

GRADE
• 5 •

*i*LEAP

August 2012

Assessment Guide

- ENGLISH LANGUAGE ARTS
- MATH
- SCIENCE
- SOCIAL STUDIES

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This *Assessment Guide* may be distributed in its entirety to all teachers. However, schools may choose to provide the specific content chapters to teachers who are responsible for a particular content area.

All teachers should be provided with the following sections of the *Assessment Guide*:

- Preface
- Appendices A, B, C, and D, which include a glossary, frequently asked questions, information about testing special populations, a Writer's Checklist, and a Mathematics Reference Sheet.

Preface

Louisiana Believes embraces the principle that all children can achieve at high levels, as evidenced in Louisiana's recent adoption of the Common Core State Standards (CCSS). *Louisiana Believes* also promotes the idea that Louisiana's educators should be empowered to make decisions to support the success of their students. In keeping with these values, the Department has created transitional assessment guides to help prepare teachers and students as they transition to the new CCSS over the next two years. These guides reflect the State's commitment to consistent and rigorous assessments and provide educators and families with clear information about expectations for student performance.

What is the purpose of the *Assessment Guide*?

The *iLEAP Assessment Guide* provides an overview of Louisiana assessments administered through the *integrated* Louisiana Educational Assessment Program (*iLEAP*). In addition to providing teachers with a description of the overall design of the *iLEAP* tests, this guide presents sample test items and suggested informational resources.

Teachers should use this guide to:

- become familiar with the *iLEAP* test format,
- include similar item formats in classroom instruction and assessments,
- align instruction and assessment with the Louisiana Comprehensive Curriculum and Grade-Level Expectations (GLEs), and
- provide appropriate test accommodations.

Questions regarding this *Assessment Guide* should be addressed to the Division of Assessments and Accountability, Louisiana Department of Education (LDOE) at 225-342-3393 or toll free at 1-877-453-2721.

Why has the *Assessment Guide* been revised?

In 2010, the Board of Elementary and Secondary Education (BESE) approved the Common Core State Standards (CCSS) (http://www.doe.state.la.us/topics/common_core.html), which will

eventually replace the current English language arts (ELA) and mathematics standards/GLEs. After adopting the CCSS, Louisiana became a governing member of a 24-state consortium—the Partnership for Assessment of Readiness for College and Careers (PARCC)—working to develop next-generation assessments that measure the full range of the CCSS. In preparation for the PARCC assessments, which are to be administered starting in the 2014–2015 school year, the Department has created transitional assessments in ELA and mathematics. This revised guide provides information about the changes to *iLEAP* during the transition to the CCSS.

It is important to note that the *iLEAP* Science and Social Studies tests have not changed. The content standards and benchmarks that form the basis for these tests have not changed. Rather, the format and the organization of the guides have been revised to reflect the ELA and mathematics transition to the CCSS, and the text has been edited for conciseness.

How will students and teachers transition to the CCSS and PARCC?

The state has developed a plan to ease the transition to the more rigorous new standards and assessments. This plan, outlined below, includes two years of implementation of transitional curriculum and assessments. Full implementation of the CCSS and PARCC assessments will occur in the 2014–2015 school year. Table 1 provides an overview of the assessment plan for grades 3–8.

**Table 1: Assessment Implementation Plan
Grades 3–8**

2012–2013	2013–2014	2014–2015
Transitional	Transitional	PARCC

2012–2013 and 2013–2014: Transition Years – The transitional *iLEAP* assessments will be administered during the spring of 2013 and the spring of 2014. These assessments are not designed to be more difficult than the current *iLEAP* assessments, but teachers will need to shift their instruction for their students to be fully prepared.

The mathematics transitional assessments include items that measure content common to the current GLEs and the CCSS (<http://www.louisianaschools.net/topics/gle.html>). The norm-referenced test (NRT) component—the survey battery of The Iowa Tests—of the *iLEAP* math test will be omitted and replaced by items that more closely match the CCSS focus areas.

In the *iLEAP* ELA assessments, the NRT component will remain, but the current writing prompts will be replaced with a new type of prompt that focuses on a key instructional shift—writing grounded in textual evidence. Instead of responding to a “stand alone” writing prompt, students will read one or two passages and use the information from the text(s) to support the response.

2014–2015: Full Implementation – The new PARCC assessments for the *iLEAP* grades will be administered starting in the spring of 2015. The CCSS will replace the GLEs in ELA and mathematics.

What is the purpose of the *iLEAP*?

Through the *iLEAP*, students are able to demonstrate what they know about a content area, as well as their mastery of the GLEs, to help educators determine how students are progressing in relation to the content standards from year to year.

The *iLEAP* tests were introduced in 2006 in response to the No Child Left Behind Act (NCLB), the federal act that requires states to administer tests in reading and mathematics: yearly in grades 3 through 8 and once in grades 10 through 12, as well as in science: once in grades 3 through 5, once in grades 6 through 9, and once in grades 10 through 12. Some of the NCLB requirements are met through Louisiana’s criterion-referenced tests (CRTs) in ELA, mathematics, and science at grades 4 and 8 and by End-of-Course (EOC) high school assessments.

NCLB requires that state assessments be aligned to state content standards. In addition, NCLB requires that states express student results in terms of the state’s performance standards—Louisiana’s achievement levels. The *iLEAP* assessments, which are given at grades 3, 5, 6, and 7, have been developed to align to the Louisiana content standards, benchmarks, and GLEs. The *iLEAP* is referred to as an *integrated* LEAP because Louisiana initially chose to combine a norm-referenced test and a criterion-referenced test for ELA and math. The NRT was augmented with a CRT component that measures state standards **not** measured on The Iowa Tests. As already noted on page vi, the mathematics assessment no longer includes the NRT component.

The *iLEAP* also includes Science and Social Studies tests, which are entirely criterion-referenced and aligned with state content standards and GLEs. The Louisiana Department of Education elected to use CRTs for science and social studies to have the best measure of what students are learning in classrooms in these content areas.

Table 2 shows the tests that make up the *iLEAP* at grades 3, 5, 6, and 7 starting in 2013.

Table 2: Tests and Grade Levels for *iLEAP*

Grade	English Language Arts (ELA)	Math	Science	Social Studies
3	Augmented NRT	CRT	CRT	CRT
5	Augmented NRT	CRT	CRT	CRT
6	Augmented NRT	CRT	CRT	CRT
7	Augmented NRT	CRT	CRT	CRT

What does the *Assessment Guide* include?

The *Assessment Guide* provides information for teachers regarding the purpose and structure of the *iLEAP*. Separate guides are available for each of the *iLEAP* grade levels: 3, 5, 6, and 7. The guides include information about:

- test design (format and blueprints),
- test content,
- sample test items, and
- scoring.

General *iLEAP* Test Design

The *iLEAP* includes multiple-choice and constructed-response items, depending on the content being assessed. Table 3 presents the overall design (test components) of the *iLEAP* for each of the content areas assessed. It presents the approximate number of items for each test and the item types, indicated by multiple-choice (MC) and constructed-response (CR).

Table 3: Overall Design of the *iLEAP*

	English Language Arts	Math	Science	Social Studies
Test Components and Item Types	NRT: Survey Battery (MC) CRT: Writing Prompt (CR) Using Information Resources (MC)	CRT: MC and CR	CRT: MC	CRT: MC
Number of Items	NRT: varies by grade from approx. 70 to 100 MC CRT: 8 MC and 1 CR (the writing prompt)	Varies by grade from approx. 50 to 60 MC and 2 CR	Varies by grade from approx. 40 to 48 MC	Varies by grade from approx. 30 to 40 MC

The **NRT** components for the English language arts tests shall be administered as **timed** assessments using national standardized procedures. The **CRT** components for all four content areas are **untimed**; however, suggested testing times are provided.

Characteristics of Items

Multiple-choice items assess knowledge, conceptual understanding, and application of skills in each of the four content areas. Most multiple-choice items consist of an interrogatory stem followed by four response options (A, B, C, D) and are scored correct or incorrect. The **NRT**

multiple-choice items in Reading, Part 1, of the ELA tests at grades 5, 6, and 7 have five response options (A, B, C, D, E); these are also scored correct or incorrect.

Constructed-response items occur only in the Math and ELA tests. These items require students to compose an answer, and generally require higher-order thinking.

On the ELA test, there is only one constructed-response item. It requires a student to read one or two passages and then write a composition in response to a prompt that includes information from the text in the response. The composition is scored on an 8-point model based on Louisiana’s new writing rubric for the dimensions of Content and Style (dimensions 1 and 2).

On the Math test, the constructed-response items may require students to demonstrate their grasp of a concept, their analysis of information, their evaluation of a principle, or their application of a skill. Students may also be asked to construct or interpret a chart or graph, map, timeline, or other graphic. The grade 3 items are scored on a 0–2 point scale; mathematics items in the other grades are scored on a 0–4 point scale.

Administration Schedule

The *i*LEAP tests are administered in April, during the same week the Phase 2 LEAP tests are administered. The English Language Arts test is administered over a two-day period, while the Math, Science, and Social Studies tests each are administered in one day. An overview of the content areas and testing times for *i*LEAP are shown in the following tables. Note that the NRT is timed; suggested times are provided for the CRTs to assist in planning.

Table 4: NRT Components of the *i*LEAP

Norm-Referenced Test	Testing Time
ELA: Reading, Part 1	5 minutes
ELA: Reading, Part 2	25 minutes
ELA: Language	30 minutes

Table 5: CRT Components of the *i*LEAP

Criterion-Referenced Tests	Suggested Testing Time
ELA: Writing	60 minutes (grade 3) 75 minutes (grades 5, 6, 7)
ELA: Using Information Resources	40 minutes (grades 3, 5, 6, 7)
Math: Part 1	60 minutes (grades 3, 5, 6, 7)
Math: Part 2	40 minutes (grades 3, 5) 60 minutes (grades 6, 7)
Math: Part 3	20 minutes (grade 3) 30 minutes (grades 5, 6, 7)
Science	60 minutes (grades 3, 5, 6, 7)
Social Studies	45 minutes (grade 3) 60 minutes (grades 5, 6, 7)

Achievement Level Descriptors

Student performance on the CRT components of *iLEAP* is reported in terms of achievement level: *Advanced*, *Mastery*, *Basic*, *Approaching Basic*, or *Unsatisfactory*. In addition, norm-referenced scores are reported for English language arts.

To determine the expectations for students performing at each achievement level, grade-level committees of educators, mostly teachers, convened to review draft Achievement Level Descriptors (ALDs) that were developed for *iLEAP*. The existing LEAP ALDs guided the development of those for *iLEAP*. The committees used a group-consensus procedure to review the draft descriptors and GLEs and to make recommendations for wording that would most appropriately describe expectations for each achievement level and grade. The recommendations of this group resulted in the draft ALDs that served as a basis for test item development. Upon completion of standard setting for *iLEAP* in 2006, a final version of *iLEAP* ALDs (http://www.doe.state.la.us/topics/ileap_achievement_levels.html) was approved by BESE. Louisiana's general policy definitions for the five achievement levels are provided below.

Advanced: *A student at this level has demonstrated superior performance beyond the level of mastery.*

Mastery: *A student at this level has demonstrated competency over challenging subject matter and is well prepared for the next level of schooling.*

Basic: *A student at this level has demonstrated only the fundamental knowledge and skills needed for the next level of schooling.*

Approaching Basic: *A student at this level has only partially demonstrated the fundamental knowledge and skills needed for the next level of schooling.*

Unsatisfactory: *A student at this level has not demonstrated the fundamental knowledge and skills needed for the next level of schooling.*

Test Accommodations

Accommodations are available to qualifying students who are classified as IDEA Special Education, Section 504, and Limited English Proficient (LEP). Test accommodations should not be different from or in addition to the accommodations provided in the classroom during instruction and as indicated on the student's Individualized Education Program (IEP), Section 504 Individual Accommodation Plan (IAP), or LEP accommodation plan. Testing and instructional accommodations must be based on each student's needs as documented in the student's IEP, IAP, or LEP accommodation plan.

For students with disabilities, test accommodations are provided to minimize the effects of a disability to ensure that a student can demonstrate the degree of achievement he or she actually possesses. An *accommodation* is a change in the setting of the test administration, the timing, scheduling, presentation format, and/or method of response to the assessment. Not all students

with disabilities will need test accommodations, but many will need them to provide a valid and accurate measure of their abilities. The goal in using accommodations is to give students with disabilities an equal opportunity in assessment, not to give students with disabilities an unfair advantage over other students or to subvert or invalidate the purpose of the tests. The accommodation should allow the test score to reflect a student’s proficiency in the area tested, without the interference of his or her disability.

Students classified as Limited English Proficient (LEP) may receive LEP accommodations if they are used regularly in the student’s classroom instruction and assessment. LEP accommodations are provided for these students to aid them in accessing the content without subverting or invalidating the purpose of the tests.

Since accommodations used during state assessments must be an ongoing part of classroom instruction and assessment, it is crucial that general educators be knowledgeable about accommodations, use them routinely in the classroom, and be prepared to implement the use of approved accommodations during state assessments. For a list of approved test accommodations that may be used for students with disabilities or LEP students and suggestions for implementing accommodations during assessment, see Appendix C.

What additional *i*LEAP resources are available?

The Louisiana Department of Education has developed several resources to assist educators as they prepare students for *i*LEAP. The following materials are available on the LDOE website, www.louisianaschools.net:

- Grade-Level Expectations (GLEs)
(<http://www.doe.state.la.us/topics/gle.html>)
- Transitional Comprehensive Curriculum
(http://www.doe.state.la.us/topics/comprehensive_curriculum.html)
- Transitional Practice Tests for grades 3–8
(http://www.doe.state.la.us/topics/trans_assessments.html)
- Enhanced Assessment of the Grade-Level Expectations (EAGLE)
(<https://www.louisianaeagle.org/pma/orca2/eagle.htm>)
- Released Writing Prompts for grades 3, 5, 6, and 7
(http://www.doe.state.la.us/topics/trans_assessments.html)
- Released Item Documents for grades 4, 8, 10, and 11
(http://www.louisianaschools.net/topics/released_test_items.html)
(http://www.louisianaschools.net/topics/released_test_items_10_11.html)
- Practice Assessment/Strengthen Skills (PASS)
(<http://www.louisianapass.org/>)

Chapter 1: *i*LEAP English Language Arts, Grade 5

This section describes the overall design of the *i*LEAP English Language Arts (ELA) test to be administered to students in grade 5. Test specifications, scoring rubrics, and sample test questions are provided so that teachers may align classroom practices with the state assessment.

Test Structure

The ELA test consists of four parts, or subtests, which are administered over two days. Two parts, or subtests, are administered on the first day of testing and two on the second day.

Day One

Part 1: Writing

Part 2: Using Information Resources

Day Two

Part 3: Reading

Part 4: Language

The ELA test includes:

- Norm-referenced test (NRT) items from the survey battery (short form) of the Iowa Tests of Basic Skills[®] (*ITBS*). Most of the items measure Louisiana Grade-Level Expectations (GLEs). The survey battery is used to provide national norms, which compare our students' results with the results of other students in the nation who took the test.
- Criterion-referenced test (CRT) items. These items are aligned with Louisiana GLEs and were specifically developed to measure GLEs not assessed by NRT items.

The NRT Component

The *ITBS* survey battery is the NRT component of the *i*LEAP ELA assessment. This part of the assessment measures standards 1, 2, 3, 6, and 7.

Standard 1

Students read, comprehend, and respond to a range of materials, using a variety of strategies for different purposes.

Standard 2

Students write competently for a variety of purposes and audiences.

Standard 3

Students communicate using standard English grammar, usage, sentence structure, punctuation, capitalization, spelling, and handwriting.

Standard 6

Students read, analyze, and respond to literature as a record of life experiences.

Standard 7

Students apply reasoning and problem-solving skills to their reading, writing, speaking, listening, viewing, and visually representing.

The survey battery is designed to 1) obtain information that can support instructional decisions made by teachers in the classroom, 2) provide information to students and their parents for monitoring student growth from grade to grade, and 3) examine the yearly progress of grade groups as they pass through the school’s curriculum. All questions are in multiple-choice format and have four or five answer options each. The survey battery is a **timed** test. Table 1.1 presents the testing times and the number of questions for each subtest.

Table 1.1: Grade 5 Survey Battery Test Lengths and Times

Test	Time (min.)	No. of Questions
Reading		
Vocabulary	5	12
Reading Comprehension	25	20
Language		
Spelling, Capitalization, Punctuation, Usage and Expression	30	51
Total	60	83

The descriptions that follow briefly summarize the content and skills measured by each test of the survey battery.

ReadingVocabulary

Each vocabulary question presents a word in the context of a short phrase or sentence, and students select the answer that most nearly means the same as that word.

Approximately equal numbers of nouns, verbs, and modifiers are tested.

Reading Comprehension

The reading comprehension section includes passages that vary in length and are drawn from fiction and nonfiction. The reading difficulty level of each piece is appropriate to the grade level. Passages with higher reading difficulty levels are generally shorter. Approximately two-thirds of the questions require students to draw inferences or to generalize about what they have read.

Language

Spelling

Each spelling question presents four words, one of which may be misspelled, and a fifth option, *No mistakes*, if no error is present. This format permits the testing of four spelling words for each test question. Errors in the tested words are based on common substitutions, reversals, omissions, or unnecessary additions.

Capitalization

For these items, students identify the line of text containing a capitalization error, or they choose a fourth option, *No mistakes*, if no error is present. Standard capitalization of names and titles, dates and holidays, places, organizations and groups, and other words is tested.

Punctuation

For these items, students identify the line of writing in which a punctuation error occurs, or they choose a fourth option, *No mistakes*, if no error is present. Standard practice in the use of end punctuation, commas, apostrophes, quotation marks, and colons is tested.

Usage and Expression

Most usage and expression questions contain one or two sentences arranged in three lines; others are part of a longer passage. Students must identify the line containing the error, or they may select *No mistakes* if they believe no error is present. Errors in the use of verbs, personal pronouns, modifiers, or in word choice are included. For expression items, students must choose the best or most appropriate way of expressing an idea in a sentence or paragraph. Choices involve issues of conciseness, clarity, appropriateness of expression, and the organization of sentence and paragraph elements.

NOTE: Some of the items in this section measure GLEs in standard 2 and are reported with the writing score. What this means is that the total number of points possible in standard 2 listed on the report includes the score students receive on their written composition (up to 8 possible points) PLUS the number correct on the standard 2 items found in the Language section (3 to 4 items depending on the form).

The CRT Component

The CRT component of the ELA assessment was developed specifically for Louisiana. Committees of Louisiana educators reviewed all items for content and alignment with Louisiana's content standards, benchmarks, and GLEs. This component of *iLEAP* measures aspects of standards 2 and 5.

Standard 2

Students write competently for a variety of purposes and audiences.

