### ILLINOIS LICENSURE TESTING SYSTEM

### FIELD 197-200: ELEMENTARY EDUCATION (GRADES 1-6)

### **TEST FRAMEWORK**

September 2015

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September 2015

	Subtest	Range of Objectives
I.	Language and Literacy (Grades 1–6)	0001–0006
II.	Mathematics (Grades 1–6)	0001–0006
III.	Science and Social Science (Grades 1–6)	0001–0006
IV.	Fine Arts, Physical Development, and Health (Grades 1–6)	0001–0005

### ILLINOIS LICENSURE TESTING SYSTEM

### FIELD 197–200: ELEMENTARY EDUCATION (GRADES 1–6)

### **TEST FRAMEWORK**

Language and Literacy Mathematics Science and Social Science Fine Arts, Physical Development, and Health

### SUBTEST 1—LANGUAGE AND LITERACY (GRADES 1–6)

## 0001 Understand foundations of research-based literacy instruction and assessment and apply knowledge of emergent literacy development.

For example:

- Apply the scientific basis of teaching to plan, evaluate, and modify instruction and apply knowledge of appropriate research to identify and implement instructional practices and strategies that are effective in supporting the literacy development of all students (e.g., English language learners, gifted learners, learners who are struggling).
- Apply knowledge of the developmental sequence of language and literacy skills (e.g., stages of reading and spelling development, phases of word reading), along with age-level or grade-level benchmarks of development; and analyze the role of early, systematic, and explicit instruction in the development of foundational literacy skills.
- Demonstrate knowledge of the Illinois Learning Standards for English Language Arts and Literacy in History/Social Studies, Science and Technical Subjects (23 III. Adm. Code 1. Appendix D, State Goals for Learning) and their organization, progressions, and the interconnections among the skills; and recognize components of an effective comprehensive literacy curriculum that develops students' literacy skills and ensures that instructional goals are met.
- Analyze the nature and communicative role of various features of language (e.g., semantics, syntax, morphology, pragmatics) in literacy development; major theories and stages of first- and second-language acquisition, including the role of native language and literacy skills in learning to read and write in a new language; and research and evidence related to the interrelationship between language and literacy development across the elementary years.

- Apply knowledge of the use of a wide range of high-quality materials, texts, and technology to support literacy development, including using research-based criteria to select literature and informational texts that address the interests and needs of students, estimating the difficulty level of text using readability measures and qualitative factors related to text complexity, choosing culturally responsive texts to promote students' understanding of their lives and society, and using a variety of technology (e.g., computers, cameras, interactive Web sites, blogs, online research) to support literacy instruction.
- Demonstrate knowledge of the use of strategies, routines, materials, texts, and technology to construct a collaborative and supportive language and literacy environment and to meet the diverse needs of learners, including recognizing the effects of cultural, linguistic, cognitive, academic, physical, social, and emotional differences on language development and literacy; collaborating with other professionals to deliver an appropriate instructional program in literacy for each student; and providing support for struggling readers through the use of explicit instruction and data-based decision making to target interventions.
- Apply knowledge of theories, principles, and practices of emergent literacy, including the development of oral language and its relationship to the developmental process of reading and writing acquisition, the role of phonemic awareness in learning to read and write an alphabetic language, and methods for assisting students in developing basic print and text concepts and alphabetic knowledge.
- Apply knowledge of the phonological awareness continuum and its development (from word and syllable separations to phonemic segmentation), the distinction between phonological and phonemic awareness, and the application of research-based systematic and explicit instruction in phonological awareness and phonemic awareness skills.
- Apply knowledge of key concepts, principles, and practices related to developmentally appropriate literacy assessment, including selecting, administering, and interpreting the results of a variety of literacy assessments; monitoring student learning through assessment; employing appropriate assessments for diverse learners; and recognizing the purposes, strengths, and limitations of various assessment methods and instruments.
- Apply knowledge of differentiated instruction and appropriate assessment strategies in emergent literacy that are responsive to the strengths and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

### 0002 Apply knowledge of decoding and fluency development.

For example:

