B:

Read and interpret a variety of literary works.

Benchmarks:

- Show independent interest in reading-related activities.

- Respond to literary materials by connecting them to their own experiences and communicate those responses to others.
- Identify common themes in literature from a variety of eras.
- Relate character, setting and plot to real-life situations.
- Respond to literary material by making inferences, drawing conclusions and comparing it to their own experience, prior knowledge and other texts.
- Identify and explain themes that have been explored in literature from different societies and eras.
- Relate literary works and their characters, settings and plots to current and historical events, people and perspective.
- Respond to literary material from personal, creative and critical points of view.
- Compare and contrast common literary themes across various societies and eras.
- Analyze how characters in literature deal with conflict, solve problems and relate to real-life situations.

STATE GOAL 3:

Write to communicate for a variety of purposes.

Learning Standard A:

Use correct grammar, spelling, punctuation, capitalization and structure.

Benchmarks:

- Use scribbles, approximations of letters, or known letters to represent written language.
- Construct complete sentences that demonstrate subject/verb agreement; appropriate capitalization and punctuation; correct spelling of appropriate, high-frequency words; and appropriate use of the eight parts of speech.
- Write paragraphs that include a variety of sentence types; appropriate use of the eight parts of speech; and accurate spelling, capitalization and punctuation.
- Write compositions that contain complete sentences and effective paragraphs using English conventions.

Learning Standard B:

Compose well-organized and coherent writing for specific purposes and audiences.

Benchmarks:

- Dictate stories and experiences.
- Use prewriting strategies to generate and organize ideas (focus on one topic, organize writing to include a beginning, middle and end; use descriptive words when writing about people, places, things and events).
- Demonstrate focus, organization, elaboration and integration in written compositions (short stories, letters, essays, reports).
- Generate and organize ideas using a variety of planning strategies (mapping, outlining, drafting).
- Establish central idea, organization, elaboration and unity in relation to purpose and audience.
- Expand ideas by using modifiers, subordination and standard paragraph organization.
- Edit documents for clarity, subjectivity, pronoun-antecedent agreement, adverb and adjective agreement and verb tense; proofread for spelling, capitalization and punctuation; and ensure that documents are formatted in final form for submission.
- Produce documents that convey a clear understanding and interpretation of ideas and information and display focus, organization, elaboration and coherence.
- Edit and revise for word choice, organization, consistent point of view and transitions among paragraphs using contemporary technology and formats suitable for submission.

Learning Standard C:

Communicate ideas in writing to accomplish a variety of purposes.

Benchmarks:

- Use drawing and writing skills to convey meaning and information.
- Write for a variety of purposes including description, information, explanation, persuasion and narration.
- Create media compositions or productions, which convey meaning visually for a variety of purposes.
- Write a variety of purposes and for specified audiences in a variety of forms including narrative (fiction, autobiography), expository (reports, essays) and persuasive writings (editorials, advertisements).
- Produce and format compositions for specified audiences using available technology.
- Compose narrative, informative, and persuasive writings (in addition to previous writings, literature reviews, instructions, news articles, correspondence) for a specified audience.
- Using available technology, produce compositions and multimedia works for specified audiences.

STATE GOAL 4:

Listen and speak effectively in a variety of situations.

Learning Standard A:

Listen effectively in formal and informal situations.

Benchmarks:

- Listen with understanding and respond to directions and conversations.
- Listen attentively by facing the speaker, making eye contact and paraphrasing what is said.
- Ask questions and respond to questions from the teacher and from group members to improve comprehension.
- Follow oral instructions accurately.
- Use visually oriented and auditorally based media.
- Demonstrate understanding of the listening process (sender, receiver, message) by summarizing and paraphrasing spoken messages orally and in writing formal and informal situations.
- Ask and respond to questions related to oral presentations and messages in small and large group settings.
- Restate and carry out a variety of oral instructions.
- Demonstrate ways (probing questions, provide feedback to a speaker, summarize and paraphrase complex spoken messages) that listening attentively can improve comprehension.
- Compare a speaker's verbal and nonverbal messages.
- Restate and carry out multistep oral instructions.
- Demonstrate the ability to identify and manage barriers to listening (noise, speaker credibility, environmental distractions).

Learning Standard B:

Speak effectively using language appropriate to the situation and audience.

Benchmarks:

- Communicate needs, ideas and thoughts.
- Present brief oral reports, using language and vocabulary appropriate to the message and audience (show and tell).
- Participate in discussions around a common topic.
- Present oral reports to an audience using correct language and nonverbal expressions for the intended purpose and message within a suggested organizational format.
- Use speaking skills and procedures to participate in-group discussions.
- Identify methods to manage or overcome communication anxiety and apprehension.
- Identify main verbal and nonverbal communication elements and strategies to maintain communications and to resolve conflict.
- Deliver planned oral presentations, using language and vocabulary appropriate to the purpose, message and audience; provide details and supporting information that clarify main ideas; and use visual aids and contemporary technology as support.
- Design and produce reports and multimedia compositions that represent group projects.

- Develop strategies to manage to overcome communication anxiety and apprehension.
- Use verbal and nonverbal communication strategies to maintain communications and to resolve conflicts.

STATE GOAL 5:

Use the language arts to acquire, assess and communicate information.

Learning Standard A:

Locate, organize and use information from various sources to answer questions, solve problems, and communicate ideas.

Benchmarks:

- Seek answers to questions through active exploration.
- Identify questions and gather information.
- Locate information using a variety of resources.
- Formulate questions and construct a basic research plan.
- Organize and integrate information from a variety of sources.
- Identify appropriate resources to solve problems or answer questions through research.
- Design a project related to contemporary issues using multiple sources.

