Missouri Educator Gateway Assessments

FIELDS 066–069: GENERAL EDUCATION ASSESSMENT TEST FRAMEWORK

October 2014

Subtest 001: Reading Comprehension and Interpretation

Competency		Approximate Percentage of Test Score
0001	Literal Comprehension	33%
0002	Inference and Interpretation	33%
0003	Critical Reasoning and Evaluation	34%

Subtest 002: Writing

Competency		Approximate Percentage of Test Score
0004	Writing Assignment	100%

Subtest 003: Mathematics

Competency		Approximate Percentage of Test Score
0005	Numbers and Algebra	50%
0006	Measurement and Geometry	25%
0007	Statistics and Data Analysis	25%

Effective beginning August 31, 2015

Subtest 004: Science and Social Studies

Competency		Approximate Percentage of Test Score
0008	Fundamental Scientific Concepts	25%
0009	Science Inquiry and Literacy Skills	25%
0010	Fundamental Social Studies Concepts	25%
0011	Social Studies Inquiry and Literacy Skills	25%

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TEST FRAMEWORK
FIELDS 066–069: GENERAL EDUCATION ASSESSMENT

READING COMPREHENSION AND INTERPRETATION

0001 Demonstrate the ability to identify the main idea and supporting details in a college-level text.

For example:

- Identify the stated main idea of a paragraph or passage.
- Analyze the development of central ideas or themes over the course of a text.
- Recognize information, ideas, and details that support, illustrate, or elaborate the main idea or themes of a text; establish setting; or develop character.
- Apply knowledge of word structure, context, and syntax to determine the meanings of words and phrases in a text.
- Demonstrate understanding of figurative language, connotative meanings, and the effect of specific word choices on meaning and tone of a text.
- Recognize an effective summary or outline of the main idea and key supporting ideas and details in a text.

0002 Demonstrate the ability to draw inferences and make credible interpretations of a college-level text.

For example:

- Recognize a writer's purpose for writing.
- Determine a writer's tone, opinion, or point of view.
- Recognize how a writer's choice of words expresses ideas and influences readers.
- Recognize similarities and differences among ideas in a text.
- Draw conclusions or make inferences from stated or implied information in a text.
- Recognize the implications of ideas and information presented in a text.

0003 Demonstrate the ability to use critical reasoning skills to evaluate a college-level text.

For example:

- Analyze the arguments or claims made in an informational or persuasive text, and distinguish between statements of fact and expressions of opinion.
- Recognize the type of appeal (e.g., emotional, ethical, logical) a writer is making to the reader.
- Evaluate the strengths and weaknesses of a writer's reasoning.
- Assess the relevance and sufficiency of supporting evidence, illustrations, or analogies in a text.
- Recognize the assumptions on which a writer's argument is based.
- Assess the credibility, accuracy, objectivity, and bias of information presented in a text.
- Analyze how literary devices and techniques (e.g., personification, metaphor, irony, foreshadowing) are used in a work of fiction, drama, or poetry to create a mood, develop a character, or convey a theme.

WRITING

0004 Produce a clear and coherent written composition in which the development, organization, and style are appropriate to task, purpose, and audience.

For example:

- Demonstrate the ability to support claims in writing using valid reasoning and relevant and sufficient evidence, with an appropriate use of generalizations and adequate, specific, and illustrative details.
- Demonstrate the ability to produce focused, coherent, and unified writing, employing a variety of rhetorical strategies in which the development, organization, and style are appropriate to task, purpose, and audience.
- Demonstrate the ability to use effectively words, phrases, clauses, transitional devices, and syntax to link sections of the text, create cohesion, and clarify relationships between ideas.
- Demonstrate the ability to introduce and develop ideas through the effective use of thesis statements and/or topic sentences and to provide an effective conclusion that follows from the ideas presented in the composition.
- Demonstrate command of a variety of sentence structures and the conventions of Standard English grammar and usage.
- Demonstrate command of the conventions of English capitalization, punctuation, and spelling.