- Analyze the orthographic-phonological system in English, including sound-letter relationships, phonics elements (e.g., digraphs, blends, diphthongs, r-controlled vowels, different types of vowel teams), and common phonics/spelling patterns and their relationship to pronunciation (e.g., short- and long-vowel words/syllables).
- Apply knowledge of explicit, sequential, and systematic phonics instruction from letter-sound correspondence to sounding out and blending the individual letters of simple regular words and to decoding words that follow common phonics/spelling patterns.
- Apply knowledge of explicit instruction in inflectional endings, lesscommon phonics elements and spelling patterns, high-frequency words, and irregular words (sight words).
- Apply knowledge of syllabication and structural analysis (e.g., six common syllable types, root words, derivational affixes) and explicit strategies for promoting students' effective decoding of unknown multisyllabic words.
- Apply knowledge of the key indicators of fluency (i.e., accuracy, rate, and prosody), the role of automaticity in fluent reading, and strategies for promoting students' fluency development at all stages of their reading development.
- Apply knowledge of the appropriate use of texts and effective reading and writing activities to reinforce decoding and fluency development for all learners.
- Apply knowledge of differentiated instruction and appropriate assessment strategies in decoding and fluency development that are responsive to the strengths and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

# 0003 Apply knowledge of development in vocabulary, academic language, and reading comprehension.

For example:

- Recognize the role of academic language (i.e., the vocabulary and language structures used in oral and written academic discourse) in comprehending academic texts and apply knowledge of strategies for promoting students' ability to analyze and interpret complex language structures (e.g., compound and complex sentences, passive voice constructions) encountered in their reading.
- Recognize the role of vocabulary knowledge in developing students' understanding of concepts, content, skills, and processes; and apply knowledge of the interrelationship between concept learning and academic vocabulary development to support students' reading comprehension and content learning.
- Recognize the role of prior language experience in facilitating the development of vocabulary, academic language, and reading comprehension.
- Apply a wide variety of strategies for developing and expanding students' vocabularies, including using authentic text to help students develop word consciousness, selecting appropriate words central to the meaning of text that are likely to be unknown, recognizing and teaching different tiers of vocabulary, and explicitly teaching meaning families and other word relationships and forms of language that enhance vocabulary and understanding of oral and written discourse (e.g., idioms, synonyms, antonyms, homonyms, adages, proverbs, nuances of meaning, connotations).
- Apply knowledge of explicit approaches for teaching word-learning strategies (e.g., structural analysis, the use of reference materials), including strategies for clarifying the meaning of unknown words in text (e.g., contextual analysis) and for promoting students' development of robust listening, speaking, reading, and writing vocabularies and their use of newly acquired vocabulary across disciplines.
- Apply knowledge of factors that affect reading comprehension, including factors related to the reader (e.g., decoding skills, reading fluency, vocabulary knowledge, academic language proficiency), and text complexity, including quantitative factors (e.g., estimating text readability), qualitative factors, and individual factors (e.g., knowledge demands of the text, purpose for reading).

- Apply fundamental principles for instruction in reading comprehension, including using scaffolding and close reading to enable students to understand and learn from challenging text, using different reading strategies to improve comprehension, introducing texts efficiently and providing a clear purpose for reading, providing explicit instruction in note-taking and text annotation, and guiding text-based discussions.
- Apply knowledge of differentiated instruction and appropriate assessment strategies in vocabulary, academic language, and reading comprehension development that are responsive to the prior language experience, strengths, and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

0004 Apply knowledge of skills and approaches for developing comprehension and analysis of literary and informational texts.

For example:

- Apply knowledge of organizational structures, literary devices and elements, rhetorical features, text features, and graphics commonly used in literary and informational texts and of text features common to individual disciplines.
- Apply knowledge of strategies for providing instruction in the analysis of the organizational structure of texts (e.g., sequential, causal, comparative) and of ways in which specific sentences, paragraphs, and larger portions of a text relate to each other and the whole.
- Apply knowledge of the characteristics of various genres and forms of literary and informational texts; the role, perspective, and purpose of texts in specific disciplines; and strategies for instructing students in the comparison and analysis of texts from various genres.
- Apply knowledge of strategies for promoting students' critical analysis and response to literary and informational texts by instructing students in identifying and analyzing key ideas and details, craft and structure, tone, and meaning of words (e.g., figurative language, poetic devices, discipline-specific words and phrases).
- Apply knowledge of strategies for promoting students' ability to interpret graphic features (e.g., tables, charts, illustrations, tables of contents, captions, headings, indexes) and to analyze their relationship to text.
- Apply knowledge of strategies for promoting students' ability to trace and evaluate the argument and specific claims in a text and to distinguish claims that are supported by reasons and evidence from claims that are not supported.
- Apply knowledge of differentiated instruction and appropriate assessment strategies in comprehension and analysis of literary and informational texts that are responsive to the prior language experience, strengths, and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