Standard 5

Students locate, select, and synthesize information from a variety of texts, media, references, and technological sources to acquire and communicate knowledge.

Writing and the Scoring of the Written Composition

To better prepare our students for the Common Core State Standards, the writing prompts on the transitional assessments will focus on a key instructional shift—writing grounded in textual evidence. Instead of responding to a "stand alone" writing prompt, students will be expected to read one or two passages and then write a composition that includes evidence from the text(s) in the response. At grade 5, the writing prompt may direct students to write a story, explain or describe something, or convince someone of their position.

The Writing test is **untimed**, but students should be given a minimum of 75 minutes to read the passage(s), plan and write their composition, and check their work. Students are given a Writer's Checklist and are provided dictionaries and thesauruses.

Because of the heavy emphasis of standard 3 (conventions of writing) in the survey battery, student compositions will be scored only for the dimensions of Content and Style. Each dimension is worth up to 4 points for a possible total of 8 points. Student compositions are scored using two rubrics: one for Content and one for Style. There are two Content rubrics; one is used to score student compositions that respond to prompts with one passage; the other is for prompts with two passages. The Content and Style rubrics can be found on pages 5 through 7.

The Content Rubric considers how well students present their central idea; the development of that idea, including the appropriate and accurate use of evidence from the passage(s); and the organization of their ideas. The Style Rubric considers word choice; sentence fluency, which includes sentence structure and sentence variety; and voice, the individual personality of the writing.

CONTENT (One Passage): Central Idea, Development, and Organization

Key Questions: Does the writer stay focused and respond to all parts of the task? Does the writer’s use of the text show an understanding of the passage and the writing task? Does the organizational structure strengthen the writer’s ideas and make the composition easier to understand?

Score Point	4 Consistent, though not necessarily perfect, control; many strengths present	3 Reasonable control; some strengths and some weaknesses	2 Inconsistent control; the weaknesses outweigh the strengths	1 Little or no control; minimal attempt
CENTRAL IDEA	<ul style="list-style-type: none"> sharply focused central idea shows a complete understanding of the task 	<ul style="list-style-type: none"> clear central idea shows a general understanding of the task 	<ul style="list-style-type: none"> vague central idea shows a partial understanding of the task 	<ul style="list-style-type: none"> unclear or absent central idea shows a lack of understanding of the task
USE OF THE PASSAGE AND DEVELOPMENT	A composition without evidence from the passage cannot receive a score higher than a 2 in Content.			
	<ul style="list-style-type: none"> includes ample, well-chosen evidence from the passage to support central idea Evidence and ideas are developed thoroughly. Details are specific, relevant, and accurate. 	<ul style="list-style-type: none"> includes sufficient and appropriate evidence from the passage to support central idea Evidence and ideas are developed adequately (may be uneven). Details are, for the most part, relevant and accurate. 	<ul style="list-style-type: none"> includes insufficient or no evidence from the passage, OR only summarizes or paraphrases passage information Evidence and ideas are not developed adequately (list-like). Some information may be irrelevant or inaccurate. 	<ul style="list-style-type: none"> includes minimal or no evidence from the passage and/or the evidence shows a misunderstanding of the passage minimal/no development Information is irrelevant, inaccurate, minimal, confusing.
ORGANIZATION	<ul style="list-style-type: none"> Evidence of planning and logical order allows reader to easily move through the composition. Clear beginning, middle, and ending contribute sense of wholeness. effective transitions 	<ul style="list-style-type: none"> Logical order allows reader to move through the composition. has a beginning and an ending transitions 	<ul style="list-style-type: none"> attempt at organization digressions, repetition weak beginning and ending may lack transitions 	<ul style="list-style-type: none"> random order no beginning or ending difficult for the reader to move through the response

CONTENT (Two Passages): Central Idea, Development, and Organization

Key Questions: Does the writer stay focused and respond to all parts of the task? Does the writer’s use of the text show an understanding of the passages and the writing task? Does the organizational structure strengthen the writer’s ideas and make the composition easier to understand?

Score Point	4 Consistent, though not necessarily perfect, control; many strengths present	3 Reasonable control; some strengths and some weaknesses	2 Inconsistent control; the weaknesses outweigh the strengths	1 Little or no control; minimal attempt
CENTRAL IDEA	<ul style="list-style-type: none"> sharply focused central idea shows a complete understanding of the task 	<ul style="list-style-type: none"> clear central idea shows a general understanding of the task 	<ul style="list-style-type: none"> vague central idea shows a partial understanding of the task 	<ul style="list-style-type: none"> unclear or absent central idea shows a lack of understanding of the task
USE OF THE PASSAGE(S) AND DEVELOPMENT	A composition that addresses only one of the two passages cannot receive a score higher than a 3 in Content. A score of 4 cannot be assigned unless both passages have been addressed.			
	<ul style="list-style-type: none"> includes ample, well-chosen evidence from the passages to support central idea Evidence and ideas are developed thoroughly. Details are specific, relevant, and accurate. 	<ul style="list-style-type: none"> includes sufficient and appropriate evidence from at least one of the passages to support central idea Evidence and ideas are developed adequately (may be uneven). Details are, for the most part, relevant and accurate. 	<ul style="list-style-type: none"> includes insufficient or no evidence from the passage(s), OR only summarizes or paraphrases passage information Evidence and ideas are not developed adequately (list-like). Some information may be irrelevant or inaccurate. 	<ul style="list-style-type: none"> includes minimal or no evidence from the passage(s) and/or the evidence shows a misunderstanding of the passage minimal/no development Information is irrelevant, inaccurate, minimal, confusing.
ORGANIZATION	<ul style="list-style-type: none"> Evidence of planning and logical order allows reader to easily move through the composition. Clear beginning, middle, and ending contribute sense of wholeness. effective transitions 	<ul style="list-style-type: none"> Logical order allows reader to move through the composition. has a beginning and an ending transitions 	<ul style="list-style-type: none"> attempt at organization digressions, repetition weak beginning and ending may lack transitions 	<ul style="list-style-type: none"> random order no beginning or ending difficult for the reader to move through the response

STYLE: Word Choice, Sentence Fluency, and Voice

Key Questions: Would you keep reading this composition if it were longer? Do the words, phrases, and sentences strengthen the content and allow the reader to move through the writing with ease?

Score Point	4 Consistent, though not necessarily perfect, control; many strengths present	3 Reasonable control; some strengths and some weaknesses	2 Inconsistent control; the weaknesses outweigh the strengths	1 Little or no control; minimal attempt
WORD CHOICE	<ul style="list-style-type: none"> • precise • effective • vivid words and phrases appropriate to the task 	<ul style="list-style-type: none"> • clear but less specific • includes some interesting words and phrases appropriate to the task 	<ul style="list-style-type: none"> • generic • limited • repetitive • overused 	<ul style="list-style-type: none"> • functional • simple (below grade level) • may be inappropriate to the task
SENTENCE FLUENCY	<ul style="list-style-type: none"> • fluid, very easy to follow, because of variety in length, structure, and beginnings 	<ul style="list-style-type: none"> • generally varied in length and structure • Most sentences have varied beginnings. 	<ul style="list-style-type: none"> • little or no variety in length and structure • Awkward sentences may affect the fluidity of the reading. • same beginnings 	<ul style="list-style-type: none"> • simple sentences • no variety • Construction makes the response difficult to read.
VOICE (individual personality of the writing)	<ul style="list-style-type: none"> • compelling and engaging 	<ul style="list-style-type: none"> • clear, but may not be particularly compelling 	<ul style="list-style-type: none"> • weak and/or inconsistent voice 	<ul style="list-style-type: none"> • no voice • Response is too brief to provide an adequate example of style; minimal attempt.

Using Information Resources

In this part of the assessment, students are provided four to six reference sources, which they use to answer eight multiple-choice questions. All reference sources are related to a specific topic. They are realistic, grade-appropriate materials that a fifth-grader might find in a library and use in preparing a project or report. Test questions reflect realistic uses of the sources. This subtest is **untimed**, but students should be given about forty minutes to review the materials and answer the questions.

The reference sources may include:

- articles from encyclopedias, magazines, newspapers, and textbooks;
- parts of books such as tables of contents, copyright pages, glossaries, and indexes;
- visual aids such as maps, graphs, tables, charts, illustrations, schedules, and diagrams; and
- electronic sources such as screen shots of online card catalogs, Web site pages, and search engine result screens.

English Language Arts Test Specifications

Table 1.2 provides the test specifications for the grade 5 *i*LEAP ELA assessment. The values in the table are approximations due to slight variations in the content across test forms.

Table 1.2: Grade 5 English Language Arts Test Specifications

Standards	Percentage of Total Points
Standard 1	19
Standard 6	2
Standard 7	11
Standard 2	11
Standard 3	48
Standard 5	8
Total	100

Ninety-one 1-point multiple-choice items plus the 8-point Writing prompt equals a 99-point test.

Description of the English Language Arts Test and GLEs Assessed

Louisiana’s English language arts content standards encompass reading, writing, researching, and listening and speaking. Each benchmark within a standard delineates what students should know and be able to do by the end of a grade cluster. GLEs further define the knowledge and skills students are expected to master by the end of each grade or high school course.

Most of the grade 5 standards, benchmarks, and GLEs are eligible for assessment on the grade 5 *iLEAP*. Some, however, do not lend themselves to statewide assessment. Standard 4, which focuses on speaking and listening skills, will not be assessed on *iLEAP*. GLE numbers 31, 44 and 46 focus on use of technology or resources unavailable during the test; therefore, they cannot be assessed in a multiple-choice format. It is important, however, that the skills represented by these GLEs are taught at this grade level.

Most of the items on the NRT form for a given grade align with the GLEs for that grade. For example, most items on the grade 5 NRT survey battery align with the grade 5 GLEs. However, some items may align with GLEs at a lower grade or at a higher grade. In addition, there may be a few items on an NRT form that do not align with the GLEs at any grade because the NRT is developed for nationwide use. This information is important to keep in mind when preparing students for the *iLEAP* assessments because teachers should make sure they cover the GLEs at grade 5 but also review related GLEs in earlier grades since they may be assessed on the NRT portion of the *iLEAP* test.

For reporting purposes, a student receives two scores: an NRT score, such as percentile rank, and a CRT score/achievement level. The NRT score includes all items on the NRT form. The CRT score/achievement level includes the CRT items and only those items on the NRT survey battery or on the NRT core battery that align with GLEs at or below the grade level assessed.

Table 1.3 provides a list of GLEs to be taught and tested during the transition. The table identifies the GLEs and the corresponding CCSS alignment.

Table 1.3: GLE Content to be Taught and Tested in 2012–13 and 2013–14

GLE #	Grade-Level Expectation Text	Aligned CCSS #
1	Identify word meanings using a variety of strategies, including: <ul style="list-style-type: none"> • using context clues (e.g., definition, restatement, example, contrast) • using structural analysis (e.g., base words, roots, affixes) • determining word origins (etymology) • using electronic and print dictionaries, thesauruses, glossaries 	L.5.4
2	Identify common abbreviations, symbols, acronyms, and multiple-meaning words	L.5.4
3	Identify the meanings of idioms and analogies	L.5.5
4	Develop specific vocabulary (e.g., for reading scientific, geographical, historical, and mathematical texts, as well as news and current events) for various purposes	RI.3.4 L.3.6 L.4.6 RI.5.4 L.5.6

GLE #	Grade-Level Expectation Text	Aligned CCSS #
6	Identify and explain literary devices in grade-appropriate texts, including: <ul style="list-style-type: none"> • how word choice and images appeal to the senses and suggest mood, tone, and style • foreshadowing • flashback 	RL.5.4
8	Identify the connections between ideas and information in a variety of texts (e.g., cartoons, poetry, fiction, instructional manuals) and real-life situations and other texts	RI.5.3
10	Compare and contrast elements (e.g., plot, setting, characters, theme) in a variety of genres in oral and written responses	RL.5.3 RL.5.9
12	Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including: <ul style="list-style-type: none"> • sequencing events and steps in a process • summarizing and paraphrasing information • identifying stated and implied main ideas and supporting details for each • comparing and contrasting literary elements and ideas • making simple inferences and drawing conclusions • predicting the outcome of a story or situation with reasonable justification • identifying literary devices 	RL.5.1 RI.5.1 RI.5.2 RL.5.2
14	Use technical information and other available resources (e.g., software programs, manuals) to solve problems	RI.5.7
17	Analyze grade-appropriate print and nonprint texts using various reasoning skills, including: <ul style="list-style-type: none"> • identifying cause-effect relationships • raising questions • thinking inductively and deductively • generating a theory or hypothesis • skimming/scanning • distinguishing facts from opinions and probability 	RI.5.8 RI.5.7
18	Write multiparagraph compositions on student- or teacher-selected topics organized with the following: <ul style="list-style-type: none"> • an established central idea • important ideas or events stated in sequential or chronological order • elaboration (e.g., fact, examples, specific details) • transitional words and phrases that unify points and ideas • an overall structure including an introduction, a body/middle, and a concluding paragraph that summarizes important ideas 	W.5.1 W.5.2

GLE #	Grade-Level Expectation Text	Aligned CCSS #
20	Develop grade-appropriate compositions on student- or teacher-selected topics that include the following: <ul style="list-style-type: none"> • word choices (diction) appropriate to the identified audience and/or purpose • vocabulary selected to clarify meaning, create images, and set a tone • information/ideas selected to engage the interest of the reader • clear voice (individual personality) • variety in sentence structure 	L.5.3 W.5.4
21	Develop grade-appropriate compositions applying writing processes such as the following: <ul style="list-style-type: none"> • selecting topic and form • prewriting (e.g., brainstorming, researching, raising questions, completing graphic organizers) • drafting • conferencing (e.g., peer and teacher) • revising based on feedback and use of various tools (e.g., Writer’s Checklist, rubrics) • proofreading/editing • publishing using technology 	W.5.5 W.5.6
22	Develop grade-appropriate paragraphs and multiparagraph compositions using the various modes (i.e., description, narration, exposition, and persuasion), emphasizing narration and exposition	W.5.1 W.5.2
23	Use the various modes to write compositions, including: <ul style="list-style-type: none"> • how-to essays • stories that incorporate dialogue, characters, plot, setting, and sensory details 	W.5.3
24	Develop writing/compositions using a variety of literary and sound devices, including similes, metaphors, and onomatopoeia	L.5.5 W.5.3
25	Write for various purposes, including: <ul style="list-style-type: none"> • formal and informal letters that state a purpose, make requests, or give compliments • evaluations of media, such as films, performances, or field trips • explanations of stories and poems using retellings, examples, and text-based evidence 	W.4.9 W.5.9 W.5.1
26	Use standard English punctuation, including: <ul style="list-style-type: none"> • parentheses and commas in direct quotations • commas to set off appositives and introductory phrases • use quotation marks around dialogue 	L.5.2
27	Capitalize the first and other important words in titles and proper nouns	L.5.2

GLE #	Grade-Level Expectation Text	Aligned CCSS #
28	<p>Write paragraphs and compositions following standard English structure and usage, including:</p> <ul style="list-style-type: none"> • varied sentence structures (e.g., simple, compound) and types (i.e., declarative, interrogative, imperative, exclamatory) • agreement of subjects and verbs in complex sentences • sentences without double negatives • correct sentence fragments and run-on sentences 	L.5.1
29	<p>Apply knowledge of parts of speech in writing, including:</p> <ul style="list-style-type: none"> • using same verb tense throughout when appropriate • selecting and using specific nouns, pronouns, and verbs for clarity 	L.5.1
30	<p>Spell high-frequency, commonly confused, frequently misspelled words correctly</p>	L.5.2
31	<p>Incorporate accurate spelling and use a variety of resources (e.g., glossaries, dictionaries, thesauruses, spell check) to find correct spellings</p>	L.5.2
42	<p>Locate and select information using a variety of organizational features in grade-appropriate resources, including:</p> <ul style="list-style-type: none"> • complex reference sources (e.g., almanacs, atlases, newspapers, magazines, brochures, map legends, prefaces, appendices) • electronic storage devices (e.g., CD-ROMs, diskettes, software, drives) • frequently accessed and bookmarked Web addresses 	RI.5.7 W.5.7 W.5.8
43	<p>Locate and integrate information from grade-appropriate resources, including:</p> <ul style="list-style-type: none"> • multiple printed texts (e.g., encyclopedias, atlases, library catalogs, specialized dictionaries, almanacs, technical encyclopedias) • electronic sources (e.g., Web sites, databases, audio and video tapes, films, documentaries) for use in researching a topic 	RI.5.9 W.5.7
44	<p>Locate, gather, and select information using data-gathering strategies, including:</p> <ul style="list-style-type: none"> • surveying • interviewing • paraphrasing 	W.5.8
45	<p>Generate grade-appropriate research reports that include information presented in a variety of forms, including:</p> <ul style="list-style-type: none"> • visual representations of data/information • graphic organizers (e.g., outlines, timelines, charts, webs) • bibliographies 	W.5.7
46	<p>Use word processing and/or other technology to draft, revise, and publish a variety of works, including compositions and reports</p>	W.5.6

GLE #	Grade-Level Expectation Text	Aligned CCSS #
47	Give credit for borrowed information following acceptable use policy, including: <ul style="list-style-type: none"> • integrating quotations and citations • using endnotes • creating bibliographies and/or works cited lists 	W.5.8
48	Interpret information from a variety of grade-appropriate sources, including timelines, charts, schedules, tables, diagrams, and maps	SL.5.2

Sample Test Items: Grade 5 ELA

The sample passages and items that follow are similar in content and format to those that appear on the grade 5 *i*LEAP test. The Writing prompt below and the Using Information Resources questions are sample items representative of the criterion-referenced parts of the *i*LEAP test. These items align with state content standards and GLEs.

Writing Prompt

The writing prompts on the transitional tests require students to read one or two passages and then write a composition that includes evidence from the text(s) in the response.

Sample Writing Prompt

Directions: Read the passage about an important memory in a student’s life. As you read the passage, think about how Kia’s meeting with Ms. Faber affected her. Then use the passage to help you write a well-organized multiparagraph composition.

A Lasting Impression

Kia washed a test tube in the sink of the eleventh-grade science lab. As she placed the test tube upside down to dry, she smiled and thought about her plans to go to college and become a chemist. Then she remembered a special event.

When Kia was in fifth grade, her teacher announced that a guest would do a lesson for their class. This guest was a scientist named Ms. Faber, who walked into the room wearing a white laboratory jacket over her clothing and clear protective glasses on the top of her head. Kia had never seen anyone who looked like this before.

Ms. Faber asked the students to gather around a table. She handed out protective eyewear. Kia put on the glasses and stared at a black case sitting on the table. She noticed Ms. Faber looking at her. “Would you like to open the case?” Ms. Faber asked. Kia nodded and carefully opened it. Inside, several test tubes glistened in their plastic stands. She watched as Ms. Faber took out several small test tubes filled with baking powder and vinegar.