Learning Standard B:

Analyze and evaluate information acquired from various sources.

Benchmarks:

- Relate prior knowledge to new information.
- Select and organize information from various sources for specific purposes.
- Cite sources used.
- Determine the accuracy, currency and reliability of materials from various sources.
- Cite sources used.
- Choose and analyze information sources for individual, academic and functional purposes.
- Identify, evaluate and cite primary sources.

Learning Standard C:

Apply acquired information, concepts and ideas to communicate in a variety of formats.

Benchmarks:

- Communicate information with others.
- Write letters, reports and stories based on acquired information.
- Use print, nonprint, human and technological resources to acquire information.
- Create a variety of print and nonprint documents to communicate acquired information for specific audiences and purposes.
- Prepare and deliver oral presentations based on inquiry or research.
- Plan, compose, edit and revise documents that synthesize new meaning gleaned from multiple sources.
- Prepare and orally present original work (poems, monologues, reports, plays, stories) supported by research.
- Take notes, conduct interviews, organize in oral, visual and electronic formats.

1. MATHEMATICS

STATE GOAL 6:

Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.

Learning Standard A:

Demonstrate knowledge and use of numbers and their representations in a broad range of theoretical and practical settings.

Benchmarks:

- Use concepts that include number recognition, counting and one-to-one correspondence.
- Count with understanding and recognize "how many" in sets of objects.
- Identify whole numbers and compare them using symbols $<$, $>$, or $=$ and the words "less than, greater than, or equal to", applying counting, grouping and place value concepts.
- Identify and model fractions using concrete materials and pictorial representations.
- Compare and order whole numbers, fractions and decimals using concrete materials, drawings and mathematical symbols.
- Represent fractions, decimals, percentages, exponents and scientific notation in equivalent forms.

Learning Standard B:

Investigate, represent and solve problems using number facts, operations (addition, subtraction, multiplication, division) and their properties, algorithms and relationships.

Benchmarks:

- Solve simple mathematical problems.
- Solve one and two-step problems with whole numbers using addition, subtraction, multiplication and division.
- Solve one and two-step problems involving whole numbers, fractions and decimals using addition, subtraction, multiplication and division.
- Solve practical computation problems involving whole number, integers and rational numbers.
- Apply primes, factors, divisors, multiples, common factors and common multiples in solving problems.
- Identify and apply properties of real numbers including pi, squares, and square roots.

Learning Standard C:

Compute and estimate using mental mathematics, paper-and-pencil methods, calculators and computers. Benchmarks:

- Explore quantity and number.
- Connect numbers to quantities they represent using physical models and representations.
- Select and perform computational procedures to solve problems with whole numbers.
- Show evidence the whole number computational results are correct and/or that estimates are reasonable.
- Select and perform computational procedures to solve problems with whole numbers, fractions and decimals.
- Show evidence that computational results using whole numbers, fractions and decimals are correct and/or that estimates are reasonable.
- Select computational procedures and solve problems with whole numbers, fractions, decimals, percents and proportions.
- Show evidence that computational results using whole numbers, fractions, decimals, percents and proportions are correct and/or that estimates are reasonable.

Learning Standard D:

Solve problems using comparison of quantities, ratios, proportions and percents.

Benchmarks:

Make comparisons of quantities.

- Compare the numbers of objects in groups.
- Describe the relationship between two sets of data using ratios and appropriate notations (a/b , a to b , $a:b$)
- Apply ratios and proportions to solve practical problems.

STATE GOAL 7:

Estimate, make and use measurements of objects, quantities and relationships and determine acceptable levels of accuracy.

Learning Standard A:

Measure and compare quantities using appropriate units, instruments and methods.

Benchmarks:

- Demonstrate a beginning understanding of measurement using non-standard units and measurement words.
- Construct a sense of time through participation in daily activities.
- Measure length, volume and weight/mass using rulers, scales and other appropriate measuring instruments in the customary and metric systems.
- Measure units of time using appropriate instruments (calendar, clocks, watches-both analog and digital).
- Identify and describe the relative values and relationships among coins and solve addition and subtraction problems using currency.
- Read temperatures to the nearest degree from Celsius and Fahrenheit thermometers.
- Calculate, compare and convert length, perimeter, area, weight/mass and volume within the customary and metric systems.
- Solve addition, subtraction, multiplication and division problems using currency.
- Measure length, capacity, weight/mass and angles using sophisticated instruments (compass, protractor, trundle wheel).
- Apply the concepts and attributes of length, capacity, weight/mass, perimeter, and area, volume, time, temperature and angle measures in practical situations.

Learning Standard B:

Estimate measurements and determine acceptable levels of accuracy.

Benchmarks:

Show understanding of and use comparative words.

Given a problem, describe possible methods for estimating a given measure.

Compare estimated measures to actual measures taken with appropriate measuring instruments.

Determine and communicate possible methods for estimating a given measure, selecting proper units in both customary and metric systems.

Estimate conversions between measures with the customary and metric systems.

Select and apply instruments including rulers and protractors and units of measure to the degree of accuracy required.

Learning Standard C:

Select and use appropriate technology, instruments and formulas to solve problems, interpret results and communicate findings.

Benchmarks:

- Incorporate estimating and measuring activities into play.
- Determine perimeter and area using concrete materials (geoboards, square tiles, grids, measurement instruments).
- Describe relationships in a simple scale drawing.
- Construct or draw figures with given perimeter and area.
- Construct a simple scale drawing for a given situation.
- Use concrete and graphic models and appropriate formulas to find perimeters, areas, surface areas and volume of two and three-dimensional regions.

STATE GOAL 8:

Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Learning Standard A:

Describe numerical relationships using tables, graphs and symbols.

