MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS
for Grades 3, 6, 8, & 10
(based on the Core Competencies and Key Skills)

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Grade 3 (Level III)

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code B-1

Use context as a way to determine meaning of an unknown word or the appropriate meaning of a word with multiple meanings.

The student will be given a passage that contains an unfamiliar word used in an unfamiliar way, or a word with multiple meanings. The student will determine the meaning of the word by using the context.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code B-2

Use structural analysis (prefix, base word, suffix, compound words, contractions) in understanding and determining word meanings.

The student will be given a sentence or short passage containing a base word with a prefix and/or suffix, a compound word or contraction. The student will use the structure of the word to determine its meaning.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code B-3

Use glossary, picture dictionary and dictionary to find meanings of unknown word(s).

Given a specified word in the context of a sentence or short passage and an entry for that word from a glossary or dictionary, the student will use the dictionary entry to identify the appropriate meaning of the word as it is used in the sentence.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code B-4

Supply synonyms and antonyms for commonly used words.

Given a specified word in a sentence or passage, the student will rely on context to choose a corresponding synonym or antonym.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-1

Recall from the story such information as setting, characters, sequence of events, and narrator.

Given a passage from a selection of third grade literature, the student will ascertain the story's setting, the narrator, the sequence of events and the characters. Selections could be narrative poems, folk/fairy tales, fables, stories, or novels for children.

Questions about characters could deal with physical characteristics, characterizations, or actions implicit in the passage. For a passage with several characters, the student will select the character best described.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-2

Choose or supply the most appropriate title for the story.

Given a narrative passage, the student will select the one most appropriate title for the passage. The titles could reflect an event or action in the story, irrelevant material, or topics that are too general or specific.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-3

Distinguish fact from fantasy and justify response.

Given a narrative passage, the student will determine whether it is fact or fantasy, and justify that response. Material should be strictly fantasy--a folk/fairy tale, tall tale, etc.; or a factual account, such as a news item.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-4

Identify and explain cause-effect relationships.

The student will read a passage that clearly states a cause-effect relationship. The student may be given the cause and asked to select the effect or vise versa. The passage may have more than a single cause or effect. Both cause and effect questions will be included in testing.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-5

Compare and contrast story characters by assessing feelings, actions, traits and motives.

Given a passage involving two or more characters, the student will deduce the attitudes of the characters toward events and other characters. The student will compare and contrast one character to another.

The student could be asked to choose the character that is most similar to or different from another, or indicate how two characters are alike or different.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-6

State the main idea of a passage.

Given a passage of 100-150 words, the student will select the statement that is the main idea of the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-7

Summarize material read.

Given a passage that can be readily summarized, the student will select the statement that best summarizes the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-8

Predict the outcome of a story.

Given a passage that leads to an unstated outcome, the student will predict the outcome of the story by analyzing the character's actions, thoughts, experience, and propensities.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-9

Draw conclusions and make generalizations from material read.

Given a story or passage, the student will draw appropriate conclusions and make valid generalizations. For example, a story may have a "missing link" requiring the student to determine the sequence of events, the probable causes for the events, or the appropriate responses of characters to the events.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code C-10

Identify the problem(s) and solution(s) in a story.

The student will be given a short narrative passage that clearly describes a problem. Although the passage will contain the necessary information for finding a solution, it will not provide one. The student will identify the problem and choose a likely solution.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code D-2

Use book parts and reference sources to obtain information: table of contents, glossary, index, dictionary, and telephone directory.

Given part of an index, table of contents or glossary from a book, an illustrated children's dictionary, or a typical telephone directory, the student will derive pertinent information from that reference. For example, the student will determine proper syllabication from a dictionary entry or find the address of a specified person in a telephone directory.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code D-3

Interpret information from simple maps and charts.

Given a line, bar or circle graph, pictograph, or map, the student will apprehend and interpret the information presented by responding to questions about it. For example, given a pictograph conveying the number of bars sold by each student in a class during a fund raising effort, the student will determine who sold the most candy.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level III

Code D-4

Read and follow directions with at least three steps.

The student will be given instructions for completing a process. The instructions will include at least three steps. By recalling the material used in the project, the techniques that the project employs, and the steps that it entails, the student will read and follow directions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-4

Recognize and produce expressive, persuasive and expository writing in descriptions of persons and objects; stories with a beginning, middle and ending; poems (rhymes, haiku, etc.); paragraphs with topic sentences supported by at least two sentences; how-to activities (recipes, directions, instructions for games, etc.); friendly letters.

The student will be given a poem, paragraph, personal letter, or sentence. By choosing the passage with the most precise diction, the most vivid adjectives, and the strongest verbs, or the paragraph with the clearest relationship between topic sentence and supporting sentences, the student will identify unified, expressive, persuasive, and accurate writing.

The student will produce unified, expressive, persuasive, accurate writing in stories, poems, expository paragraphs, descriptions of people and objects, process descriptions, and personal letters.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-6

Expand word choice by selecting from synonyms and antonyms.

Given a word in a passage, the student will identify a synonym or antonym. For example, the student may be given a sentence and several revisions of that anchor sentence. The revisions of the anchor sentence will vary in only one element, such as subject, verb, or adjective. One of the revisions will use a synonym or antonym of the key element in the anchor sentences. The student will demonstrate a knowledge of synonyms and antonyms by choosing the revised sentence that has either the same meaning as the anchor sentence or that has the opposite meaning.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-7

Combine sentence with simple conjunctions.

Given two kernel sentences, the student will combine them with a conjunction or identify a combination that clearly expresses the original meaning in a concise, direct fashion.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-8

Identify correct usage of capital letters: pronoun I; first word in sentence; proper names of people, months, days of week, holidays; names of cities, states, countries, official titles, and first-person singular personal pronouns.

Given several versions of a sentence or other passage, the student will choose the version that is correctly capitalized. Improper capitalization may include errors in the capitalization of proper nouns, titles, and first-person singular personal pronouns.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-9

Identify correct punctuation: periods, question marks, exclamation marks, quotation marks (for conversation), commas (direct address, items in sequence) and apostrophes in possessives and contractions.

Given a number of ways to punctuate a sentence or passage, the student will choose the one correctly punctuated sentence. Improper punctuation may include errors in end punctuation, quotation marks, commas, and apostrophes.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level III

Code G-10

Identify correct usage for: plurals, irregular verb tenses, inflectional endings (er, ing, ed), agreement of simple subjects and predicates, homonyms and confused pairs (a-an, this-that, their-there-they're, your-you're, to-too-two).

The student will be given sentences or short passages that include use of plurals, irregular verbs, inflectional endings, homonyms and confused pairs. The student will choose the sentence written correctly. At least one of the four test items should deal with subject-verb agreement.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code A-2

Compare numbers through four digits including usage of symbols: <, >, and =.

Given problems that involve numerical equalities or inequalities in numbers of four digits or less, the student will demonstrate a knowledge of relevant principles by choosing the largest or smallest number from a list only expressing the relationship between two numbers by using <, >, or =.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code A-3

Identify the place value of each digit in a number having four digits or fewer.

Given a number with four or fewer unique digits the student will demonstrate a knowledge of the principles of place value by choosing the digit that occupies a specified place (ones, tens, hundreds, thousands), or by selecting a number which has a specified digit with a certain place value.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code A-5

Identify odd and even numbers.

Given a list of numbers, the student will identify odd and even numbers.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code A-9

Given a region with a shaded fractional part (halves, thirds and fourths), identify the part shaded.

Given a geometrical figure divided into two, three, or four equal parts, the student will determine what proportion of the figure is shaded and choose the numerical fraction that best expresses that relationship.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code B-2

Add and subtract three-digit numbers, with and without regrouping.

Given an addition or subtraction problem composed of two-digit and/or three-digit numbers which are arranged vertically, the student will perform indicated operations that may or may not require regrouping. Addition problems will contain two or three addends.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code B-4

Supply the missing number in one-step number sentences using addition and subtraction.

Supply the missing number in one-step number sentences using addition and subtraction.

Number sentences will be restricted to horizontal symbolic statements such as $a + b = c$ (addition) or $a - b = c$ (subtraction). A box in the a or b position will be used to represent a missing number no larger than 18.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code B-5

Add and subtract money amounts using the proper symbols.

Given an addition or subtraction problem involving amounts of money less than $10.00, the student will perform the indicated operation and select the correct answer. Problems will be arranged vertically, have no more than three addends, and may or may not require regrouping.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code B-7

Multiply two-digit numbers by one-digit numbers (through the tables of 5) with and without regrouping.

Given a multiplication problem involving a two-digit factor and a one-digit factor greater than one and less than six, the student will solve the problem, which may or may not require regrouping.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code B-8

Divide using one-digit divisors (through the tables of 5) that result in one-digit quotients with no remainders.

Given a division problem with a two digit dividend and a one digit divisor greater than or equal to two and less than six, the student will solve the problem. The solution will consist of a one-digit quotient with no remainder.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code D-1

Tell and record time by five-minute intervals using a standard clock.

Given sketches of standard clock faces with hour and minute hands, the student will identify the time at five-minute intervals.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code D-2

Use a thermometer to determine and record air temperature using both Celsius and Fahrenheit scales.

Given a sketch of a thermometer, the student will identify the Celsius or Fahrenheit temperature portrayed.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code D-5

Measure lengths to the nearest centimeter and to the nearest inch.

Given a sketch of an object beside an inch or centimeter ruler, the student will ascertain the length to the nearest inch or centimeter. Rulers will portray actual units and objects will be realistic in length.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code E-1

Identify rectangles, squares, circles and triangles.

The student will identify a rectangle, square, circle, or triangle standing alone or among other geometric figures.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code F-1

Construct and interpret picture graphs and simple bar graphs.

Given a simple bar graph or pictograph, the student will answer questions about the information presented, including questions about relative magnitude of the items involved or requests for specific values indicated in the graph.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code F-2

Locate points on a grid.

Given a grid no larger than 6x6 nor smaller than 4x4 with each axis marked in equal units, the student will identify coordinates of a specified symbol or identify a symbol located at specified coordinates.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code G-3

Solve one-step word problems.

Given a one-step verbal arithmetic problem, the student will decide whether to add, subtract, multiply, or divide, and then carry out the computation. Addition problems will be restricted to two two-digit whole numbers and sums less than one hundred. Subtraction problems will be restricted to two numbers which have one or two digits. Factors in multiplication problems will be single digit numbers with one factor less than six. Division problems will involve divisors less than six and dividends which are multiples of the divisor and less than nine times the divisor.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level III

Code H-2

Solve word problems involving addition and subtraction of money.

Given a word problem involving the addition and subtraction of money, the student will analyze the problem, decide whether to add or subtract, and carry out the proper operation. Addition problems will be restricted to those in which the sum is less than ten dollars and the number of addends is less than four. Subtraction problems will involve minuends less than ten dollars. Problems involving dollars and cents will be written as $X.XX, and problems involving cents will be written as XX¢. The two forms will not be mixed within a problem.

MISSOURI MASTERY ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code A-2

Identify safe and appropriate responses to a variety of hazardous and emergency situations.

The student will be given a sketch or description of a potentially hazardous situation or a common symbol warning of a hazardous situation, such as a stop sign or a railroad crossing marker. The student will choose the safest response to the situation or interpret the warning symbol correctly. Items will require a knowledge of the standard symbol for poisons; safe practices for riding bicycles, riding buses, or walking; proper responses to severe weather conditions such as thunderstorms, tornadoes, or blizzards; and proper responses to smoke or fire.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code A-3

Identify desirable health and nutrition habits.

The student will identify desirable health and nutrition habits. For example, when given a picture of food items, the student will identify the proper food group or groups. The student will also demonstrate an awareness of the daily need for sleep, water, and dental hygiene by identifying daily requirements for each.

The student will identify foods that are unhealthy because of high salt, fat, or sugar content; proper health etiquette when one has a cold; clothing appropriate for extreme weather conditions; and desirable hygiene practices, especially for eyes, ears, and hands.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code A-6

Observe and identify the natural objects in the sky.

Given pictures of objects ordinarily found in the sky, the student will distinguish between those that are naturally found there, such as planets, stars, and clouds, and those that are placed there by human beings.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code B-3

Order various animals/plants according to their sequence of growth and development.

The student will be given a series of sketches or descriptions which entail the stages in the development of either plants or animals. Based on an understanding of the process of growth and development, the student will choose the sequence that accurately orders the growth process.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code B-4

Classify a set of seasonal activities according to the four seasons.

Given several pictures, each clearly depicting a scene associated with one of the seasons, or four descriptions of activities, each associated with a specific season, the student will identify the scene or activity linked to a specified season.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code B-5

Classify a set of celestial objects according to whether they are producers or reflectors of light.

Given pictures that depict, or terms that describe, objects capable of producing or reflecting light, the student will distinguish between objects that reflect light, such as the moon, and objects that produce light, such as the sun.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code B-10

Sequence a set of different objects according to one selected common property.

Given illustrations of similar objects that vary in a common property, such as height, weight, shape, age, size, or number, the student will identify a logical sequence based on a specified variation and fill the gaps of an incomplete sequence. For example, the student will choose a set of balls that increase in size as they proceed across the page from among other groups that are not arranged in the same fashion.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code D-1

Draw the germination sequence of seeds, and record and graph the height of the seedlings.

The student will draw the germination sequence of a seed and record and graph the height of seedlings under experimental conditions.

Given a picture of a plant placed beside a clearly legible ruler, or a graph or table depicting various stages in the growth of a plant, the student will determine the height of the seedling with the ruler and use the graph or table to ascertain the plant's growth rate over a certain period.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code D-3

Record and graph daily temperature and precipitation during a one-month period.

Given daily temperature and precipitation for a one-week or one-month period, the student will record and graph it.

Given a table or graph that presents daily temperature or precipitation data, the student will comprehend and analyze the information. For example, the student will identify the precipitation for a particular day from a bar graph or table containing that information.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code E-3

Infer the characteristics which will enable organisms to successfully compete in their habitats.

Given either illustrations or a list of plant or animal features, the student will determine which features enable an animal to survive under specified environmental conditions. For example, given sketches of several kinds of leaves, the student will identify the type best suited to a hot, dry habitat. For plants, the given conditions are sunlight, soil with minerals, water, air, and temperature. For animals, the conditions are food, water, shelter, and protection from predators.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-1

Predict the best conditions for seed germination and growth.

Given descriptions of possible habitats for plants, the student will select the best conditions for seed germination and growth. Such conditions include temperature, moisture, and light. For example, the student will recognize that a warm, moist environment, a sunny window sill, would be better for plant growth than a hot, dry environment in a dark closet.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-2

Predict the types of organisms that will be found in various habitats.

Given a picture of one or more animals, the student will identify the habitat in which the animal or animals live. The student will also identify certain habitats in which a particular animal could not live. For example, the student will recognize that a broadleaf tree, a squirrel, and a raccoon would all be found in a forest habitat.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-4

Predict the changes in landform surfaces due to wind, water and land usage.