#### 0005 Apply knowledge of writing development and the writing process.

For example:

- Apply knowledge of strategies for providing opportunities to students to write for authentic purposes in multiple forms and genres and to understand the power and importance of writing throughout their lives.
- Apply knowledge of strategies for engaging students in using writing to develop and express an understanding of content-area concepts and skills, including strategies for instructing students in the forms and functions of general-academic and discipline-specific writing.
- Apply principles for providing instruction on producing clear, coherent writing with organization, development, substance, and style appropriate to the task, purpose, and audience.
- Apply principles for providing feedback to written work to guide students' revisions and for using conferencing to motivate and scaffold students' development throughout the writing process.
- Apply principles for providing effective instruction in creating a text that introduces an opinion on a topic, supports the opinion with information and reasons based on facts and details, uses appropriate transitional devices, and concludes with a statement supporting the opinion.
- Apply principles for providing effective instruction in creating an informative and explanatory text that introduces a topic supported by logically ordered facts, definitions, details, examples, quotations, and other types of information; uses precise language, academic vocabulary, and appropriate transitional devices; and concludes with a statement related to the topic.
- Apply principles for providing effective instruction in creating a narrative text based on real or imagined experiences or events that introduces a narrator and/or characters; uses dialogue, description, and pacing to develop and organize a sequence of events; uses concrete words, phrases, sensory details, and transitional devices; and uses a conclusion that follows from the experiences or events.
- Apply principles for providing effective instruction in writing arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
- Apply principles for providing effective instruction in how to conduct research projects using evidence drawn from multiple sources, including how to select and develop topics; gather information from a variety of sources, including the Internet; synthesize information; and paraphrase, summarize, quote from, and cite sources.

- Apply knowledge of conventions of Standard American English capitalization, punctuation, spelling, grammar, and usage (e.g., irregular plural nouns, past tense of irregular verbs, subject-verb agreement, pronoun-antecedent agreement, conjunctions, prepositions, interjections, perfect verb tenses) and of principles for providing instruction in the appropriate use of conventions of Standard American English in writing.
- Apply knowledge of strategies for using technology to produce and publish writing and to interact and collaborate with others (e.g., publishing software, interactive Web sites, blogs).
- Apply knowledge of differentiated instruction and appropriate assessment strategies in writing development that are responsive to the prior language experience, strengths, and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

#### 0006 Apply knowledge of the development of speaking and listening skills.

For example:

- Apply strategies for engaging students in a variety of oral language activities, including engaging in whole-group and small-group collaborative discussions, asking questions, reporting on a topic, and recounting experiences.
- Apply strategies for teaching students to listen actively and critically in order to understand, evaluate, and respond to a speaker's message.
- Apply strategies for instructing students in presenting ideas and information using facts and relevant details to support main ideas and in using presentation software, media, and visual displays appropriate to the purpose and audience.
- Recognize factors that influence students' development of speaking and listening skills, signs that a student may be experiencing difficulties in language development, and strategies for addressing oral language and listening needs.
- Apply strategies for promoting students' understanding and use of Standard American English grammar and usage in oral communication, including when presenting ideas and information.
- Apply knowledge of differentiated instruction and appropriate assessment strategies in speaking and listening skills that are responsive to the prior language experience, strengths, and needs of all students (e.g., English language learners, learners who are struggling, gifted learners, learners with special needs), including employing various strategies, materials, pacing, and levels of text and language complexity to meet the diverse needs of learners.