Benchmarks:

- Sort and classify objects by a variety of properties.
- Identify, describe and extend simple geometric and numeric patterns.
- Solve simple number sentences ($2+?=5$).
- Identify, describe, extend and create geometric and numeric patterns.
- Construct and solve number sentences using a variable to represent an unknown quantity.
- Apply the basic properties of commutative, associative, distributive, transitive, inverse, identity, zero, equality and order of operations to solve problems.
- Solve problems using linear expressions, equations and inequalities.

Learning Standard B:

Interpret and describe numerical relationships using tables, graphs and symbols.

Benchmarks:

Recognize, duplicate and extend simple patterns, such as sequences of sounds, shapes and colors.

]Begin to order objects in series or rows.

]Solve problems involving pattern identification and completion of patterns.

]Analyze a geometric pattern and express the results numerically.

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

Learning Standard C:

Solve problems using systems of numbers and their properties.

Benchmarks:

- Participate in situations that involve addition and subtraction using manipulatives.
- Describe the basic arithmetic operations (addition, subtraction, multiplication, division) orally, in writing and using concrete materials and drawings.
- Explain operations and number properties including commutative, associative, distributive, transitive, zero, equality and order of operations.
- Apply the properties of numbers and operations including inverse in algebraic settings derived from economics, business and science.

Learning Standard D:

Use algebraic concepts and procedures to represent and solve problems.

Benchmarks:

Describe qualitative change, such as measuring to see who is growing taller.

Find the unknown numbers in whole number addition, subtraction, multiplication and division situations.

Solve linear equations involving whole numbers.

Solve problems using numeric, graphic or symbolic representations of variables, expressions, equations and inequalities.

Propose and solve problems using proportions, formulas and linear functions.

Apply properties of powers, perfect squares and square roots.

STATE GOAL 9:

Use geometric methods to analyze, categorize, draw conclusions about points, lines planes and space.

Learning Standard A:

Demonstrate and apply geometric concepts involving points, lines, planes and space.

Benchmarks:

- Recognize geometric shapes and structures in the environment.
- Identify related two and three-dimensional shapes including circle-sphere, square-cube, triangle-pyramid, rectangle-rectangular prism and their basic properties.
- Draw two-dimensional shapes.
- Build physical models of two and three-dimensional shapes.
- Identify and describe how geometric figures are used in practical settings (construction, art, advertising).
- Describe and draw representations of geometric relationships, patterns, symmetries, and designs in two and three dimensions with and without technology.
- Draw or construct two and three-dimensional geometric figures including prisms, pyramids, cylinders and cones.
- Draw transformation images of figures, with and without the use of technology.
- Use concepts of symmetry, congruency, similarity, scale, perspective, and angles to describe and analyze two and three-dimensional shapes found in practical applications (geodesic domes, A-frames houses, basketball courts, inclined planes, art forms, blueprints).

Learning Standard B:

Identify, describe, classify and compare relationships using points, lines, planes and solids.

Benchmarks:

- Find and name locations with simple words, such as "near".
- Identify and describe characteristics, similarities and differences of geometric shapes.
- Sort, classify and compare familiar shapes.
- Identify lines of symmetry in simple figures and construct symmetrical figures using various concrete materials.
- Compare geometric figures and determine their properties including parallel, perpendicular, similar, congruent and line symmetry.
- Identify, describe, classify and compare two and three dimensional geometric figures and models according to their properties.

Learning Standard C:

Construct convincing arguments and proofs to solve problems.

Benchmarks:

Draw logical conclusions and communicate reasoning about simple geometric figures and patterns using concrete materials, diagrams and contemporary technology.

Formulate logical arguments about geometric figures and patterns and communicate reasoning.

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

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

STATE GOAL 10:

Collect, organize and analyze data using statistical methods; predict results; and interpret uncertainty-using concepts of probability.

Learning Standard A:

Organize, describe and make predictions from existing data.

Benchmarks:

- Represent data concrete objects, pictures, and graphs.
- Make predictions about what will happen next.
- Organize and display data using pictures, tallies, tables, charts or bar graphs.
- Answer questions and make predictions based on given data.
- Using a data set, determine mean, median, mode and range, with and without the use of technology.
- Make predictions and decisions based on data and communicate their reasoning.

Learning Standard B:

Formulate questions, design data collection methods, gather and analyze data and communicate findings.

Benchmarks:

- Gather data about themselves and their surroundings.
- Formulate questions of interest and design surveys or experiments to gather data.
- Collect, organize and describe data using pictures, tallies, tables, charts or bar graphs.
- Analyze data, draw conclusions and communicate the results.
- Formulate questions (relationships between car age and mileage, average incomes and years of schooling), devise and conduct experiments or simulations, gather data, draw conclusions and communicate results to an audience using traditional methods and contemporary technologies.

Learning Standard C:

Determine, describe and apply the probabilities of events.

Benchmarks:

- Describe the concept of probability in relationship to likelihood and chance.
- Systemically list all possible outcomes of a simple one-stage experiment (the flip of one coin, the toss of one die, the spin of a spinner).
- Calculate the probability of a simple event.

2. SCIENCE

STATE GOAL 11:

Understand the processes of scientific inquiry and technological design to investigate questions conduct experiments and solve problems.

Learning Standard A:

Know and apply the concepts, principles and processes of scientific inquiry.

Benchmarks:

- Describe an observed event.
- Develop questions on scientific topics.
- Collect data for investigations using measuring instruments and technologies.
- Record and store data using available technologies.
- Arrange data into logical patterns and describe the patterns.
- Compare observations of individual and group results.
- Formulate questions on a specific science topic and choose the steps needed to answer the questions.
- Collect data for investigations using scientific process skills including observing, estimating and measuring.
- Construct charts and visualizations to display data.
- Use data to produce reasonable explanations.