The student will identify the causes of land erosion as well as preventive measures for inhibiting erosion. Examples of soil erosion include the effects of water on bare soil, large gullies, and hilly regions. Preventive measures include planting trees, building dams, and arranging crops in terraced rows on a hill.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-5

Predict the effect on pitch when the source of vibration is systematically altered.

Given a number of objects which vary in length, width, or height, the student will identify the object that would produce the highest or lowest pitch when it vibrates. For example, the student will determine whether a long rubber band or a short rubber band would produce the highest sound when plucked, or whether a long metal bar or a short one would produce the lowest sound when struck.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-6

Predict the changes in matter as an object is heated or cooled.

The student will identify what happens to an object when it is heated or cooled. For example, the student will recognize that ice will melt on a sidewalk during a warm day, that molten candy will solidify as its temperature drops, and that air will decrease in volume as it cools.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level III

Code F-7

Predict the direction an object will move when it is pushed or pulled.

Given a picture of an object which is about to move or is already in motion, the student will predict which direction the object will travel. For example, when presented with a picture of a child pushing a wagon, the student will indicate what direction the wagon would move. Other examples of such problems include children pulling on opposite ends of a rope and a ball about to ricochet off a wall.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code A-3

Identify types of natural features (continents, oceans, streams, rivers, islands, and mountains); man-made features, the symbols of which are identified in the map's key; and political units (towns, cities, states, and nations) on appropriate maps or globes.

Given a map with a legend, the student will identify natural features, such as rivers or streams; man-made features, such as hospitals or houses; and political units, such as cities or nations. The student will not be required to know proper names for specific places, such as Africa or the Mississippi River.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code B-1

Predict consequences of given changes in a community's population, environment, or technology.

Given a brief description of a change in the population, environment, or technology of a hypothetical community, the student will identify likely consequences of the change. Examples of such changes include the development of an area for recreation, the pollution of a lake, the improvement of a transportation system, or a significant change in the population of a certain area.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code C-2

Predict consequences of changes in various spatial interactions.

Given a description of a change in a communication or transportation system, the student will identify a probable consequence of the change. Examples of changes in such spatial interactions include the construction of new transportation systems, such as railroads, highways, and airways, or the development of new communication facilities, such as radio and television stations.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code D-1

Locate places on maps using simple grids or verbal directions, such as up, down, north, south, east and west.

Given an uncluttered map with a legend, the student will locate specified places such as streets or buildings by using simple grid systems and by following written verbal directions. For example, the student will know that a hospital is located in section B-2 on a map.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT COMMUNICATIONS

Subject Social Studies

Level III

Code D-2

Interpret simple maps, using knowledge of direction, distance, size, common map symbols and other symbols explained in the legend.

Given an uncluttered map with a compass rose and legend, the student will indicate directions of places in relation to each other (right, left, up, down, north, south, east, or west), specify distances between places (near or far), indicate sizes of places (large, small, long, short, narrow, or wide) and identify particular places using information in the map's legend.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code E-4

Compare activities of today pertaining to travel, communications, work, school, and family life with those activities as they were carried out in the past.

The student will identify similarities and differences between activities of people living around 200 years ago and those of people today. Points of comparison relate to occupations, forms of travel, means of preparing food, and technology. For example, students might be asked to identify which one of four forms of travel listed could be found at the time of George Washington.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code G-1

Identify examples of democratic decision making.

Given various methods for arriving at everyday decisions, the student will identify those methods that are democratic ways of making the decision. For example, the students will recognize that voting would be a democratic way for a group of friends to decide what to do together on a rainy day.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code H-2

Identify major offices, activities and locations of three levels of government: local, state and national.

This key skill is concerned with students making correct associations regarding the following:

a. Major offices: national (president, senator, representative); state (governor, senator, representative); local (mayor, member of a city council or board of alderman, school board member).

b. Major activities: national (defense, print money); local (enforce traffic laws, provide schools and libraries, take care of streets, and provide for fire and trash collection): state (state activities will not be included at this level).

c. Locations of major government offices: national (Washington, D.C. is where the President and Congress work); state (Jefferson City is where the governor and legislature work); local (local government is housed in the local community).

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code J-1

Identify examples of cooperation, compromise and responsible behavior in decision-making discussions.

Given a description of a problem situation, the student will identify solutions that are clear-cut examples of cooperation, compromise, or responsible behavior.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code K-1

Identify examples of how what one person wants to do in the home, school or community may need to be restricted for the good of others.

Given a description of some social situation, the student will identify instances of behavior that interfere with the rights, needs, and safety of others. Examples include talking loudly at inappropriate times, refusing to share scarce resources, using tools or appliances in an unsafe way, destroying or stealing objects, or failing to help meet the needs of a group to which one belongs.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code M-2

Identify opportunity costs and trade-offs in choices made by individuals, families, or communities in economic decision situations.

Items related to this key skill will present students with stories about individuals engaged in economic decision situations which would be meaningful for nine-year-old student. A typical story for this key skill would portray a person who has some resource, the amount of which is not great enough to obtain all of what he wants. The question would ask students what the individual had to give up as a result of how he chose to use his resources, or it would ask students to identify which decision of those listed would best enable the individual to accomplish his goals as described in the story situation. The terms "opportunity cost" or "trade-offs" will not themselves be used in the items at this level.

MISSOURI MASTERY AND ACHIEVEMENT

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code N-1

Identify and distinguish among the three main categories of resources needed to produce goods and services: natural resources, human resources and capital resources.

Given a good or service within a third grader's realm of experience, the student will identify an example of a human resource, a natural resource, or capital resource used in producing the good or service. For example, students might be asked to identify from a list of resources an example of a natural resource used in producing lemonade.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code O-2

Identify sources of income for households (wages, interest, rent, profit) and examples of goods and services purchased by families.

Given a description of a situation in which a person receives income in the form of wages, income, rent or profit, the student will correctly identify the particular source of income. For example, given a situation in which a character receives $3.50 an hour to be a lifeguard at a swimming pool, the student will know that the money paid to the character is called a wage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code T-1

Indicate how various human needs are met by family, other people and organizations in the local community.

Given a description of an everyday-life situation that pertains to an individual who has a specific need for information, service or aid, the student will identify an appropriate source of help. For example, the student will select the fire department as the proper source of help in case of fire, the library as the appropriate source for a book of stories, and a school nurse as an appropriate source of help in case of an injury on the school playground.

MISSOURI MASTERY ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level III

Code V-2

Draw inferences from various sources: simple tables, observations, photographs, works of art, stories and interviews.

Given tables, sketches, time lines, bar graphs, or other graphic aids, the student will analyze the information presented and draw valid conclusions. For example, the student will determine which item in a bar graph has the greatest magnitude or predict the next step in a clearly identifiable process depicted in a series of sketches.

Grade 6 (Level VI)

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code B-1

Use contextual clues and/or dictionary to determine meanings of new words and the appropriate meaning of words with multiple meanings.

The student will be given a short passage in which context defines a particular word or group of words. To identify a correct definition, the student will use contextual clues to determine the meaning of new words or the appropriate sense of words with multiple meanings.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code B-2

Predict and confirm meanings of new words.

The student will be given a passage that contains an unfamiliar word or one used in an unfamiliar way. The student will determine the meaning of the word from its context and/or choose a corresponding synonym or antonym.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code B-4

Supply and identify synonyms and antonyms for commonly used words.

Given a specified word in a sentence, the student will choose an appropriate synonym or antonym.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-1

Recall (in own words) the story/passage with events in chronological order.

The student will be given a passage such as an excerpt from a folktale, myth or fable, a children's novel, or biography, in which the sentences have been rearranged and numbered. The student will choose the sequence of numbers that represents a chronological ordering of the narrative.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-2

Identify the author's purpose.

Given a short passage, the student will identify the author's apparent purpose in writing the piece. Such purposes may include the intention to inform, persuade, amuse, entertain, create suspense, create a fantasy world, or inspire by examples of heroic actions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-3

Distinguish between fact and opinion and justify responses.

Given a nonfiction prose passage such as an excerpt from a biography, a newspaper editorial, or a magazine advertisement, the student will distinguish between statements of fact and of opinion, justifying the distinction as required.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-4

Identify and explain cause-effect relationships.

Given a short passage that clearly depicts a cause-effect relationship, the student will identify either an effect arising from a specified cause or a cause leading to a specified effect.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-5

Compare and contrast characters and events in stories to real-life experiences.

Given narrative material that describes two characters, activities, regions, or items, the student will arrive at inferences and generalizations based on comparison and contrast. The student could be given a narrative passage and events of real life, such as news items from the paper or television, and asked to choose the situation that parallels the situation in the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-6

Identify or state main idea and supporting details.

Given a short passage that develops one main idea and is supported by several relevant details, the student will identify the main idea, perhaps by selecting an appropriate title, and distinguish this central concept from supporting material.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-7

Summarize material read.

Given a short prose passage, the student will identify a summary of the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-8

Predict the outcome of a story/passage.

Given a short prose passage that builds logically to an unstated conclusion, the student will identify the most logical outcome of the situation and events described.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-9

Draw conclusions and make generalizations from material read.

Given a short passage that either builds to a logical conclusion or suggests an appropriate generalization, the student will arrive at generalizations about elements such as characters, setting, purpose, or theme by recognizing the connections between various details in the story.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-10

Identify the story setting, plot, problem and solution.

Given a short narrative passage, the student will identify the setting, the major conflict and its sources, the resolution, and details of plot, including a central character's problems and their resolutions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-11

Recognize differences in first and third-person point of view in a passage.

Given a passage that is written in either first or third person, the student will identify the point of view.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code C-12

Recognize and explain exaggeration, similes and metaphors.

Given a passage that contains metaphors, similes, and exaggerations, the student will demonstrate a knowledge of these terms and identify a literal rendering of a particular example of such figurative language.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code D-1

Select and use appropriate reference sources to obtain information: dictionary, encyclopedia, directories, atlas, almanac, library card catalog, newspapers, textbooks and trade books.

The student will identify appropriate sources for a variety of information, such as the geographic features, population, and types of industry found in a certain country. Given a description of a need for information, the student will determine suitable references. Such references include dictionaries, encyclopedias, directories, atlases, almanacs, card catalogs, textbooks, and trade books. The student will use apparatus such as indexes and tables of contents in these references.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code D-2

Interpret and apply information found in maps, charts, graphs, time lines, diagrams, tables, schedules, etc.

Given a map, chart, graph, time line, diagram, table, schedule, or other graphic aid, the student will interpret and apply the information in the graphic aid by answering specific questions appropriate to that form. For example, the student will locate geographical features on a map and give dates for specified events presented on a time line.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code D-5

Check validity of sources by comparing information from more than one source (copyright date, etc.).

Given several potential sources for specified information, the student will select the most valid source according to criteria such as the timeliness, appropriateness, and reliability of the source. For example, the student will recognize that a consumer-oriented magazine might be helpful to someone buying a new television; someone selling a bicycle is not necessarily a reliable source for determining its condition; and material with a 1960 copyright is probably too old.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VI

Code D-6

Follow multistep directions.

Given directions for an activity, the student will recall the material, actions, and sequence of steps required to complete the process. For example, the student will recall the first step in a science experiment or steps in building a model.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

Code G-3

Produce various forms of writing: journals, stories, original poems, autobiographical pieces, plays, news stories, editorials, directions to complete a product or reach a destination, social notes, persuasive letters, commercials, advertisements and simple reports.

The student will produce various forms of writing, including journals, stories, original poems, autobiographical and biographical pieces, plays, news stories, editorials, directions, social notes, persuasive letters, commercials, advertisements, and simple reports.

The student will be given versions of written material, such as excerpts from journals, letters, editorials, or advertisements. By choosing the version that is most logically organized and clearly worded, or by choosing the most appropriate suggestion for revising a single passage or sentence, the student will demonstrate a knowledge of the requirements for good writing and an ability to analyze written material.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

Code G-4

Revise compositions to reflect peer suggestions.

Given a draft of a composition accompanied by peer comments in the form of queries, suggestions, observations, and proofreading marks, the student will choose a revision that best incorporates the peer suggestions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

ode G-5

Edit writing for spelling.

Given a rough draft of written material, the student will identify mistakes in spelling or words that have been misused, such as to, two, and too.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

Code G-6

Edit writing for capitalization: names and titles of persons, geographic names and adjective derivatives, main words in title or written works and sections of the country.

Given a rough draft of written material, the student will identify words that are capitalized incorrectly and words that should be capitalized but are not. The student will demonstrate a knowledge of the rules for capitalizing names of people and geographic areas, titles, adjectives derived from proper nouns, first words of sentences, and the first-person singular personal pronoun.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

Code G-7

Edit writing for punctuation: end punctuation, quotation marks, commas, apostrophes, indentation, and underlining or quoting titles in context.

Given a rough draft of a paper, the student will identify and correct errors in punctuation, including incorrect use of end punctuation, commas, quotation marks, apostrophes, and underlining. The student will also demonstrate a knowledge of proper indentation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VI

Code G-8

Edit written work for correct usage: irregular verb forms, subject-verb agreement, confused pairs (its-it's, are-our, who's-whose, here-hear), double negatives and correct pronoun forms.

Given a rough draft of written material, the student will identify mistakes in usage, such as errors in verb forms, lack of subject-verb agreement, confused pairs, double negatives, and incorrect pronoun forms.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-2

Identify place value of each digit in whole numbers with nine digits or fewer.

Given a whole number with nine digits or fewer, the student will demonstrate an ability to identify the place value of each digit.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-4

Compare fractions with numerators of one using < or >.

Given two fractions with numerators of one, the student will determine the relative value of each and choose < or > to express their relationship or given a set of unit fractions the student will arrange in order from smallest to largest or largest to smallest.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-6

Compare decimal fractions through thousandths using < , > , or = .

Given two decimal fractions with no more than three digits right of the decimal point, the student will determine the relative value of each and choose < , > , or = to express their relationship.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-8

Graph points representing fractions and decimals on a number line.

Given a number line marked off in appropriate increments, the student will ascertain the value corresponding to a particular point on the line. Fractions will be less than six with denominators of two, three, four or six. Decimals will be less than ten and to the nearest tenth.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-11

Write a mixed number representing the shaded parts of a region.

Given an illustration in which parts of a region are shaded, the student will choose the mixed number representing the shaded parts.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code A-12

Continue a sequence formed by adding a constant number to each previous term (arithmetic sequence).

Given an incomplete arithmetic sequence, the student will list the missing number in the sequence. The position of the missing number will vary.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-1

Compute answers requiring use of addition, subtraction, multiplication and division of whole numbers.

Given an addition, subtraction, multiplication, or division problem that involves whole numbers, the student will compute the answer. Computations will be presented horizontally; addition and subtraction problems will use two, three, and four digit numbers; multiplication and division problems will use factors, divisors, and dividends of two to four digits.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-2

Compute answers requiring use of addition, subtraction, multiplication and division of decimals.

