Missouri Educator Gateway Assessments

FIELD 073/074: ELEMENTARY EDUCATION MULTI-CONTENT TEST FRAMEWORK

June 2019

DRAFT

Subtest I (Field 073)

Content Domain		Range of Competencies	Approximate Percentage of Subtest Score
I.	Mathematics	0001–0004	55%
II.	Science	0005–0007	45%

Subtest II (Field 074)

Content Domain		Range of Competencies	Approximate Percentage of Subtest Score
III.	English Language Arts	0008–0011	60%
IV.	Social Studies	0012–0014	40%

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TEST FRAMEWORK
FIELD 073/074: ELEMENTARY EDUCATION MULTI-CONTENT

SUBTEST I

MATHEMATICS

0001 Apply knowledge of number sense and operations.

For example:

1.1 Apply knowledge of developmentally appropriate strategies and activities, including the progression of conceptual to procedural understanding of number sense and operations (e.g., number sense, numeracy, whole-number operations, fractions), for developing students' knowledge and skills in these areas through a variety of authentic learning experiences and real-world applications.

1.2 Apply knowledge of instructional strategies for promoting students' understanding and use of mathematical language and vocabulary through a variety of authentic learning experiences and real-world applications.

1.3 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of properties of numbers and number systems, operations, place value, rounding, comparing and ordering numbers, and equivalent representations of numbers.

1.4 Apply knowledge of a variety of models and instructional strategies to represent quantities and the meanings of primary operations (i.e., addition, subtraction, multiplication, and division) in mathematical and real-world problems.

1.5 Demonstrate knowledge of prime and composite numbers, divisibility rules, least common multiples, and greatest common factors and strategies to promote students' acquisition of these concepts.

1.6 Demonstrate knowledge of instructional strategies and practices for solving mathematical and real-world problems involving integers, rational numbers, fractions, decimals, percentages, exponents, and scientific notation.

1.7 Demonstrate knowledge of instructional strategies and practices for solving mathematical and real-world problems involving ratios and proportions.

1.8 Demonstrate computational fluency and knowledge of computation, including the use of mental math and estimation, and instructional strategies to promote computational fluency.

1.9 Apply knowledge of instructional and assessment resources and strategies for modeling mathematical computation and reasoning skills, including manipulatives, literature, and technology.

1.10 Evaluate misconceptions or errors in students' understanding or work involving number sense and operations.

0002 Apply knowledge of relationships and algebraic thinking.

For example:

2.1 Apply knowledge of developmentally appropriate strategies and activities, including the progression of conceptual to procedural algebraic understanding (e.g., whole-number operations, patterns, rational number operations, algebraic reasoning, variables), for developing students' knowledge and skills in these areas through a variety of authentic learning experiences and real-world applications.

2.2 Apply knowledge of instructional strategies for promoting students' understanding and use of mathematical language and vocabulary through a variety of authentic learning experiences and real-world applications.

2.3 Demonstrate knowledge of instructional strategies and practices for identifying, extending, and analyzing patterns or structures in numbers, shapes, and data.

2.4 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to use variables, expressions, equations, and inequalities to communicate quantitative relationships.

2.5 Apply knowledge of properties of arithmetic to generate and identify equivalent algebraic expressions.

2.6 Apply knowledge of relationships in structures and processes to model real-world situations and make predictions.

2.7 Apply knowledge of algebraic concepts to solve equations and real-world problems.

2.8 Apply knowledge of instructional and assessment resources and strategies for modeling mathematical computation and reasoning skills, including manipulatives, literature, and technology.

2.9 Evaluate misconceptions or errors in students' understanding or work involving determining relationships and applying algebraic thinking.

0003 Apply knowledge of geometry and measurement.

For example:

3.1 Apply knowledge of developmentally appropriate strategies and activities, including the progression of conceptual to procedural understanding of geometry and measurement (e.g., whole-number operations, geometric attributes, spatial sense), for developing students' knowledge and skills in these areas through a variety of authentic learning experiences and real-world applications.

3.2 Apply knowledge of instructional strategies for promoting students' understanding and use of mathematical language and vocabulary through a variety of authentic learning experiences and real-world applications.