- Report and display the results of individual and group investigations.
- Formulate hypotheses that can be tested by collecting data.
- Conduct scientific experiments that control all but one variable.
- Interpret and represent results of analysis to produce findings.
- Report and display the process and results of a scientific investigation.

Learning Standard B:

Know and apply the concepts, principles and processes of technological design.

Benchmarks:

- Given a simple design problem, formulate possible solutions.
- Design a device that will be useful in solving the problem.
- Build the device using the materials and tools provided.
- Test the device and record results using given instruments, techniques and measurement methods.
- Report the design of the device, the test process and the results in solving a given problem.
- Identify a design problem and propose possible solutions.
- Develop a plan, design and procedure to address the problem identifying constraints (time, materials, technology).
- Build a prototype of the design using available tools and materials.

STATE GOAL 12:

Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.

Learning Standard A:

Know and apply concepts that explain how living things function, adapt and change.

Benchmarks:

- Identify and describe the component parts of living things (bird have feathers; people have bones, blood hair, skin) and their major functions.
- Categorize living organisms using a variety of observable features (size, color, shape, backbone).
- Describe simple life cycles of plants and animals and the similarities and differences in their offspring.
- Categorize features as either inherited or learned (flower color or eye color-inherited; language is learned).
- Explain how cells function as "building blocks" of organisms and describe the requirements for cells to live.
- Compare characteristics of organisms produced from a single parent with those of organisms produced by two parents.
- Compare and contrast how different forms and structures reflect different functions (similarities and differences among animals that fly, walk or swim; structures of plant cells and animal cells).

Learning Standard B:

Know and apply concepts that describe how living things interact with each other and with their environment.

Benchmarks:

- Describe and compare characteristics of living things in relationships to their environments.
- Describe how living things depend on one another for survival.
- Describe relationships among various organisms in their environments (predator/prey, parasite/host, food chains and food webs).
- Identify physical features of plants and animals that help them live in different environments (specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).

Learning Standard C:

Know and apply concepts that describe properties of matter and energy and the interactions between them.

Benchmarks:

- Identify and compare sources of energy (batteries, the sun).
- Compare large-scale physical properties of matter (size, shape, color, texture, odor).
- Describe and compare types of energy including light, heat, sound electrical and mechanical.
- Describe and explain the properties of solids, liquids and gases.
- Explain interactions of energy with matter including changes of state and conservation of mass and energy.
- Model and describe the chemical and physical characteristics of matter (atoms, molecules, elements, compounds, mixtures).

Learning Standard D:

Know and apply concepts that describe force and motion and the principles that explain them.

Benchmarks:

- Identify examples of motion (moving in a straight line, vibrating, rotating)
- Identify observable forces in nature (pushes, pulls, gravity, magnetism).
- Explain constant, variable and periodic motions.
- Demonstrate and explain ways that forces cause actions and reactions (magnets attracting and repelling, objects falling, rolling and bouncing).
- Explain and demonstrate how forces affect, motion (action/reaction, equilibrium conditions, free falling objects).
- Explain the factors that affect the gravitational forces on objects(changes in mass, distance).

Learning Standard E:

Know and apply concepts that describe the features and processes of the Earth and the resources.

Benchmarks:

- Identify components and describe diverse features of the Earth's land, water and atmospheric systems.
- Identify and describe patterns of weather and seasonal change.
- Identify renewable nonrenewable natural resources.
- Identify and explain natural cycles of the Earth's land, water and atmospheric systems (rock cycle, water cycle, weather patterns).
- Describe and explain short-term and long-term interactions of the Earth's components (earthquakes, types of erosion).
- Identify and classify recyclable materials.
- Analyze and explain large-scale dynamic forces, events and processes that affect the Earth's land, water and atmospheric systems (jet stream, hurricanes, plate tectonics)
- Describe interactions between solid earth, oceans, atmosphere and organisms that have resulted in ongoing changes of Earth (erosion, el nino).

Learning Standard F:

Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

Benchmarks:

- Identify and describe characteristics of the sun, Earth and moon as familiar objects in the solar system.
- Identify daily, seasonal and annual patterns related to the Earth's rotation and revolution.
- Identify and explain natural cycles and patterns in the solar system (order of the planets; moon phases; seasons as related to Earth's tilt, one's latitude, and where Earth is in its yearly orbit around the sun).
- Explain the apparent motion of the sun and stars.

- Identify easily recognizable star patterns (the Big Dipper, constellations).
- Simulate, analyze and explain the effects of gravitational force in the solar system (orbital shape and speed, tides, spherical shape of the planets and moons).
- Describe the organization and physical characteristics of the solar systems (sun, planets, satellites, asteroids, comets).
- Compare and contrast the sun as a star with other objects in the Milky Way Galaxy.

STATE GOAL 13:

Understand the relationships among science, technology and society in historical and contemporary.

Learning Standard A:

Know and apply the accepted practices of science.

Benchmarks:

- Use basic safety practices (not tasting materials without permission, stop/drop/roll).
- Explain why similar results are expected when procedures are done the same way.
- Explain how knowledge can be gained by careful observation.
- Demonstrate ways to avoid injury when conducting science activities (wearing goggles, fire extinguisher use).
- Explain why similar investigations may not produce similar results.
- Identify and reduce potential hazards in science activities (ventilation, handling).
- Analyze historical and contemporary cases in which the work of science has been affected by both valid and biased scientific practices.
- Explain what is similar and different about observational and experimental investigations.

Learning Standard B:

Know and apply concepts that describe the interaction between science, technology and society.