### SUBTEST II—MATHEMATICS (GRADES 1-6)

#### 0001 Apply knowledge of college algebra and statistics.

- Solve linear and absolute value equations and inequalities using a variety of methods (e.g., substitution, graphing, augmented matrix).
- Apply properties of functions (e.g., domain, range) and perform operations (e.g., sum, difference, quotient, composition, inverse) on polynomial, rational, exponential, and logarithmic functions.
- Solve polynomial, rational, exponential, and logarithmic equations and inequalities and apply these methods in solving word problems.
- Recognize conic sections and their graphs.
- Identify and interpret frequency distributions, histograms, cumulative frequency tables, ogives, and box plots.
- Apply knowledge of measures of central tendency and dispersion.
- Apply methods of counting (e.g., permutations, combinations) and calculate and interpret probabilities and expected values.
- Define random variables and interpret the probability distributions they generate.
- Identify the sampling distribution of sample means and sample proportions, and interpret confidence intervals for single population means and proportions.
- Demonstrate knowledge of correlation coefficients, regression equations, hypothesis testing, and data interpretation.

# 0002 Apply knowledge of the mathematics curriculum and strategies for teaching counting and cardinality, numbers, and operations in base ten.

- Demonstrate understanding of the Illinois Learning Standards for Mathematics (23 III. Adm. Code 1 Appendix D) and their organization, progressions, and the interconnections among the domains.
- Demonstrate knowledge of the developmental sequence of mathematical skills along with age-level or grade-level benchmarks of development.
- Apply strategies for helping students understand and solve problems, reason mathematically and critique the reasoning of others, and use mathematical models and tools appropriately and precisely.
- Apply knowledge of how children learn to count (e.g., one-to-one correspondence, stable order, cardinality, order irrelevance).
- Apply knowledge of cultural and linguistic differences associated with early mathematics development (e.g., the base-ten structure).
- Demonstrate knowledge of the place value system and strategies for revealing place value structure (e.g., oral counting, drawings, layered place value cards, numerical expressions).
- Apply strategies for developing understanding of order relations and the comparison of integers, fractions, and decimals.
- Apply place value concepts and the commutative, associative, and distributive properties to compose and decompose numbers and to develop efficient methods for addition, subtraction, multiplication, and division.
- Use models (e.g., number line, base-ten blocks) to represent decimals and apply strategies to extend the place value system to decimals and to justify decimal computational methods.
- Interpret various algorithms, including student-developed algorithms.
- Apply strategies to extend the place value system to negative, rational, and irrational numbers.
- Apply knowledge of successful approaches to teaching counting and cardinality, numbers, and operations in base ten, including addressing misconceptions; employing appropriate instructional activities, resources, and technology; and using assessment instruments and approaches that meet the diverse needs of learners and enable all students to develop strong mathematical skills and practices.

# 0003 Apply knowledge of properties of numbers and operations involving fractions and strategies for teaching these concepts to students.

- Represent fractions using the length perspective (e.g., number line), area perspective (e.g., pattern blocks, drawings, geoboards), and discrete perspective (e.g., set of dots or circles).
- Apply the concept of unit fractions, benchmark fractions, and whole (i.e., referent unit) and equivalent fractions.
- Apply strategies to extend the properties of operations from whole numbers to fractions.
- Apply knowledge of the connection between fractions and division, and the connections between fractions, ratios, rates, and unit rates.
- Apply knowledge of decimal notation for fractions and strategies to compare decimal fractions.
- Demonstrate knowledge of ratios and equivalent ratios as an application of equivalent fractions, and solve ratio and rate problems using tables, tape diagrams, number lines, and double number lines.
- Apply connections between a proportional relationship and a linear relationship and between an inversely proportional relationship and a reciprocal relationship.
- Apply strategies (e.g., common denominators, common numerators, benchmark fractions, reasoning) to justify the ordering of a list of fractions.
- Demonstrate knowledge of connections between fractions and decimals, particularly with regard to decimal computations.
- Apply knowledge of successful approaches to teaching properties of numbers and operations involving fractions, including addressing misconceptions; employing appropriate instructional activities, resources, and technology; and using assessment instruments and approaches that meet the diverse needs of learners and enable all students to develop strong mathematical skills and practices.