Given an addition, subtraction, multiplication, or division problem that involves decimals, the student will compute the answer. All items will list computation horizontally. Addition and subtraction will use numbers between ten and 100 so that the sum or minuend is less than 99, to the nearest tenth, hundredth, or thousandth. Multiplication and division will use a number between zero and ten (no more than two digits) as a multiplier or divisor, and a number between ten and 100 (no more than three digits) as multiplicand or dividend. Division problems will come out even with addition of no more than one zero.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-3

Compute answers requiring use of addition and subtraction of like fractions.

Given a problem that involves addition or subtraction of like fractions, the student will compute the answer. Fractions will be listed horizontally, and in simplest form. Denominators will be greater than three and less than ten.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-6

Apply operations in the correct order in computational situations. Example: 2 + 3 x 4 = 14.

Given a mathematics problem which involves at least two operations of different degrees, the student will perform the operations in the proper order.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-7

Supply the missing number in one-step number sentences involving addition, subtraction, multiplication and division of whole numbers and addition and subtraction of decimals.

Given a one-step number sentence involving addition, subtraction, multiplication, or division, the student will supply a missing number.

Computation will involve five digits or less. Problems will have five or less addends or factors.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code B-8

Solve simple problems using proportion.

Given a simple word or number problem requiring the use of a proportion, the student will determine the missing term.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code C-2

Determine if a fraction or decimal is nearer one or zero.

Given a list of common or decimal fractions, the student will identify the fraction closest to one or the fraction closest to zero.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code D-1

Choose an appropriate unit of measure (metric and traditional) to measure length, area, capacity and weight.

Given a list of units of measure, including both traditional and metric units, the student will choose the appropriate unit to measure a specified length, area, volume, or weight. For example, the student will recognize that a square foot is a proper measure for the area of a room and that a beverage container's capacity might be measured in liters.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code D-2

Measure lengths to the nearest fourth inch and to the nearest centimeter.

Given an illustration of a ruler with either traditional or metric markings, the student will measure lengths to the nearest centimeter or quarter inch by identifying the length of an object or line drawn next to the ruler. Rulers will portray actual units and objects will be realistic in measurement.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code D-4

Convert units of measure within a system (metric or traditional) but not between systems.

Given a measurement using either traditional or metric units for length, volume, area, or weight, the student will identify an equivalent measurement from the same system. For example, the student will convert 24 inches to 2 feet and 10 millimeters to 1 centimeter.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code D-5

Calculate areas and perimeters of rectangles (including squares).

The student will be given a square or other rectangle with the length of each side indicated in either traditional or metric units. The student will calculate the area or perimeter of the figure.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code D-6

Solve problems requiring differentiation between perimeter and area.

Given a word problem or illustration in which the lengths of sides in rectangles or squares are specified in either traditional or metric units, the student will determine whether a calculation of perimeter or area is necessary and perform that computation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code E-2

Identify intersecting, vertical, horizontal, diagonal (oblique), parallel and perpendicular lines.

Given an illustration containing a number of straight lines, the student will identify those that are vertical, horizontal, diagonal, intersecting, parallel and perpendicular.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code F-1

Construct and interpret bar graphs, broken line graphs and tables from given data.

Given a bar graph or broken line graph, the student will answer questions about the information presented, including questions about which of several graphs correctly represents specified information and questions asking which statement correctly describes the information on a particular graph.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code F-3

Write a ratio to describe data.

Given quantitative information in numeric or prose form, the student will identify a ratio which describes the relationship between a pair of specified quantities.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code F-4

Find the average (mean) of a set of numbers.

The student will calculate the average (mean) of a given set of not more than six natural numbers.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code G-2

Solve multistep word problems.

Given a multi-step word problem involving at least two operations, the student will analyze the problem, determine which operations are needed and perform them in the correct order. Computation will involve five digits or less. Problems will have five or less addends or factors.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code G-3

Identify unnecessary or missing numerical data in a word problem.

Given a word problem for which certain numeric information is unnecessary or missing, the student will identify extraneous information or specify what further information is necessary to solve the problem.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code H-1

Solve word problems involving money situations.

Given a word problem involving basic operations with quantities of money, the student will analyze the problem, decide which operations are necessary, and arrive at the solution. Computation will involve five digits or less. Problems will have five or less addends or factors.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VI

Code H-2

Solve word problems involving elapsed time.

Given word problems which involve determining elapsed time, the student will determine the correct answer. For example, the student will calculate the duration of a trip given the time of departure and the time of return.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code A-2

Observe and identify conditions in the environment that provide the requirements for life.

The student will demonstrate a knowledge of the fundamental requirements for plant and animal life. For plants such factors include water, light, appropriate temperature, carbon dioxide, and proper nutrients. For animals the requirements include shelter, food, water, warmth, oxygen, and protection from enemies. In addition to identifying these basic requirements, the student will answer questions that ask for information about life processes or about the design of experiments to gain knowledge of specific life processes. For example, the student will recognize how energy from the sun is made accessible to humans and other animals, and identify an experimental apparatus designed to determine whether a candle produces a substance necessary to the life of a plant.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code A-7

Identify the location of major organs in the body using diagrams or models.

Given an anatomical diagram, the student will locate and name one or more major body organs. For example, the student will label the heart, lungs, stomach, small and large intestines, brain, liver and kidneys.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-2

Classify plants and animals into major groups (green/nongreen, vertebrates/invertebrates, etc.).

The student will group and define plants and animals according to basic nomenclature used in biological classification. For example, the student will identify an amphibian, a vertebrate, and an annual plant, and recognize definitions of the three categories. Specific Latinized taxa names (amphibia, mollusca, insectar, etc.) are not emphasized.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-3

Classify foods representative of the human diet according to their primary nutrient content (carbohydrates, protein, fats, minerals).

The student will demonstrate a knowledge of the basic nutrients in the human diet, including carbohydrates, protein, fats, and minerals, and a knowledge of the uses of nutrients in bodily functions. The student will identify foods that are good sources of specified nutrients, nutrients that are contained in specified foods, and foods that contain nutrients essential to specified bodily functions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-4

Group organisms as producers, consumers or decomposers.

The student will demonstrate a knowledge of the nomenclature and rationale of grouping organisms into one of these three categories, answer general questions about food webs and food chains, and identify the role of a particular organism in a food chain or food web that is portrayed in a diagram or description.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-6

Classify common substances as acids or bases.

The student will demonstrate a knowledge of the terms acid, neutral, and base, a knowledge of what common substances, such as lemon juice, water, and baking soda, belong in each of these three categories, and a knowledge of the use of red and blue litmus paper. The student will predict the effect of common solutions on red and blue litmus paper and categorize specified substances as acid, neutral, or base.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-8

Given a group of materials, classify them as conductors or nonconductors of electricity.

The student will demonstrate a knowledge of electrical conductivity by identifying common objects as conductors or nonconductors and by determining whether a specified electrical circuit will be complete. For example, the student will identify a paper clip, a nail, and a length of copper wire as conductors and a book, a wooden block and a rubber mat as nonconductors.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-9

Classify various objects as simple machines or compound machines.

Given illustrations of a number of common machines, the student will identify a compound or simple machine. Given an illustration of a compound machine, the student will identify its simple components, including levers, pulleys, wedges, screws, and inclined planes. For example, the student will recognize that a teeter-totter is a simple machine employing the lever principle and that a bicycle is a compound machine consisting of a number of simple machines.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-10

Classify a variety of energy sources as kinetic or potential.

The student will identify examples of kinetic and potential energy as they are depicted in short descriptions and line drawings. For example, the student will recognize that a falling brick manifests kinetic energy and that a swinging pendulum at its peak has potential energy.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code B-11

Classify examples of changes in matter as physical or chemical.

The student will identify examples of physical and chemical changes in matter as they are depicted in short descriptions and line drawings. For example, the student will recognize that rusting of a hammer is a chemical change and that the smashing of a rock is a physical change.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code D-1

Identify and explain the requirements for plants to carry on the photosynthetic process.

The student will demonstrate an understanding of the requirements of photosynthesis, the products of that process, and the terminology used to describe it. The student will answer direct questions about photosynthesis and respond to questions about experiments involving photosynthesis. For example, the student will identify carbon dioxide as a gas required by photosynthesis and specify environmental conditions that would promote photosynthesis in a laboratory experiment.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code D-2

Name, draw and describe the functions of parts of flowering and nonflowering plants.

The student will label the parts of flowering and nonflowering plants depicted in illustrations and identify the functions of specified plant parts. For example, the student will recognize a stamen in a line drawing of a flower and identify that part of a flower responsible for the production of pollen.

The student will draw a diagram of typical flowering and nonflowering plants and label the parts correctly.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code D-13

Describe and compare the similarities and differences between plant and animal cells.

The student will recognize the major features of cell structure and distinguish between plant and animal cells. Given diagrams of plant and animal cells, the student will label specified cell features, such as the nucleus, vacuole, cytoplasm, and cell membrane. The student will answer direct questions about the similarities and differences between plant and animal cells.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code D-14

List two factors that cause an animal to become an endangered species.

Given passages that describe environmental changes and pressures causing a species to become endangered, the student will distinguish between factors that threaten an entire species and those that only threaten a particular population at a certain time. For example, the student will distinguish between the significance of a loss of habitat and a single harsh winter. The student will recognize factors that have led to well-known instances of endangered species, such as the California condor and the bison.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code E-1

Infer from examples of the teeth and mouth parts from a variety of mammals if an animal is a carnivore, an herbivore or an omnivore.

Employing a knowledge of the dental features of herbivores, carnivores, and omnivores, the student will distinguish teeth and mouth parts of the three groups as depicted in illustrations. The student will also determine the proper group of a particular animal from a description of its teeth and mouth parts, and predict an animal's dental features with information about its diet. For example, the student will select an illustration of an herbivore's skull from among illustrations of skulls of other types and identify clues revealing that a fossil skull came from an omnivore.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code E-4

Infer how fossils provide evidence of conditions in ancient times.

The student will know how fossils provide evidence of life in ancient times. Given verbal or pictorial information about fossil layers, including content and location, the student will surmise ancient habitats and their sequence. For example, given a diagram of several fossil layers with sufficient detail about the kinds of fossils in each layer, the student will characterize the environment that produced a specified layer as forest, desert, tundra, or ocean floor, and determine whether a specified layer was created before or after others.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code F-1

Predict the growth rate of a variety of plants and animals under varying conditions.

The student will know the variables influencing the growth and activity rates of plants and animals. The student will design experiments involving growth and activity rates and evaluate graphs and tables presenting such information. For example, the student will identify an experimental design that would determine whether ash from a volcano speeds the growth of bean plants and ascertain the validity of statements about data in a table relating tree growth to altitude.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code F-2

Predict the results of removing an organism from a food chain.

The student will predict the effects of changing one component in a food chain or web that has been presented pictorially or verbally. For example, the student will recognize that removal of an organism may upset the predator-prey relationship, disturb the balance between producers and first-order consumers, or encourage another organism to fill the vacated niche. Emphasis should be upon aquatic and grassland communities.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code F-3

Predict the effect of removing one or more of the light bulbs in both series and parallel circuits.

Given an illustration of light bulbs wired in a parallel or series circuit, the student will predict whether specified bulbs will light if a particular bulb is removed. The student will identify diagrams of series and parallel circuits.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code F-6

Predict the type of precipitation, given data on temperature and cloud formations.

The student will demonstrate an understanding of the relationship between cloud type, temperature, atmospheric conditions, and forms of precipitation. The student will answer questions about cloud terminology, predict effects from weather conditions, and evaluate simple meteorological charts. For example, the student will identify temperature and cloud conditions likely to precede a snow and explain the relationship between temperature and pressure at a specified time by analyzing a line graph presenting such information.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code D-2

CODE

5/B

G-2

Identify the variables that affect fe
erosion and weathering.

The student will specify the agents of weathering and erosion, predict their effects, and identify conditions which increase or retard the rates of these processes. For example, the student will recognize that water freezing in a crack in a rock can cause the rock to break apart and that cutting all the trees on a hillside will probably result in the washing away of large amounts of soil.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code G-4

Determine the variables that affect the strength of an electromagnet.

The student will predict the effects of changes in the circuit of an electromagnet as depicted in an illustration or short description. For example, the student will ascertain how changing the core size, the core material, the number of turns in the coil, and the electrical current will affect the strength of the electromagnet.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VI

Code G-7

Determine the variables that influence the rate of evaporation.

Given an illustration or brief description of conditions under which evaporation occurs and a number of variables, such as surface area, relative humidity, and air temperature, the student will select a combination of variables that will produce the fastest or slowest rate of evaporation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code A-2

Locate types of natural features on maps and globes: continents, islands, peninsulas, streams, rivers, lakes, bays, gulfs, oceans, deltas, straits, mountains, valleys and plains.

Given an uncluttered, appropriate map, the student will identify any of the types of geographic features that are listed in the key skills. Students need not locate specific places, like Africa or the Atlantic Ocean; rather, they will identify types of places, like continents or oceans.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code A-3

Locate the following places in Missouri and the United States on maps:

- The 50 states
- The Appalachian and Rocky Mountains
- St. Lawrence, Mississippi, Ohio and Missouri Rivers
- Jefferson City, St. Louis, Kansas City, Washington, D.C.

Given an uncluttered map of the United States or Missouri, the student will locate any of the places that are listed in the key skill.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code A-4

Locate the following places of the world on maps and globes:

- North America, South America, Asia, Africa, Europe, Australia, Antarctic
- Central America and the Middle East
- England, France, Spain, the United States, Mexico, Canada, the Soviet Union, China, Japan and India
- North and South Poles and the equator
- Tropical, temperate and arctic regions.

Given an uncluttered map of the world, the student will identify any of the specific places that are listed in the key skill.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code B-1

Predict consequences of given changes in a community's population, organization and living patterns, environment, or technology. (Examples of types of changes: construction of the Eads Bridge in St. Louis, construction of a shopping mall in a small city, use of mechanized equipment in a farming region, etc.)

Given a brief description of a technological, environmental, or demographic change in a particular region, the student will predict effects of the change on living conditions in that area. Such changes may include the construction of dams, factories, apartment complexes, and highways or the pollution of lakes and rivers. For example, the student will recognize that the construction of a new factory in a rural town would probably lead to an increase in its populations, among other things.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code D-3

Draw conclusions from maps, using knowledge of map symbols, legends, grid systems, scales and knowledge of how position on the earth relates to climate.