Benchmarks:

- Explain the uses of common scientific instruments (ruler, thermometer, balance, computer).
- Explain how using measuring tools improves the accuracy of estimates.
- Describe contributions men and women have made to science and technology.
- Demonstrate ways to reduce, reuse and recycle materials.
- Explain how technology is used in science for a variety of purposes.
- Identify and explain ways that science and technology influence the lives and careers of people.
- Compare the relative effectiveness of reducing, reusing and recycling in actual situations.

3. SOCIAL SCIENCE

STATE GOAL 14:

Understand political systems, with an emphasis on the United States.

Learning Standard A:

Understand and explain basic principles of the United States government.

Benchmarks:

- Recognize the reasons for rules.
- Describe the fundamental principles of government including representative government, governmental law, individual rights and the common good.

- Explain the importance of fundamental concepts expressed and implied in major documents including the Declaration of Independence, the United States Constitution and Illinois Constitution.
- Describe how responsibilities are shared and limited by the United States and Illinois Constitutions and significant court decisions.

Learning Standard B:

Understand the structures and functions of the political systems of Illinois, the United States and other nations.

Benchmarks:

- Identify the different levels of government as local, state and national.
- Explain what government does at the local, state and national levels.
- Identify and compare the basic political systems of Illinois and the United States as prescribed in their constitutions.

Learning Standard C:

Understand election processes and responsibilities of citizens.

Benchmarks:

- Participate in voting as a way of making choices.
- Identify concepts of responsible citizenship including respect for the law, patriotism, civility and working with others.
- Describe and evaluate why rights and responsibilities are important to the individual, family, community, workplace, state and nation (voting, protection under the law).
- Compare historical issues involving rights, roles and status of individuals in relation to municipalities, states and the nation.

Learning Standard D:

Understand the roles and influence of individuals and interest groups in the political systems of Illinois, the United States and other nations.

Benchmarks:

- Develop an awareness of roles of leaders in their environment.
- Identify the roles of civic leaders (elected leaders, public service leaders).
- Explain ways that individuals and groups influence and shape public policy.

Learning Standard E:

Understand United States foreign policy as it relates to other nations and international issues.

Benchmarks:

- Identify relationships that the federal government establishes with other nations.
- Determine and explain the leadership role of the United States in international settings.
- Compare the basic principles of the United States and its international interests(territory, environment, trade use of technology).

Learning Standard F:

Understand the development of United States political ideas and traditions.

Benchmarks:

- Describe political ideas and traditions important to the development of the United States including democracy, individual rights and the concept of freedom.

- Identify consistencies and inconsistencies between expressed United States political traditions and ideas and actual practices (freedom of speech, right to bear arms, slavery, voting rights).
- Analyze historical influences on the development of political ideas and practices as enumerated in the Declaration of Independence, the United States Constitution, the Bill of Rights and the Illinois Constitution.

STATE GOAL 15:

Understand economic systems, with an emphasis on the United States.

Learning Standard A:

Understand how different economic systems operate in the exchange, distribution and consumption of goods and services.

Benchmarks:

- Identify community workers and the services they provide.
- Identify advantages and disadvantages of different ways to distribute goods and services.
- Describe how wages/salaries can be earned in exchange for work.
- Explain how economic systems decide what goods and services are produced, how they are produced and who consumes them.
- Describe how income reflects choices made about education and careers.
- Describe unemployment.
- Explain how market prices signal producers about what, how and how much to produce.
- Explain the relationship between productivity and wages.

Learning Standard B:

Understand that scarcity necessitates choices by consumers.

Benchmarks:

Explain why consumers must make choices.

Identify factors that affect how consumers make their choices.

Explain the relationship between the quantity of goods/services purchased and their price.

Explain that when a choice is made, something else is given up.

Explain the effects of choice and competition on individuals and the economy as a whole.

Learning Standard C:

Understand the scarcity necessitates choices by producers.

Benchmarks:

- Describe how human, natural and capital resources are used to produce goods and services.
- Identify limitations in resources that force producers to make choices about what to produce.
- Describe how entrepreneurs take risks in order to produce goods or services.

Learning Standard D:

Understand trade as an exchange of goods and services.

Benchmarks:

- Begin to understand the use of trade to obtain goods and services.
- Demonstrate the benefits of simple voluntary exchanges.
- Know that barter is a type of exchange and that money makes exchange easier.
- Explain why people and countries voluntarily exchange goods and services.

- Explain how workers can affect their productivity through training and by using tools, machinery and technology.

Learning Standard E:

Understand the impact of government policies and decisions on production and consumption in the economy.

Benchmarks:

- Identify goods and services provided by government.
- Explain how and why public goods and services are provided.
- Identify which public goods and services are provided by differing levels of government.
- Identify the types of taxes levied by differing levels of governments (income tax, sales tax, property tax).
- Explain how laws and government policies (property rights, contract enforcement, standard weights/measurements) establish rules that help a market economy function effectively.

STATE GOAL 16:

Understand events, trends, individuals and movements shaping the history of Illinois, the United States and other nations.

Learning Standard A:

Apply the skills of historical analysis and interpretation.

Benchmarks:

Recall information about the immediate past.

Explain the difference between past, present future time; place themselves in time.

Read historical stories and determine events which influenced their writing.

Ask historical questions and seek out answers from historical sources (myths, biographies, stories, old photographs, artwork, other visual or electronic sources).

Compare different stories about a historical figure or event and analyze differences in the portrayals and perspectives they present.

Ask questions and seek answers by collecting data from historical documents, images and other literary and non-literary sources.

Describe how historians use models for organizing historical interpretation (biographies, political events, issues and conflicts).

Make inferences about historical events and eras using historical maps and other historical sources.

Identify the difference between historical fact and interpretation.

Learning Standard B:

Understand the development of significant political events.