Ms. Faber said, “Today, we are going to do some simple experiments. As a chemist I study different types of substances and learn how they change and interact with each other.” Ms. Faber poured a little vinegar into one of the test tubes and asked, “Who would like to add a little baking soda?” Kia politely waited for someone else to volunteer, but when nobody did, she raised her hand. Ms. Faber smiled. Kia took a small amount of baking soda and dropped it into the vinegar. Bubbles started overflowing out of the test tube!

After several experiments, Ms. Faber said, “Some chemists make medicines; others create many different types of new products, such as household cleaners. It is hard work, but being a chemist is the best job in the world.”

During recess, Kia helped Ms. Faber clean up the table. Ms. Faber told Kia more about what it was like to be a chemist. When Kia went home after school, she announced that she was going to be a chemist.

Now, as she finished washing the test tubes in the high school chemistry lab, Kia smiled. She was very glad that Ms. Faber had come to her school when she was in fifth grade.

Writing Topic

Write a multiparagraph composition for your teacher that tells about someone or something that made a strong impression on you. Compare your experience to Kia's experience. Use details from the passage to help you explain your ideas.

As you write, follow the suggestions below.

- ▶ Be sure your composition has a beginning, a middle, and an ending.
- ▶ Use details from the passage and include enough information so your teacher will understand your response.
- ▶ Be sure to write clearly.
- ▶ Check your writing for correct spelling, punctuation, and grammar.

Description:

This prompt measures a student's ability to write an expository composition. Other prompts at this grade level may ask students to write a story, describe something, or convince someone of their position.

Using Information Resources

This section of the test presents students with reference sources related to a single research topic. Students use the sources to answer a set of multiple-choice items similar to questions 1 through 5. Items may assess a portion of or all of the skills of a GLE; each sample item that follows includes a description of the skill(s) being measured.

Sample Using Information Resources Materials and Items

Introduction: In this test, you are asked to look at some reference materials and then use the materials to answer the questions on pages xx and xx.

Research Topic: Skyscrapers

Suppose you want to find out more about skyscrapers for a report you are writing. Four different sources of information about skyscrapers are contained in this test. The information sources and the page numbers where you can find them are listed below.

1. Article from the Magazine *Kids Learning*
“Skyscrapers” (page __)

2. Excerpt from the Book *Buildings and How They Work*
Some of the World’s Tallest Skyscrapers Chart (page __)

3. Page from the Web Site Skyscrapers.org
Interesting Facts about the Empire State Building (page __)

4. Excerpts from the Book *The Wonderful World of Skyscrapers*
a. Copyright Page (page __)
b. Table of Contents (page __)

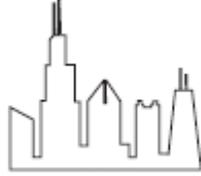
Note: Model bibliographic entries for different types of documents are on page __.

Directions: Skim pages __ through __ to become familiar with the information contained in these sources. Remember that these are reference sources, so you should not read every word in each source. Once you have skimmed through these sources, answer the questions on pages __ and __. Use the information sources to help you answer the questions. As you work through the questions, go back and read the parts that will give you the information you need.

1. Article from the Magazine *Kids Learning*
“**Skyscrapers**”

Kids Learning

May 2004



SKYSCRAPERS!

By Barbara Moss

What Is a Skyscraper?

A skyscraper is a very tall city building. But not all tall buildings are skyscrapers. A tall building is a skyscraper only if it has a roof, walls, and a steel structure and is used by humans as a place to work or live. The floors in a skyscraper are called stories.

Why Build Up?

That’s easy. First, there’s not a lot of available land in big cities. The land that is available is very expensive. By building up instead of across, a skyscraper that takes up only one or two blocks of city land can provide the same amount of space as several shorter buildings that require four or five blocks of city land.

What Made Taller Skyscrapers Possible?

The two inventions that made it possible to build buildings that were taller and taller were structural steel frames and elevators.

Structural Steel Frames Instead of being held up by walls that would have to be very, very thick to hold up such tall buildings, skyscrapers are supported by steel frames. The walls “hang” from the outside of the steel frame.

Elevators Very tall buildings must have a way to quickly move people about. Elevators are important because they can take people from the bottom of a skyscraper to the top in just a few seconds.

What’s Inside a Skyscraper?

Some skyscrapers are so big they are like small cities. They can include offices, shopping malls, libraries, restaurants, places of entertainment, and post offices. Some skyscrapers are so big they even have their own zip code!

What Is the World’s Tallest Skyscraper?

Currently, the Taipei [*Tie pay*] 101 in Taiwan is the world’s tallest skyscraper. This building was completed in 2004. Taipei 101 also has the world’s fastest elevators. The elevators in this building can transport passengers from the first floor to the 89th floor in just 39 seconds. Wow! 89 floors in less than a minute!

Although the Taipei 101 holds the record for now, it may not be the tallest building for long. At this very moment, engineers around the world are working hard to build taller buildings and faster elevators. The sky’s the limit!

2. Excerpt from the Book *Buildings and How They Work*

Some of the World's Tallest Skyscrapers Chart

Some of the world's tallest skyscrapers are shown below. Heights are measured from the sidewalk to the top of each building. Antennas or flagpoles are not included in the measurement.

Some of the World's Tallest Skyscrapers

Building	Location	Stories	Height
Taipei 101	Taipei, Taiwan	101	1,670
Petronas Towers	Kuala Lumpur, Malaysia	88	1,483
Sears Tower	Chicago, Illinois	110	1,450
Jin Mao Building	Shanghai, China	88	1,380
Two International Finance Centre	Hong Kong	88	1,362
CITIC Plaza	Guangzhou, China	80	1,283
Shun Hing Square	Shenzhen, China	69	1,260
Empire State Building	New York, New York	102	1,250
Central Plaza	Hong Kong	78	1,227
Bank of China	Hong Kong	72	1,209
Emirates Tower One	Dubai, United Arab Emirates	54	1,165
Turtex Sky Tower	Kaohsiung, Taiwan	85	1,140
Aon Centre	Chicago, Illinois	80	1,136
John Hancock Center	Chicago, Illinois	100	1,127
Chrysler Building	New York, New York	77	1,023
Bank of America Plaza	Atlanta, Georgia	55	1,023
U.S. Bank Tower	Los Angeles, California	55	1,023

3. Page from the Web Site Skyscrapers.org
Interesting Facts about the Empire State Building

ADDRESS@ <http://www.Skyscrapers.org/EmpireStateBuilding.htm> **>>GO**



SKYSCRAPERS.ORG

SEARCH
by Location

SEARCH
by Name

SEARCH
by Size

SEARCH
by Year Built

Interesting Facts about the Empire State Building

If asked to name the most famous skyscraper in the world, many people would say the Empire State Building in New York City. Although it's not the tallest or even the most recent to be built, it is still one of the most well known of all skyscrapers. Here are some interesting facts about the Empire State Building.

- It took more than 3,000 workers a little more than a year to build.
- Its steel frames weigh 60,000 tons.
- Looking out from its observatory on a clear day, one can see 80 miles in all directions.
- It contains more than 10 million bricks; 6,000 windows; 70 miles of water pipes; 3,194,547 light bulbs; and more than 4,500 miles of electrical wire.
- It has 1,576 steps between the lobby and the 86th floor.
- It is the workplace for about 25,000 people. They move through the building using 73 elevators.
- For 41 years, it was the tallest skyscraper in the world.
- Each month it produces about 1,000 tons of garbage. That is the same as the weight of about 20 adult elephants.
- Each year it is visited by more than 3 million tourists.

[History of Skyscrapers](#)

[Construction Skyscrapers](#)

[in the News](#)

[Statistics](#)

[Empire State Building/Facts](#)

[Links to Skyscraper Web Sites](#)

MORE >>

4. Excerpt from the Book *The Wonderful World of Skyscrapers*
a. Copyright Page

**Published by
Porter Publishing
155 Millennium Avenue
Boston, Massachusetts 03888**

Library of Congress Cataloging-in-Publication Data
Hollingsworth, Michael
The Wonderful World of Skyscrapers
I. Title.
ISBN: 11-5555-33-6777

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Book design by Connor James

Manufactured in the United States of America

November 1999

4. Excerpt from the Book *The Wonderful World of Skyscrapers*
b. Table of Contents

Table of Contents

Introduction	1
The Earliest Skyscrapers	3–10
It Takes a Team to Put Together a Skyscraper	
Owners	12–13
Architects	13–14
Surveyors	14–15
Engineers	16–18
City Planners	19–20
Important Considerations to Keep in Mind	
The Elevator Problem	22–25
Heating and Air Conditioning	26–30
The Wind	31–40
Famous Skyscrapers around the World	
Empire State Building, New York	42–44
Sears Tower, Chicago	45–46
The Trump Building, New York	47–49
First Canadian Place, Toronto	50–51
John Hancock Center, Chicago	52–54
The Future—How High Can We Go?	
Frank Lloyd Wright and His “Mile High Scraper”	56–58
The Bionic Tower	59–60
Index	61–62
Glossary	63–64

Model Bibliographic Entries

The following sample bibliographic entries are adapted from the *MLA* (Modern Language Association) *Handbook for Writers of Research Papers*. They show some acceptable ways to write bibliographic entries.

A Book by a Single Author

Harris, Celia. Interesting Habitats. Chicago: Grayson, 1996.
(Author) (Title of work) (City) (Publisher) (Year)

A Book by More Than One Author

Baraty, Joseph, and Rosa Garcia. Marsh Birds. New York: Wenday, 1982.
(Authors) (Title of work) (City) (Publisher) (Year)

An Encyclopedia Entry

“Dwarfed Trees.” Encyclopedia Americana. 1958.
(Title of article) (Name of encyclopedia) (Year)

A Magazine Article

Chen, David. “Floating Down the River.” Our Wildlife 9 July 1988: 120–25.
(Author) (Title of article) (Name of publication) (Date of issue) (Page numbers)

A Book Issued by an Organization Identifying No Author

National Wildlife Group. Swamp Life. Washington: National Wildlife Group, 1985.
(Name of organization) (Title of work) (City) (Publisher) (Year)

1 On which pages of the book *The Wonderful World of Skyscrapers* would you find information about the John Hancock Center in Chicago?

- A** Pages 42–44
- B** Pages 45–46
- C** Pages 50–51
- D** Pages 52–54

Correct response: D

This item measures GLE 42: Locate and select information using a variety of organizational features in grade-appropriate resources.

2 To find information about the elevators in the Taipei 101 building, which resource would be most useful?

- A** “Skyscrapers” from the magazine *Kids Learning*
- B** The Some of the World’s Tallest Skyscrapers chart from the book *Buildings and How They Work*
- C** The table of contents from the book *The Wonderful World of Skyscrapers*
- D** The page from the Web site Skyscrapers.org

Correct response: A

This item measures GLE 43: Locate and integrate information from grade-appropriate resources, including multiple printed texts and electronic sources for use in researching a topic.

- 3 Look at the chart based on information on the page from the Web site Skyscrapers.org.

History	Contents	People
Was the tallest skyscraper for 41 years	Has 70 miles of water pipes	Visited by more than 3 million tourists each year

Which information goes in the blank under the History column?

- A Built in about a year
- B Workplace for 25,000 people
- C Has steel frames that weigh 60,000 tons
- D Generates 1,000 tons of garbage each month

Correct response: A

This item measures GLE 45: Generate grade-appropriate research reports that include information presented in a variety of forms, including graphic organizers (e.g., outlines, timelines, charts, webs).

4 What is the acceptable bibliographic entry for the book *The Wonderful World of Skyscrapers*? Refer to the model bibliographic entries.

- A** Michael Hollingsworth: The Wonderful World of Skyscrapers. Boston: Porter Publishing, 1999.
- B** Hollingsworth, Michael. The Wonderful World of Skyscrapers. Boston: Porter Publishing, 1999.
- C** Michael Hollingsworth. “The Wonderful World of Skyscrapers.” Boston: Porter Publishing, 1999.
- D** Hollingsworth, Michael. “The Wonderful World of Skyscrapers.” Boston: Porter Publishing, 1999.

Correct response: B

This item measures GLE 47: Give credit for borrowed information following acceptable-use policy, including creating bibliographies and/or works cited lists.

5 Which skyscraper located in Chicago, Illinois, has at least 100 stories and a height of more than 1,200 feet?

- A** Taipei 101
- B** Aon Centre
- C** Sears Tower
- D** John Hancock Center

Correct response: C

This item measures GLE 48: Interpret information from a variety of grade-appropriate sources, including timelines, charts, schedules, tables, diagrams, and maps.

Sample NRT Items

Questions 6 through 27 are sample items representative of those used on the norm-referenced parts of the *iLEAP* test. The survey battery of the Iowa Tests of Basic Skills (*ITBS*) is designed to measure a wide range of student achievement. Most items address Louisiana GLEs at grade 5, while some items address Louisiana GLEs at other grade levels. Items may assess a portion of or all of the skills of a GLE; each sample item that follows includes a description of the skill(s) being measured.

Vocabulary

Each vocabulary item presents a word in the context of a short phrase or sentence, and students select the answer that most nearly means the same as that word. *The vocabulary items measure GLE 1: Identify word meanings using a variety of strategies.*

Sample Vocabulary Items

6 **Unravel the string**

- A** knot
- B** twist
- C** wind up
- D** straighten out

Correct Response: D

7 **A shout of glee**

- A** joy
- B** pride
- C** content
- D** surprise

Correct Response: A

Reading

On the reading comprehension section, students read four passages and respond to several multiple-choice items.

Sample Reading Comprehension Items

Directions: Questions 8 through 12 are based on the following passage.

An old man and his grandson were walking down a country road to town. The old man saw a piece of metal lying in the road.

“Pick up that piece of iron, Hans,” he said to the boy.

“Oh, Grandfather,” said the boy. “It’s just an old piece of junk, and it’s dirty.”

The old man said nothing. He stooped slowly and picked up the piece of iron. He put it in his pocket, and the two walked on.

Soon they reached the town. The old man sold the piece of iron for ten pieces of money. He bought a box of cherries with the money.

The old man and his grandson returned home by the same dusty road. The little boy was tired and thirsty. He walked slowly, a few steps behind his grandfather.

The old man noticed that the boy was tired. He let one of the cherries fall to the ground. The boy picked it up and ate it. The grandfather pretended not to notice. He dropped another cherry. The boy picked it up and ate it. The grandfather dropped another cherry and then another. Each time the boy picked up the fruit and ate it.

This went on until the cherries were gone. Then the old man turned and said to the boy, “If you had stooped once for the iron, you would not have had to stoop twenty times for the cherries.”

8 Why did the cherries taste so good to the boy?

- A** He liked cherries better than any other fruit.
- B** He thought he was stealing them from the old man.
- C** He had never tasted cherries.
- D** He was worn out and thirsty.

Correct Response: D

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information, making simple inferences and drawing conclusions.

9 Why didn't the boy pick up the iron?

- A** He thought it had no value.
- B** He was ashamed of his grandfather.
- C** He thought it would be too heavy to carry.
- D** He did not want to take orders.

Correct Response: A

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

10 Why did the old man make the boy pick up the cherries one by one?

- A** He wanted to punish the boy.
- B** He wanted to make the boy ashamed of his bad conduct.
- C** He wanted to teach the boy a lesson.
- D** He thought the boy was lazy and needed exercise.

Correct Response: C

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated and implied main ideas and supporting details for each, making simple inferences and drawing conclusions.

11 Which best describes the old man?

- A** He had a quick temper.
- B** He was cheerful and pleasant.
- C** He was a man of few words.
- D** He was impatient and demanding.

Correct Response: C

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

12 How did the old man most likely feel when the boy did not pick up the piece of iron?

- A** Frightened
- B** Angry
- C** Pleased
- D** Disappointed

Correct Response: D

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

Directions: Questions 13 through 17 are based on the following passage.

Many years ago an ornamental vine was brought to this country from the Orient. In the South, it grew very well. It made such a fine, shady screen for the front porch that almost everybody used it for this purpose. In fact, it wasn't long before people were calling the plant the "porch vine."

Then, in the 1920s, some scientists got interested in this plant, whose real name is kudzu. They noticed that it would grow almost anywhere in a warm climate. They also saw how quickly the other shoots sprouted. "Isn't there anything else we can use kudzu for?" they asked themselves.

The scientists began planting it in gullies to see if it would keep topsoil from being washed away in the heavy rains. "If it makes a good screen for the porch," they thought, "maybe it will make a good cover for the soil." And the plant did just that. Its long, trailing shoots spread over the ground quickly. At every joint it sent out roots that anchored the vines solidly into the ground. Then farmers discovered that cows liked to eat kudzu. They found it to be a very good plant for hay or pasture.

But the problem with kudzu is that it grows too well! Kudzu can also destroy valuable forests by preventing trees from getting sunlight. By 1972, kudzu was officially declared to be a weed, and some people wanted to change its name to the Vine That Ate the South!

13 Which of these happened first?

- A** Scientists experimented with kudzu as a cover crop.
- B** People in the South found that kudzu made a good porch screen.
- C** Farmers began using kudzu as feed for cows.
- D** Kudzu was planted on thousands of acres of land.

Correct Response: B

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including sequencing events.

14 Why is kudzu able to keep the soil from washing away?

- A** The plant soaks up much of the rain water.
- B** The plant has very long roots.
- C** The plant sends out many shoots, each with its own roots.
- D** The plant has wide, flat leaves.

Correct Response: C

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information, making simple inferences and drawing conclusions.

15 What does paragraph 1 tell us?

- A** How kudzu protects the soil
- B** What kudzu looks like
- C** How kudzu was first used in this country
- D** When kudzu was first brought to this country

Correct Response: C

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information.

16 What is the best heading for paragraph 3?

- A** “Growing habits of kudzu”
- B** “Conserving the soil”
- C** “Planting kudzu”
- D** “Discovering new uses for kudzu”

Correct Response: D

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information, identifying stated and implied main ideas and supporting details for each.

17 **What do many people think of kudzu today?**

- A** They think it's a pest.
- B** They are worried it won't survive.
- C** They like its many uses.
- D** They think it's pretty.

Correct Response: A

This item measures GLE 12: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated and implied main ideas and supporting details for each, making simple inferences and drawing conclusions.

Language

The Language test contains multiple-choice items with mistakes in spelling, capitalization, punctuation, and usage and expression.

Sample Spelling Items

Directions: Questions 18 and 19 ask students to look for mistakes in spelling. Students should choose the word that is not spelled correctly. When there is no mistake, the student should choose the last answer (No mistakes).

- 18** **A** pocket
 B emty
 C mouth
 D deer
 E (No mistakes)

Correct Response: B

This item measures GLE 30: Spell high-frequency, commonly confused, frequently misspelled words correctly.