3.3 Demonstrate knowledge of instructional strategies and practices for teaching measurement conversion within the metric and customary systems and using appropriate measurement units, tools, and techniques in various situations.

3.4 Demonstrate knowledge of instructional strategies and practices for identifying types and properties of, and the relationships between, lines, angles, and two- and three-dimensional shapes; and using geometric concepts (e.g., symmetry, congruence, Pythagorean theorem) to solve real-world problems.

3.5 Apply knowledge of geometric formulas to solve problems involving perimeter, area, volume, geometric transformations, measurement, scale, and coordinate systems.

3.6 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to solve mathematical and real-world problems using points and shapes on the coordinate plane.

3.7 Demonstrate knowledge of instructional strategies and practices for solving problems involving geometric transformations and properties (e.g., rotations, reflections, translations, similarity transformations, congruence, scale factors).

3.8 Apply knowledge of instructional and assessment resources and strategies for modeling mathematical computation and reasoning skills, including manipulatives, a variety of measurement tools, literature, and technology.

3.9 Evaluate misconceptions or errors in students' understanding or work involving geometry and measurement skills.

0004 Apply knowledge of data analysis, statistics, and probability.

For example:

4.1 Apply knowledge of developmentally appropriate strategies and activities, including the progression of conceptual to procedural understanding of data analysis, statistics, and probability (e.g., frequency, sorting, interpreting visual representations), for developing students' knowledge and skills in these areas through a variety of authentic learning experiences and real-world applications.

4.2 Apply knowledge of instructional strategies for promoting students' understanding and use of mathematical language and vocabulary through a variety of authentic learning experiences and real-world applications.

4.3 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to use statistical measures (e.g., mean, median, mode, range, frequency distribution) to describe and analyze data.

4.4 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to understand statistical variability and summarize and describe data distributions (e.g., number lines, dot plots, histograms, box plots).

4.5 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to interpret data and display data in a variety of formats.

4.6 Demonstrate knowledge of instructional strategies and practices for promoting students' ability to apply basic concepts of probability, including the use of counting procedures, to estimate probabilities.

4.7 Demonstrate knowledge of chance processes and probability models (e.g., dependent and independent events) and strategies for promoting students' acquisition of these concepts.

4.8 Apply knowledge of instructional and assessment resources and strategies for modeling mathematical computation and reasoning skills, including manipulatives, literature, and technology.

4.9 Evaluate misconceptions or errors in students' understanding or work involving data analysis, statistics, and probability.

SCIENCE

0005 Apply knowledge of physical science.

For example:

5.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in physical science through a variety of authentic learning experiences and real-world applications.

5.2 Apply knowledge of instructional strategies for promoting students' understanding and use of scientific language and vocabulary through a variety of authentic learning experiences and real-world applications.

5.3 Demonstrate knowledge of basic structure, physical properties, and interactions of matter (e.g., states of matter, mass, atoms, heating and cooling).

5.4 Apply knowledge of physical and chemical properties of substances and of chemical reactions, including showing conservation of mass in a chemical reaction and determining if substances that are combined can be separated or if they result in new substances.

5.5 Apply knowledge of force (e.g., applied, gravitational, friction) and motion in real-world problems, including the application of simple machines.

5.6 Apply knowledge of instructional strategies and practices for promoting students' understanding of properties of the conservation of energy and matter, the relationship between speed and energy, and kinetic and potential energy.

5.7 Apply knowledge of instructional strategies and practices for promoting students' understanding of the forms of energy, energy transfer, and real-world devices that convert energy from one form to another.

5.8 Demonstrate knowledge of electromagnetism, electricity, magnetism, and waves, including their characteristics and interactions with various materials, their application in real-world scenarios, and strategies to promote students' acquisition of these concepts.

5.9 Apply knowledge of mathematics and computational thinking in a scientific context of physical science (e.g., significant figures, scientific notation, metric number conversion).

5.10 Apply knowledge of instructional and assessment resources and strategies that utilize reasoning skills, the scientific process, and the engineering design process.

5.11 Evaluate misconceptions or errors in students' understanding or work involving physical science.

0006 Apply knowledge of life science.

For example:

6.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in life science through a variety of authentic learning experiences and real-world applications.

6.2 Apply knowledge of instructional strategies for promoting students' understanding and use of scientific language and vocabulary through a variety of authentic learning experiences and real-world applications.