Benchmarks:

- Identify key individuals and events in the development of the local community (founders day, names of parks, streets, public buildings).
- Explain why individuals, groups, issues and events are celebrated with local, state or national holidays or days of recognition (Lincoln's birthday, Martin Luther King's Birthday, Pulaski Day, Fourth of July, Memorial Day, Labor Day, Veterans' Day, Thanksgiving).
- Describe how the European colonies in North America developed politically.
- Identify major causes of the American Revolution and describe the consequences of the Revolution through the early national period, including the roles of George Washington, Thomas Jefferson and Benjamin Franklin.
- Identify presidential elections that were pivotal in the formation of modern political parties.

- Identify major political events and leaders within the United States historical eras since the adoption of the Constitution, including the westward expansion, Louisiana Purchase, Civil War, and the 20th century wars as well as roles of Thomas Jefferson, Abraham Lincoln, Woodrow Wilson and Franklin D. Roosevelt.
- Describe how different groups competed for power within the colonies and how that competition led to the development of political institutions during the early national period.
- Explain how and why the colonies fought for their independence and how the colonists' ideas are reflected in the Declaration of Independence and the United States Constitution.
- Describe the way the Constitution has changed over time as a result of amendments and Supreme Court decisions.
- Describe ways in which the United States developed as a world political power.
- Explain the contributions of individuals and groups who are featured in biographies, folklore, and traditions.
- Describe the historical development of monarchies, oligarchies and city-states in ancient civilizations.
- Describe the origins of Western political ideas and institutions (Greek democracy, Roman republic, Magna Carta and Common Law, the Enlightenment).
- Compare the political characteristics of Greek and Roman civilizations with non-Western civilizations, including the early Han dynasty and Gupta Empire, between 500 BCE and 500CE.
- Identify causes and effects of the decline of the Roman Empire and other major world political events.

Learning Standard C:

Understand the development of economic systems.

Benchmarks:

- Describe how Native American people in Illinois engaged in economic activities with other tribes and traders in the region prior to the Black Hawk War.
- Explain how the economy of the students' local community has changed over time.
- Describe how slavery and indentured servitude influenced the early economy of the United States.
- Explain how individuals, including John Deere, Thomas Edison, Robert McCormack, George Washington Carver and Henry Ford, contributed to economic change through ideas, inventions and entrepreneurship.
- Describe economic motivations that attracted Europeans and others to the Americas, 1500-1750.
- Explain how relationships among the American economy and slavery, immigration, industrialization, labor and urbanization, 1700-present.
- Describe how economic developments and government policies after 1865 affected the country's economic institutions, including corporations, banks and organized labor.
- Identify how people and groups in the past made economic choices (crops to plant, products to make, products to trade) to survive and improve their lives.
- Explain how trade among people brought an exchange of ideas, technology and language.
- Describe basic economic changes that led to and resulted from the manorial agricultural system, the industrial revolution, the rise of the capitalism and the information/communication revolution.
- Describe the economic systems and trade patterns of North America, South America and Mesoamerica before the encounter with the Europeans.
- Describe the impact of technology (weaponry, transportation, printing press, microchips) in different parts of the world, 1500--present.

Learning Standard D:

Understand Illinois, United States and world social history.

Benchmarks:

- Describe key figures and organizations (fraternal/civic organizations, public service groups, community leaders) in the social history of the local community.
- Describe the various individual motives for settling colonial America.
- Describe the ways in which participation in the westward movement affected families and communities.

- Describe the influence of key individuals and groups, including Susan B. Anthony/suffrage and Martin Luther King Jr./civil rights, in the historical era of Illinois and the United States.
- Describe characteristics of different kinds of communities in various sections of America during the colonial/frontier periods and the 19th century.
- Identify how customs and traditions from around the world influence the local community.
- Describe the various roles of men, women and children in the family, at work, and in the community in various time periods and places (ancient Rome, Medieval Europe, ancient china, Sub-Saharan Africa).

Learning Standard E:

Understand Illinois, United States and world environmental history.

Benchmarks:

- Describe how the local environment has changed over time.
- Identify environmental factors that drew settlers to the state and region.
- Identify individuals and events in the development of the conservation movement including John Muir, Theodore Roosevelt and the creation of the National Park System.
- Describe environmental factors that influenced the development of transportation and trade in Illinois.
- Describe how early settlers in Illinois and the United States adapted to, used and changed the environment prior to 1818.
- Describe how the largely rural population of the United States adapted, used and changed the environment after 1818.
- Describe the impact of urbanization and suburbanization, 1850-present, on the environment.
- Compare depictions of the natural environment that are found in myths, legends, folklore and traditions.
- Identify individuals and their inventions (Watt/steam engine, Nobel/TNT, Edison/electric light) which influenced world environmental history.

STATE GOAL 17:

Understand world geography and the effects of geography on society, with an emphasis on the United States.

Learning Standard A:

Locate, describe and explain places, regions and features of the Earth.

Benchmarks:

- Locate objects and places in familiar environments.
- Express beginning geographic thinking.
- Identify physical characteristics of places, both local and global(locations, roads, bodies of water, regions).
- Identify the characteristics and purposes of geographic representations including maps, globes, graphs, photographs, software, digital images and be able to locate specific places using each.
- Compare the physical characteristics of places including soils, landforms, vegetation, wildlife, climate natural hazards.
- Use maps and other geographic representations and instruments to gather information about people, places and environments.
- Explain how people use geographic markers and boundaries to analyze and navigate the Earth (hemispheres, bodies of water, meridians and continents).

Learning Standard B:

Analyze and explain characteristics and interactions of the Earth's physical systems.

Benchmarks:

- Identify components of the Earth's physical systems.
- Describe physical components of ecosystems.