Given maps that depict a variety of natural and manmade features and include a map legend, the student will identify correct interpretations of the maps. For example, the student will indicate how two places relate to each other both in direction and distance, predict the direction rivers flow, identify shortest or quickest routes connecting places, or predict climates of places, given information about their locations on maps.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code E-2

Indicate major causes, major consequences and sequences of major historical events and developments:

- Discovery and exploration of America
- American Revolution
- making the Constitution
- westward migration
- Civil War

The student will identify major causes and major consequences of the five events and developments listed in the key skill. For example, a major factor contributing to westward migration was the Louisiana Purchase and a major consequence of the American Revolution was that the American colonies were no longer under the sovereignty of the British Crown. The student will also indicate in what order the events and developments listed in the key skill took place. For example, the U.S. Civil War took place after the American Revolution.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code E-3

Describe the lifestyles of different groups of men, women and children of pre-Civil War United States, and compare to lifestyles of today.

The student will identify similarities and differences between living conditions of the past and living conditions of the present, and will identify similarities and differences among different groups of people living in pre-Civil War times in the United States, including slaves and native Americans. Questions will focus on such matters as transportation systems, working conditions, and schooling. In some cases items will ask students to identify living conditions of the past, such as, "What were schools like in the United States before the Civil War was fought?" or, "How did people travel from city to city in the years before the Civil War?"

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code E-4

Identify innovations in transportation and communication, and describe their impact on the lives of Americans.

The student will identify consequences of innovations in transportation and communication for Americans. Such innovations include the telegraph, the radio, the television, the automobile, the railroad, and the airplane. For example, the student will recognize that as automobiles were used more in this country, passenger trains were used less.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code F-1

Describe or predict differences in how various people perceive and judge an event, and explain why their perceptions and judgments differ. (For example, colonization was viewed differently by certain Indian tribes and by colonists themselves; the American Revolution was viewed differently by Loyalists and by Sons of Liberty; the Civil War was viewed differently by Abolitionists and by Confederates.)

Given a description of a person's social status, economic level, or beliefs, the student will predict how the person would perceive, interpret, or react to a specified situation. For example, the student will anticipate how a native American Indian of the nineteenth century would have perceived the gradual encroachment of frontier settlements on their traditional hunting grounds.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code G-1

Identify examples of democratic governmental practices, rules and laws that promote specific democratic values (freedom, justice, equality, domestic tranquility, general welfare, popular sovereignty and rule of law).

Given a description of a situation that calls for a group decision, the student will identify a means of arriving at that decision that fits within the category "democratic." The student will also identify which of the democratic values, such as freedom, justice, or equality, is promoted by a specific law or rule.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code H-1

Identify what is meant by the legislative, executive and judicial functions and actions in government.

Given a description of a governmental activity, the student will determine whether it is an example of an executive, a judicial, or a legislative function or action. For example, the student will identify making laws as a legislative action.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code I-1

List and explain rights and responsibilities of citizens of the United States.

The student will identify examples and meanings of specific rights and responsibilities attached to U.S. citizenship. Such rights include freedom of speech, freedom of the press, freedom of assembly, freedom of religion, and the right to vote. Responsibilities include obeying the law; paying taxes; and respecting the privacy, property, and voting rights of others.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code L-1

Distinguish among statements of fact and opinion.

The student will differentiate between statements of fact and of opinion. For example, the student will identify the statement "The Civil War resulted in substantial loss of life" as a statement of fact and the statement "The Civil War was won by the right side" as a statement of someone's opinion.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code M-1

Identify opportunity costs and trade-offs in economic choices made by individuals, families and communities.

Given a short narrative about an economic decision made or about to be made by an individual, family, or community, the student will identify either opportunity costs or trade-offs pertinent to the decision. Students will not be asked to distinguish between opportunity costs and trade-offs, because their meanings overlap. They will, however, be able to respond to questions that use the terms, as well as questions that focus on the concept without using the terms.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code N-1

Identify examples of and use the following terms related to production: "natural resources," "human resources," "capital resources,""technology," "specialization,""productivity" and "investment."

Given a description of a productive activity that would have meaning to sixth graders, the student will identify a particular component of that process as a human resource, a natural resource, or a capital resource. In a similar passage, the student will identify instances of technology, investment, specialization or productivity. The student will also link any of these terms to appropriate examples.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code O-2

Identify examples of government revenue (taxes) and expenditures (for defense, roads, etc.), and describe their purposes and consequences for households and businesses.

The student will identify sources of revenue of government, identify public goods and services governments produce, and predict consequences of changes in amount of tax revenue collected. For example, the student will know what will happen if the government collects less money to maintain highways than it had in previous years, or what will happen if the government reduces taxes on businesses.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code P-1

Identify or provide examples that demonstrate the relationships between price and the quantity of goods and services supplied or demanded.

Given a description of an economic situation within the realm of a sixth grader's experience involving some change in the price or quantity of a good or service, the student will identify likely consequences. For example, the student will indicate that a significant decrease in the price of home computers will probably increase their sales and that increased pay for babysitting will probably increase the number of hours boys and girls will offer to babysit.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code R-1

Identify how and why different regions of this nation specialize in the production of goods and services.

Given a map of the United States that depicts major economic regions, the student will identify major goods produced in each. For example, the student will link fishing to New England rather than to the Great Plains region on a map.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code S-3

Identify different roles or positions an individual may assume (parent, student, friend, worker, citizen, adult, etc.) and the expected behavior usually attached to each role.

Given a description of a social role within a sixth grader's realm of experience, the student will identify behavior usually associated with that role. For example, the student will indicate that parents ordinarily provide food and clothing for their children and that a friend would be likely to try to cheer up a companion who is sad. Students will also indicate how one person may assume different roles. For example, a teacher may also be a husband, a father, and a friend to other people.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code T-1

Indicate how various human needs are met by family, local community and national groups and institutions in the United States.

Given a description of a human need, such as food, education, or law enforcement, the student will identify which group or agency typically meets that need in our society. Such groups and agencies include families, schools, city councils, courts, and legislative bodies.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VI

Code V-1

Identify appropriate resources when given simple questions related to geography or history: maps, tables, graphs, atlases, encyclopedias, direct observations, people with expertise, historical documents, music and works of art.

Given specific historical or geographical information a person is seeking, the student will identify appropriate resources. Examples of these resources are listed in the key skill.

Grade 8 (Level VIII)

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code B-1

Use context and/or dictionary to determine meanings of vocabulary in content areas and literature.

The student will be given a passage in which context defines a particular word or group of words. By selecting a corresponding synonym or antonym, the student will use contextual clues to determine the meaning of words, including words with multiple meanings.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code B-2

Predict and confirm meanings of new words.

Given a passage in which context defines a word normally beyond the vocabulary of an eighth grader, the student will choose a corresponding synonym, antonym, or dictionary definition. The word selected could be a term from another language, such as finis, or an acronym that is prevalently used.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-1

Trace the story line identifying mood, setting, plot or context and resolution of conflict in a story.

Given an excerpt from a narrative, the student will identify the setting, mood, plot, and central conflict, and answer questions concerning details of these elements in the passage. For example, the student will recall where the narrative takes place and determine the event that shows how the conflict is resolved.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code1 C-2

Identify the author's purpose, point of view and techniques for holding the reader's attention.

Given a passage, the student will identify the author's purpose, viewpoint, implicit attitude toward the material, and methods for eliciting and sustaining the reader's interest. For example, the student will identify a sentence summarizing how the author feels about the subject or choose the statement reflecting the overall purpose of the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-3

Distinguish between fact and opinion and justify response.

Given a passage such as a newspaper article or a first-person narrative, the student will distinguish between statements that are fact and those that are opinion. For example, the student will identify "Paul has a magnificent personality" as a statement of opinion and "Paul is six feet tall" as a statement of fact.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-4

Identify and explain cause-effect relationships.

Given a passage that clearly expresses a cause-effect relationship, the student will identify the chain of cause and effect and distinguish between remote and immediate causes. For example, the student will select a sentence summarizing the causes of a fictional character's situation or predicting the results of a change in that situation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-5

Identify and explain changes in characters throughout a selection.

The student will be given a narrative passage of prose or poetry that depicts some change in a character's attitude or behavior. By interpreting the character's actions and speech, the student will identify the nature of the change or choose the correct explanation of the change.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-6

Identify or state the main idea and supporting details.

Given a passage that develops one main idea and contains several supporting details, the student will identify the main idea, its supporting statements, and details that do not support the main idea.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-7

Summarize material read.

Given a passage, the student will identify an accurate summary of the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-8

Explain relationships of time and place within a selection.

Given a passage in which events occur at various times and in various settings, the student will recall the original order of events and identify a proper chronological progression.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-9

Make inferences, predict outcomes, form generalizations and conclusions supported with facts.

Given a passage containing information that leads to an explicit or implicit conclusion, the student will make inferences, predict outcomes, and form generalizations and conclusions based on the material in the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-10

Identify and explain propaganda techniques from print or visual media.

Given graphic or printed material, such as a cartoon or advertisement that is clearly propaganda, the student will identify name-calling, bandwagon appeal, and other common propaganda devices in the selection.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code C-11

Identify and explain examples of figures of speech, proverbs, analogies, puns and sarcasm.

Given a passage that contains figures of speech, proverbs, analogies, or sarcasm, the student will recognize the specific technique involved and identify a literal equivalent to a particular instance of that device. The student could be asked to choose a sentence containing a simile or metaphor, or one that is the most accurate restatement of a proverb.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code D-1

Select and use appropriate resources for a given task: encyclopedia, almanac, atlas, directories, dictionary, library card catalog, newspaper, textbooks, trade books and Reader's Guide.

The student will identify appropriate sources for a variety of information on such topics as sports, music, geography, and science. Given a description of a need for information, the student will determine suitable references. Such references include encyclopedias, almanacs, atlases, directories, dictionaries, card catalogs, newspapers, textbooks, trade books, and the Reader's Guide to Periodical Literature. The student will use apparatus such as indexes and tables of contents in these references.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code D-2

Use graphic sources for information: maps, graphs, time lines, charts, diagrams, tables, schedules, etc.

Given a graphic aid such as a map, graph, time line, chart, diagram, table, or schedule, the student will interpret and apply the information presented. For example, the student will locate a particular country on an appropriate map, determine the percentage of expenditure for a specified category in a circle graph that illustrates a budget, or ascertain the date of an historical event with a time line.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code D-3

Use listings, comparison-contrast, time-order, etc., as study aids.

The student will use study aids and organizing techniques, such as comparison-contrast, lists, outlines, and other methods employed in tasks an eighth grader might undertake. For example, the student will identify an essay analyzing the differences between playing board games and electronic games as an essay of contrast rather than comparison, and select the statement that explains why enumerated steps in a recipe are easier to follow than the same information in an ordinary paragraph.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code D-6

Follow multistep directions in proper sequence.

Given directions for common activities, such as traveling to an unfamiliar address or treating a mild case of poison ivy, the student will understand and follow instructions by answering specific questions about the process. For example, the student will determine material needed at a certain point in a simple carpentry project or ascertain the amount of a certain ingredient required by a recipe.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code D-7

Check validity of sources by comparing information from more than one source, including periodicals.

Given several potential sources for specified information, the student will select the most valid source according to criteria such as the timeliness, appropriateness, and reliability of the source. For example, the student will recognize that a recent report in a consumer journal would be preferable to an encyclopedia article as a source of information on the safety features of a new car.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code E-1

Interpret and use transportation/communication materials such as: routes, schedules, timetables, signs, marquees, billboards and travel brochures.

Given printed or graphic material associated with transportation or communication, such as bus routes, timetables, signs, billboards, or travel brochures, the student will comprehend and apply the information presented. For example, the student will use a bus schedule to identify arrival time at a specified location or select a sentence that explains the sign "Authorized Personnel only."

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level VIII

Code E-2

Use basic instructions and labeling information: recipes, instructions on cans, bottles, appliances, clothing, etc.; warning labels; product contents and nutritional data.

Given instructions or label information, such as directions for the care and cleaning of clothing or appliances, warning label on a bottle of medicine, or a list of ingredients in a breakfast cereal, the student will interpret instructions by answering specified questions about them. For example, given an appropriate label on a bottle of pills, the student will recognize that "No refill without consent of physician" means that the patient must contact the doctor if the illness persists after the medicine is gone.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-2

Arrange supporting details and facts in logical, coherent order.

Given a passage that is typical of eighth grade writing, the student will rearrange the sentences or paragraphs into a unified, coherent structure.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-3

Create and arrange plot events, dialogue, characters with distinctive personalities and sensory details in forming stories.

The student will create and arrange plot events, dialogue, characters, and sensory details to form stories.

Given a short narrative passage typical of eighth grade writing, the student will identify proper arrangement of events in the plot, the dominant trait of a specified character, and the purpose of certain narrative techniques, such as dialogue or description. For example, the student will ascertain that imagery appealing to the sense of smell prevails in a particular passage or that a specified character's salient trait is strength of will.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-4

Establish and maintain the main idea throughout successive expository paragraphs, essays and other written discourse.

Given a draft of an expository essay typical of eighth grade, the student will discern and follow the development of a main idea by identifying the function of a specified element, such as a topic sentence, a concluding sentence, a logical sequence, or a supporting detail. The student will also identify missing elements or discrepancies in the structure of the passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-5

Persuade specified audiences of the legitimacy of the writer's opinion/point of view by use of anecdotes, examples and statistical data.

The student will use anecdotes, examples, and statistical data to write an effective persuasive essay.

Given the main idea of an argument or proposal, such as an argument that one television program is superior to another or a proposal to change school policy, the student will identify the most convincing viewpoint, the probable audience, and the best organization or rhetorical approach. For example, the student will identify a logical, persuasive group of supporting details and a likely audience for a specified topic sentence.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-6

Use sentence combining to add subordinate details to base sentences, omit redundancies, assure smooth reading and proper sequencing.

Given a group of sentences typical of eighth grade writing, the student will identify the best way to combine them into a unified sentence using coordinating or subordinating conjunctions. The student will identify a combination with proper sequencing, a fluid style, and no redundancy.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-7

Edit writing for spelling.

Given a draft of a composition that is typical of eighth grade, the student will identify and correct mistakes in spelling.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-8

Edit writing for correct usage of capitalization: names of political parties, brand names, names of languages, generic vs. specific names and personification.

Given a draft of a composition that is typical of eighth grade, the student will identify and correct words that are incorrectly capitalized as well as words from which correct capitalization is omitted. The student will demonstrate a knowledge of the rules for capitalizing proper nouns, titles, the first word in a sentence, and the first-person singular personal pronoun.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-9

Edit writing for punctuation: end marks, commas, semicolons, quotation marks, parentheses, hyphens and apostrophes in unusual possessive formation.

Given a draft of a composition typical of eighth grade, the student will identify and correct errors in punctuation, including mistakes in the use of end marks, commas, semicolons, quotation marks, parentheses, hyphens, and apostrophes.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level VIII

Code G-10

Edit writing for correct usage: sentence fragments, run-ons, shifts in verb tense, subject-verb agreement and correct pronoun forms.

Given a draft of a composition typical of eighth grade, the student will identify and correct errors in usage, including sentence fragments, run-on sentences, shifts in tense, lack of subject-verb agreement, and incorrect pronoun forms.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code A-1

Compare any two rational numbers using $<$, $>$, $=$, $\leq$ or $\geq$.