- 19** **A** list
 B found
 C biger
 D glass
 E (No mistakes)

Correct Response: C

This item measures GLE 30: Spell high-frequency, commonly confused, frequently misspelled words correctly.

Sample Capitalization and Punctuation Items

Directions: Questions 20 and 21 ask students to look for mistakes in capitalization. Questions 22 and 23 ask students to look for mistakes in punctuation. Students should choose the answer with the same letter as the line containing the mistake. When there is no mistake, the student should choose the last answer (No mistakes).

- 20** **A** Our family always eats
 B dinner in a restaurant when
 C one of us has a birthday.
 D (No mistakes)

Correct Response: D

This item measures GLE 27: Capitalize the first and other important words in titles and proper nouns.

- 21** **A** The new ice cream store on
 B sunrise avenue gave away
 C free sodas when it opened.
 D (No mistakes)

Correct Response: B

This item measures GLE 27: Capitalize the first and other important words in titles and proper nouns.

- 22** **A** Mrs Williams showed my sister
 B and me some pictures she
 C took when we were babies.
 D (No mistakes)

Correct Response: A

This item measures grade 2 GLE 28: Use standard English punctuation, including periods in abbreviations.

- 23** **A** Karen my big sister picked only
 B four quarts of strawberries. There
 C wasn't time for us to pick more.
 D (No mistakes)

Correct Response: A

This item measures GLE 26: Use standard English punctuation, including commas to set off appositives and introductory phrases.

Sample Usage and Expression Items

Directions: Questions 24 and 25 ask students to look for mistakes in standard English usage. Students should choose the answer with the same letter as the line containing the mistake. When there is no mistake, the student should choose the last answer (No mistakes).

- 24** **A** Only Rachel, who is my best friend,
 B and I knows the shortcut
 C from school to downtown.
 D (No mistakes)

Correct Response: B

This item measures GLE 28: Write paragraphs and compositions following standard English structure and usage, including agreement of subjects and verbs in complex sentences.

- 25** **A** We were going home when
 B we seen a raccoon near
 C the parking lot dumpster.
 D (No mistakes)

Correct Response: B

This item measures GLE 29: Apply knowledge of parts of speech in writing, including using same verb tense throughout when appropriate.

Directions: Questions 26 and 27 ask students to read a passage and look for mistakes in usage and expression. **Note that question 26 measures writing skills under standard 2. On the actual test, items that measure skills in standard 2 are reported with the score students receive on the writing prompt session of the test.**

Use the passage below to answer questions 26 and 27.

¹It rained hard all day last Sunday. ²The first one looked old. ³All the pictures were black and white. ⁴I didn't recognize anyone. ⁵The women wore long, dark dresses the men had beards. ⁶About halfway through the album, I found a picture of an old man. ⁷Underneath his picture, someone had written "Jeremiah Nixon." ⁸That was my great-grandfather's name. ⁹Suddenly, the afternoon didn't seem so boring.

26 Choose the best place to add the following sentence.

After looking around for something to do, I found a box of old photograph albums.

- A** Before sentence 1
- B** Between sentences 1 and 2
- C** Between sentences 5 and 6
- D** Between sentences 6 and 7

Correct Response: B

This item measures GLE 18: Write multiparagraph compositions on student- or teacher-selected topics organized with the following: an established central idea, important ideas or events stated in sequential or chronological order, elaboration, transitional words and phrases that unify points and ideas, and an overall structure including an introduction, a body/middle, and a concluding paragraph that summarizes important ideas.

27 What is the best way to write the underlined part of sentence 5?

- A** dresses, and the men had beards
- B** dresses, so the men had beards
- C** dresses, yet the men had beards
- D** (No change)

Correct Response: A

This item measures GLE 28: Write paragraphs and compositions following standard English structure and usage, including varied sentence structures and types, agreement of subjects and verbs in complex sentences, sentences without double negatives, and correct sentence fragments and run-on sentences.

Chapter 2: iLEAP Math, Grade 5

This section describes the overall design of the iLEAP Math test to be administered to students in grade 5. Test specifications, sample test questions, and scoring rubrics are provided so that teachers may align classroom practices with the state assessment.

Test Structure

The Math test consists of three parts, or subtests, which are administered in a single day:

- Part 1: a 30-item multiple-choice session that **does not** allow the use of calculators
- Part 2: a 20-item multiple-choice session that **allows** the use of calculators
- Part 3: a 2-item constructed-response session that **allows** the use of calculators

The suggested testing times for the Grade 5 iLEAP Math test listed in Table 2.1 are estimates only. The Math test is **untimed**.

Table 2.1: Suggested Testing Times

Part	Description	Number of Items	Testing Time
1	Multiple Choice, no calculator	30	60 minutes
2	Constructed Response, calculator	20	40 minutes
3	Multiple Choice, calculator	2	30 minutes
TOTAL		52	130 minutes

Information about additional time needed to read test directions to students and accomplish other activities related to test administration is included in the *iLEAP Test Administration Manual*.

The Math test is composed of criterion-referenced test (CRT) items only. These items measure Louisiana GLEs that more closely match the Common Core State Standards (CCSS) focus areas.

Item Types and Scoring Information

The test has fifty (50) multiple-choice items and two constructed-response items.

The multiple-choice items consist of an interrogatory stem and four answer options. These items assess a student's knowledge and conceptual understanding, and responses are scored 1 if correct and 0 if incorrect.

The constructed-response items, which involve a number of separate steps and application of multiple skills, are designed to assess one or more of the GLEs. The response format is open-ended and may include numerical answers, short written answers, and other types of constructed response (e.g., construct and draw rectangles [including squares] with given dimensions). Students may be required to explain in writing how they arrived at their

answers. These items are scored, according to an item-specific rubric, on a scale of 0 to 4 points.

General Scoring Rubric for Grade 5 *i*LEAP Math Constructed-Response Items

4	<p>The student’s response demonstrates in-depth understanding of the relevant content and/or procedures.</p> <p>The student completes all important components of the task and communicates ideas effectively.</p> <p>Where appropriate, the student offers insightful interpretations and/or extensions.</p> <p>Where appropriate, the student uses more sophisticated reasoning and/or efficient procedures.</p>
3	<p>The student completes most important aspects of the task accurately and communicates clearly.</p> <p>The response demonstrates an understanding of major concepts and/or processes, although less important ideas or details may be overlooked or misunderstood.</p> <p>The student’s logic and reasoning may contain minor flaws.</p>
2	<p>The student completes some parts of the task successfully.</p> <p>The response demonstrates gaps in the conceptual understanding.</p>
1	<p>The student completes only a small portion of the tasks and/or shows minimal understanding of the concepts and/or processes.</p>
0	<p>The student’s response is incorrect, irrelevant, too brief to evaluate, or blank.</p>

Description of the Math Test and GLEs Assessed

The Math test was developed specifically for Louisiana. Committees of Louisiana educators reviewed all items for content and alignment with Louisiana’s GLEs. Separate committees reviewed the items for potential bias and sensitive material.

The Math test is **untimed**. Suggested times are estimates for scheduling sessions and assisting students in managing their time.

Students are given a Mathematics Reference Sheet to consult as a reference. Calculators may be used on two parts of the test.

As Louisiana students and teachers transition to the CCSS (http://www.doe.state.la.us/topics/common_core.html) and PARCC assessments (http://www.doe.state.la.us/topics/common_core_assessments.html), the Math test will include only items measuring GLEs aligned to the CCSS. Table 2.2 provides a list of GLEs eligible for assessment during the transition. The table identifies the GLEs and the corresponding CCSS alignment. Some grade 5 GLEs align to CCSS at other grade levels but will continue to be taught and tested in grade 5 to decrease the possibility that the transition will create curricular gaps.

Table 2.2: GLE Content to be Taught and Tested in 2012-13 and 2013-14

GLE #	Grade-Level Expectation Text	Aligned CCSS #
2	Recognize, explain, and compute equivalent fractions for common fractions	Retained ¹
3	Add and subtract fractions with common denominators and use mental math to determine whether the answer is reasonable	5.NF.2
4	Compare positive fractions using number sense, symbols (i.e., <, =, >), and number lines	Retained ¹
5	Read, explain, and write a numerical representation for positive improper fractions, mixed numbers, and decimals from a pictorial representation and vice versa	5.NBT.3
6	Select and discuss the correct operation for a given problem involving positive fractions using appropriate language such as <i>sum</i> , <i>difference</i> , <i>numerator</i> , and <i>denominator</i>	5.OA.2 4.NF.3
7	Select, sequence, and use appropriate operations to solve multi-step word problems with whole numbers	5.OA.2 4.OA.3
8	Use the whole number system (e.g., computational fluency, place value, etc.) to solve problems in real-life and other content areas	5.NBT.5 5.NBT.6
9	Use mental math and estimation strategies to predict the results of computations (i.e., whole numbers, addition and subtraction of fractions) and to test the reasonableness of solutions	5.NF.2
11	Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that $\frac{2}{3}$ means 2 divided by 3)	5.NF.3
14	Find solutions to one-step inequalities and identify positive solutions on a number line	Retained ¹
16	Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems	5.MD.1
21	Measure angles to the nearest degree	Retained ¹
23	Convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system	5.MD.1
24	Use mathematical terms to classify and describe the properties of 2-dimensional shapes, including circles, triangles, and polygons	5.G.3 5.G.4
27	Identify and plot points on a coordinate grid in the first quadrant	5.G.1 5.G.2
28	Use various types of charts and graphs, including double bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing	5.MD.2

¹ This GLE was moved to another grade but will be taught and tested in this grade to decrease the possibility that the transition will create curricular gaps.

Reporting Categories

To be more reflective of the focus areas of the CCSS at each grade, the GLEs available for assessment have been grouped into the Reporting Categories shown in Table 2.3. During the transition, the Reporting Categories replace the mathematics strands (e.g., Number and Number Relations, Algebra, etc.) for assessment purposes.

Table 2.3: Grade 5 Math Reporting Categories

Reporting Category	GLEs Covered
Number and Operations	7, 8, 9, 14
Fractions	2, 3, 4, 5, 6, 11
Measurement, Data, and Geometry	16, 21, 23, 24, 27, 28

Math Test Specifications

Table 2.4 provides test specifications for the multiple-choice part of the grade 5 *iLEAP* Math assessment. The values in the table are approximations due to slight variations in the content across test forms at grade 5.

Table 2.4: Grade 5 Math Test Specifications

Reporting Category	% of Multiple-Choice Points
Number and Operations	26
Fractions	50
Measurement, Data, and Geometry	24
Total	100

Fifty 1-point MC items plus two 4-point constructed-response items equals a 58-point test.

Calculator Recommendations and Restrictions

It is recommended that a calculator be made available to **each** student for instructional and assessment purposes. As with all instructional materials, each individual district and school should determine which calculator best supports its mathematics curriculum and instructional program.

Calculators recommended for instruction and assessment:

- K–4 students: four-function calculator
- 5–8 students: scientific calculator
- 9–12 students: scientific calculator with graphing capabilities

Calculators not permitted on statewide assessment:

- handheld or laptop computers
- pocket organizers
- calculators with Computer Algebra Systems (CAS) or other symbolic manipulation capabilities
- calculators with paper tape
- calculators that talk or make noise
- calculators with QWERTY (typewriter-style) keypads
- electronic writing pads or pen input devices

Sample Test Items: Grade 5 Math

Sample Mathematics Constructed-Response Items and Scoring Rubrics

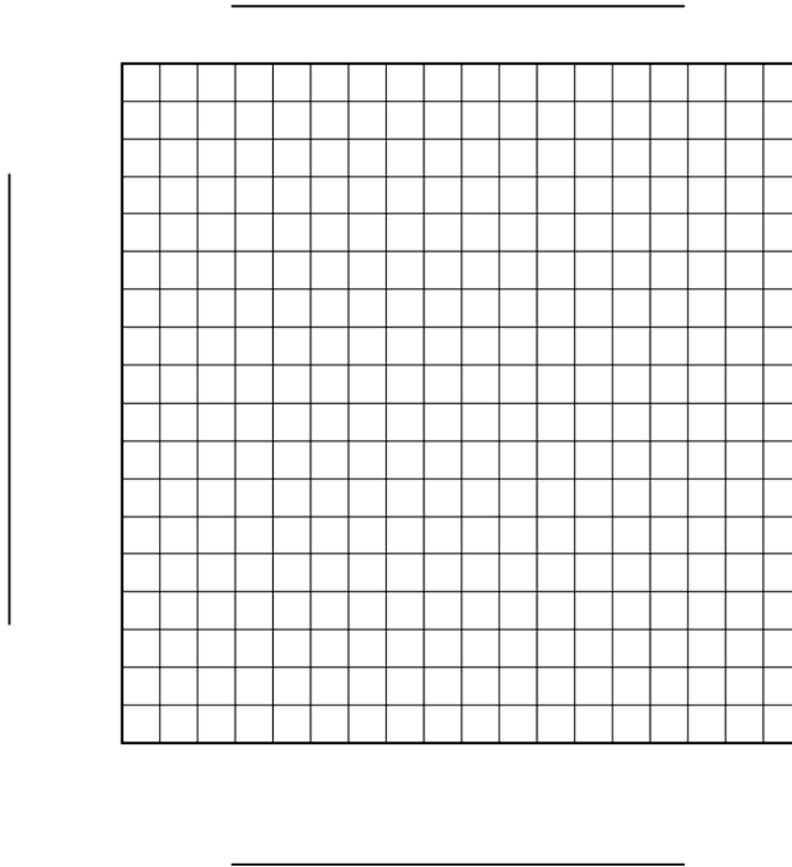
Questions 1 and 2 show sample constructed-response items. Each item involves a number of separate steps and the application of multiple skills. The constructed-response items are designed to assess one or more of the GLEs. The items are scored using an item-specific rubric on a scale of 0 to 4 points.

- 1** The table below shows the average monthly rainfall of Baton Rouge and New Orleans for the first 6 months of 2004. The amounts have been rounded to the nearest whole millimeter.

Average Monthly Rainfall in Millimeters

	January	February	March	April	May	June
Baton Rouge	193	170	152	144	162	209
New Orleans	117	122	143	169	80	106

- A** Draw a double bar graph that represents the given information. Give your graph a title and label the axes. Be sure to scale the axes and include a key for the bars.



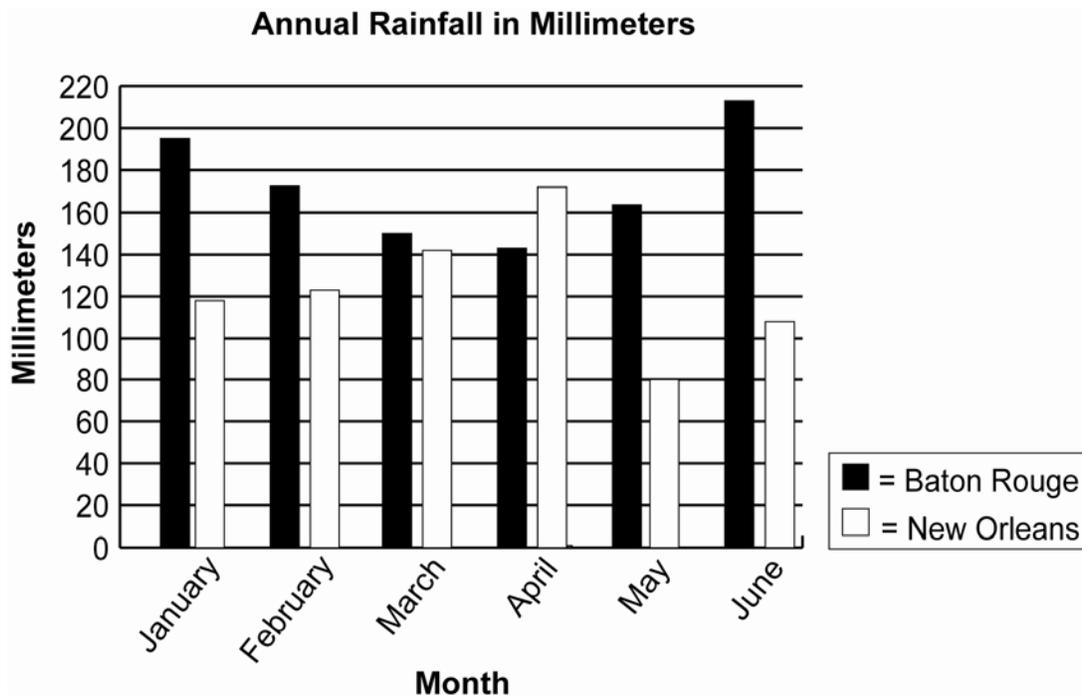
- B** The State Amateur Soccer League is planning a tournament. The league wants to hold the tournament outdoors in either Baton Rouge or New Orleans. **Based on your double bar graph, which city and which month would be best in which to hold the tournament? Explain how you reached this answer.**

Match to GLE: This item measures GLE 28: Use various types of charts and graphs, including double bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing.

Scoring Rubric	
4	The student earns 5 points.
3	The student earns 3 or 4 points.
2	The student earns 2 points.
1	The student earns 1 point. OR The student shows minimal understanding of how to use graphs to display and use data.
0	Student's response is incorrect, irrelevant to the skill or concept being measured, or is blank.

Sample Answer:

Part A



Part B. This is one possible answer: I think that the soccer tournament should be held in New Orleans during the month of May because the rainfall is lowest at that time and New Orleans is consistently lower in rainfall than Baton Rouge.

Points Assigned:

Part A. 3 points

3 points for drawing the graph accurately, labeling axes and graph, scaling axes, and providing a key

OR

2 points for drawing the graph but making no more than two minor errors in the categories of plotting, labeling, or scaling

OR

1 point for creating the bar graph but not labeling the parts of the graph **OR** 1 point for making a major error in one of the categories of plotting, labeling, or scaling

Part B. 2 points

2 points for making a correct choice for the location and month for the tournament and an explanation supported by the data graphed

OR

1 point for correctly stating the prediction based on the data graphed with no explanation

2

There are 18 members in a sports club:

- 6 soccer players,
- 9 basketball players, and
- 3 golfers.

A Draw a model that represents the ratio of soccer players to basketball players to golfers in the sports club.

B Draw a second model that represents the ratio of soccer players to basketball players to golfers in the sports club. This model must be different than the one you drew in Part A but must represent an equivalent ratio.

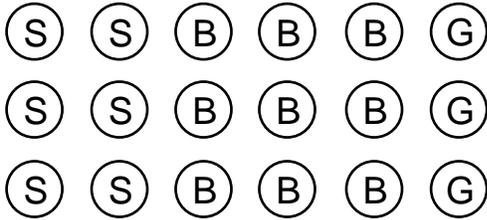
C Three football players join the club. Explain how these new members affect the ratio of soccer players to basketball players in the sports club.