# 0004 Apply knowledge of operations and algebraic thinking and strategies for teaching these concepts to students.

- Solve addition, subtraction, multiplication, and division problems with unknowns in any position.
- Apply knowledge of addition and subtraction relationships and multiplication and division relationships, including the set of properties of operations (i.e., the field axioms).
- Demonstrate understanding of the equal sign as meaning "the same amount as" rather than "calculate the answer."
- Demonstrate understanding of the meaning of 0 and why division by 0 is undefined or indeterminate.
- Apply knowledge of the meanings and uses of remainders, factors, multiples, parentheses, and prime and composite numbers.
- Recognize strategies (e.g., counting all, counting on, converting to an easier problem by composing or decomposing ten) when using the operations of addition and subtraction.
- Recognize strategies (e.g., skip counting, grouping, finding patterns, factoring) when using the operations of multiplication and division and beginning work in expressions and equations.
- Use a variety of algebraic tools (e.g., tape diagrams, number lines, bar models, math racks, double number lines) to model and solve problems.
- Apply strategies to extend arithmetic operations to algebraic expressions and equations and to the solution of one-step and two-step equations and inequalities.
- Apply strategies to interpret numerical and algebraic expressions (e.g., calculation recipes, word descriptions, parsing into component parts, interpreting the components in terms of a context).
- Apply knowledge of successful approaches to teaching operations and algebraic thinking, including addressing misconceptions; employing appropriate instructional activities, resources, and technology; and using assessment instruments and approaches that meet the diverse needs of learners and enable all students to develop strong mathematical skills and practices.

# 0005 Apply knowledge of measurement and data and strategies for teaching these concepts to students.

- Demonstrate knowledge of the general principles of measurement (e.g., measurable attribute, comparison unit, iteration, additivity, invariance).
- Apply relationships among various units to convert units and solve problems.
- Apply strategies to connect number concepts and measurement concepts (e.g., number line, addition, multiplication).
- Demonstrate understanding of length, area, and volume and justify perimeters, area, and volume formulas obtained by compositions and decompositions of unit lengths, squares, or cubes.
- Use data displays (e.g., bar graph, circle graph, box plot) to ask and answer questions about data.
- Apply the mean, median, interquartile range, and mean absolute deviation to summarize data and compare data sets.
- Distinguish between categorical and numerical data and analyze data displays.
- Recognize connections between categorical and measurement data and statistical variability and distributions.
- Apply knowledge of successful approaches to teaching measurement and data, including addressing misconceptions; employing appropriate instructional activities, resources, and technology; and using assessment instruments and approaches that meet the diverse needs of learners and enable all students to develop strong mathematical skills and practices.

# 0006 Apply knowledge of geometry and strategies for teaching geometry concepts to students.

- Apply knowledge of composing and decomposing shapes, classifying shapes into categories, and justifying the relationships within and between the categories.
- Apply concepts of angle and parallel and perpendicular lines to describe and define shapes.
- Apply knowledge of spatial reasoning and spatial location, including the coordinate plane.
- Apply knowledge of proportional relationships in scaling shapes up and down.
- Apply connections between geometric, arithmetic, and algebraic properties.
- Demonstrate knowledge of the progression of geometric development (from visual to descriptive to analytic to abstract) to characterize shapes.
- Use the coordinate plane to graph shapes and solve problems.
- Apply knowledge of successful approaches to teaching geometry, including addressing misconceptions; employing appropriate instructional activities, resources, and technology; and using assessment instruments and approaches that meet the diverse needs of learners and enable all students to develop strong mathematical skills and practices.

#### SUBTEST III—SCIENCE AND SOCIAL SCIENCE (GRADES 1–6)

#### 0001 Understand the interrelationships among science, technology, and society.

- Demonstrate knowledge of the current and historical interdependence of science, engineering, and technology and their influence on society and the natural world, including issues related to the earth and human activity.
- Apply knowledge of cause and effect and differentiate between cause and correlation.
- Apply knowledge of concepts of patterns, scale, proportions, and quantity across the life sciences, the physical sciences, and Earth and space sciences.
- Apply knowledge of systems and system models and identify strategies for helping students develop models to describe phenomena.
- Identify appropriate activities for exploring concepts and applications of energy and matter in science, society, and technology.
- Demonstrate knowledge of structures and functions and stability and change across the life sciences, the physical sciences, and Earth and space sciences.
- Apply knowledge of obtaining, evaluating, and communicating information (e.g., critically reading scientific texts; synthesizing information from multiple sources; interpreting graphs, data, and visual displays).
- Apply knowledge of mathematics and computational thinking to measure and represent, describe patterns, and test and compare proposed technology solutions.
- Apply knowledge of the interrelationships among science, technology, and society and how to use strategies to engage students in acquiring new knowledge through the use of scientific thinking and reasoning.
- Apply knowledge of successful approaches to teaching interrelationships among science, technology, and society, including using various modes of inquiry; developmentally appropriate literature and resources; science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0002 Understand the use of scientific investigations and inquiry skills and apply principles and procedures, including safety practices, related to the design and implementation of scientific investigations.