Given two rational numbers, the student will express their relationship by using $<$, $>$, $=$, $\leq$, or $\geq$.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code A-1

Write equivalent forms of fractions, decimals and percents. Example: 1/4 = .25 = 25%.

Given a percent, a common fraction, or a decimal, the student will identify its equivalent in the other two forms. For example, the student will recognize that 1/4 = .25 = 25%. Items will focus on percents which are frequently used.

code

5/B A.2

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code A-3

Continue a sequence formed by multiplying each previous term by a constant (geometric sequence).

Given an incomplete geometrical sequence with at least five terms, the student will determine the missing term.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code A-4

Express a composite number as the product of prime factors.

Given a composite number of two or three digits, the student will identify the prime factorization of that number or identify prime factors of the number.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code B-1

Compute the sum, difference, product or quotient of integers.

Given a problem that entails applying one or more of the arithmetic operations to integers, the student will compute the answer.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code B-2

Compute the sum, difference, product or quotient of fractions.

Given a problem involving addition, subtraction, multiplication or division of frequently used, positive fractions (thirds, fourths, fifths, sixths, eighths, tenths), the student will compute the answer.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code B-3

Compute the sum, difference, product or quotient of decimals.

Given a problem that entails applying one or more of the arithmetic operations to decimals, the student will compute the answer.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code B-5

Use operations in the correct order to evaluate numerical expressions containing exponents.

Given a numerical expression involving exponents and any combination of operations, the student will compute in the correct order. Only zero and positive integers will be used as exponents.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code B-8

Compute or identify common multiples and common factors of a set of numbers.

The student will demonstrate a knowledge of multiples and factors by identifying a common factor for a set of whole numbers or a common multiple for a set of whole numbers.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code C-2

Determine an interval of reasonable estimates for a given problem.

Given a word problem that involves one or more of the four basic arithmetic operations, the student will identify a reasonable estimated range for the answer.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code D-1

Measure lengths to the nearest sixteenth inch and to the nearest millimeter.

Given an illustration of a ruler with a metric or traditional scale alongside an object or line segment, the student will measure the object or line segment to the nearest millimeter or sixteenth of an inch. Rulers will portray actual units and objects will be realistic in length.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code D-3

Know and use the formulas to calculate the perimeter and the area of a triangle.

Given a triangle marked with the necessary dimensions indicated in either metric or traditional units, the student will recall appropriate geometric formulas and calculate the perimeter or area.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code D-4

Know and use the formulas to calculate the circumference and the area of a circle.

Given either a description or illustration of a circle and the length of its radius or diameter in metric or traditional units, the student will recall the appropriate geometric formulas and calculate the circumference or area.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code E-1

Draw an angle of given measure using a protractor and a straightedge; classify it as acute, right or obtuse.

Given a diagram of an angle with an illustration of a protractor superimposed on it, the student will measure the angle. Given a diagram of an angle with or without an indication of its measure, the student will classify it as right, acute, or obtuse. The student will identify the approximate measure of an illustrated angle or select the diagram of an angle closest to a specified measure.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code E-2

Classify a given triangle as scalene, isosceles or equilateral, or as acute, right or obtuse.

Given a triangle on which congruent sides and right angles are clearly indicated, the student will classify it as scalene, isosceles, or equilateral or as right, acute, or obtuse.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code E-3

Classify a given quadrilateral as a parallelogram, rectangle, square, rhombus, trapezoid or other.

Given a description or illustration of a quadrilateral, the student will classify it. For example, the student will recognize that a quadrilateral with opposite sides parallel and equal is a parallelogram. Examples of figures will include the parallelogram, rectangle, square, rhombus, and trapezoid.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code E-4

Classify polygons that are pentagons, hexagons and octagons.

Given a description or illustration of an appropriate polygon with any right angles or congruent sides clearly indicated, the student will classify it as a pentagon, hexagon, or octagon.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code F-1

Interpret circle graphs (pie charts).

Given a circle graph (pie chart) with the percent of each sector clearly indicated, the student will demonstrate an ability to comprehend and interpret the information presented. For example, the student will identify a family's greatest expense using a pie chart illustrating a domestic budget and then calculate the amount actually spent for that category with the appropriate percent and the amount of the total budget.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code F-2

State the coordinates of and plot points in the Cartesian plane.

Given a set of points in a Cartesian plane, perhaps in the form of a map or other illustration, the student will identify a point located at specified coordinates or provide the coordinates of a specified point.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code G-2

Read and follow flow charts.

Given a flow chart that describes a series of mathematical calculations, the student will compute the output with specified quantities and conditions.

Flow charts will be clearly illustrated, include mathematical symbols familiar to the student, use arrows to indicate direction of movement, and diagram activities that are not computer oriented.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code H-1

Compute take-home pay, given salary and deductions.

Given all necessary figures, including such quantities as the gross salary or wage, hours worked, federal, state, and local tax withheld, and deductions for social security, union dues, and insurance, the student will calculate take-home pay.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code H-2

Compute simple interest when the formula is not supplied.

Given a word problem that describes a sum of money, an interest rate, and a period of time, the student will compute simple interest.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code H-3

Compute the actual cost of an item purchased on an installment plan.

Given a word problem that provides information about an item purchased on the installment plan, including such details as the cost of the item, tax, carrying charge, down payment, monthly payment, and time span, the student will determine the actual cost of the item.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code H-4

Solve problems involving surface area in consumer situations (paint, carpet, sod, shingles, etc.).

Given a word problem that describes a consumer situation involving surface area and including necessary dimensions and prices, the student will analyze the problem, select the necessary information, and compute the answer.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level VIII

Code H-5

Solve problems using ratio and proportion in consumer situations (better buy, scale drawing, recipe conversion, map reading, sales tax, rate and amount of discount, etc.).

Given a word problem that describes a consumer situation involving ratio and proportion, such as adjusting amounts of ingredients in a recipe or converting units on a map to actual mileage, the student will calculate the correct answer using ratios and proportions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code A-1

Identify similarities in and differences between plant and animal cells using prepared microscope slides and/or photomicrographs.

The student will recognize the major features of cell structure and distinguish between plant and animal cells. Given illustrations of plant and animal cells conveying the sort of visual detail provided by prepared slides of photomicrographs, the student will identify specified cell features, such as the nucleus, vacuole, cytoplasm, and cell membrane. The student will answer questions about the similarities of and differences between plant and animal cells.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code A-3

Identify the major structural and functional characteristics of representative vascular and nonvascular plants.

The student will locate and identify the major structural features of plants by labeling illustrations or responding to direct questions. The student will know the functions of specified components, such as stomates or phloem tissue, and identify characteristics that mark a plant as vascular or nonvascular.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code A-6

Observe an electrolytic cell and describe its function.

The student will identify and locate the components of electrolytic cells and describe their function. For instance, given a cut away drawing of a wet cell, the student will identify the positive electrode and predict the effect of allowing the electrolyte solution to fall below the plates.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code B-1

Classify selected animals into their proper classes according to their similarities and differences.

The student will recognize examples of mammals, reptiles, birds, and amphibians, and identify the characteristics of these groups. For example, the student will indicate that mammals lactate and that reptiles are cold blooded.

The student will answer questions about the characteristics of the subphylum vertebrata, including the classes Cyclostomata, Chondrichthyes, Osteichthyes, Amphibia, Reptilia, Aves, and Mammalia.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code B-10

Describe and draw the characteristics of a wave (wavelength, trough, crest, amplitude, frequency).

The student will draw a wave diagram and label its parts, including the wavelength, trough, crest, amplitude, and frequency.

The student will know wave terminology and theory. The student will identify the parts of a wave presented in a wave diagram and answer basic questions about waves, including questions on topics such as sonic waves, electromagnetic waves, and the Doppler effect. For example, the student will label the trough of a wave in a diagram and identify the color in the visible spectrum with the highest frequency.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code B-12

Classify a variety of energy sources as kinetic or potential and describe how they may be transformed.

The student will identify and analyze examples of kinetic and potential energy as depicted in short descriptions and line drawings. For example, the student will identify points of greater or lesser potential and kinetic energy in a diagram of a ping-pong ball bouncing along a table top.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code B-13

Differentiate among atoms, elements, molecules and compounds.

The student will identify and differentiate atoms, elements, molecules, compounds and mixtures. For example, the student will recognize definitions of these terms, interpret molecule diagrams, and distinguish physical mixtures from chemical compounds.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code B-15

Group examples of energy sources as renewable, nonrenewable and/or inexhaustible.

The student will classify energy sources as renewable, nonrenewable, or inexhaustible. For example, the student will identify falling water and wind as renewable sources of energy.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code C-1

Measure and record the air temperature, barometric pressure, relative humidity and wind speed using the appropriate instruments.

The student will use the appropriate instruments to measure and record air temperature, barometric pressure, relative humidity, and wind speed.

The student will know the theory and use of thermometers, barometers, hygrometers, and anemometers. For example, the student will know the significance of a fall in barometric pressure in weather prediction and the implications of particular thermometer readings in either Celsius or Fahrenheit for outdoor activities and dress.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code D-1

Describe the purposes and functions of the major parts of plant and animal cells.

The student will recognize the major features of cell structure and distinguish between plant and animal cells. Given diagrams or descriptions of plant and animal cells, the student will label specified cell features, such as the nucleus, vacuole, cytoplasm, and cell membrane, and identify their functions. For example, the student will identify the cell membrane as that part of an animal cell which maintains the shape of the cell.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code D-2

Describe the functions and relationships among various human body systems.

The student will know the nomenclature and functions of the various body systems, as well as their interrelationships. For example, the student will recognize that the nervous system functions as a means of sending and receiving messages within the body and that a significant function of the respiratory system is to provide a place for oxygen to enter the blood.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code D-6

Describe the various methods for obtaining static charges.

Using illustrations or descriptions of experiments, the student will answer questions about the generation and effects of static electricity. For instance, given a line drawing of an electroscope exposed to a negatively charged rod, the student will account for the phenomenon of gold leaves separating.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code D-7

Describe examples of heat transfer by conduction, convection and radiation.

Given illustrations or descriptions of common heat transfers, such as sunlight reaching the interior of a house or a pan warming in a stove, the student will identify the type of transfer as conduction, convection, or radiation and demonstrate an understanding of what type by answering questions. For example, the student will know that radiation is the only heat transfer possible in a vacuum.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code D-11

Identify the number of protons, neutrons and electrons of a common element using the periodic table and atomic mass number.

The student will be able to use the concepts of the periodic table, abbreviations for elements accompanied by atomic weight and number, or a diagram of an atom. For instance, given a selection of the periodic table containing the element lithium, the student will identify its atomic weight and number, and shown a diagram of an atom, the student will surmise its degree of stability.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code E-2

Infer the environmental effects of pollution.

The student will ascertain the probable effects of common types of pollution. For example, students will predict the effects of acid rain on pH levels in the lakes of Canada and the eastern United States.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code F-2

Predict the weather for a short period of time from given data.

Given a weather data such as temperature, humidity, barometric pressure, wind speed, or type of cloud cover, the student will predict the weather. The student will also identify a specific condition required for a given type of weather and answer questions about basic meteorological terms and other conventions, including weather maps. For example, the student will recognize that a drop in barometric pressure often signals cloudy, wet weather.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code G-2

Identify the variables that affect the period of a pendulum, and tell how the period is affected by these variables.

Given an illustration or description that presents information about a pendulum, the student will determine the effects of such variables as length and bob mass, and answer questions about relevant terms, including period, frequency, and amplitude. For example, the student will identify friction as the cause of a simple pendulum's gradual slowing and eventual stop.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level VIII

Code J-3

Identify problems caused by overpopulation and develop possible solutions.

Given a description or illustration of overpopulation among animals or human beings, the student will identify the resultant problems, including such effects as pollution, the depletion of natural resources, and the creation of endangered species. The student will identify solutions to overpopulation. For example, the student will recognize that a constant population of predators prevents the population of prey from becoming too large in a balanced ecosystem.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code A-1

Locate the following places in the United States on maps, and describe how their locations relate to each other:

- The 50 states
- Rocky Mountains, Appalachian Mountains, Sierra Nevada Mountains, Cascade Range, Ozark Highlands
- The Great Plains
- Columbia, Colorado, Rio Grande, Missouri, Mississippi, Ohio and St. Lawrence Rivers
- Pacific, Mountain, Central and Eastern time zones
- Great Lakes
- Washington, D.C., New York City, Boston, Atlanta, Chicago, St. Louis, Kansas City, Salt Lake City, Denver, Los Angeles, San Francisco, Seattle, New Orleans, Dallas, Detroit

Given an uncluttered map of the United States, the student will locate any of the specific places cited in the key skill. The student will also answer questions about how those geographical and political features relate to each other. For example, the student will identify the state that is east of the Mississippi River, or the city that is located on the Atlantic coast.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code A-2

Locate the following places of the world on maps and globes, and describe how their locations relate to each other:

- Europe, Asia, Australia, Africa, North America, South America, Antarctica
- Amazon and Nile Rivers
- Pacific, Atlantic, Indian and Arctic Oceans
- Mediterranean Sea, Gulf of Mexico, Caribbean Sea
- Himalayas, Alps, Andes and Sierra Madre Mountain Ranges
- Canada, Mexico, Argentina, Brazil, Chile, Cuba and Panama; Great Britain, Ireland, France, Italy, Germany (East and West) and the Soviet Union; China, India and Japan; Egypt, South Africa and Nigeria
- The Middle East and Central America
- Tropical, temperate and arctic regions

Given an uncluttered map of the world or of some part of the world, the student will locate any of the specific places cited in the key skill. The student will also answer questions about how those geographical and political features relate to each other. For example, the student will identify a country located in Europe, or a country in a tropical region.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code B-1

Predict consequences of given changes in a community's, city's or region's population, organization and living patterns, environment, or technology. (Examples for this learner outcome at this level are taken from pre-Twentieth Century U.S. history and the present.)

The student will identify likely consequences of given technological, environmental, and demographic changes on people living in particular places in the United States. For example, items might ask students to predict consequences of railroads coming to a nineteenth century farm community, of Plains Indians acquiring horses, and of the discovery of toxic wastes in the water supply of a city.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code D-3

Use particular maps to:

- Determine the type of information that may be obtained from them.
- Find specific places for which latitudes and longitudes have been stated.
- Describe how given places relate to each other (proximity, direction, similarity of features, etc.).
- Determine distances using the scale.
- Identify distortions.

Given any of a variety of map formats, such as Mercator projections, highway maps, political maps, and topographical maps, the student will find specific places, describe how places relate to each other, determine distances using scales, and identify distortions.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code E-1

Describe or identify major causes, major consequences and sequences of major historical events and developments in early American history.