6.3 Demonstrate knowledge of the characteristics of life, the cell, and how multicellular organisms are organized by varying levels of complexity; and strategies to promote students' acquisition of these concepts.

6.4 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of how plants and animals survive, grow, and meet their needs, including through photosynthesis and cellular respiration and through the use of major internal and external structures and body systems.

6.5 Demonstrate knowledge of the life cycle of different plants and animals, how animals sense and respond to different types of information, and how characteristic animal behaviors and plant structures affect the probability of successful reproduction.

6.6 Apply knowledge of the cycling of matter and flow of energy between living and nonliving parts of an ecosystem, including the interactions among organisms (e.g., competition, predation, symbiosis).

6.7 Apply knowledge of the effects of resource availability, changes to physical or biological components of an ecosystem, and the process of succession on individual organisms and on populations.

6.8 Apply knowledge of inheritance, variation of traits, and natural selection and strategies to promote students' acquisition of these concepts.

6.9 Demonstrate knowledge of health and safety practices related to scientific investigations, including the safe use, storage, and disposal of tools, materials, organisms, and technology.

6.10 Apply knowledge of mathematics and computational thinking in a scientific context of life science (e.g., significant figures, scientific notation, metric number conversion).

6.11 Apply knowledge of instructional and assessment resources and strategies that utilize reasoning skills, the scientific process, and the engineering design process.

6.12 Evaluate misconceptions or errors in students' understanding or work involving life science.

0007 Apply knowledge of Earth and space science.

For example:

7.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in Earth and space science through a variety of authentic learning experiences and real-world applications.

7.2 Apply knowledge of instructional strategies for promoting students' understanding and use of scientific language and vocabulary through a variety of authentic learning experiences and real-world applications.

7.3 Apply knowledge of the scale properties of objects in the solar system; the movement of, and role of gravity upon, celestial objects; and the Earth-sun-moon system and its interactions.

7.4 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of the geologic timescale, the fossil record, and the supporting evidence for changes in a landscape over time.

7.5 Demonstrate knowledge of the natural processes that shape Earth's surface (e.g., weathering, erosion) and of the ways in which the geosphere, biosphere, hydrosphere, and atmosphere interact.

7.6 Demonstrate knowledge of the rock cycle; the formation of major geologic features; and the process of, and evidence for, plate tectonics.

7.7 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of the distribution of water on Earth and the hydrological cycle.

7.8 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of the formation of weather, relationships between observed data and weather phenomena, and major climates and the global conditions that form them.

7.9 Apply knowledge of factors that contribute to natural hazards and global climate change, forecasts of future catastrophic events, and real-world solutions that mitigate their effects.

7.10 Demonstrate knowledge of the formation and distribution of Earth's natural resources, the relationship of using these resources on Earth's systems, the development and use of synthetic materials, and how to monitor and minimize the impact of humans on the environment.

7.11 Apply knowledge of mathematics and computational thinking in a scientific context of Earth and space science (e.g., significant figures, scientific notation, metric number conversion).

7.12 Apply knowledge of instructional and assessment resources and strategies that utilize reasoning skills, the scientific process, and the engineering design process.

7.13 Evaluate misconceptions or errors in students' understanding or work involving Earth and space science.

SUBTEST II

ENGLISH LANGUAGE ARTS

0008 Apply knowledge of foundations of language and literacy development.

For example:

8.1 Demonstrate knowledge of developmental stages of language, factors that influence language development, and the interrelationships between oral language development and literacy development.

8.2 Apply knowledge of phonological awareness; the role of phonemic awareness (i.e., a specific type of phonological awareness involving the ability to manipulate the phonemes of a spoken word) in emergent literacy; the developmental continuum of phonological and phonemic awareness skills; and strategies for promoting students' development of phonological and phonemic awareness skills.

8.3 Apply knowledge of print concepts (e.g., print carries meaning; print directionality and tracking; letter naming, letter recognition, and letter-formation skills), and apply knowledge of strategies for promoting students' development of print concepts.

8.4 Apply knowledge of the alphabetic principle (i.e., the recognition that each phoneme corresponds to a letter or letter combination), and apply knowledge of instructional strategies for promoting students' development of letter-sound correspondence.