D Some swimmers also joined the sports club. The ratio of swimmers to the total number of members in the sports club is represented by the model below.



In the model the shaded region represents the swimmers in the sports club. Explain how to find the decimal equivalent of the ratio of swimmers to the total number of members in the sports club.

Match to GLE: This item measures GLE 11: Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that $2/3$ means 2 divided by 3).

Scoring Rubric	
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point.
0	The student earns 0 points. OR The student's response is incorrect, irrelevant to the skill being measured, or blank.
Sample Answer:	
<p>Part A</p>  <p>Part B</p>  <p>Part C</p> <p>The new members do not affect the ratio of soccer players to basketball players because none of the new players play either of these two sports.</p> <p>Part D</p> <p>Since there is 1 region shaded out of 8, to find the decimal equivalent you need to divide 1 by 8.</p>	
Points Assigned:	
<p>Part A: 1 point 1 point for drawing a model that correctly displays the ratios of the different types of players</p> <p>Part B: 1 point 1 point for drawing a different model (with a different total number of circles) that correctly displays the ratios of the different types of players</p> <p>Part C: 1 point 1 point for correctly identifying that there will be no change in the ratio of soccer players to basketball players</p> <p>Part D: 1 point 1 point for creating the expression $1 \div 8$ or an equivalent expression</p>	

Sample Multiple-Choice Items

Questions 3 through 24 are sample multiple-choice items, arranged by GLE. The items test students' ability to solve math problems. Most items are provided in context and require students to use information from stories, graphs, or tables to solve a problem. Items may assess some of the skills of a GLE, while other items may measure all of the skills of the GLE.

3 Which is a pair of equivalent fractions?

A $\frac{1}{2}, \frac{3}{6}$

B $\frac{3}{5}, \frac{3}{6}$

C $\frac{1}{5}, \frac{3}{5}$

D $\frac{1}{2}, \frac{1}{5}$

Correct Response: A

Match to GLE: This item measures GLE 2: Recognize, explain, and compute equivalent fractions for common fractions.

4 The sum of $\frac{1}{10}$ and $\frac{2}{10}$ is between

A $1\frac{1}{2}$ and 2.

B 1 and $1\frac{1}{2}$.

C $\frac{1}{2}$ and 1.

D 0 and $\frac{1}{2}$.

Correct Response: D

Match to GLE: This item measures GLE 3: Add and subtract fractions with common denominators and use mental math to determine whether the answer is reasonable.

5 Which inequality is true?

A $\frac{1}{2} < \frac{1}{4}$

B $\frac{1}{3} < \frac{1}{5}$

C $\frac{1}{5} < \frac{1}{8}$

D $\frac{1}{8} < \frac{1}{4}$

Correct Response: D

Match to GLE: This item measures GLE 4: Compare positive fractions using number sense, symbols (i.e., $<$, $=$, $>$), and number lines.

6 Janie has some stickers. All of her stickers are in the shapes of circles, squares, stars, or triangles.

- $\frac{3}{20}$ of her stickers are circles.
- $\frac{1}{20}$ of her stickers are squares.
- $\frac{5}{10}$ of her stickers are stars.
- $\frac{3}{10}$ of her stickers are triangles.

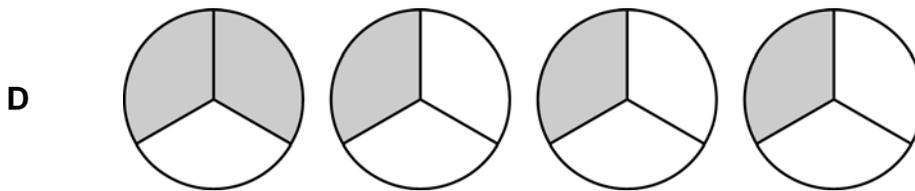
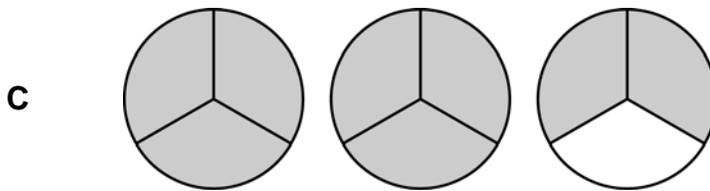
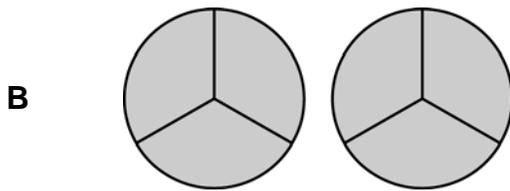
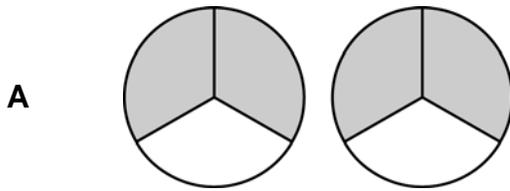
The greatest fraction of stickers is of which sticker shape?

- A** circle
- B** square
- C** star
- D** triangle

Correct Response: C

Match to GLE: This item measures GLE 4: Compare positive fractions using number sense, symbols (i.e., <, =, >), and number lines.

7 Which picture shows $2\frac{2}{3}$?



Correct Response: C

Match to GLE: This item measures GLE 5: Read, explain, and write a numerical representation for positive improper fractions, mixed numbers, and decimals from a pictorial representation and vice-versa.

- 8** Paul is making a recipe that calls for $\frac{3}{4}$ cup of brown sugar and $\frac{1}{3}$ cup of white sugar. **How can Paul find the total amount of sugar he uses in this recipe?**
- A** Find the sum of $\frac{3}{4}$ and $\frac{1}{3}$ by using a common numerator.
- B** Find the sum of $\frac{3}{4}$ and $\frac{1}{3}$ by using a common denominator.
- C** Find the difference between $\frac{3}{4}$ and $\frac{1}{3}$ by using a common numerator.
- D** Find the difference between $\frac{3}{4}$ and $\frac{1}{3}$ by using a common denominator.

Correct Response: B

Match to GLE: This item measures GLE 6: Select and discuss the correct operation for a given problem involving positive fractions using appropriate language such as sum, difference, numerator, and denominator.

- 9** Jim bought supplies for his pet hamsters. He bought four water bottles for \$5 and a 25-pound bag of hamster food for \$8. He gave the clerk \$20. **Which equation shows how Jim can figure out how much change (C) he should receive?**

- A** $20 - (5 \div 4) = C$
- B** $20 - (4 + 25) = C$
- C** $20 - 4(5) = C$
- D** $20 - (5 + 8) = C$

Correct Response: D

Match to GLE: This item measures GLE 7: Select, sequence, and use appropriate operations to solve multistep word problems with whole numbers.

- 10** The school bus had seats for 38 children. When the bus reached school, only 5 seats were empty. **How many children rode on the bus?**

- A** 5
- B** 33
- C** 38
- D** 43

Correct Response: B

Match to GLE: This item measures GLE 8: Use the whole number system (e.g., computational fluency, place value, etc.) to solve problems in real-life and other content areas.

- 11** Steven is 8 years old. His aunt is two years younger than 5 times Steven's age. **How old is Steven's aunt?**
- A** 36
 - B** 38
 - C** 40
 - D** 42

Correct Response: B

Match to GLE: This item measures GLE 8: Use the whole number system (e.g., computational fluency, place value, etc.) to solve problems in real-life and other content areas.

- 12** Joan estimated the answer to these four math problems by first rounding the numbers to the nearest ten and then multiplying. **For which problem did she multiply 30×50 ?**
- A** 27×44
 - B** 24×53
 - C** 28×51
 - D** 32×58

Correct Response: C

Match to GLE: This item measures GLE 9: Use mental math and estimation strategies to predict the results of computations (i.e., whole numbers, addition and subtraction of fractions) and to test the reasonableness of solutions.

Directions: Use the pictures of pennies below to answer question 13.



Annie's 12 Pennies



Jack's 4 Pennies

13 What is the ratio of Annie's pennies to Jack's pennies?

- A** 3:1
- B** 4:1
- C** 6:1
- D** 8:1

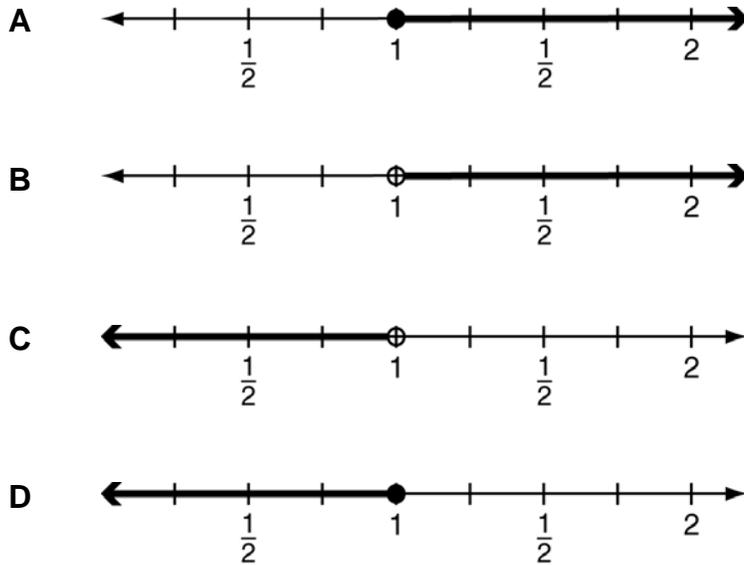
Correct Response: A

Match to GLE: This item measures GLE 11: Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that $\frac{2}{3}$ means 2 divided by 3).

- 14 Mr. Watson is putting new baseboard in his kitchen. The baseboard is $\frac{1}{4}$ inch thick, and the drywall is $\frac{3}{4}$ inch thick. The nails he uses must be longer than the thickness of the baseboard and the drywall combined. Mr. Watson uses the following inequality in which l represents the length of the nail.

$$l > \frac{1}{4} + \frac{3}{4}$$

Which graph shows the length of the nails Mr. Watson can use for his project?



Correct response: B

Match to GLE: This item measures GLE 14: Find solutions to one-step inequalities and identify positive solutions on a number line.

- 15** Pierre worked on an art project for 2 hours and 20 minutes. He finished the project at 7:40 P.M. **At what time did Pierre begin working on the project?**
- A** 5:20 P.M.
 - B** 5:40 P.M.
 - C** 9:40 P.M.
 - D** 10:00 P.M.

Correct response: A

Match to GLE: This item measures GLE 16: Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems.

- 16** At 11:55 A.M., Ken makes a call from his home in Louisiana to his friend Simone in Alaska. Alaska is 3 hours behind Louisiana. Ken and Simone talked for 25 minutes. **What was the time in Alaska when the call ended?**
- A** 8:20 A.M.
 - B** 9:20 A.M.
 - C** 2:20 P.M.
 - D** 3:20 P.M.

Correct response: B

Match to GLE: This item measures GLE 16: Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems.

Directions: Use this clock below to answer the question 17.



17 What is the measure of $\angle A$ to the nearest degree?

- A** 30°
- B** 45°
- C** 150°
- D** 180°

Correct response: C

Match to GLE: This item measures GLE 21: Measure angles to the nearest degree.

18 Julia's fudge recipe calls for 6 ounces of chocolate chips. She wants to make 3 batches of the recipe. **Which quantity of chocolate chips does Julia need to make 3 batches of her recipe?**

- A** 1 pound
- B** 1 pound 2 ounces
- C** 3 pounds
- D** 3 pounds 2 ounces

Correct response: B

Match to GLE: This item measures GLE 23: Convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system.

- 19** Elaine is using string to make some yo-yos.
- She has 4 balls of string.
 - Each ball contains 5 yards of string.
 - She uses exactly 45 inches of string for each yo-yo.
- What is the greatest number of yo-yos Elaine can make?**
- A** 13
B 16
C 20
D 54

Correct response: B

Match to GLE: This item measures GLE 23: Convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system.

20 Anthony made a frame in art class. The frame has four sides that are two different lengths, and the opposite sides are parallel. The frame has four right angles. **Which shape is the frame?**

- A** Square
- B** Rectangle
- C** Pentagon
- D** Trapezoid

Correct response: B

Match to GLE: This item measures GLE 24: Use mathematical terms to classify and describe the properties of two-dimensional shapes, including circles, triangles, and polygons.

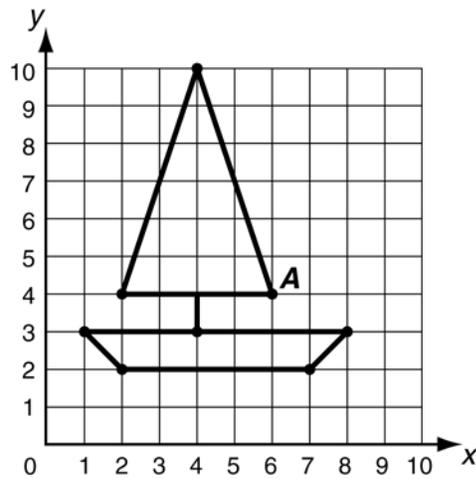
21 Tara was standing in front of her house when she noticed the shape of the attic window. The window had exactly one set of parallel sides. **Which polygon is the window shaped like?**

- A** Square
- B** Rhombus
- C** Rectangle
- D** Trapezoid

Correct response: D

Match to GLE: This item measures GLE 24: Use mathematical terms to classify and describe the properties of two-dimensional shapes, including circles, triangles, and polygons).

Directions: Use the graph below to answer question 22.



22 Which is the ordered pair for point A?

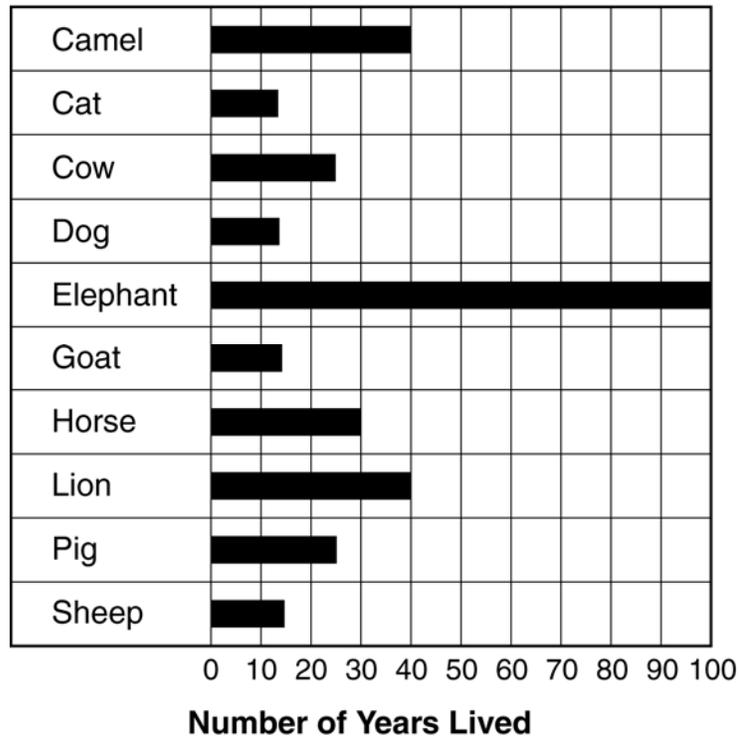
- A** (2, 4)
- B** (4, 3)
- C** (4, 6)
- D** (6, 4)

Correct response: D

Match to GLE: This item measures GLE 27: Identify and plot points on a coordinate grid in the first quadrant.

Directions: Use the graph below to answer question 23.

How Long Some Animals Live



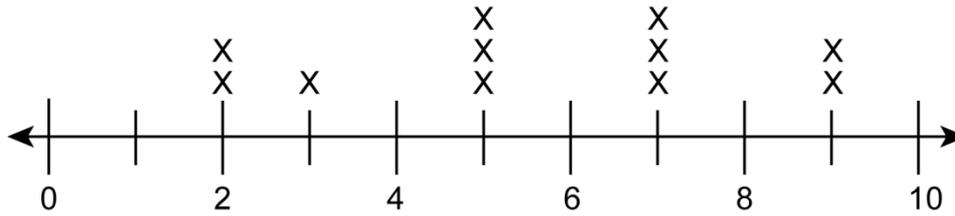
23 How many of these animals can live longer than 20 years?

- A** 1
- B** 2
- C** 6
- D** 10

Correct Response: C

Match to GLE: This item measures GLE 28: Use various types of charts and graphs, including double-bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing.

- 24 The line plot below shows the number of matches each member of the Tigers Ping-Pong Club won at a tournament.



After the tournament, the coaches of each club also played. The Tigers' coach added the number of matches she won to the line plot. After her data was added, only one number had the most people winning that number of matches. **Which could be the number of matches the coach won during the coaches' tournament?**

- A 2
- B 5
- C 9
- D 10

Correct Response: B

Match to GLE: This item measures GLE 28: Use various types of charts and graphs, including double-bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing.

Chapter 3: *i*LEAP Science, Grade 5

This section describes the overall design of the *i*LEAP Science test to be administered to students in grade 5. Test specifications and sample test questions are provided so that teachers may align classroom practices with the state assessment.

Test Structure

The Science test consists of one part and is administered in a single day.

The science test is a criterion-referenced test (CRT) that includes items based entirely on Louisiana’s science content standards. These items are aligned with Louisiana’s Grade-Level Expectations (GLEs) and were developed specifically for Louisiana.

Item Types

The test has forty-six (46) multiple-choice items.

The multiple-choice items consist of an interrogatory stem and four answer options. These items assess a student’s knowledge and conceptual understanding, and responses will be scored 1 if correct and 0 if incorrect.

To maximize the meaningfulness of multiple-choice test items, questions are typically cast in a practical problem-solving context, referring to a single stimulus (e.g., chart) or to a description of a single scenario. The reading difficulty level of test questions is minimized to the extent possible (except for necessary scientific terms) so that students’ reading ability does not interfere with their ability to demonstrate their science knowledge and skills.

Description of the Science Test

The Science test was developed specifically for Louisiana. Committees of Louisiana educators reviewed all items for content and alignment with Louisiana’s standards, benchmarks, and GLEs. Separate committees reviewed the items for potential bias and sensitive material.

The Science test is **untimed**. About one hour (60 minutes) is the suggested time to allow students to answer the questions.

The grade 5 Science test assesses student learning in the five science strands delineated in the Louisiana Science Framework and the Comprehensive Curriculum: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, and Science and the Environment.

Description of Stimulus Material

The stimulus material may include:

- Data tables or graphs presenting data to be read or interpreted;
- Charts, illustrations, or graphic organizers;
- Descriptions of science investigations; and/or
- Maps showing geographical features.

Scoring Information

The *iLEAP* Science test contains multiple-choice items only. These items have four response options (A, B, C, D) and are scored right or wrong. Correct answers receive a score of 1; incorrect answers receive a score of 0.