- Early exploration
- Early European settlement
- Conflict for control of North America by European colonial power
- American Revolution
- Constitution and Bill of Rights

The student will demonstrate a knowledge of the sequence, major causes and major consequences of the five historical events and developments cited in the key skill. For instance, the student will identify a major cause of the American Revolution, a major consequence of the drafting of the U.S. Constitution, or one or more major reasons for European settlement of North America. Students will also identify how some of the historical events listed in the key skill relate to each other sequentially. For example, the student will know which three events are in proper sequence, which event of those listed occurred last, or which event of those listed occurred before another given event.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code E-2

Describe or identify major causes, major consequences and sequences of major historical events and developments in 19th Century U.S. history.

- Territorial expansion
- Monroe Doctrine
- Jacksonian Democracy
- Relationship with native Americans
- Sectionalism/Civil War/Reconstruction
- Immigration
- Industrial Revolution

The student will demonstrate a knowledge of major causes, major consequences, and the sequence of the specific developments and events listed in the key skill. For example, students will identify major causes or consequences of the expansion to the western parts of the United States. Students will also identify statements which indicate the chronological order of two or more events listed in the key skill.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code G-1

Identify democratic ways of selecting leaders and making decisions.

Given examples of ways to select leaders or make decisions in organizations as various as nations and school clubs, the student will identify procedures that are democratic.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code G-3

Identify the primary democratic values implicit in the U.S. Constitution (freedom, justice, equality, general welfare, etc.) and rules of laws that promote and protect those values.

Given a description of a particular law or rule, the student will identify which democratic value of those listed is supported by that law or rule, or given a particular democratic value, the student will identify which law, rule, or practice of those listed helps carry out the value. For example, the student might be asked to identify which school rule of those listed promotes equality of opportunity.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code H-1

Apply knowledge of U.S. and Missouri law making procedures to predict next steps for bills in given cases. Identify reasons for and consequences of those procedures.

Given a description of a bill being introduced or at some specified point in the legislative process, the student will identify the next step the bill must take if it is to become law. For example, if a bill is introduced in the Senate of the U.S., the next step might be that it goes to an appropriate committee or that it is passed by majority vote in the Senate; or if a bill is passed in two different forms by House and Senate, it goes to a conference committee.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code H-3

Match major government offices with their respective branches and levels of government; identify major powers and responsibilities of those offices.

The student will identify: which branch of government makes, enforces, or interprets laws; names of major offices and institutions associated with the branches of government at different levels; and powers and responsibilities of major government offices and agencies. Terms used in questions might include: president, governor, mayor, chief executive officer, and cabinet; congress, legislature, general assembly, and city council; supreme court and court system; and executive, legislative, and judicial branches of government.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code I-1

State meanings of basic rights and liberties listed in the Constitution.

Given a quotation from the United States Constitution, its Bill of Rights, or another amendment that specifies a right of citizens, the student will identify which statement correctly expresses the quotation's or right's meaning. For example, the part of Amendment I may be quoted that deals with freedom of speech, and followed by the question, "What does this quotation mean?" The student will then select the correct meaning.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code J-2

Describe ways citizens may influence the government; evaluate strategies used in given cases according to their lawfulness and effectiveness.

Given a list of options available to individuals or groups wishing to influence the government, the student will identify courses of action that are legal and likely to be effective. In addition, the student will identify examples of strategies of citizen influence on government, such as lobbying, petitioning, and picketing.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code K-1

Identify democratic values or rights underlying arguments on both sides in given political issues.

Given a description of a political dispute in a local community and the positions of people on opposing sides, the student will identify which democratic values support each side in the dispute. In a particular zoning controversy, for example, the student will indicate that property rights may be used to support the homeowner's side in the dispute and that the community's general welfare might be used to support the other side in the dispute.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code M-2

Use a rational decision-making process when making or analyzing major economic decisions made by individuals. The process includes: (a) defining the problem with identification of goals in conflict; (b) listing alternatives; (c) stating and rating criteria; (d) evaluating alternatives; and (e) making a decision with awareness of the trade-offs and opportunity costs involved.

Given descriptions of economic decision situations that concern individuals or families, the student will identify rational ways of making the decisions, identify questions the decision makers should consider before making their decision, or identify probable consequences of decisions being contemplated. Examples of economic decision situations include a person borrowing money to buy a new car or a person saving money to make a major purchase in the future.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code N-1

Predict likely consequences for an industry or nation when changes occur in one or more of the following: natural resources, human resources, capital resources, technology, specialization, productivity or investment.

Given a description of a specific change in any of the factors listed in the key skill, the student will predict consequences for the industry or nation involved. For example, the student will indicate that, barring other changes, a significant increase in the lumber supply in the United States would probably lower the cost of building homes or that a factory that switches from human labor to robots will create the need for workers to seek new jobs.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code P-1

Explain factors causing changes in the supply or demand for goods and services and consequences resulting from those changes.

The student will identify causes of shifts in the supply or demand for given goods or services, predict consequences of shifts in the supply or demand for given goods or services, and identify rational pricing decisions for given businesses wanting either to clear their supply of given goods or to increase their revenues. Items will present brief descriptions, and students will need to use supply-demand principles in answering the questions. For example, an item might describe a professional baseball team that starts winning many games, and thus, gaining more fans. The likely result would be an increase in the demand for baseball caps in the city of that team, and an increase in the price for the caps.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code Q-1

Identify factors contributing to growth or decline in the total output of goods and services of an industry, region or nation; identify consequences of such growth or decline.

Given a description of an economic-growth or economic-decline situation for an industry, a region, or a nation, the student will identify probable consequences of the growth or decline for wages or employment; or the student will identify one or more factors likely to lead to economic growth or decline for an industry, a region, or a nation. Factors contributing to growth include the availability of productive resources, the availability of funds for investment, a market for goods and services produced, and a stable economic/political environment.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level VIII

Code V-1

Use effective, appropriate methods to research a topic: library research, interviews, examination of artifacts, controlled experiments, etc.

The student will identify appropriate sources of information for investigating given social studies topics. The topics could relate to any of the content in the key skills or to other investigations teachers may ask of junior-high-level students. For example, students will identify which sources would be useful in learning how slaves felt about slavery, which source would give the most useful information on a given current events topic, or which method of inquiry would best help a student ascertain how students in school feel about a given issue.

Grade 10 (Level X)

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code B-1

Use context and/or dictionary to determine meanings of vocabulary in content areas and literature.

Given a passage that contains a word ordinarily beyond a tenth grader's vocabulary, the student will ascertain the meaning of the word from its context. The student will use a dictionary entry to determine the particular sense of a specified word in a passage.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code B-2

Predict and confirm meanings of new words.

Given a passage in which context defines a word that ordinarily would not be a part of a tenth grader's vocabulary, the student will identify a definition, synonym, or antonym for the specified word.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code B-3

Explain and use meanings of Greek and Latin prefixes and suffixes as clues to word meaning.

Given a passage that contains a word with a Greek or Latin prefix or suffix, the student will identify the meaning of the prefix or suffix and thereby arrive at a definition of the entire word.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-1

State the theme of short story or novel, taking into account resolution of conflict, mood and setting.

Given a passage from a novel, a play, a narrative poem, a short story, a folktale or myth, the student will identify the setting, the conflict and its resolution, the mood, the author's apparent attitude toward the material, and the central theme.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-2

Identify the author's thesis, bias, and purpose; explain how these influence the selection.

Given a passage, such as a poem or excerpt from a novel or essay, the student will ascertain the writer's purpose, thesis, or attitude toward the subject. For example, given an appropriate description of two characters, the student will identify the one that presents a viewpoint closest to the author's outlook.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-4

Identify and explain cause-effect relationships.

Given a passage that clearly presents a cause-effect relationship, the student will identify a specified cause or effect. For example, when asked to identify one result of a particular Civil War policy, the student will extrapolate the answer from the passage without relying on previous knowledge.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-5

Identify and describe attributes of characters in a short story, novel or drama.

The student will be given an excerpt from a short story, novel, or play in which a character is described in some detail--at least two or three lines. The student will identify specified attributes of the character, such as physical appearance, strengths or weaknesses, attitudes toward other characters, social class, or economic standing. For example, given a passage in which one character is noticeably brighter and more ambitious than the others, the student will identify the character who seems best equipped to attend college.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-6

Identify the main idea and supporting details.

The student will be given a passage that develops a main idea supported by several relevant details, such as statistics, quotations, or extended examples. The student will distinguish the main idea from supporting statements, recognize a detail that does not develop the main argument, or identify a statement that best supports the main idea.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-7

Detect plotting structures (flashback, foreshadowing, etc.).

Given a passage, the student will identify various elements of plot, such as exposition, rising action, climax, falling action, denouement (resolution), conflict, suspense, irony, or foreshadowing. For example, the student will determine whether the conflict in a passage involves a struggle between characters or a struggle between man and nature.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-8

Use text to predict future events and outcomes.

Given a passage, such as an excerpt from a magazine article, short story, or novel, the student will rely on information in the text to identify the probable outcome of events. For example, given a passage describing the reasons for a decline in college enrollment, the student will predict whether the trend will continue.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-9

Identify underlying assumptions of a passage by drawing valid conclusions.

Given a prose passage, such as an excerpt from a short story or novel in which a character's actions, statements, surroundings, or appearance will implicitly or explicitly lead to conclusions about the character's beliefs, attitudes, propensities, social status, or economic standing, the student will draw appropriate conclusions or identify details that lead to a specified conclusion.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-10

Differentiate among prose, poetic and dramatic forms.

Given an excerpt from an expository essay, poem, novel or play, the student will identify the genre. Given the titles of famous works the student will also specify the genre.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-11

Cite examples of and explain satire, irony, puns and figures of speech.

The student will be given a passage from prose or poetry which contains one or more of the following rhetorical techniques or figures of speech: satire, irony, puns, personification, similes, metaphors, hyperbole, understatement, allusion, onomatopoeia, and alliteration. The student will identify the rhetorical device or figure of speech and select a literal rendering of it.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-13

Evaluate the effectiveness of examples and illustrations in contributing to meaning.

Given a unified and restricted passage that uses examples to support a main idea, the student will determine which examples substantiate the main idea, examples that do not support the main idea, or examples and details that provide specified information.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code C-14

Make inferences, predict outcomes, form generalizations and conclusions and support with facts.

Given a passage that contains information leading to an unstated conclusion, the student will make inferences, predict outcomes, and form generalizations and conclusions based on the information in the passage. For example, given a first-person narration in which a mother describes her relationship with her two daughters, the student will infer which daughter has the closest relationship to the mother.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-1

Select and use appropriate reference sources for a given task: almanac, atlas, subject index to literature, Reader's Guide, specialized dictionaries and directories.

The student will select and use appropriate reference sources to obtain information on specified topics. The student will choose the best source from several possible references, such as the Reader's Guide to Periodicals, a library card catalog, a specialized dictionary, an atlas, or an almanac. Given the name of a reference, the student will identify the kind of information the source is likely to provide. The student will also use the apparatus of these sources, such as indexes, tables of contents, and dictionary guide words, and exhibit a familiarity with terms for common references. For example, the student will recognize thesaurus as the term for a dictionary of synonyms.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-2

Use graphic sources for information: tables, charts, schedules, graphs, diagrams, time lines and maps.

Given a graphic aid such as a map, time line, or diagram, the student will interpret and apply the information. For example, the student will locate specified countries with a map, predict rates of inflation using a table, or specify dates of an historic event on a time line.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-3

Use various kinds of print and nonprint sources for specialized information: catalogs, videotapes, films, recordings, computer software, interviews, newspapers, textbooks and trade books.

Given a question or hypothetical assignment, the student will identify a source, such as a catalog, videotape, recording, or textbook, that is appropriate for a specified topic. For example, given a hypothetical assignment to write a paper on a recent South American earthquake, the student will indicate that a travel brochure on South America would not be a good source of information. The student will also demonstrate an ability to use the apparatus of such sources, including index and table of contents.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-4

Organize information for personal use (notes, outlines, etc.).

Given a specific subject and several outlines of sets of notes that are related to the topic, the student will identify the outline or set of notes that would be most helpful in addressing a specified audience for a particular purpose. For example, the student will know that a recruitment speech for the eighth graders about the school's art club should focus on current goals and activities of the club, not on the average height of members, the history of great art, or the club's agenda for the last twenty years.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-8

Check sources by comparing information from more than one source and assessing validity (copyright date, author's qualifications, etc.).

Given excerpts from several sources, such as newspaper articles, memoirs, or textbooks, that address the same topic and include information such as the copyright date, title, and author, the student will identify the most valid or unbiased source for a specified topic according to timeliness, appropriateness, reliability, and related criteria. Given a description of a specific source, the student will identify its limitations.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code D-9

Follow written multistep directions.

Given directions for an activity, such as potting a plant, setting up an aquarium, or preparing a meal, the student will demonstrate an ability to follow directions in the proper order.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code E-1

Interpret various kinds of business correspondence.

Given a sample of business writing, such as a letter, advertisement, bill, or application, the student will interpret the material presented. For example, given a statement of the guarantee for a household appliance, the student will answer questions about the terms described there.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Reading

Level X

Code E-2

Interpret and use occupational and career information: job listings, applications forms, salary schedules and benefits, paycheck stubs.

Given a sample of occupational and career information, such as a job listing, application form, salary and benefit schedule, or paycheck stub, the student will respond to questions about the material presented, including details such as the responsibilities that a specific job entails, the qualifications of a potential employee, or the rate of pay for a certain job. The student will infer information that is not explicitly stated. For example, given a prospective employee's age, the student will determine approximately when that person graduated from high school.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-2

Construct paragraphs using appropriate patterns: topic sentences, illustrations, facts and figures, quotes, examples, comparisons and contrasts or definitions.

Given drafts of paragraphs typical of those done by tenth graders, the student will select the best of the four, and tell why it is best. The student could also be given a draft of a paragraph with suggestions for revision and asked to choose the revision that incorporates a specific suggestion.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-3

Revise sentences within paragraphs using the techniques of revision: add, delete, substitute, combine and rearrange.

Given a passage, the student will identify sentences that need to be revised by adding, deleting, substituting, combining or rearranging. The student could also be given revisions and asked to select the one that is most precise, vivid or coherent.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-5

Edit writing for correct spelling, complete sentences, variety of sentence structure and usage.

Given a passage, the student will identify and correct misspellings, usage errors, incomplete sentences, run-on sentences, excessive passive voice, and a lack of sentence variety.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-6

Edit capitalization guided by convention: lower case or capital letters consistent throughout writing (TV-tv, A.M.-a.m.); capitalization as rhetorical device for layout or effect; lower case for types or kinds (zinnia, king cobra); and lower case for terms that have become generic (coke, kleenex).

Given a passage typical of a tenth-grade first-draft paper, the student will identify and correct errors in capitalization. The student will be aware of rules for capitalizing proper nouns, titles and the first word in a sentence and have a knowledge of nuances such as consistency within a given piece for optional capitalization, the use of capitalization as a rhetorical device for layout or effect, lower case for types or kinds, and lower case for brand names that have become generic.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-7

Edit punctuation: title within a title; titles with subtitles; dashes, colons, semicolons, ellipses, parentheses; quotations from poetry; incorporation of long and short quotes.