- Explain how physical and living components interact in a variety of ecosystems including desert, prairie, flood plain, forest and tundra.
- Explain how physical processes including climate, plate tectonics, erosion, soil formation, water cycle, and circulation patterns in the ocean shape patterns in the environment and influence availability and quality of natural resources.
- Explain how changes in components of an ecosystem affect the system overall.

Learning Standard C:

Understand relationships between geographic factors and society.

Benchmarks:

- Identify ways people depend on and interact with the physical environment (farming, fishing, hydroelectric power).
- Identify opportunities and constraints of the physical environment.
- Explain the difference between renewable and nonrenewable resources.
- Describe how natural events in the physical environment affect human activities.
- Explain how human activity affects the environment.
- Explain how human processes influence settlement patterns including migration and population growth.

Learning Standard D:

Understand the historical significance of geography.

Benchmarks:

- Identify changes in geographic characteristics of a local region (town, community).
- Describe how physical characteristics of places influence people's perceptions and their roles in the world over time.
- Explain how interactions of geographic factors have shaped present conditions.

STATE GOAL 18:

Understand social systems, with an emphasis on the United States.

Learning Standard A:

Compare characteristics of culture as reflected in language, literature, the arts, traditions and institutions.

Benchmarks:

- Recognize similarities and differences in people.
- Identify folklore from different cultures, which became part of the heritage of the United States.
- Explain ways in which language, stories, folk tales, music, media and artistic creations serve as expressions of culture.
- Explain how language, literature, the arts, architecture and traditions contribute to the development and transmission of culture.

Learning Standard B:

Understand the roles and interactions of individuals and groups in society.

Benchmarks:

- Understand that each of us belongs to a family and recognize that families vary.
- Compare the roles of individuals in group situations (student committee member, employee/employer).
- Identify major social institutions in the community.
- Describe the ways in which institutions meet the needs of society.
- Analyze how individuals and groups interact with and within institutions (educational, military).

- Explain how social institutions contribute to the development and transmission of culture.

Learning Standard C:

Understand how social systems form and develop over time.

Benchmarks:

- Describe how individuals interacted within groups to make choices regarding food, clothing and shelter.
- Describe how changes in production (hunting and gathering, agriculture, industrial) and population\ caused changes in social systems.
- Describe ways in which a diverse U.S. population has developed and maintained common beliefs (life, liberty and the pursuit of happiness; the Constitution and the Bill of Rights).
- Explain how diverse groups have contributed to U.S. social systems over time.

4. PHYSICAL DEVELOPMENT AND HEALTH

STATE GOAL 19:

Acquire movement skills and understand concepts needed to engage in health-enhancing physical activity.

Learning Standard A:

Demonstrate physical competency in individual and team sports, creative movement and leisure and work-related activities.

Benchmarks:

- Demonstrate control when performing fundamental locomotor, non-locomotor and manipulative skills.
- Demonstrate control when performing combinations and sequences in locomotor, non-locomotor and manipulative motor patterns.
- Demonstrate control when performing combinations and sequences of locomotor, non-locomotor and manipulative motor patterns in selected activities, games and sports.

Learning Standard B:

Analyze various movement concepts and applications.

Benchmarks:

- Understand spatial awareness and relationships to objects and people.
- Identify the principles of movement (absorption and application of force, equilibrium).
- Compare and contrast efficient and inefficient movement patterns.

Learning Standard C:

Demonstrate knowledge of rules, safety and strategies during physical activity.

Benchmarks:

- Demonstrate safe movement in physical activities.
- Identify and apply rules and safety procedures in physical activities.
- Identify offensive, defensive and cooperative strategies in selected activities and games.
- Apply rules and safety procedures in physical activities.
- Apply offensive, defensive and cooperative strategies in selected activities, games and sports.

STATE GOAL 20:

Achieve and maintain a health-enhancing level of physical fitness based upon continual self-assessment.

Learning Standard A:

Know and apply the principles and components of health-related fitness.

Benchmarks:

- Identify characteristics of health-related fitness (flexibility, muscular strength).
- Engage in sustained physical activity that causes increased heart rate, muscle strength and range of movement.
- Describe the benefits of maintaining health-enhancing level of fitness.
- Regularly participate in physical activity for the purpose of sustaining or improving individual levels of health-related fitness.

Learning Standard B:

Assess individual fitness levels.

Benchmarks:

- Describe immediate effects of physical activity on the body (faster heartbeat, increased pulse rate, increased breathing rate).
- Monitor individual heart rates before, during and after physical activity, with and without the use of technology.
- Monitor intensity of exercise through a variety of methods (perceived exertion, pulse monitors, target heart rate), with and without the use of technology.

Learning Standard C:

Set goals based on fitness data and develop, implement and monitor an individual fitness improvement plan.

Benchmarks:

- Identify a realistic health-related goal.
- Set a personal health-related fitness goal.
- Identify opportunities within the community for regular participation in physical activities.

STATE GOAL 21:

Develop team-building skills by working with others through physical activity.

Learning Standard A:

Demonstrate individual responsibility during physical activities.

Benchmarks:

- Follow directions and class procedures while participating in physical activities.
- Use identified procedures and safe practices with little or no reinforcement during physical activities.
- Work independently on tasks for short periods of time.
- Accept responsibility for their own actions in-group physical activities.

Learning Standard B:

Demonstrate cooperative skills during structured group physical activity.

Benchmarks:

- Work cooperatively with another to accomplish an assigned task.
- Work cooperatively with others to accomplish a set goal in both competitive and non-competitive situations.

STATE GOAL 22:

Understand principles of health promotion and the prevention and treatment of illness and injury.

Learning Standard A:

Explain the basic principles of health promotion, illness, prevention and safety.