8.5 Apply knowledge of the development of word recognition; the reciprocity of encoding and decoding skills; and strategies for promoting students' development of word recognition and other phonics skills, including automaticity in reading high-frequency words and grade-level irregularly spelled words.

8.6 Apply knowledge of syllable types (e.g., open, closed), syllabication guidelines, and strategies for promoting students' ability to read multisyllabic words.

8.7 Apply knowledge of English morphology (e.g., common inflections, prefixes, suffixes, word roots; Greek, Latin, and Anglo-Saxon morphemes in English) and orthographic patterns based on etymology for promoting students' ability to decode and spell multisyllabic words.

8.8 Demonstrate understanding of key indicators of reading fluency (i.e., accuracy, rate, and prosody) and the role of automaticity in fluency development.

8.9 Demonstrate understanding of the importance of independent reading in promoting fluency, and apply knowledge of strategies to encourage students' independent reading that are effective in supporting fluency development.

8.10 Apply knowledge of factors that can disrupt fluency (e.g., limited background knowledge, lack of phonics skills, unfamiliarity with academic language), the role of fluency in reading comprehension, and strategies for promoting students' development in reading fluency.

8.11 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of concepts and skills related to language and literacy development, and apply knowledge of strategies to address the assessed needs of all students in these areas.

0009 Apply knowledge of vocabulary development and text comprehension.

For example:

9.1 Demonstrate knowledge of the relationship between vocabulary knowledge and text comprehension and strategies to promote students' vocabulary development (e.g., wide reading, repeated exposure to words in a variety of meaningful contexts to deepen understanding of words).

9.2 Apply knowledge of strategies for promoting students' development of general academic (Tier Two) and domain-specific (Tier Three) word knowledge and methods for selecting appropriate words for instruction.

9.3 Apply knowledge of strategies for promoting students' ability to verify the meaning and pronunciation of unfamiliar words or words with multiple meanings (e.g., using context, semantic, and syntactic clues; consulting reference materials).

9.4 Apply knowledge of strategies for providing explicit instruction in words and their meanings, including the etymology of words (e.g., common Latin and Greek roots), idiomatic expressions, and foreign words and expressions used in English.

9.5 Apply knowledge of quantitative tools and measures for evaluating text complexity (e.g., sentence length, word length), qualitative dimensions of text complexity (e.g., levels of meaning, text structure, language clarity), and the role of reader variables (e.g., motivation, knowledge, experiences) and task variables (e.g., purpose, complexity) in matching a reader to text and task.

9.6 Demonstrate knowledge of how proficient readers read and the different levels of reading comprehension (i.e., literal, inferential, and evaluative).

9.7 Apply knowledge of strategies for providing explicit instruction in comprehension strategies (e.g., predicting, making connections to prior knowledge, monitoring, using knowledge of text structure, questioning, think-aloud, visual representation, mental imagery, summarization) that students can use to enhance their own comprehension of texts and promote their independence and self-efficacy as readers.

9.8 Apply knowledge of the use of appropriate texts (e.g., printed, digital) and effective, engaging oral language, reading, and writing activities to facilitate students' comprehension of texts before, during, and after reading and to motivate and reinforce their development of comprehension strategies.

9.9 Apply knowledge of strategies for determining students' independent, instructional, and frustration reading levels and for using this information to help select appropriate texts for instruction and guide students' independent reading.

9.10 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of concepts and skills related to vocabulary development and text comprehension, and apply knowledge of strategies to address the assessed needs of all students in these areas.

0010 Apply knowledge of comprehension, interpretation, and analysis of literary and informational texts.

For example:

10.1 Demonstrate knowledge of key characteristics, elements, and features of various literary genres, including children's literature, from a range of cultures and time periods, including stories (e.g., folktales, fables, myths), drama, poetry, and multimedia texts.

10.2 Determine a literary text's explicit and implicit meanings; its theme or central idea; its point of view; and the development of character, setting, and plot.

10.3 Apply knowledge of instructional strategies for promoting students' ability to use textual evidence to support analysis of a literary text, including its theme or central idea; point of view; and the development of character, setting, and plot.