Given a passage typical of tenth-grade writing, the student will identify and correct faulty punctuation, including errors in the use of dashes, colons, semicolons, ellipses, parentheses, quotation marks, and end punctuation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Writing

Level X

Code G-9

Edit writing for apposition, parallelism and smooth transitions.

Given several simple sentences and various combinations of them, the student will recognize coordination, subordination, parallel construction, smooth transition, apposition, and similar elements used to form clear, coherent, graceful prose.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code A-1

Use associative, commutative and distributive properties to simplify computational problems and algebraic expressions.

Given computational problems or algebraic expressions, the student will use associative, commutative, and distributive properties to simplify the problems or expressions and determine which ones are equivalent. The student will rely on an understanding and application of the properties rather than computational skills.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code B-1

Compute using scientific notation.

Given a multiplication or division problem that involves numbers in scientific notations, some of which may be decimals, the student will compute the answer. The absolute value of the exponents will be less than nine on operands and results.

MISSOURI MASTERY AND ACHIEVEMENT TEST

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code B-2

Evaluate algebraic expressions given values for the variables.

Given an algebraic expression and the values of the variables in that expression, the student will substitute the values and evaluate the expression. Problems will involve any two of the four operations, and will include no more than three variables.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code B-3

Solve two-step linear equations involving rational numbers.

Given a two-step linear equation involving rational numbers, the student will solve the equation. Equations will vary in form, and coefficients will have an absolute value less than or equal to twelve.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code B-4

Solve problems requiring the manipulation of formulas. Example: Solve P = 2L+2W for L, given values for P and W.

Given a commonly-used formula for which the values of all but one variable are provided, the student will manipulate the formula to solve for the unknown variable. Problems will involve no more than two steps, a positive variable with a power less than two, and a positive coefficient.

MISSOURI MASTERY AND ACHIEVEMENT TEST

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code C-5

Judge reasonableness of solutions in consumer, geometric and physical situations.

Given a word problem involving a common consumer transaction, or calculation of unknown dimensions, areas, and volumes of objects or geometric figures, the student will select the most reasonable estimate.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code D-1

Find the volume of a cylinder and a rectangular prism when formulas are not supplied.

Given an approximate value of pi and a cylinder with a known diameter and height or a rectangular prism with sides of a specified length, the student will calculate the volume of the figure.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code D-2

Compute the area and perimeter of irregularly shaped figures which can be broken into regions for which known formulas can be applied.

Given a description or illustration of an irregularly shaped figure that can be broken into simpler figures, such as circles, squares, and triangles, and the necessary dimensions, the student will recall appropriate formulas for calculating the areas of the individual regions and then determine the total area of the irregular figure.

MISSOURI MASTERY AND ACHIEVEMENT TEST

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code D-3

Solve problems requiring the application of the Pythagorean theorem.

Given a triangle and all but one of the dimensions employed in the Pythagorean theorem, the student will recall the formula and calculate the unknown dimension. For example, given the lengths of two sides, the student will calculate the hypotenuse. Such problems may involve triangles within more complex geometrical figures or practical applications, such as calculating the length of a stairway.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code E-1

Recognize properties of angles related to parallel and perpendicular lines.

Given a diagram of intersecting lines and sufficient information about the lines and angles depicted, the student will answer questions about matters such as which lines are parallel and perpendicular, which angles are congruent, supplementary, and complementary, or which angles are acute, obtuse, right, or have a specified measure.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code E-2

Calculate the third angle of a triangle given the measures of the other two.

Given the measures of two angles in a triangle or the measure of one angle of an isosceles triangle, the student will calculate the measure of the other angle or angles.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code E-3

Plot the graph of a linear equation in the Cartesian plane.

Given a linear equation with rational coefficients and several different line graphs, the student will identify the graph that represents the specified equations. The equation will be stated in the form y=mx+b or ax+bg=c, and the absolute value of the slope will be less than or equal to four.

MISSOURI MASTERY AND ACHIEVEMENT TEST

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code E-4

Determine the slope of a line from its graph.

Given a straight line in a Cartesian plane, the student will determine its slope. The intersection of graph and grid points will be distinct; slope points will be less than or equal to four; and y- intercepts will be integral.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code E-6

Set up and solve proportions related to similar geometric figures.

Given two similar geometric figures and corresponding dimensions from each figure, the student will calculate an unknown dimension.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code F-1

Compute the mean, median, mode and range of a set of data.

The student will calculate the mean, median, mode, or range for specified data. For example, with a list of the daily high temperatures for the first week in January, the student will calculate the mean high temperature. Items in the list will be randomly arranged integers or decimals to the nearest tenth, and will not exceed fifteen.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code F-2

State the probability of an event occurring based on given statistical data and on student-generated statistical data.

Given a word problem with the necessary data for calculating the probability of an event, the student will identify the correct probability. For example, given that a multiple choice test has four possible answers, the probability that a student will randomly identify the correct answer is 1/4. Statistical data will be given in chart form when possible, and will be drawn from realistic situations, gaming situations excluded.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATION

Subject Math

Level X

Code F-3

Given a narrative describing an inference drawn from statistical data, identify limitations to the inference.

Given statistical data in the form of a chart, graph, or advertisement, and a conclusion drawn from specified data, the student will respond to the validity of the inference drawn.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code G-1

State logical conclusions from given premises and definitions.

Given a problem in deductive logic, perhaps a word problem involving a standard syllogism, the student will identify valid or invalid conclusions. For example, given that all wrestlers are athletes and that John is an athlete, the student will recognize that it would not be reasonable to conclude that John is necessarily a wrestler.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code G-2

Given a narrative describing a conclusion drawn through logical inference, determine the strength or limitation of the conclusion.

Given a narrative that entails some form of inference, the student will identify limitations and/or flaws in the inference. For example, the student will recognize that a bar graph that plots the enrollment of third-grade students for 1983 and 1985 will not support an inference about the number of students enrolled in 1984.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code G-3

Translate word phrases and sentences into algebraic expressions and equations.

Given a verbal description of a mathematical relationship or algebraic equation, the student will transcribe it into numeric form. For example, the student will recognize that "eight less than twice a number is sixteen" might be written as "2x - 8 = 16."

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code H-2

Solve banking problems related to maintaining a checking account.

Given information associated with a bank account, such as that found on a deposit slip, check, check stub, or bank statement, the student will demonstrate an ability to perform common banking tasks, such as determining the balance of an account or totaling a deposit slip.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code H-3

Compute gross pay using hourly, daily, monthly, commission, piecework and/or overtime rates.

Given a word problem that requires the computation of the gross income of a hypothetical worker, the student will use information about hourly, daily, or monthly wages, and commission, piecework, or overtime rates to calculate a worker's gross daily, weekly, monthly, or annual income.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Math

Level X

Code H-4

Compute the Social Security deduction, determine state and federal taxes from appropriate tables, and calculate net pay, given gross pay.

Given the gross pay of a hypothetical worker and the appropriate rates and schedules, the student will calculate the social security deduction, state and federal taxes, and net pay.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code A-1

Observe the differences between mitotic and meiotic divisions.

The student will respond to questions about how mitosis and meiosis differ, identify the steps of each in the proper sequence, and demonstrate an understanding of the effects and functions of these processes. The student will also put this knowledge of the specific processes into a larger context of such related matters as the distinction between sexual and asexual reproduction, heredity, and cancer.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code B-1

Classify regions of the earth based on their physical and biological characteristics.

Given sufficient verbal or visual information about a region, such as descriptions, illustrations, or maps depicting prevailing winds, oceans, mountain ranges, or typical plant life, the student will designate the region as belonging to one of the seven climatic zones, identify areas of maximum or minimum rainfall and photosynthetic activity, and account for geophysical forces that produce specified physical features, such as valleys and geysers.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code B-2

Classify species associations into the types of symbiosis--commensalism, mutualism and parasitism.

The student will define the three types of symbiosis and identify particular relationships as examples of commensalism, mutualism, or parasitism. For instance, the student will categorize the relationship of remoras to sharks and that of sea anemones to certain reef crabs.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code B-4

Classify precipitation into its various forms and indicate the origin process for each form.

Employing a knowledge of precipitation, the student will demonstrate an understanding of related terms and concepts, including details about kinds of precipitation, atmospheric levels, and cloud types. For example, the student will recognize that all precipitation forms around condensation nuclei and predict what form of precipitation will result under given conditions.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code B-10

Compare and contrast nuclear fusion and nuclear fission reactions.

The student will demonstrate an understanding of fission and fusion. For example, given a description of the neutron bombardment of a uranium 235 atom, the student will identify the process as either fusion or fission and answer questions about energy production, by-products, and emissions. Given a list of characteristics of fusion and fission reactions, the student will identify which characteristics are associated with one or the other.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code C-4

Calculate the kilowatt hours of electricity used by an appliance.

Given the power rating of an appliance and the length of time it is operated, the student will calculate the kilowatt hours used. The student will also calculate the power rating of the appliance from kilowatt hours and duration of use.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code C-5

Record measurements using appropriate scientific notation.

Given a diagram of a measuring device commonly used in scientific procedures, such as a ruler or graduated cylinder, and an illustration of an object or material to be measured, the student will make the measurement in either metric or traditional units. For example, the student will measure the amount of liquid in a graduated cylinder as depicted in an illustration, taking the reading from the proper point on the meniscus. The student will also be able to convert standard to scientific notation and perform the converse operation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code C-7

Measure and plot the growth rate of a biological organism.

The student will measure the growth of an organism, and graph the change in an appropriate form.

The student will interpret conventional graphs representing the growth of an organism or population, identify the developmental sequences characteristic of common organisms, and analyze variables and results of experiments dealing with the growth rates of plants and animals. For example, the student will recognize that an increase in cell numbers rather than a change in cell size accounts for a child's growth.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code D-3

Diagram and describe basic elemental cycles (C, N, Ca, P) and relate them to food webs.

The student will diagram basic elemental cycles, including those of carbon, nitrogen, calcium and phosphorus.

Given a description or illustration of an elemental cycle, such as those of carbon, nitrogen, calcium, and phosphorus, the student will identify the element involved, the steps of the cycle, and the relationship of the cycle to common food webs. For example, the student will recognize that coal and oil are examples of fossil fuels produced from the carbon-containing compounds of living organisms.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code D-6

Identify, diagram and describe the associated vertical and horizontal wind movements in different atmospheric pressure systems.

The student will diagram the vertical and horizontal wind movements associated with different atmospheric pressure systems in both hemispheres.

The student will demonstrate a knowledge of vertical and horizontal wind movements and their relationships to pressure systems. Given a description or illustration of a wind pattern, perhaps in the form of a meteorological map, the student will rely on an understanding of pressure systems and the Coriolis effect to identify areas of high and low pressure. The student will also predict wind patterns using meteorological maps, identify storms and related phenomena associated with specified wind patterns, and respond to questions about the interaction of wind and pressure systems. For instance, the student will recognize a diagram of the wind patterns of a low pressure system in the northern hemisphere or identify the distinguishing characteristics of a hurricane.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code D-8

Diagram the four types of weather fronts and describe typical weather associated with each.

The student will diagram the four types of weather fronts on maps, using standard symbols so that the fronts are clearly recognizable as cold, warm, stationary, or occluded.

Given a meteorological map portraying weather fronts, the student will predict likely weather phenomena along the fronts and the outcome if specified fronts were to meet. The student will also describe wind movement, cloud types, and other phenomena related to the actions of the four fronts.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code D-14

Explain in terms of kinetic theory several examples of the different states and changes of matter.

The student will demonstrate a knowledge of the relationship between states of matter and kinetic energy. For example, the student will recognize plateaus in graphs illustrating temperatures of heated substances as melting and boiling points, predict the relative density and kinetic energy of substances at different temperatures and in different states, and determine the relative times that liquids of different boiling points would take to evaporate.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code D-15

Identify the relationship among volume, pressure and temperature of a gas.

The student will demonstrate an understanding of the relationship between the volume, pressure, and temperature of a gas as described by Ideal Gas and Charles' Laws. The student will infer causes and predict results when given scenarios involving changes in gas temperature, volume and pressure, and respond to questions about the effects of changes in these variables. For example, the student will select a graph which best illustrates how the pressure of a gas changes as its volume decreases.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code E-4

Infer the original form of types of energy (chemical, mechanical, heat or light) using descriptions of energy transformations.

Given descriptions of common energy transformations, the student will identify the forms of energy involved, including chemical, mechanical, thermal, and light energy. For instance, the student will identify the forms of energy involved in photosyntheses, the formation of fossil fuels, the operation of a solar heating unit, and the functioning of an internal combustion engine.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code F-2

Predict the direction and rate of water flow in two different concentrations of a solute separated by a semipermeable membrane.

Given descriptions or illustrations of varying concentrations of solutes separated by a semipermeable membrane, perhaps that of a cell, the student will predict the direction and rate of water flow, the concentrations when the system reaches equilibrium, and the probable change in the size of a cell. The student will also answer related questions about osmosis, such as an inquiry about its role in plant life.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code F-5

Predict future energy needs from data given on past U.S. energy consumption.

The student will interpret, analyze and compare verbal and graphic information about energy production and use, including information in the form of graphs, tables, and charts. The student will identify trends in this data and make valid predictions about future energy production and needs. For example, given a graph illustrating U.S. energy consumption from 1875 to 1975, the student will identify the principle energy source for a particular year.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code G-1

Design/identify an experiment which tests the effects of systematically altering variables.

The student will design an experiment which isolates and systematically alters variables relevant to the process under scrutiny.

Given information about the design of an experiment, the student will identify weaknesses in the design of the experiment, recognize changes in design that would better isolate a certain variable, judge the validity of a specified hypothesis, and select a design that would best test a particular hypothesis.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code H-2

Hypothesize the potential changes in vegetation in a selected location as a function of change in climatic conditions.

The student will make reasonable predictions about the relationship between geophysical features, climate, and various forms of life. The student will also evaluate the designs, hypotheses and results of experiments involving vegetation under controlled climatic conditions and respond to questions about the relationship of climatic factors to plant life. For example, given a diagram depicting the range of geophysical features encountered as one moves inland from the ocean, up a mountain, and back down onto a plain, the student will predict which area would probably have the greatest rainfall and most abundant vegetation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code J-1

Evaluate the conditions presented in case situations involving the disposal, management and storage of toxic chemicals and nuclear wastes.

The student will trace the results of specified types of pollution, evaluate the significance of these effects, analyze potential solutions for problems involving pollution and toxic waste, and demonstrate an understanding of related terms and concepts. For example, the student will identify the three steps necessary for the proper handling of radioactive wastes and select an appropriate action for a school board which just learned that poisonous chemicals are leaking into the soil of the school playground.