Science Test Specifications

Table 3.1 provides the test specifications for the grade 5 *iLEAP* science assessment. The values in the table are approximations due to slight variations in the content across test forms.

Table 3.1: Grade 5 Science Test Specifications

Strand/Category	% of Total Points
Science as Inquiry	22
A. The Abilities Necessary to Do Scientific Inquiry	
B. Understanding Scientific Inquiry	
Physical Science	20
A. Properties and Changes of Properties in Matter	
B. Motions and Forces	
C. Transformations of Energy	
Life Science	20
A. Structure and Function in Living Systems	
B. Reproduction and Heredity	
C. Populations and Ecosystems	
D. Adaptations of Organisms	
Earth and Space Science	22
A. Structure of Earth	
B. Earth History	
C. Earth in the Solar System	
Science and the Environment	16
Total	100

Strands, Benchmarks, and GLEs Assessed

Louisiana's Science Framework encompasses five strands: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, and Science and the Environment. At grade 5, all five strands are taught.

The Louisiana science strands are each associated with a single standard, which present broad goals for what all students in Louisiana should know and be able to do in science:

Science as Inquiry (SI) Strand

Standard: Students will do science by engaging in partial and full inquiries that are within their developmental capabilities.

Physical Science (PS) Strand

Standard: Students will develop an understanding of the characteristics and interrelationships of matter and energy in the physical world.

Life Science (LS) Strand

Standard: The students will become aware of the characteristics and life cycles of organisms and understand their relationships to each other and to their environment.

Earth and Space Science (ESS) Strand

Standard: The students will develop an understanding of the properties of earth materials, the structure of the Earth systems, the Earth's history, and the Earth's place in the universe.

Science and the Environment (SE) Strand

Standard: In learning environmental science, students will develop an appreciation of the natural environment, learn the importance of environmental quality, and acquire a sense of stewardship. As consumers and citizens, they will be able to recognize how our personal, professional, and political actions affect the natural world.

The focus for grade 5 Louisiana students is general science concepts. The content explored at this grade level includes properties of matter, reactions, forces, motion, and energy transformations, cells to living organisms, ecosystems, Earth and its atmosphere, cycles and climates, and space. For this reason, the grade 5 *i*LEAP Science test assesses the following strands: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, and Science and the Environment.

Science as Inquiry is a **process** strand; the others are **content** strands. The organization into strands does not imply that science should be taught in isolated units. In fact, teachers are encouraged to integrate study units. Inquiry should be integrated across all the science content strands.

GLEs further define the knowledge and skills students are expected to master by the end of each grade or high school course. The GLEs for each grade are developmentally appropriate and increase in complexity to build the knowledge and skills students need.

Most of the grade 5 GLEs are eligible for assessment on the grade 5 *i*LEAP. Some, however, do not lend themselves to testing on a statewide assessment in multiple-choice format. For example, some GLEs require students to use a particular technology, construct models, write

the steps in an investigation, draw a diagram, measure, construct food chains, or demonstrate constructive and destructive forces. Other GLEs, in accordance with the Comprehensive Curriculum, may not be taught prior to the spring test administration and therefore will not be assessed. Science as Inquiry GLEs 7, 8, 9, 14, 15, 19, 20, 24, and 37 are not assessed. Physical Science GLEs 1 and 9 are not assessed. Life Science GLE 23 is not assessed. Earth and Space Science GLEs 32, 40, 42, and 47 are not assessed. It is important, however, that the skills represented by these GLEs are taught at this grade level to prepare students for classroom assessment purposes as well as the grade 8 LEAP test.

Explanation of Codes

GLEs are numbered consecutively in each grade level and grouped by strand and thematic category. For example:

- Strand:** Physical Science
Categories: A. Properties and Changes of Properties of Matter
 B. Motions and Forces
 C. Transformations of Energy

Benchmarks are coded by strand, grade cluster (E, M, H), and benchmark number. The first term in the code refers to the strand. The second term refers to the grade cluster, and the third term refers to the category and benchmark number. Categories are indicated by letters.

Table 3.2 provides three examples of benchmark codes.

Table 3.2: Examples of Science Codes

Code	Translation
SI-E-A5	SI strand, Elementary level, category A, benchmark 5
PS-M-B4	PS strand, Middle School level, category B, benchmark 4
SE-H-A6	SE strand, High School level, category A, benchmark 6

For most grade clusters, strands are divided into categories, or major topical areas. However, the SE strand has no substrands for prekindergarten through 4 and 5 through 8.

Science GLEs are numbered consecutively in Science as Inquiry and consecutively within the content strands.

- Science As Inquiry—GLEs 1–40
- Physical Science—GLEs 1–14
- Life Science—GLEs 15–29
- Earth and Space Science—GLEs 30–47
- Science and the Environment—GLEs 48–51

Key Concepts for the Grade 5 Assessment

The key concepts are provided to guide teachers in their classroom instruction as it relates to the assessment. These concepts describe important content emphasis regarding the knowledge and skills eligible for assessment of each strand.

Science as Inquiry

1. Designing an Investigation

- Identify testable questions, questions that guide investigations/experiments, and questions to consider during an investigation
- Identify problems in an investigation
- Identify the components of an investigation
- Use multiple sources to answer questions
- Select appropriate experimental design or setup
- Predict outcomes of an investigation
- Identify correct procedure in an investigation
- Identify the independent variable, dependent variable, and/or variables that should be controlled or constant in an investigation
- Select appropriate tools, equipment, and technology to use in an investigation
- Use metric system of measure using appropriate or accurate units
- Identify appropriate safety tools and procedures
- Identify correct setup between varying investigations
- Identify ways to improve the investigation
- Identify mistakes in procedures
- Identify alternate methods for investigation using same tools

2. Communication

- Understand and be able to identify the difference between a description and an explanation
- Use data tables, charts, circle graphs, line graphs, bar graphs, diagrams, scatter plots, and symbols to collect, record, and report data
- Develop an explanation of experimental results
- Identify patterns in data
- Use models to explain natural phenomena or conclusions from investigations
- Predict trends supported by data
- Recognize there are multiple ways to interpret data that may result in alternate explanations
- Identify statements not supported by data or identify faulty reasoning
- Understand and be able to identify the difference between an observation and an inference
- Communicate results of investigations
- Identify statements that explain data

3. Technology and the Work of Scientists

- Recognize that scientists use logical processes to solve problems
- Review other scientists' work before beginning an investigation
- Recognize how technology expands the human senses
- Recognize that present technology limits answering all questions
- Recognize that there is an acceptable range of variation in collected data
- Identify mean, median, mode, and range from a given set of data
- Identify problems in models, experiment design
- Understand how scientists communicate about investigations in progress and findings
- Describe how/why scientific theories change
- Verify experiments through multiple investigation/trials
- Solve problems and form new ideas as a result of scientific investigations
- Identify how technology has changed human life
- Evaluate the impact of research on scientific thought, society, and the environment

Physical Science

1. Chemical and Physical Properties of Matter

- Compare physical properties of objects of the same material
- Identify the electrical charge of protons, neutrons, and electrons and describe where they are found in an atom
- Identify physical and chemical properties of various substances
- Group substances by observable and measurable physical or chemical properties
- Explain how water changes from a solid to a liquid to a gas
- Identify new substances formed during common chemical reactions

2. Forces, Motion, and Energy

- Compare, calculate, and graph the average speeds of objects in motion (metric and U.S. system)
- Identify that gravity accelerates all falling objects at the same rate in the absence of air resistance
- Identify examples of potential and kinetic energy
- Classify energy resources as renewable, nonrenewable, or inexhaustible
- Use photosynthesis and the water cycle to identify the Sun as Earth's primary energy source
- Identify size and shape of a shadow when the change in position of a light source occurs
- Explain that heat, light, and mechanical energy are produced by electricity

Life Science

1. Plant and Animal Cells

- Identify the cell as the basic unit of living things
- Identify the components of the cell and describe the functions of each
- Compare plant and animal cells
- Describe the metamorphosis of a frog
- Describe the process of photosynthesis and respiration in green plants

2. Plant and Animal Characteristics

- Identify the levels of organization in living things from cells to organ systems
- Identify how disease caused by germs can be transmitted from person to person
- Use a simple dichotomous key to classify common plants and animals
- Describe the roles of producers, consumers, and decomposers in a food chain
- Compare food chains and food webs
- Describe various Louisiana ecosystems (marsh, forest, prairie, estuary, swamp, wetland)
- Describe common traits and adaptations that help animals to survive in ecosystems
- Identify predator/prey relationships

Earth and Space Science

1. Characteristics of the Lithosphere, Hydrosphere, and Atmosphere

- Identify organic and inorganic matter in soil samples
- Identify common rocks and minerals and explain their economic significance
- Identify the processes that prevent or cause erosion
- Identify the components of the hydrosphere
- Describe the atmosphere as a mixture of gases, water vapor, and particulate matter
- Describe and compare the polar, temperate, and tropical climate zones
- Identify typical and international weather map symbols and the type of weather they represent
- Recognize the amount of time it takes for natural events to occur (within seconds, over millions of years)

2. Characteristics of Objects in the Solar System

- Identify the physical characteristics of the Sun
- Explain that the rotation of Earth on its axis cause the Moon, Sun, and stars to appear to move from east to west across the sky
- Describe the characteristics of the inner and outer planets
- Use models or illustrations to explain rotation and revolution
- Identify Earth's position in the solar system
- Explain the processes of the water cycle

Science and the Environment

- Identify the ability of an ecosystem to support a population (carrying capacity) and identify the resources needed
- Identify pollutants found in water, air, and soil
- Describe how human activities have a positive or negative impact on local ecosystems
- Describe the carbon, nitrogen, water, and oxygen cycles and where they occur (e.g., soil, atmosphere)

Grade 5 Science Standards, Benchmarks, and GLEs

The following chart presents **all** grade 5 science strands and standards, benchmarks, and GLEs.

GRADE 5 SCIENCE STANDARDS, BENCHMARKS, AND GLEs	
Science as Inquiry: The students will <u>do</u> science by engaging in partial and full inquiries that are within their developmental capabilities.	
<i>A. The Abilities Necessary to Do Scientific Inquiry</i>	
Benchmarks	Grade-Level Expectations
SI-M-A1: identifying questions that can be used to design a scientific investigation	<ol style="list-style-type: none"> 1. Generate testable questions about objects, organisms, and events that can be answered through scientific investigation (SI-M-A1) 2. Identify problems, factors, and questions that must be considered in a scientific investigation (SI-M-A1) 3. Use a variety of sources to answer questions (SI-M-A1)
SI-M-A2: designing and conducting a scientific investigation	<ol style="list-style-type: none"> 4. Design, predict outcomes, and conduct experiments to answer guiding questions (SI-M-A2) 5. Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment (SI-M-A2)
SI-M-A3: using mathematics and appropriate tools and techniques to gather, analyze, and interpret data	<ol style="list-style-type: none"> 6. Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations (SI-M-A3) 7. Record observations using methods that complement investigations (e.g., journals, tables, charts) (SI-M-A3) 8. Use consistency and precision in data collection, analysis, and reporting (SI-M-A3) 9. Use computers and/or calculators to analyze and interpret quantitative data (SI-M-A3)

<p>SI-M-A4: developing descriptions, explanations, and graphs using data</p>	<p>10. Identify the difference between description and explanation (SI-M-A4)</p> <p>11. Construct, use, and interpret appropriate graphical representations to collect, record, and report data (e.g., tables, charts, circle graphs, bar and line graphs, diagrams, scatter plots, symbols) (SI-M-A4)</p> <p>12. Use data and information gathered to develop an explanation of experimental results (SI-M-A4)</p> <p>13. Identify patterns in data to explain natural events (SI-M-A4)</p>
<p>SI-M-A5: developing models and predictions using the relationships between data and explanations</p>	<p>14. Develop models to illustrate or explain conclusions reached through investigation (SI-M-A5)</p> <p>15. Identify and explain the limitations of models used to represent the natural world (SI-M-A5)</p> <p>16. Use evidence to make inferences and predict trends (SI-M-A5)</p>
<p>SI-M-A6: comparing alternative explanations and predictions</p>	<p>17. Recognize that there may be more than one way to interpret a given set of data, which can result in alternative scientific explanations and predictions (SI-M-A6)</p> <p>18. Identify faulty reasoning and statements that misinterpret or are not supported by the evidence (SI-M-A6)</p>
<p>SI-M-A7: communicating scientific procedures, information, and explanations</p>	<p>19. Communicate ideas in a variety of ways (e.g., symbols, illustrations, graphs, charts, spreadsheets, concept maps, oral and written reports, equations) (SI-M-A7)</p> <p>20. Write clear step-by-step instructions that others can follow to carry out procedures or conduct investigations (SI-M-A7)</p> <p>21. Distinguish between <i>observations</i> and <i>inferences</i> (SI-M-A7)</p> <p>22. Use evidence and observations to explain and communicate the results of investigations (SI-M-A7)</p>
<p>SI-M-A8: utilizing safety procedures during scientific investigations</p>	<p>23. Use relevant safety procedures and equipment to conduct scientific investigations (SI-M-A8)</p> <p>24. Provide appropriate care and utilize safe practices and ethical treatment when animals are involved in scientific field and laboratory research (SI-M-A8)</p>

B. Understanding Scientific Inquiry	
SI-M-B1: recognizing that different kinds of questions guide different kinds of scientific investigations	<p>25. Compare and critique scientific investigations (SI-M-B1)</p> <p>26. Use and describe alternate methods for investigating different types of testable questions (SI-M-B1)</p> <p>27. Recognize that science uses processes that involve a logical and empirical, but flexible, approach to problem solving (SI-M-B1)</p>
SI-M-B2: communicating that current scientific knowledge guides scientific investigations	28. Recognize that investigations generally begin with a review of the work of others (SI-M-B2)
SI-M-B3: understanding that mathematics, technology, and scientific techniques used in an experiment can limit or enhance the accuracy of scientific knowledge	<p>29. Explain how technology can expand the senses and contribute to the increase and/or modification of scientific knowledge (SI-M-B3)</p> <p>30. Describe why all questions cannot be answered with present technologies (SI-M-B3)</p> <p>31. Recognize that there is an acceptable range of variation in collected data (SI-M-B3)</p> <p>32. Explain the use of statistical methods to confirm the significance of data (e.g., mean, median, mode, range) (SI-M-B3)</p>
SI-M-B4: using data and logical arguments to propose, modify, or elaborate on principles and models	33. Evaluate models, identify problems in design, and make recommendations for improvement (SI-M-B4)
SI-M-B5: understanding that scientific knowledge is enhanced through peer review, alternative explanations, and constructive criticism	<p>34. Recognize the importance of communication among scientists about investigations in progress and the work of others (SI-M-B5)</p> <p>35. Explain how skepticism about accepted scientific explanations (i.e., hypotheses and theories) leads to new understanding (SI-M-B5)</p> <p>36. Explain why an experiment must be verified through multiple investigations and yield consistent results before the findings are accepted (SI-M-B5)</p> <p>37. Critique and analyze their own inquiries and the inquiries of others (SI-M-B5)</p>
SI-M-B6: communicating that scientific investigations can result in new ideas, new methods or procedures, and new technologies	38. Explain that, through the use of scientific processes and knowledge, people can solve problems, make decisions, and form new ideas (SI-M-B6)
SI-M-B7: understanding that scientific development/technology is driven by societal needs and funding	<p>39. Identify areas in which technology has changed human lives (e.g., transportation, communication, geographic information systems, DNA fingerprinting) (SI-M-B7)</p> <p>40. Evaluate the impact of research on scientific thought, society, and the environment (SI-M-B7)</p>

Physical Science: Students will develop an understanding of the characteristics and interrelationships of matter and energy in the physical world.	
<i>A. Properties and Changes of Properties in Matter</i>	
Benchmarks	Grade-Level Expectations
PS-M-A1: investigating, measuring, and communicating the properties of different substances which are independent of the amount of the substance	1. Measure a variety of objects in metric system units (PS-M-A1) 2. Compare the physical properties of large and small quantities of the same type of matter (PS-M-A1)
PS-M-A2: understanding that all matter is made up of particles called atoms and that atoms of different elements are different	3. Describe the structure of atoms and the electrical charge of protons, neutrons, and electrons (PS-M-A2)
PS-M-A3: grouping substances according to similar properties and/or behaviors	4. Identify the physical and chemical properties of various substances and group substances according to their observable and measurable properties (e.g., conduction, magnetism, light transmission) (PS-M-A3)
PS-M-A4: understanding that atoms and molecules are perpetually in motion	Not addressed at grade 5
PS-M-A5: investigating the relationships among temperature, molecular motion, phase changes, and physical properties of matter	5. Describe the properties and behavior of water in its solid, liquid, and gaseous phases (states) (PS-M-A5)
PS-M-A6: investigating chemical reactions between different substances to discover that new substances formed may have new physical properties and do have new chemical properties	6. Describe new substances formed from common chemical reactions (e.g., burning paper produces ash) (PS-M-A6)
PS-M-A7: understanding that during a chemical reaction in a closed system, the mass of the products is equal to that of the reactants	Not addressed at grade 5
PS-M-A8: discovering and recording how factors such as temperature influence chemical reactions	
PS-M-A9: identifying elements and compounds found in common foods, clothing, household materials, and automobiles	
<i>B. Motions and Forces</i>	
PS-M-B1: describing and graphing the motions of objects	7. Compare, calculate, and graph the average speeds of objects in motion using both metric system and U.S. system units (PS-M-B1)
PS-M-B2: recognizing different forces and describing their effects (gravity, electrical, magnetic)	Not addressed at grade 5
PS-M-B3: understanding that when an object is not being subjected to a force, it will continue to move at a constant speed and in a straight line	8. Explain that gravity accelerates all falling objects at the same rate in the absence of air resistance (PS-M-B3)
PS-M-B4: describing how forces acting on an object will reinforce or cancel one another, depending upon their direction and magnitude	Not addressed at grade 5