- Demonstrate knowledge of the methods of scientific inquiry (e.g., formulating a testable hypothesis, designing valid investigations, selecting and using appropriate tools, drawing valid conclusions based on evidence).
- Apply knowledge of strategies for evaluating scientific questions and developing students' ability to pose questions related to science and technology.
- Apply knowledge for planning and carrying out investigations to describe phenomena, test a theory, or test and improve a technological system.
- Demonstrate knowledge of tools and techniques for collecting, analyzing, interpreting, and communicating data and information.
- Apply knowledge of strategies (e.g., making observations, applying scientific reasoning) to help students construct explanations, design solutions, and evaluate results.
- Apply strategies to engage students in developing and communicating arguments from evidence (e.g., distinguishing between reasoned judgments and speculation, comparing proposed solutions, presenting arguments supported by scientific evidence).
- Apply knowledge of scientific investigations, safety practices, and inquiry skills and how to use strategies to engage students in acquiring new knowledge through the use of scientific thinking and reasoning.
- Apply knowledge of successful approaches to teaching scientific investigation and inquiry skills, including using various modes of inquiry; developmentally appropriate literature and resources; science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0003 Understand the fundamental concepts, principles, and interconnections of the life sciences, the physical sciences, and Earth and space sciences.

- Demonstrate knowledge of the structure of matter and how atomic and molecular interactions relate to properties of matter (e.g., states of matter, chemical reactivity, chemical reactions).
- Demonstrate knowledge of forces and interactions (e.g., gravitational, frictional, electric, magnetic) and the relationship between force and motion.
- Demonstrate knowledge of the definition of energy; forms of energy; conservation of energy and energy transfer, including waves; and the role of energy in chemical processes and everyday life.
- Demonstrate knowledge of the structure and function of cells and living organisms, the growth and development of organisms, and matter and energy flow in organisms (e.g., photosynthesis, respiration).
- Demonstrate knowledge of interdependent relationships in ecosystems and the cycling of matter and energy through ecosystems (e.g., carbon cycle, food webs).
- Demonstrate knowledge of the inheritance and variation of traits and the process of biological evolution (e.g., evidence of common ancestry, natural selection, adaptation).
- Demonstrate knowledge of Earth's location in relation to the solar system, the Milky Way galaxy, and the universe, and how to relate Earth's relative motion to patterns of eclipses, tides, and the seasons.
- Demonstrate knowledge of the basic structure and composition of Earth, the concepts of plate tectonics, the roles of water in Earth's surface processes, and the fundamentals of weather and climate.
- Apply knowledge of concepts, principles, and interconnections of the life sciences, the physical sciences, and Earth and space sciences and how to use strategies to engage students in acquiring new knowledge through the use of scientific thinking and reasoning.
- Apply knowledge of successful approaches to teaching the life sciences, the physical sciences, and Earth and space sciences, including using various modes of inquiry; developmentally appropriate literature and resources; science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0004 Understand the structures and functions of government; the rights and responsibilities of citizenship in the United States; and the skills, knowledge, and attitudes necessary for successful participation in civic life.

- Recognize basic purposes and concepts of government; how governmental powers are acquired, used, and justified; and how governments regulate territory, manage conflict, establish order and security, and meet the needs and wants of citizens.
- Demonstrate understanding of key ideas in fundamental documents of U.S. government (e.g., Declaration of Independence, U.S. Constitution, Gettysburg Address).
- Recognize the role of law in the Illinois and U.S. constitutional systems and demonstrate knowledge of basic democratic principles and rights (e.g., due process, equal protection); fundamental democratic values and beliefs (e.g., majority rule, individual participation); and their significance for individuals, groups, and society.
- Demonstrate knowledge of the structures and functions of federal, state, and local governments in the United States, including ways in which federal, state, and local governments divide and share power and responsibility, and the basic features and operation of the U.S. political system.
- Apply knowledge of the roles and responsibilities of U.S. citizens, including classroom, school, and community applications (e.g., respecting others' rights, obeying laws and rules, voting in elections), and the skills, knowledge, and attitudes necessary for successful participation in civic life (e.g., compromise, consensus building, cooperation).
- Apply knowledge of successful approaches to teaching government and civics, including using various modes of inquiry; developmentally appropriate literature and resources; social science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0005 Understand the interrelationships of economic and political principles, concepts, and systems and their relationship to historical and contemporary developments in Illinois, the United States, and the world.