MATHEMATICS

0005 Understand numbers and algebra.

For example:

- Demonstrate knowledge of rational numbers (e.g., integers, fractions, decimals) and their operations.
- Apply number operations and algebraic principles to solve a variety of mathematical and real-world problems.
- Represent and solve mathematical and real-world problems using numeric and algebraic reasoning (e.g., percent, ratios and proportional thinking, arithmetic and geometric sequences).
- Model and solve mathematical and real-world problems using linear equations and inequalities.

0006 Understand measurement and geometry.

For example:

- Apply techniques of coordinate geometry to analyze characteristics of basic geometric figures to solve problems.
- Solve mathematical and real-world measurement problems involving angles, perimeter, circumference, area, surface area, and volume of basic two- and three-dimensional figures.
- Apply basic geometric concepts (e.g., similarity, congruence, Pythagorean theorem) and mathematical reasoning to solve mathematical and real-world problems.

0007 Understand statistics and data analysis.

For example:

- Demonstrate knowledge of the use of measures of central tendency and spread to describe and analyze data distributions.
- Analyze information presented in a variety of formats (e.g., tables, charts, box plots, histograms, circle graphs).
- Demonstrate knowledge of the use of sampling to draw inferences about a population.

SCIENCE AND SOCIAL STUDIES

0008 Understand fundamental crosscutting scientific concepts.

For example:

- Demonstrate knowledge of patterns and the concept of structure and function in the life sciences, physical sciences, and Earth science.
- Demonstrate knowledge of the concepts of cause and effect and of mechanism and explanation in the life sciences, physical sciences, and Earth science.
- Demonstrate knowledge of the concepts of scale, proportion, and quantity in the life sciences, physical sciences, and Earth science.
- Demonstrate knowledge of the concepts of energy and matter in the life sciences, physical sciences, and Earth science.
- Demonstrate knowledge of the characteristics of systems and of system models in the life sciences, physical sciences, and Earth science.

0009 Understand and apply science inquiry and literacy skills.

For example:

- Demonstrate knowledge of the principles and methods of scientific inquiry, including the formulation of testable hypotheses, the design and conduct of valid investigations, and the selection and use of appropriate tools and procedures.
- Demonstrate knowledge of how science is conducted, how scientific explanations and theories are developed over time, and the difference between scientific theories and laws.
- Demonstrate understanding of basic domain-specific terminology used in introductory undergraduate-level scientific texts, and analyze mathematical and physical models used to represent scientific relationships.
- Summarize or explain central ideas about science that are presented in textbooks or articles in the popular media.
- Evaluate the quality of scientific evidence or information used to support conclusions and the quality of arguments based on scientific evidence or information.
- Demonstrate knowledge of the relationships between science, technology, and society, including the social, personal, and cultural contexts of science.

0010 Understand fundamental social studies concepts.

For example:

- Recognize and apply major historical concepts (e.g., chronology, periodization, causality, conflict, revolution).
- Recognize and apply major concepts of geography (e.g., location, region, spatial distribution, movement, human-environment interaction).
- Recognize and apply major concepts of government and economics (e.g., natural rights, balance of power, constitutional democracy, scarcity, opportunity cost, industrialization).
- Recognize and apply major concepts of cultural studies and psychology (e.g., culture, socialization, identity, personality).

0011 Understand and apply social studies inquiry and literacy skills.

For example:

- Recognize basic steps and procedures in social studies research (e.g., posing questions, formulating hypotheses, challenging claims).
- Identify the characteristics and uses of basic social studies resources (e.g., reference sources, primary and secondary sources, technological sources).
- Demonstrate the ability to identify purpose, point of view, central ideas, and relationships between fundamental concepts and key ideas in social studies documents.
- Identify underlying assumptions, distinguish between fact and opinion, recognize bias, and assess the adequacy of claims, reasoning, and evidence in social studies documents.
- Demonstrate the ability to integrate and evaluate content presented in diverse formats and media and to analyze how multiple sources address similar themes or topics.