PS-M-B5: understanding that unbalanced forces will cause changes in the speed or direction of an object's motion	9. Demonstrate a change in speed or direction of an object's motion with the use of unbalanced forces (PS-M-B5)
C. Transformations of Energy	
PS-M-C1: identifying and comparing the characteristics of different types of energy	10. Compare potential and kinetic energy and give examples of each (PS-M-C1) 11. Classify energy resources as renewable, nonrenewable, or inexhaustible (PS-M-C1)
PS-M-C2: understanding the different kinds of energy transformations and the fact that energy can be neither destroyed nor created	Not addressed at grade 5
PS-M-C3: understanding that the Sun is a major source of energy and that energy arrives at the Earth's surface as light with a range of wavelengths	12. Identify the Sun as Earth's primary energy source and give examples (e.g., photosynthesis, water cycle) to support that conclusion (PS-M-C3)
PS-M-C4: observing and describing the interactions of light and matter (reflection, refraction, absorption, transmission, scattering)	13. Investigate how changes in the position of a light source and an object alter the size and shape of the shadow (PS-M-C4)
PS-M-C5: investigating and describing the movement of heat and the effects of heat in objects and systems	Not addressed at grade 5
PS-M-C6: describing the types of energy that can be involved, converted, or released in electrical circuits	14. Identify other types of energy produced through the use of electricity (e.g., heat, light, mechanical) (PS-M-C6)
PS-M-C7: understanding that energy is involved in chemical reactions	Not addressed at grade 5
PS-M-C8: comparing the uses of different energy resources and their effects upon the environment	
Life Science: The students will become aware of the characteristics and life cycles of organisms and understand their relationships to each other and to their environment.	
A. Structure and Function in Living Systems	
Benchmarks	Grade-Level Expectations
LS-M-A1: describing the observable components and functions of a cell, such as the cell membrane, nucleus, and movement of molecules into and out of cells	15. Identify the cell as the basic unit of living things (LS-M-A1) 16. Observe, identify, and describe the basic components of cells and their functions (e.g., cell wall, cell membrane, cytoplasm, nucleus) (LS-M-A1)
LS-M-A2: comparing and contrasting the basic structures and functions of different plant and animal cells	17. Compare plant and animal cells and label cell components (LS-M-A2)
LS-M-A3: observing and analyzing the growth and development of selected organisms, including a seed plant, an insect with complete metamorphosis, and an amphibian	18. Describe the metamorphosis of an amphibian (e.g., frog) (LS-M-A3)

LS-M-A4: describing the basic processes of photosynthesis and respiration and their importance to life	19. Describe the processes of photosynthesis and respiration in green plants (LS-M-A4)
LS-M-A5: investigating human body systems and their functions (including circulatory, digestive, skeletal, respiratory)	20. Describe the levels of structural organization in living things (e.g., cells, tissues, organs, organ systems) (LS-M-A5)
LS-M-A6: describing how the human body changes with age and listing factors that affect the length and quality of life	Not addressed at grade 5
LS-M-A7: describing communicable and noncommunicable diseases	21. Identify diseases caused by germs and how they can be transmitted from person to person (LS-M-A7)
<i>B. Reproduction and Heredity</i>	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this substrand.</i>	
<i>C. Populations and Ecosystems</i>	
LS-M-C1: constructing and using classification systems based on the structure of organisms	22. Develop and use a simple dichotomous key to classify common plants and animals (LS-M-C1)
LS-M-C2: modeling and interpreting food chains and food webs	23. Construct food chains that could be found in ponds, marshes, oceans, forests, or meadows (LS-M-C2) 24. Describe the roles of producers, consumers, and decomposers in a food chain (LS-M-C2) 25. Compare food chains and food webs (LS-M-C2)
LS-M-C3: investigating major ecosystems and recognizing physical properties and organisms within each	26. Identify and describe ecosystems of local importance (LS-M-C3) 27. Compare common traits of organisms within major ecosystems (LS-M-C3)
LS-M-C4: explaining the interaction and interdependence of nonliving and living components within ecosystems	28. Explain and give examples of predator/prey relationships (LS-M-C4)
<i>D. Adaptations of Organisms</i>	
LS-M-D1: describing the importance of plant and animal adaptation, including local examples	29. Describe adaptations of plants and animals that enable them to thrive in local and other natural environments (LS-M-D1)
LS-M-D2: explaining how some members of a species survive under changed environmental conditions	Not addressed at grade 5
Earth and Space Science: The students will develop an understanding of the properties of earth materials, the structure of the Earth system, the Earth's history, and the Earth's place in the universe.	
<i>A. Structure of the Earth</i>	
Benchmarks	Grade-Level Expectations
ESS-M-A1: understanding that the Earth is layered by density with an inner and outer core, a mantle, and a thin outer crust	Not addressed at grade 5

ESS-M-A2: understanding that the Earth’s crust and solid upper mantle are dividing plates that move in response to convection currents (energy transfers) in the mantle	Not addressed at grade 5
ESS-M-A3: investigating the characteristics of earthquakes and volcanos and identifying zones where they may occur	
ESS-M-A4: investigating how soils are formed from weathered rock and decomposed organic material	30. Identify organic and inorganic matter in soil samples with the aid of a hand lens or microscope (ESS-M-A4)
ESS-M-A5: identifying the characteristics and uses of minerals and rocks and recognizing that rocks are mixtures of minerals	31. Identify common rocks and minerals and explain their uses and economic significance (ESS-M-A5)
ESS-M-A6: explaining the processes involved in the rock cycle	Not addressed at grade 5
ESS-M-A7: modeling how landforms result from the interaction of constructive and destructive forces	32. Demonstrate the results of constructive and destructive forces using models or illustrations (ESS-M-A7) 33. Identify the processes that prevent or cause erosion (ESS-M-A7)
ESS-M-A8: identifying the man-made and natural causes of coastal erosion and the steps taken to combat it	Not addressed at grade 5
ESS-M-A9: compare and contrast topographic features of the ocean floor to those formed above sea level	
ESS-M-A10: explaining (illustrating) how water circulates—on and through the crust, in the oceans, and in the atmosphere—in the water cycle	See GLE no. 46
ESS-M-A11: understanding that the atmosphere interacts with the hydrosphere to affect weather and climate conditions	34. Identify the components of the hydrosphere (ESS-M-A11) 35. Identify the atmosphere as a mixture of gases, water vapor, and particulate matter (ESS-M-A11) 36. Identify, describe, and compare climate zones (e.g., polar, temperate, tropical) (ESS-M-A11)
ESS-M-A12: predicting weather patterns through use of a weather map	37. Identify typical weather map symbols and the type of weather they represent (ESS-M-A12)
<i>B. Earth History</i>	
ESS-M-B1: investigating how fossils show the development of life over time	Not addressed at grade 5
ESS-M-B2: devising a model that demonstrates supporting evidence that the Earth has existed for a vast period of time	
ESS-M-B3: understanding that earth processes such as erosion and weathering affect the Earth today and are similar to those which occurred in the past	38. Estimate the range of time over which natural events occur (e.g., lightning in seconds, mountain formation over millions of years) (ESS-M-B3)

C. Earth in the Solar System	
ESS-M-C1: identifying the characteristics of the Sun and other stars	39. Identify the physical characteristics of the Sun (ESS-M-C1) 40. Describe the significance of Polaris as the North Star (ESS-M-C1) 41. Explain why the Moon, Sun, and stars appear to move from east to west across the sky (ESS-M-C1)
ESS-M-C2: comparing and contrasting the celestial bodies in our solar system	42. Differentiate among moons, asteroids, comets, meteoroids, meteors, and meteorites (ESS-M-C2) 43. Describe the characteristics of the inner and outer planets (ESS-M-C2)
ESS-M-C3: investigating the force of gravity and the ways gravity governs motion in the solar system and objects on Earth	Not addressed at grade 5
ESS-M-C4: modeling the motions of the Earth-Moon-Sun system to explain day and night, a year, eclipses, moon phases, and tides	44. Explain rotation and revolution by using models or illustrations (ESS-M-C4)
ESS-M-C5: modeling the position of the Earth in relationship to other objects in the solar system	45. Identify Earth's position in the solar system (ESS-M-C5)
ESS-M-C6: modeling and describing how radiant energy from the Sun affects phenomena on the Earth's surface, such as winds, ocean currents, and the water cycle	46. Identify and explain the interaction of the processes of the water cycle (ESS-M-C6) (ESS-M-A10)
ESS-M-C7: modeling and explaining how seasons result from variations in amount of the Sun's energy hitting the surface due to the tilt of Earth's rotation on its axis and the length of the day	Not addressed at grade 5
ESS-M-C8: understanding that space exploration is an active area of scientific and technological research and development	47. Identify and explain advances in technology that have enabled the exploration of space (ESS-M-C8)
Science and the Environment: In learning environmental science, students will develop an appreciation of the natural environment, learn the importance of environmental quality, and acquire a sense of stewardship. As consumers and citizens, they will be able to recognize how our personal, professional, and political actions affect the natural world.	
Benchmarks	Grade-Level Expectations
SE-M-A1: demonstrating knowledge that an ecosystem includes living and nonliving factors and that humans are an integral part of ecosystems	Not addressed at grade 5
SE-M-A2: demonstrating an understanding of how carrying capacity and limiting factors affect plant and animal populations	48. Determine the ability of an ecosystem to support a population (carrying capacity) by identifying the resources needed by that population (SE-M-A2)
SE-M-A3: defining the concept of pollutant and describing the effects of various pollutants on ecosystems	49. Identify and give examples of pollutants found in water, air, and soil (SE-M-A3)

SE-M-A4: understanding that human actions can create risks and consequences in the environment	50. Describe the consequences of several types of human activities on local ecosystems (e.g., polluting streams, regulating hunting, introducing nonnative species) (SE-M-A4)
SE-M-A5: tracing the flow of energy through an ecosystem and demonstrating a knowledge of the roles of producers, consumers, and decomposers in the ecosystem	Not addressed at grade 5
SE-E-A6: distinguishing between renewable and nonrenewable resources and understanding that nonrenewable natural resources are not replenished through the natural cycles and thus are strictly limited in quantity	
SE-M-A7: demonstrating knowledge of the natural cycles, such as the carbon cycle, nitrogen cycle, water cycle, and oxygen cycle	51. Describe naturally occurring cycles and identify where they are found (e.g., carbon, nitrogen, water, oxygen) (SE-M-A7)
SE-M-A8: investigating and analyzing how technology affects the physical, chemical, and biological factors in an ecosystem	Not addressed at grade 5
SE-M-A9: demonstrating relationships of characteristics of soil types to agricultural practices and productivity	
SE-M-A10: identifying types of soil erosion and preventive measures	

Sample Test Items: Grade 5 Science

Science as Inquiry

The Abilities Necessary to Do Scientific Inquiry

GLE 5—Identify independent variables, dependent variables, and variables that should be controlled in designing an experiment (SI-M-A2)

Use the data table below to answer question 1.

Plant No.	Amount of water each day (mL)	Amount of sunlight each day (hours)	Amount of plant food each day (mL)	Height at beginning of experiment (cm)	Height at end of experiment (cm)
1	100	8	5	41	45
2	100	12	5	37	48
3	100	16	5	36	57
4	100	20	5	44	61

- 1 Maria grew four plants in an experiment about plant growth. The table shows the design and results of Maria’s experiment.

What was the **independent variable** in this investigation?

- A the amount that each plant grew
- B the amount of food each plant received
- C the amount of water each plant received
- D the amount of sunlight each plant received

Correct response: D

Match to GLE: This item asks students to identify an independent variable in an experiment. Other grade 5 iLEAP items that measure this GLE may address other variables in the design of an experiment.

Science as Inquiry

The Abilities Necessary to Do Scientific Inquiry

GLE 6—*Select and use appropriate equipment, technology, tools, and metric system units of measurement to make observations (SI-M-A3)*

- 2** Elaine wants to measure the volume of a large pitcher of lemonade. Which units should Elaine use?
- A** liters
 - B** grams
 - C** meters
 - D** degrees

Correct response: A

Match to GLE: This item asks students to identify an appropriate metric unit of volume. Other items that measure this GLE may relate to equipment, technology, or tools.

Science as Inquiry

The Abilities Necessary to Do Scientific Inquiry

GLE 11—Construct, use, and interpret appropriate graphical representations to collect, record, and report data (e.g., tables, charts, circle graphs, bar and line graphs, diagrams, scatter plots, symbols) (SI-M-A4)

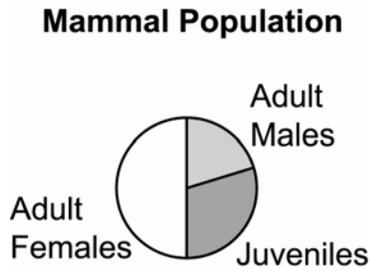
- 3** A scientist was studying a mammal population. The data table below shows some of her results.

Mammal Population

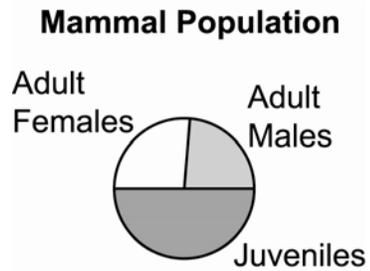
Segment of Mammal Population	Number of Individuals in Population
Adult Males	49
Adult Females	52
Juveniles	104

Which graph best represents the information in the table?

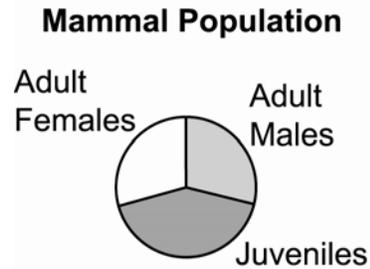
A



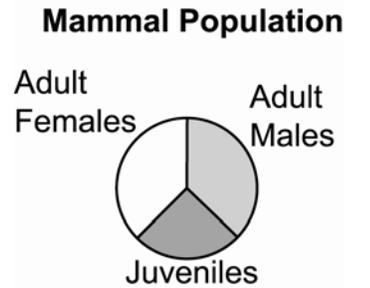
C



B



D



Correct response: C

Match to GLE: This item asks students to relate data in a table to data in a circle graph. Other grade 5 iLEAP items that measure this GLE may involve other types of data displays.

Science as Inquiry

The Abilities Necessary to Do Scientific Inquiry

GLE 21—*Distinguish between observations and inferences (SI-M-A7)*

4 Miguel was conducting an experiment. He wrote the following sentences in his notebook:

- The starting temperature of the water was 10 degrees Celsius.
- An object weighing 5 grams was placed in the water.
- The temperature of the water increased to 15 degrees.
- The object must have been hotter than 10 degrees.

In which sentence did Miguel make an inference?

- A** sentence 1
- B** sentence 2
- C** sentence 3
- D** sentence 4

Correct response: D

Match to GLE: This item asks students to identify an inference. Other grade 5 iLEAP items that measure this GLE may relate to observations or inferences in other ways.

Science as Inquiry

Understanding Scientific Inquiry

GLE 29—*Explain how technology can expand the senses and contribute to the increase and/or modification of scientific knowledge (SI-M-B3)*

5 Which statement **best** explains how a microscope helps scientists?

- A** A microscope allows scientists to see things that are far away.
- B** A microscope allows scientists to see things that are very small.
- C** A microscope allows scientists to hear sounds that are far away.
- D** A microscope allows scientists to hear sounds that are very quiet.

Correct response: B

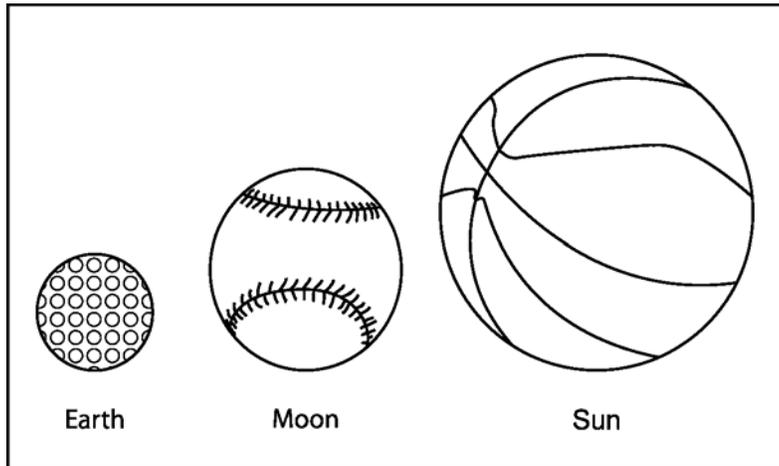
Match to GLE: This item relates to the sense of sight and how it is expanded by the microscope. Other grade 5 iLEAP items that measure this GLE may address other ways that technology affects scientific observation and knowledge.

Science as Inquiry

Understanding Scientific Inquiry

GLE 33—Evaluate models, identify problems in design, and make recommendations for improvement (SI-M-B4)

- 6** Dwight made this model using a golf ball, a baseball, and a basketball.



How could Dwight improve his model?

- A** Make the Moon smaller than Earth.
- B** Use a flat object, such as a coin, for Earth.
- C** Place Earth between the Moon and the Sun.
- D** Place the Sun is between the Moon and Earth.

Correct response: A

Match to GLE: This item asks students to identify a way that a model can be made more realistic. Other grade 5 iLEAP items that measure this GLE may address other ways that models or designs can be improved.

Science as Inquiry

Understanding Scientific Inquiry

GLE 38—*Explain that, through the use of scientific processes and knowledge, people can solve problems, make decisions, and form new ideas (SI-M-B6)*

Use the list below to answer question 7.

Steps in an Experiment

1. Run a scientific test
2. Form a hypothesis
3. Form a conclusion
4. Analyze data

7 George will conduct a scientific experiment. In what order should George follow the steps?

- A** 1 → 3 → 2 → 4
- B** 4 → 3 → 2 → 1
- C** 3 → 2 → 4 → 1
- D** 2 → 1 → 4 → 3

Correct Response: D

Match to GLE: This item asks students to place the steps of an experiment in order according to the scientific method. Other grade 5 iLEAP items that measure this GLE may address scientific processes in other ways.

Science as Inquiry

Understanding Scientific Inquiry

GLE 39—*Identify areas in which technology has changed human lives (e.g., transportation, communication, geographic information systems, DNA fingerprinting) (SI-M-B7)*

- 8** DNA technology has improved greatly in the last twenty years. Which task has been made easier by the development of DNA technology?
- A** identifying genetic disorders
 - B** determining the parts of an atom
 - C** observing distant objects in space
 - D** making very accurate measurements

Correct Response: A

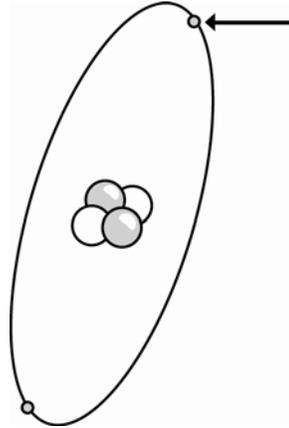
Match to GLE: This item asks students to identify a consequence of DNA technology. Other grade 5 iLEAP items that measure this GLE may address other ways that technology has changed human lives.

Physical Science

Properties and Changes of Properties in Matter

GLE 3—Describe the structure of atoms and the electrical charge of protons, neutrons, and electrons (PS-M-A2)

Use the picture of an atom below to answer question 9.



- 9 Which statement **best** describes the part of the atom that is shown by the arrow?
- A It is an electron, and it has a negative charge.
 - B It is an electron, and it has a positive charge.
 - C It is a proton, and it has a negative charge.
 - D It is a proton, and it has a positive charge.