- Demonstrate understanding of fundamental concepts and principles of economics (e.g., supply and demand) and key features of different economic systems (e.g., command, market, mixed).
- Recognize major features of the U.S. economic system, including the roles of consumers and producers, the ways in which economic activity is affected by government, and types of economic resources and activities in various regions, including Illinois.
- Recognize key features and historical developments associated with different types of political systems; the interrelationships between economic and political systems; and their relationship to historical and contemporary developments in Illinois, the United States, and the world.
- Apply knowledge of the basic principles of consumer economics and personal finance, including strategies for personal and family resource management.
- Demonstrate knowledge of the political and electoral processes and the role of political parties and interest groups in the United States.
- Analyze political and economic relationships between the United States and other nations; the role of the United States in world affairs; and global patterns of trade, exchange, and interdependence among individuals, businesses, and governments.
- Apply knowledge from diverse perspectives of significant eras, themes, developments, and turning points in the history of Illinois, the United States, and the world.
- Apply knowledge of successful approaches to teaching economic, political, and historical concepts, including using various modes of inquiry; developmentally appropriate literature and resources; social science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

# 0006 Understand major principles, concepts, and phenomena of geography, sociology, and culture and the interrelationships between people and their environment.

- Apply concepts of geography (e.g., location, region, movement, population) to analyze contemporary and historical issues and trends.
- Demonstrate understanding of major geographic features of Illinois, the United States, and the world and their historical and contemporary significance.
- Apply knowledge of how to use maps, globes, and other geographic tools and technologies to locate and derive accurate information about people, places, and environments.
- Analyze the connections among and common concerns of world societies (e.g., food production and distribution, human rights) and the influence of global connections and concerns on people, places, and events.
- Analyze the nature and implications of various types of interactions between people and the environment and the effects of human activities (e.g., consumption of natural resources, urbanization, pollution, sustainable practices) on the environment.
- Apply knowledge of basic concepts related to the structure and organization of human societies, including processes of socialization, positive and negative social interaction, and demographic growth and decline.
- Analyze ways in which cultural heritage and diversity have influenced historical developments in the United States and the rest of the world.
- Apply knowledge of successful approaches to teaching geographic, sociological, and cultural concepts, including using various modes of inquiry; developmentally appropriate literature and resources; social science processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

# SUBTEST IV—FINE ARTS, PHYSICAL DEVELOPMENT, AND HEALTH (GRADES 1–6)

### 0001 Understand historical, cultural, and societal contexts for the arts (visual arts, music, drama, dance) and the interrelationships among the arts.

- Demonstrate knowledge of characteristic features of various artistic traditions and the role of art in various contexts.
- Recognize the role and functions of the arts in various cultures and historical periods and ways in which the arts can be used to explore various cultures and historical periods.
- Demonstrate understanding of how visual arts, music, drama, and dance can be used as forms of communication, self-expression, and social expression (e.g., express ideas and values, share life experiences, explore feelings).
- Recognize and evaluate strategies and activities intended to foster skills in creating, producing, viewing, responding to, analyzing, and appreciating visual arts, music, drama, and dance.
- Demonstrate knowledge of the interrelationships among the arts and the connections between the arts and other subject areas.
- Apply knowledge of successful approaches to teaching historical, cultural, and societal contexts for the arts, including using various modes of inquiry; developmentally appropriate literature and resources; arts processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0002 Understand concepts, techniques, and materials related to the visual arts, music, drama, and dance and how to provide students with learning opportunities that encourage them to express themselves through the arts.