TEST CONTENT SPECIFICATIONS

Subject Science

Level X

Code J-4

Relate the importance of earth's ocean environment to the future of mankind and the quality of life.

The student will identify significant considerations and problems arising from human use of the oceans, analyze information about marine life and resources, and demonstrate a knowledge of the oceans' role in the global ecosystem. For instance, the student will identify potential methods for generating electricity with oceanic resources and recognize the significance of plankton to marine food webs.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code A-1

Locate the following places in the United States on maps, and describe how their locations relate to each other:

- The 50 states
- Rocky Mountains, Appalachian Mountains, Sierra Madre Mountains, Cascade Range, Ozark Highlands
- The Great Plains
- St. Lawrence, Columbia, Colorado, Rio Grande, Missouri, Ohio, Mississippi and Tennessee Rivers
- Lake Michigan, Lake Huron, Lake Superior, Lake Ontario, Lake Erie, Great Salt Lake
- Washington, D.C., New York City, Boston, Atlanta, Chicago, St. Louis, Kansas City, Denver, Los Angeles, San Francisco, Seattle, New Orleans, Houston, Detroit, Honolulu (Pearl Harbor), Miami and Anchorage

Given a map of the United States that illustrates physical and political features, the student will locate any of the places listed in the key skill. The student will also answer questions about the relative locations of those geographical and political features. For example the student will identify the state north of St. Louis, or the city nearest the Rocky Mountains.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code A-2

Locate the following places of the world on maps, and describe how their locations relate to each other:

- Europe, Asia, Australia, Africa, North America and South America
- Pacific, Atlantic, Indian and Arctic Oceans; Caribbean, Mediterranean, Bering, Black, Baltic and Red Seas; Sea of Japan; Gulf of Mexico and Persian Gulf
- Amazon, Nile, St. Lawrence, Danube, Rhine, Volga, Ganges, Zaire (Congo) and Hwang Rivers; Tigris-Euphrates River System
- Himalayas, Alps, Andes, Sierra Nevada and Rocky Mountains
- Desert regions in North Africa, the Arabian peninsula and Australia
- Canada, Mexico, Panama, Argentina, Brazil and Cuba; Great Britain, Ireland, France, Spain, Italy, Switzerland, Germany (East and West), Holland, Austria, Poland, Greece, Norway and the Soviet Union; China, India, Indonesia, Japan, Bangladesh, Pakistan, Korea (North and South), Vietnam and Iran; Israel, Egypt, Saudi Arabia, Nigeria, Zaire and South Africa
- Mexico City, Sao Paulo, Rio de Janeiro and Montreal, London, Paris, Rome, Berlin, Warsaw, Athens and Moscow; Beijing, Hong Kong, Tokoyo, Jerusalem and Mecca; Cairo, Nairobi and Johannesburg.
- Central America, the Middle East and Scandinavia

Given an uncluttered map of the world or of some part of the world, the student will locate any of the specific places listed in the key skill. The student will also answer questions about how those geographical and political features relate to each other. For example, the student will identify a country in Africa, or a river in Brazil.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code B-1

Predict consequences of given changes in a community's, city's or nation's population, organization and living patterns, environment, or technology.

The student will identify probable consequences of given technological, environmental, demographic, or organizational changes. For example, the student will be able to identify: a major consequence of the British enclosure laws, which would be described briefly in the test item; a major consequence of the construction of the U.S. interstate highway system; or a major consequence of a large factory closing in a small city.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code C-1

Predict or describe cause-effect relationships between decisions by individuals or governments and spatial distributions or spatial interactions.

Given a description of a change or a planned change related to a spatial distribution or a spatial interaction, the student will identify a probable consequence of the change. For example, students might be told that there soon will be a new highway between two cities, and they would be asked to identify a probable consequence. The terms "spatial distribution" or "spatial interaction," defined in the footnotes that accompany the key skill, will not themselves be used in the test items.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code D-3

Evaluate conclusions drawn from a variety of given maps.

Given any of a variety of maps (topographic, highway, political, historical, current events, mineral resource, etc.), the student will interpret information presented and identify valid conclusions. For example, given a topographical map of a region with routes between places, the student will select the quickest, most convenient route between two places.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code E-2

Identify major causes of major historical events and developments related to the following topics from modern U.S. and world history:

- New ideas (Renaissance, Reformation, enlightenment, nationalism, science)
- Expansion of Western influence to the Americas, Asia and Africa
- Major political revolutions (American, French, Russian, Chinese)
- Industrial revolutions (Britain, United States, Europe, Japan)
- Major population migrations, especially those to the United States
- Struggles in the United States for extension of democratic ideals (Jacksonian democracy, Abolitionism, Radical Republicanism following the Civil War, Progressive Era, Women's Suffrage, New Deal, Civil Rights Movement)
- Totalitarian Systems (1930s, 1940s)
- Major wars (Napoleonic, U.S. Civil War, World War I, World War II, Korean War, Vietnam War)
- Post-World War II realignment of world powers; changes in World War II's losers, Germany and Japan; the creation of new nations from European empires; the Cold War

The student will identify major causes of the events and developments listed in the key skill. For example, the student will indicate that the attack on Pearl Harbor was a major cause of America's involvement in World War II, <u>not</u> in World War I or in the American Civil War.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code E-3

Identify major consequences of major historical events and developments related to the topics from modern U.S. and world history cited in E-2.

The student will identify major consequences of the events and developments listed in the key skill. For example, the student will indicate that the French Revolution contributed to the rise of nationalism in Europe, but that the movement of people from urban to rural areas was not a result of the Industrial Revolution.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code E-4

Identify sequences of major historical events related to the topics from modern U.S. and world history cited in E-2.

The student will identify statements that place major historical events in correct sequence. The events would all relate to items specified in the key skill. Students would be asked which events are listed in proper sequence, which event in a given set of events came first or last, or which event (of those listed) fits between two places on a timeline.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code G-1

Compare principles and institutions of the government of the United States with those of other countries, democratic and nondemocratic, as described or studied in class.

Given specific information about another country's system of government, the student will identify a statement showing how that system of government is similar to (or different from) the United States system of government.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code G-2

Infer and explain basic principles of democratic government quoted from important American documents (the Declaration of Independence, the Constitution, speeches such as the Gettysburg Address and Supreme Court decisions).

Given a brief quotation from an important American political document (the Mayflower Compact, the Declaration of Independence, the Constitution, the Gettysburg Address, a notable Supreme Court decision, etc.), the student will identify which democratic principle is discussed in the quotation or identify a statement that clearly states the meaning of the quotation. For example, after reading a passage from the U.S. Constitution explaining that the Senate must ratify treaties negotiated by the executive branch of government, the student will identify that provision of the Constitution as an example of separation of powers.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code H-2

Identify different ways in which law is made in the United States and Missouri (legislation initiated in legislative bodies, rulings by judges in legal cases, initiatives and referenda), and explain various restraints on the lawmakers (constitution, anticipated checks from other branches, public opinion, limits of time and money, etc.).

Given information about the status of a bill, a law, or a proposed constitutional amendment, the student will identify a statement that correctly explains how that bill, law, or proposed amendment may be passed or altered in the U.S. or Missouri political systems; identify different ways in which legislation may be initiated in the U.S. and Missouri political systems; or identify factors which frequently restrain lawmakers as they engage in legislative activities. For example, the student will recognize that an amendment to the U.S. Constitution must be ratified by three-fourths of the states, that the Chief Justice of the Missouri Supreme Court cannot introduce a bill in the state legislature, and that a legislator would be unlikely to introduce a bill strongly opposed by his constituents.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code H-3

Identify major responsibilities of leading officials in each branch of federal, state and local government.

The student will demonstrate an understanding of the powers, roles, and responsibilities of major officers and branches in local, state and national levels of government. For example, the student will identify: a major responsibility of the U.S. Secretary of State, a branch of state government that resolves disputes in trials, a major power of the U.S. President, and a major responsibility of Congress.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code I-1

Explain or identify the meaning and significance of various rights guaranteed by the Constitution, and cite where in the Constitution those rights may be found.

The student will identify statements that correctly express the meaning and significance of any of the rights found in the U.S. Constitution. (The rights may be found within Article I, Section 9, and in Amendments I through X, XIII, XIV, XV, XIX, XXIV, and XXVI.) Items for this grade level will not call for obscure meanings or for subtle distinctions among the choices. The student will also indicate where in U.S. political documents such rights may be found: namely in the Constitution, its body and amendments, and in Supreme Court interpretations of the Constitution, but not in the Declaration of Independence or in the Preamble to the Constitution.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code J-3

Identify ways in which citizens may participate in government in the United States and Missouri, and evaluate the likely effects of specific efforts to influence public policy in given cases.

Given a set of options available to individuals or groups wishing to influence government action on a specified issue, the student will identify those which are legal and appropriate. For example, the student will recognize that it is impossible to vote U.S. Supreme Court justices out of office in a general election, but that people who are too young to vote may still lobby for a legislative change.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code K-1

Identify constitutional principles underlying arguments on both sides of political issues described or studied.

Given a description of a political issue involving a conflict of constitutional principles, the student will identify which constitutional principles or values support each side in the conflict. For instance, given a situation in which the police arrest a speaker who has antagonized a crowd to the brink of violence, the student will identify the right to free speech and the government's responsibility to protect public order as principles in conflict.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code K-2

Explain how specific constitutional principles have changed over time. (For example, the interstate commerce clause was extended; the equal protection clause was changed from supporting "separate but equal" to require integration, the religious freedom clause has been interpreted to restrict formal prayer in school.)

The student will identify statements that correctly describe how certain constitutional principles have changed through the country's history. The understandings to be assessed are: changes in the application of the Bill of Rights through court interpretation of Amendment XIV; expansion of the right to vote and of federal authority over the right to vote as a result of amendments of the Constitution; changes in property rights in the interest of other rights as a result of the abolition of slavery (Amendment XIII) and expanded interpretations of the interstate commerce clause; expansion of rights of minorities as a result of post-Civil War amendments and court interpretations of Amendment XIV; and changes in court interpretations of "establishment" and "free exercise" of religion (Amendment I) as a result of interpretations of Amendment XIV.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code L-3

Recognize and describe propaganda techniques (including subliminal messages) in political presentations and advertisements.

Given a political cartoon, advertisement, or other message designed to persuade, the student will identify the intent behind the message; demonstrate an understanding of the term "propaganda" by identifying its definition or examples; or identify the strategy being used to persuade people to believe or do certain things in propaganda messages.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code M-3

Use a rational decision-making process when analyzing economic decisions by individuals or the government. This process includes: (a) defining the problem with identification of economic goals in conflict; (b) listing alternatives; (c) stating and rating criteria; (d) evaluating alternatives; and (e) making a decision with awareness of the trade-offs and opportunity costs.

Test items for this objective should assess how well students are able to apply a rational decision-making process when analyzing decisions of individuals or the government. Such a process includes facets (a) through (e) listed in the key skill.

Items describe individuals or government agencies in the process of making an economic decision and then ask students which rational move the individual or agency should take before making the decision.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code O-1

Define and illustrate the concepts of "market economy" and "command economy", and apply those concepts in analyzing mixed economic systems.

The student will identify characteristic practices of a market economy, such as allowing prices to be determined by supply and demand, and characteristic practices of a command economy, such as having prices and production quotas determined by government authorities. The student will identify specified examples of economic activity as characteristic of one system or the other in either pure command or pure market systems or in mixed systems. The terms "command economy" and "market economy" will be used in the items.

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code O-5

Predict the probable effects of government policies related to taxes, expenditures or regulations and of changes in interest rates on households, businesses and workers in given cases.

The student will use cause-effect reasoning when given information pertaining to a change in taxes, government expenditures, government regulations, or interest rates, and will be asked to identify one or more major consequences for households, businesses, or workers. For example, the student will indicate that an increase in interest rates will probably result in families borrowing less and that a reduction of corporate taxes will probably make more money available for capital investment.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code P-4

Predict consequences in given situations where prices are set above or below the market clearing price and where monopolies or oligopolies change supply to affect prices. (For example, what would likely result if automobile companies charge a very high price for automobiles, or if a government sets prices for milk so low that there is excess demand?).

Given a description of a situation in which the government sets the price of a good or service above or below the market clearing price or a situation in which a monopoly or an oligopoly sets prices very high or very low and adjusts supply accordingly, the student will identify likely consequences in terms of quantity supplied, quantity demanded, surpluses, or shortages. (A description of the economic theory related to the key skill may be found in the footnote pertaining to the key skill).

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code Q-1

Predict probable living conditions in a nation when given information about two or more of these factors: Gross National Product (GNP), level of unemployment, level of prices, and size of population.

The student will demonstrate an understanding of the relationship that the Gross National Product, rate of unemployment, level of prices, and size of population have to a national standard of living. For example, the student will predict that a nation with a rising GNP and a stable population would probably have a higher standard of living than a nation with a stable GNP and a rising population.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code Q-2

Identify conditions that explain why some countries have much higher levels of economic output (GNP per capita) than others.

The student will apply knowledge of factors that determine levels of economic output to make predictions regarding future economic output in nations described in the items. The descriptions of the nations will focus on factors that determine economic output, such as: communication and transportation networks; access to human, natural, and capital resources; government policies that influence investment, production, demand, and trade; and cultural values pertaining to work, delay of gratification and property. Some items for this key skill will describe the status of two or more of the above factors for a nation's economy and will ask students to identify which factor(s) would contribute to (or retard) economic production. Other items will describe the status of some of the factors for two economies and would ask students to predict which of those economies will have the greater output in the future. Finally, still other items will ask which factor in a list would be associated with increasing or declining economic output per person in a nation.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code S-5

Describe prejudice and discrimination, their causes and consequences.

The student will differentiate between prejudice and discrimination by identifying examples of one term or the other, or identify a likely cause of prejudice or of discrimination in a specifically described situation. To answer items students not only need to apply understandings of the terms "prejudice" and "discrimination" and of cause-effect relationships pertaining to prejudice and discrimination; they also need to apply an understanding of some well-known historical examples of prejudice and discrimination.

MISSOURI MASTERY AND ACHIEVEMENT TESTS

TEST CONTENT SPECIFICATIONS

Subject Social Studies

Level X

Code V-1

Identify and evaluate methods and resources for investigating given topics related to other cultures, history, current politics or economics.

The student will demonstrate a knowledge of various sources and methods for investigating topics that may be studied in secondary social studies programs. The student will identify appropriate primary and secondary sources for a given topic, evaluating them according to timeliness, authority, and relevance. The student will also demonstrate a knowledge of research tools like the Reader's Guide to Periodical Literature, almanacs, and atlases. For example, the student will indicate that interviewing a Japanese exchange student would be an appropriate method for investigating differences between American and Japanese high schools and that articles listed in the latest Reader's Guide on that topic would be more useful than an entry on Japan in an encyclopedia published in 1953.