10.4 Demonstrate knowledge of key characteristics, elements, organizational structures, and textual and graphic features of various types of informational text, including biographies, autobiographies, nonfiction texts, technical texts, and digital sources as well as information displayed in graphs, charts, and maps.

10.5 Apply knowledge of instructional strategies for promoting students' ability to recognize key characteristics, elements, organizational structures, and textual and graphic features of informational texts and how to use these to support comprehension.

10.6 Apply knowledge of instructional strategies for promoting students' ability to comprehend information displayed in graphs, charts, and maps.

10.7 Determine an informational text's explicit and implicit meanings, its theme or central idea, and the author's point of view or purpose and how it is conveyed in a text.

10.8 Apply knowledge of instructional strategies for promoting students' ability to use textual evidence to support analysis of an informational text, including its theme or central idea, and the author's point of view or purpose and how it is conveyed in a text.

10.9 Recognize an accurate, objective summary of an informational text.

10.10 Delineate and evaluate the argument and specific claims in an informational text, distinguishing claims that are supported by reasons and evidence from claims that are not.

10.11 Apply knowledge of instructional strategies for promoting students' ability to delineate and evaluate the argument and specific claims in an informational text.

10.12 Determine the meaning of words and phrases as they are used in a literary or informational text, including figurative, connotative, and technical meanings, and analyze the impact of specific word choices on meaning and tone.

10.13 Apply knowledge of strategies for promoting students' ability to determine the meaning of words and phrases as they are used in a literary or informational text.

10.14 Interpret and draw conclusions from visual elements in texts, and apply knowledge of instructional strategies for promoting students' ability to interpret and draw conclusions from visual elements.

10.15 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of concepts and skills related to literary and informational texts.

0011 Apply knowledge of processes, modes, and conventions of written and oral communication.

For example:

11.1 Apply knowledge of how language functions in different communicative contexts, including differences in grammar, usage, and meaning in English (e.g., academic English, standard English, varieties of vernacular English) and language choices that affect meaning and style in written or spoken discourse.

11.2 Apply knowledge of effective writing to evaluate a writer's use of rhetorical and stylistic features, organizational structures, and key elements of opinion pieces, arguments, informative/explanatory texts, and narratives.

11.3 Apply knowledge of strategies and techniques for promoting students' ability to produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience and for developing and strengthening writing as needed by planning, revising, editing, rewriting, or trying a new approach.

11.4 Demonstrate command of the conventions of standard American English grammar and usage, capitalization, punctuation, and spelling.

11.5 Apply knowledge of strategies for promoting students' ability to use technology to produce and publish writing as well as to collaborate with others.

11.6 Apply knowledge of strategies for promoting students' ability to generate a research question, narrow or broaden inquiry, gather relevant information from multiple print and digital sources, and assess the credibility of sources.

11.7 Apply knowledge of how to quote and paraphrase information and ideas from sources while avoiding plagiarism and how to provide basic source citations.

11.8 Apply knowledge of strategies for promoting students' ability to present claims and findings in a logical way and use pertinent descriptions, facts, details, and examples to support comprehension and analysis.

11.9 Apply knowledge of how to adapt speech to a variety of contexts and tasks and how to use vocal features (e.g., pitch, tone, volume) and nonverbal cues (e.g., gestures, eye contact) when presenting information and ideas.

11.10 Apply knowledge of strategies for promoting students' ability to interpret information presented orally and delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

11.11 Apply knowledge of strategies for promoting students' ability to effectively communicate and collaborate in academic discussions (e.g., preparation and focus, roles and guidelines, reflection and paraphrasing).

11.12 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of concepts and skills related to written and oral communication.

SOCIAL STUDIES

0012 Apply knowledge of documents, principles, and processes of government.

For example:

12.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in documents, principles, and processes of government through a variety of authentic learning experiences and real-world applications.

12.2 Apply knowledge of instructional strategies for promoting students' understanding and use of social studies language and vocabulary through a variety of authentic learning experiences and real-world applications.

12.3 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of the significance of national symbols, the Pledge of Allegiance, and the national anthem; the purpose and role of government; methods for the peaceful resolution of disputes; and the role of civic attitudes in U.S. processes of government.

12.4 Analyze the text and historical context of the Declaration of Independence, the U.S. Constitution, and the Bill of Rights to determine important principles of constitutional democracy in the United States.