- Demonstrate knowledge of basic terms and concepts of visual art (e.g., elements of art and principles of design) and types and characteristics of media, materials, tools (including technology), techniques, and processes (e.g., drawing, painting, printmaking, desktop publishing) used to create and evaluate works of visual art.
- Demonstrate knowledge of common musical terms and concepts (e.g., harmony, melody, rhythm); types and characteristics of instrumental and vocal music; and techniques, activities, technology, and materials for producing, listening to, analyzing, and responding to music.
- Demonstrate knowledge of basic types of dramatic activities (e.g., creative drama, puppet theater, pantomime, improvisation); ways in which creative drama can be used across the curriculum; and techniques, activities, technology, and materials for creating, producing, viewing, evaluating, and responding to drama.
- Demonstrate knowledge of basic types of creative movement and dance; ways in which creative movement and dance can be used across the curriculum; and techniques, activities, technology, and materials for performing, viewing, evaluating, and responding to creative movement and dance.
- Apply knowledge of successful approaches to teaching concepts, techniques, and materials related to the arts, including using various modes of inquiry; developmentally appropriate literature and resources; arts processes, skills, and concepts; instructional resources and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0003 Understand fundamental concepts, principles, and practices related to movement, sports, and team-building skills and the role of physical activity in promoting students' personal, social, and cognitive development.

- Demonstrate understanding of basic movement principles and concepts and fundamental motor, body control, and perceptual awareness skills.
- Recognize stages, sequences, and characteristics of physical development; factors that affect the growth and development of students; and appropriate movement activities to promote the physical and motor development of all students.
- Recognize skill progressions, safety practices, equipment, strategies, adaptations and modifications, and appropriate behaviors for individual, group, and team activities, games, and sports.
- Analyze ways in which participation in physical activities can promote the development of personal, social, academic, and workplace skills (e.g., responsibility, leadership, team building, perseverance, concentration, confidence, cooperation, fairness).
- Demonstrate knowledge of the interactions between physical, emotional, and social well-being; the role of physical activity in cognitive development; and the importance of movement experiences in establishing productive, lifelong habits and behaviors.
- Apply knowledge of successful teaching approaches related to movement, sports, and team-building skills using various modes of inquiry; developmentally appropriate learning resources; physical education processes, concepts, and technologies; and assessment instruments and approaches that meet the diverse needs of learners.

0004 Understand the systems of the human body; health-related and skill-related fitness components, concepts, and practices; and interrelationships between fitness and body systems.

- Demonstrate knowledge of the structure and functions of the systems of the human body (e.g., muscular, circulatory, nervous) and the effects of health-related actions on body systems.
- Apply knowledge of basic principles and concepts of fitness (e.g., frequency, intensity, duration of training), the components of health-related fitness and skill-related fitness (e.g., flexibility, muscular strength, balance, agility), and practices and activities that promote lifelong fitness and stress reduction.
- Apply knowledge of principles, strategies, and activities for fostering students' ability to monitor, assess, sustain, and improve individual levels of health-related and skill-related fitness.
- Demonstrate understanding of the interrelationships between fitness principles and practices, body systems, and overall health and wellness.
- Apply knowledge of successful teaching approaches related to human body systems and health-related and skill-related fitness, including using various modes of inquiry; developmentally appropriate learning resources; fitness-related processes, concepts, and technologies; and assessment strategies that meet the diverse needs of learners.

0005 Understand principles and practices related to personal, family, and community health and safety and ways to provide students with knowledge and skills that will help them make sound health-related decisions.

- Demonstrate understanding of disease prevention and health promotion concepts and practices, including the influence of lifestyle choices on health and the benefits of good hygiene, adequate sleep and rest, and regular physical activity.
- Apply knowledge of basic principles of nutrition and healthy eating, influences on eating habits and patterns, and the effects of food choices on body composition and overall health.
- Apply knowledge of how to foster students' communication and decisionmaking skills to enhance personal, interpersonal, and community health and safety.
- Demonstrate knowledge of principles and techniques of conflict resolution and its relationship to health and well-being.
- Apply knowledge of principles and strategies for accident prevention and risk reduction.
- Demonstrate understanding of factors that affect personal, interpersonal, family, and community health; the implications and consequences of environmental and other health risks; and principles, strategies, and resources for advocating for the health of individuals, families, and communities.
- Recognize principles, techniques, and criteria for locating, accessing, and evaluating the reliability and validity of health information, services, and products.
- Apply knowledge of successful teaching approaches related to personal, family, and community health and safety, including using various modes of inquiry; developmentally appropriate learning resources; health-related processes, concepts, and technologies; and assessment strategies that meet the diverse needs of learners.