Benchmarks:

- Identify general signs and symptoms of illness (fever, rash, cough).
- Identify methods of health promotion and illness prevention (hand washing, brushing and flossing, eating practices and sleep).
- Identify dangerous situations and safety methods to reduce risks (traffic, use of medicine and poisons, strangers).
- Demonstrate strategies for prevention and reduction of communicable and non-communicable disease (practicing cleanliness, healthy food choices, doctor visits).
- Describe and compare health and safety methods that reduce the risks associated with dangerous situations (wearing seatbelts, helmets and sunscreen).
- Identify and describe ways to reduce health risks common to adolescents (exercise, diet, refusal of harmful substances).
- Identify various careers involved in health promotion, health care, and injury prevention.

Learning Standard C:

Explain how the environment can affect health.

Benchmarks:

- Identify sources and causes of environmental health risks (air, soil, sun, water, noise, food, chemicals).
- Explain interrelationships between the environment and individual health (pollution and respiratory problems, sun and skin cancer).

STATE GOAL 23:

Understand human body systems and factors that influence growth and development.

Learning Standard A:

Describe and explain the structure and functions of the human body systems and how they interrelate.

Benchmarks:

- Identify basic parts of the body systems and their functions (heart, lungs, eyes, etc).
- Identify basic body systems and their functions (circulatory, respiratory, nervous systems).
- Explain how body systems interact with each other (blood transporting nutrients from the digestive system and oxygen from the respiratory system).

Learning Standard B:

Explain the effects of health-related actions on the body systems.

Benchmarks:

- Identify healthy actions that influence the functions of the body (cleanliness, proper diet, exercise).
- Differentiate between positive and negative effects of health-related actions on body systems (drug use, exercise, diet).
- Explain the effects of health-related actions upon body systems (fad diets, orthodontics, avoiding smoking, alcohol use and other drug use).

Learning Standard C:

Describe factors that affect growth and development.

Benchmarks:

- Identify individual differences in growth and development among people.
- Identify stages in growth and development(stages in the life cycle from infancy to old age).

STATE GOAL 24:

Promote and enhance health and well being through use of effective communication and decision-making skills.

Learning Standard A:

Demonstrate procedures for communicating in positive ways, resolving differences and preventing conflict.

Benchmarks:

- Differentiate between positive and negative behaviors (waiting your turn vs. pushing in line, honesty vs. lying).
- Identify positive verbal and nonverbal communication skills (body language, manners, listening).
- Identify causes and consequences of conflict among youth.
- Demonstrate positive verbal and nonverbal communication skills (polite conversation, attentive listening, body language).
- Explain how positive communication helps to build and maintain relationships at school, at home and in the workplace.

Learning Standard B:

Apply decision-making skills related to the protection and promotion of individual health.

Benchmarks:

- Recognize how choices can affect health (not brushing/tooth decay, smoking/risk of cancer and heart disease).
- Describe key elements of a decision-making process.
- Apply a decision-making process to an individual health concern.

Learning Standard C:

Demonstrate skills essential to enhancing health and avoiding dangerous situations.

Benchmarks:

- Demonstrate basic refusal skills ("just say no", "stranger danger").
- Describe situations where refusal skills are necessary (pressure to smoke, use alcohol and other drugs, join gangs, physical abuse and exploitation).
- Apply refusal and negotiation skills to potentially harmful situations.

5. FINE ARTS

STATE GOAL 25:

Know the language of the arts.

Learning Standard A:

Understand the sensory elements, organizational principles and expressive qualities of the arts.

Benchmarks:

- Dance: Investigate the elements of dance.
- Drama: Investigate the elements of drama.
- Music: Investigate the elements of music.
- Visual Arts: Investigate the elements of visual arts.

STATE GOAL 26:

Through creating and performing, understand how works of art are produced.

Learning Standard A:

Understand processes, traditional tools and modern technologies used in the arts.

Benchmarks:

- Dance: Participate in dance activities.
- Drama: Participate in drama activities.
- Music: Participate in music activities.
- Visual Arts: Participate in the visual arts.

Learning Standard B:

Apply skill and knowledge necessary to create and perform in one or more of the arts.

Benchmarks:

- Use creative arts as an avenue for self-expression.
 - Dance: Perform basic locomotor, nonlocomotor movements and traditional dance forms and create simple dance sequences.
 - Drama: Demonstrate individual skills (vocalizing, listening, moving, observing, concentrating) and group skills (decision making, planning, practicing, spacing) necessary to create or perform story elements and characterizations.
 - Music: Sing or play on classroom instruments a variety of music representing diverse cultures and styles.
 - Visual Arts: Demonstrate knowledge and skills to create visual works of art using manipulation, eye-hand coordination, building and imagination.

6. SOCIAL/EMOTIONAL DEVELOPMENT

STATE GOAL 31:

Develop awareness of personal identity and positive self-concept.

Learning Standard A:

Develop a positive self-concept.

Benchmarks:

- Describe self by using several basic characteristics.
- Exhibit eagerness and curiosity as a learner.
- Exhibit persistence and creativity in seeking solutions to problems.
- Show some initiative and independence in actions.
- Use appropriate communication skills when expressing needs, wants and feelings.

STATE GOAL 32:

Demonstrate a respect and a responsibility for self and others.

Learning Standard A:

Perform effectively as an individual.

Benchmarks:

- Begin to understand and follow rules.
- Manage transitions and begin to adapt to change in routines.
- Show empathy and caring for others.
- Use the classroom environment purposefully and respectfully.

Learning Standard B:

Perform effectively as a member of a group.

Benchmarks:

- Engage in cooperative group play.
- Begin to share materials and experiences and take turns.
- Respect the rights of self and others.
- Develop relationships with children and adults.