12.5 Apply knowledge of the structure, functions, and powers of the three branches of the U.S. federal government; the Missouri state government; and the ways that the federal government, state government, and local government divide and share powers.

12.6 Analyze ways in which citizens have effectively voiced opinions, monitored government, and brought about change.

12.7 Apply knowledge of instructional strategies for promoting students' understanding of interpreting information and ideas in primary and secondary civics and government sources (e.g., distinguish between fact and opinion; recognize bias, reliability of sources, and point of view; draw conclusions; make predictions).

12.8 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of basic civics and government concepts.

12.9 Evaluate misconceptions or errors in students' understanding or work involving documents, principles, and processes of government.

0013 Apply knowledge of historical inquiry and the history of Missouri and the United States.

For example:

13.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in historical inquiry and the history of Missouri and the United States through a variety of authentic learning experiences and real-world applications.

13.2 Apply knowledge of instructional strategies for promoting students' understanding and use of social studies language and vocabulary through a variety of authentic learning experiences and real-world applications.

13.3 Apply knowledge of methods and procedures used in social studies inquiry and research (e.g., generating compelling research questions, using appropriate resources for investigation).

13.4 Examine the causes of the American Revolution and the factors that contributed to the colonists' success.

13.5 Apply knowledge of the causes and consequences of westward expansion in U.S. history.

13.6 Analyze the political, economic, and social causes of the U.S. Civil War, Missouri's role in the war, the consequences of the war, and the events of postwar Reconstruction.

13.7 Apply knowledge of instructional strategies for promoting students' understanding of the political, economic, and social causes and consequences for the United States of the Industrial Revolution, Gilded Age, and World War I and of historically significant individuals of the period.

13.8 Apply knowledge of instructional strategies for promoting students' understanding of the political, economic, and social causes and consequences for the United States of the Great Depression, New Deal, World War II, and the Cold War and of historically significant individuals of the period.

13.9 Apply knowledge of instructional strategies for promoting students' understanding of interpreting information and ideas in primary and secondary history sources (e.g., distinguish between fact and opinion; recognize bias, reliability of sources, and point of view; draw conclusions; make predictions).

13.10 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of basic history concepts.

13.11 Evaluate misconceptions or errors in students' understanding or work involving historical inquiry and the history of Missouri and the United States.

0014 Apply knowledge of economics, geography, the environment, culture, and society.

For example:

14.1 Apply knowledge of developmentally appropriate strategies and activities for developing students' knowledge and skills in economics, geography, the environment, culture, and society through a variety of authentic learning experiences and real-world applications.

14.2 Apply knowledge of instructional strategies for promoting students' understanding and use of social studies language and vocabulary through a variety of authentic learning experiences and real-world applications.

14.3 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of economics (e.g., the scarcity of natural, capital, and human resources; the use of money and barter to exchange goods and services within the school, community, and region; the effect of supply and demand on prices of goods and services and on wages and incomes).

14.4 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of geography (e.g., reading and constructing of maps; names, locations, and physical characteristics of specific regions, river systems, and mountain ranges in the United States; human geographic characteristics of the United States and its regions).

14.5 Demonstrate knowledge of instructional strategies and practices for promoting students' understanding of cultural characteristics across historical time periods in the United States and methods of preserving cultural life, celebrations, traditions, and commemorations over time (e.g., stories, songs).

14.6 Apply knowledge of the historic, geographic, economic, and cultural impacts of immigration to the United States and the effects of changes in communication and transportation technologies on the movement of people, products, and ideas.

14.7 Analyze how people are affected by, depend on, adapt to, and change their physical environments in the past and in the present.

14.8 Examine cultural roles, interactions, conflicts, and constructive processes or methods for resolving conflicts among people in the United States in the past and in the present.

14.9 Apply knowledge of instructional strategies for promoting students' understanding of interpreting information and ideas in primary and secondary social science sources (e.g., distinguish between fact and opinion; recognize bias, reliability of sources, and point of view; draw conclusions; make predictions).

14.10 Apply knowledge of formal and informal methods for assessing students' understanding and mastery of basic social science concepts.

14.11 Evaluate misconceptions or errors in students' understanding or work involving economics, geography, the environment, culture, and society.