Correct Response: A

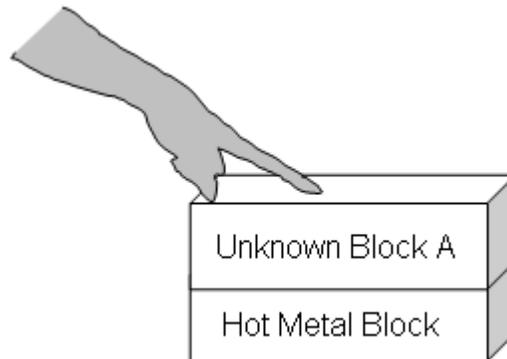
Match to GLE: This item asks students to identify and describe a property of the electron. Other grade 5 iLEAP items that measure this GLE may relate to neutrons or protons.

Physical Science

Properties and Changes of Properties in Matter

GLE 4—Identify the physical and chemical properties of various substances and group substances according to their observable and measurable properties (e.g., conduction, magnetism, light transmission) (PS-M-A3)

Use the diagram below to answer question 10.



- 10** Antonia is testing the properties of block A.
- She puts block A on top of a hot metal block and then touches the block A with her finger.
 - She keeps her finger on the block A for several minutes, but block A still does not get hot.

What can Antonia conclude about block A?

- A** It is a good conductor.
- B** It is a poor conductor.
- C** It is highly magnetic.
- D** It is nonmagnetic.

Correct Response: B

Match to GLE: This item relates to heat conduction properties of a material. Other grade 5 iLEAP items that measure this GLE may address other properties of materials.

Physical Science
Motions and Forces

GLE 5—Describe the properties and behavior of water in its solid, liquid, and gaseous phases (states) (PS-M-A5)

- 11** What happens when the temperature of water changes from 10° Celsius to -10° Celsius?
- A** The water changes from a solid into a gas.
 - B** The water changes from a liquid into a gas.
 - C** The water changes from a liquid into a solid.
 - D** The water changes from a solid into a liquid.

Correct Response: C

Match to GLE: This item relates to the change of state from liquid to solid for water. Other grade 5 iLEAP items that measure this GLE may address other changes of state for water.

Physical Science
Motions and Forces

GLE 7—Compare, calculate, and graph the average speeds of objects in motion using both metric system and U.S. system units (PS-M-B1)

Use the data table to answer question 12.

100-Meter Dash Results

Friend	Distance (meters)	Time (seconds)
Tori	100	19
Miguel	100	21
Jason	100	23
Howard	100	24

- 12** Four friends raced in the 100-meter dash. How many of the friends ran faster than 5 meters per second?
- A** one
 - B** two
 - C** three
 - D** four

Correct Response: A

Match to GLE: This item asks students to calculate and compare speeds using metric units. Other grade 5 iLEAP items that measure this GLE may involve the U.S. system of units.

Physical Science
Transformations of Energy

GLE 10—*Compare potential and kinetic energy and give examples of each (PS-M-C1)*

13 Which example **best** illustrates kinetic energy?

- A** a light bulb that is turned on
- B** a car that is parked on top of a hill
- C** a comet that is flying through space
- D** a battery that is connected to a circuit

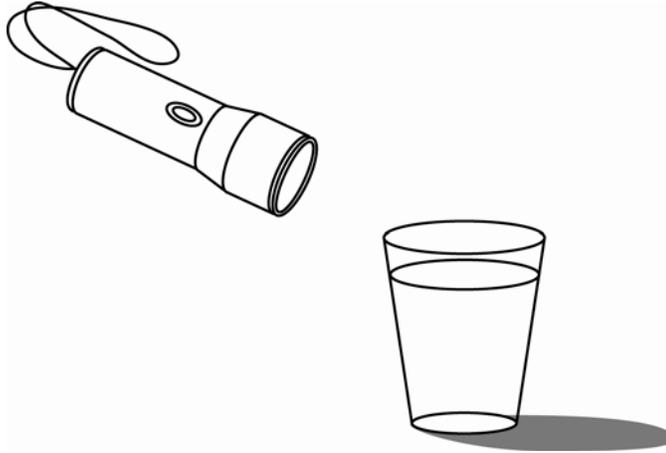
Correct Response: C

Match to GLE: This item asks students to identify an example of kinetic energy. Other grade 5 iLEAP items that measure this GLE may relate to potential energy.

Physical Science
Transformations of Energy

GLE 13—Investigate how changes in the position of a light source and an object alter the size and shape of the shadow (PS-M-C4)

Use the diagram to answer question 14.



- 14** The diagram shows the position of a flashlight, a cup, and the shadow of the cup. What should Susan do to make the shadow **longer**?
- A** Use a shorter cup.
 - B** Add more liquid to the cup.
 - C** Place the flashlight directly above the cup.
 - D** Rotate the flashlight so it is more horizontal.

Correct Response: D

Match to GLE: This item relates to the affect the positioning of a light source has on the shadow of an object. Other grade 5 iLEAP items that measure this GLE may relate to other properties of light sources and shadows.

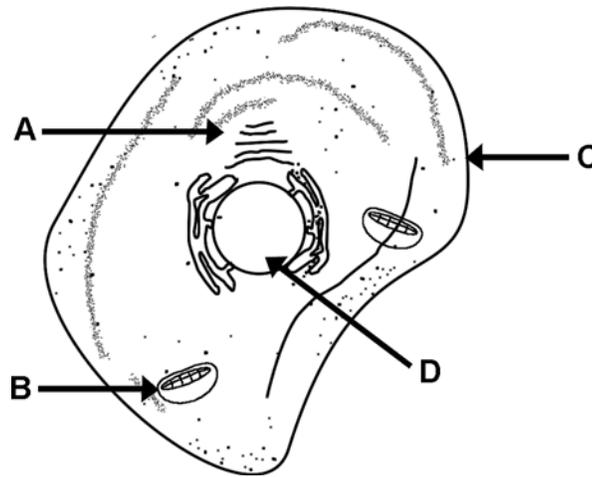
Life Science

Structure and Function in Living Systems

GLE 16—Observe, identify, and describe the basic components of cells and their functions (e.g., cell wall, cell membrane, cytoplasm, nucleus) (LS-M-A1)

Use the diagram to answer question 15.

Cell Diagram



15 Which arrow indicates the location of the cell membrane?

- A** arrow A
- B** arrow B
- C** arrow C
- D** arrow D

Correct Response: C

Match to GLE: This item asks students to identify a component of a cell. Other grade 5 iLEAP items that measure this GLE may address the functions of various cell components.

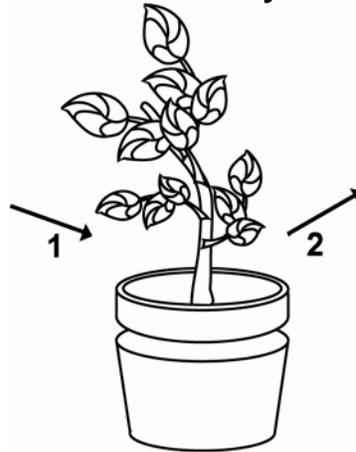
Life Science

Structure and Function in Living Systems

GLE 19—Describe the processes of photosynthesis and respiration in green plants (LS-M-A4)

Use the diagram to answer question 16.

Gases and Photosynthesis



- 16** The diagram shows the gases that enter and leave a plant during the process of photosynthesis. Which gases do arrows 1 and 2 represent?
- A** Arrow 1 is nitrogen, and arrow 2 is oxygen.
 - B** Arrow 1 is oxygen, and arrow 2 is nitrogen.
 - C** Arrow 1 is oxygen, and arrow 2 is carbon dioxide.
 - D** Arrow 1 is carbon dioxide, and arrow 2 is oxygen.

Correct Response: D

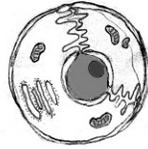
Match to GLE: This item asks students to identify the role of two gases in the process of photosynthesis. Other grade 5 iLEAP items that measure this GLE may relate to respiration.

Life Science

Structure and Function in Living Systems

GLE 20—Describe the levels of structural organization in living things (e.g., cells, tissues, organs, organ systems) (LS-M-A5)

Use the pictures below to answer question 17.



cell



organ



tissue

17 Which shows the correct order from simplest to most complex?

- A** Cell → Tissue → Organ
- B** Organ → Tissue → Cell
- C** Cell → Organ → Tissue
- D** Tissue → Organ → Cell

Correct Response: A

Match to GLE: This item asks students to order components of the human body in order of complexity. Other grade 5 iLEAP items that measure this GLE may relate to structural organization in other ways.

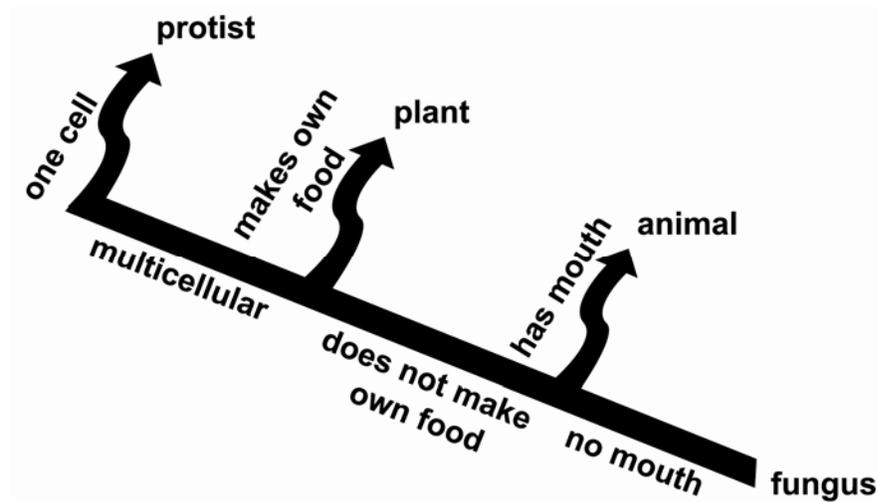
Life Science

Populations and Ecosystems

GLE 22—Develop and use a simple dichotomous key to classify common plants and animals (LS-M-C1)

Use this key to answer question 18.

Kingdoms of Life



18 This key is used to classify certain kinds of living organisms into kingdoms. According to the key, which kind of organism is multicellular, doesn't make its own food, and doesn't have a mouth?

- A** a protist
- B** a plant
- C** an animal
- D** a fungus

Correct Response: D

Match to GLE: This item asks students to use a dichotomous key to identify a fungus. Other grade 5 iLEAP items that measure this GLE may use other dichotomous keys to classify life forms.

Life Science

Populations and Ecosystems

GLE 24—*Describe the roles of producers, consumers, and decomposers in a food chain (LS-M-C2)*

- 19** What is the role of decomposers in a food chain?
- A** They consume other organisms.
 - B** They break down dead organic matter.
 - C** They use the Sun’s energy to make food.
 - D** They convert inorganic matter into organic matter.

Correct Response: B

Match to GLE: This item asks students to describe the role of decomposers in a food chain. Other grade 5 iLEAP items that measure this GLE may address the role of producers or consumers.

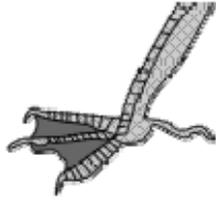
Life Science

Adaptations of Organisms

GLE 29—Describe adaptations of plants and animals that enable them to thrive in local and other natural environments (LS-M-D1)

20 Which foot would **most likely** help a bird live in water?

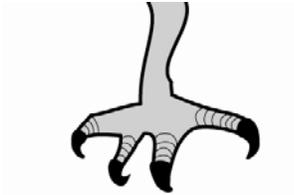
A



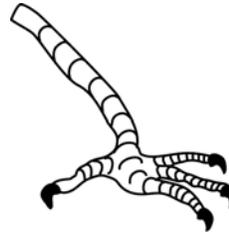
C



B



D



Correct Response: A

Match to GLE: This item relates to an adaptation in aquatic birds such as ducks. Other grade 5 iLEAP items that measure this GLE may address other adaptations of plants or animals.

Earth and Space Science

Structure of Earth

GLE 31—*Identify common rocks and minerals and explain their uses and economic significance (ESS-M-A5)*

21 What is a common use of the mineral graphite?

- A** to make glass
- B** as a source of iron
- C** to make pencil leads
- D** as a household cleaner

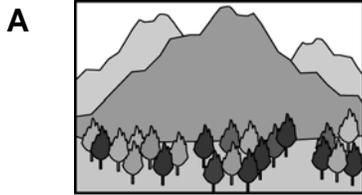
Correct Response: C

Match to GLE: This item asks students to identify a use of the mineral graphite. Other grade 5 iLEAP items that measure this GLE may address other rocks or minerals.

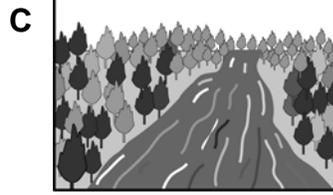
Earth and Space Science
Structure of Earth

GLE 34—Identify the components of the hydrosphere (ESS-M-A11)

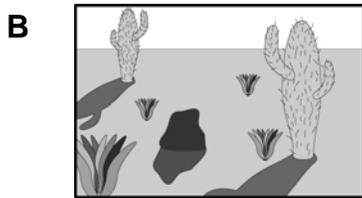
22 Which picture **best** illustrates a part of the hydrosphere?



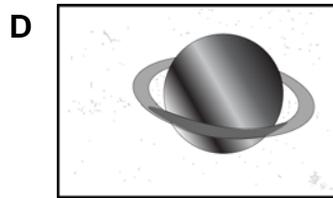
Mountain



River



Desert



Outer Space

Correct Response: C

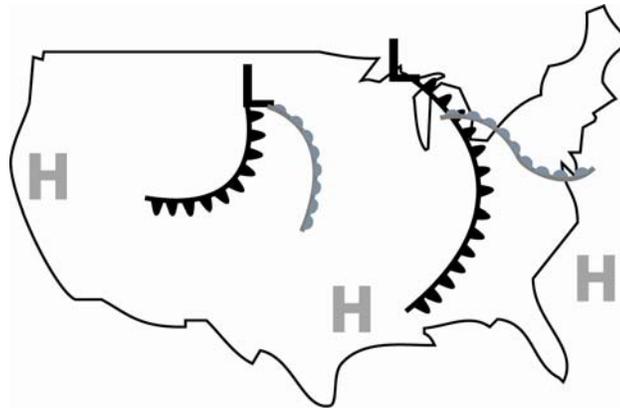
Match to GLE: This item asks students to identify rivers as components of the hydrosphere. Other grade 5 iLEAP items that measure this GLE may relate to other components of the hydrosphere.

Earth and Space Science
Structure of Earth

GLE 37—Identify typical weather map symbols and the type of weather they represent (ESS-M-A12)

Use the weather map below to help you answer question 23.

Weather Map



23 Which symbol on the map shows a cold front?

A H

B L

C

D

Correct Response: C

Match to GLE: This item asks students to identify a cold front on a weather map. Other grade 5 iLEAP items that measure this GLE may relate to other weather symbols.

Earth and Space Science

Earth History

GLE 38—*Estimate the range of time over which natural events occur (e.g., lightning in seconds, mountain formation over millions of years) (ESS-M-B3)*

24 Which natural event would take the longest time to happen?

- A** a cloud forming
- B** a mountain forming
- C** a pond evaporating
- D** a river flooding its banks

Correct Response: B

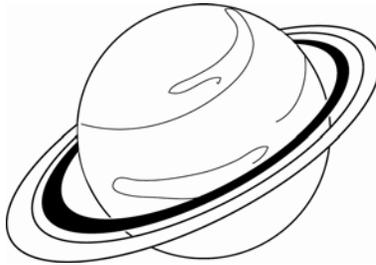
Match to GLE: This item asks students to compare the time duration of natural events. Other grade 5 iLEAP items that measure this GLE may address the duration of natural events in other ways.

Earth and Space Science
Earth in the Solar System

GLE 43—*Describe the characteristics of the inner and outer planets (ESS-M-C2)*

Use the picture of Saturn shown below to answer question 25.

Saturn



- 25** Which statement is true about the planet Saturn?
- A** It is bigger than Earth and farther from the Sun.
 - B** It is bigger than Earth and closer to the Sun.
 - C** It is smaller than Earth and farther from the Sun.
 - D** It is smaller than Earth and closer to the Sun.

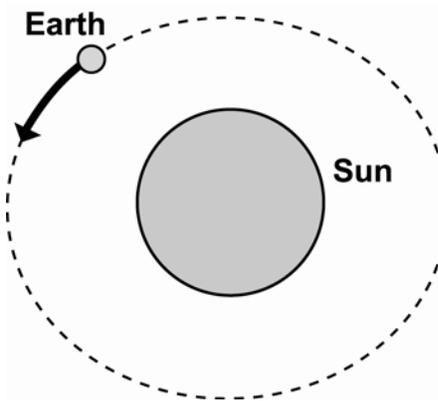
Correct Response: A

Match to GLE: This item asks students to identify two properties of the planet Saturn. Other grade 5 iLEAP items that measure this GLE may address other planets in the solar system.

Earth and Space Science
Earth in the Solar System

GLE 44—*Explain rotation and revolution by using models or illustrations (ESS-M-C4)*

Use this diagram to answer question 26.



26 Which statement **best** describes the diagram?

- A** Earth is rotating around the Sun.
- B** The Sun is rotating around Earth.
- C** Earth is revolving around the Sun.
- D** The Sun is revolving around Earth.

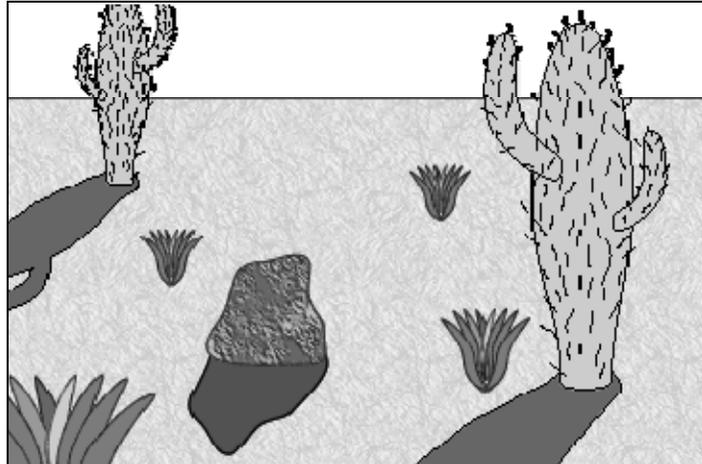
Correct Response: C

Match to GLE: This item asks students to distinguish between rotation and revolution in the context of the Earth-Sun system. Other grade 5 iLEAP items that measure this GLE may address rotation or revolution in other ways.

Science and the Environment

GLE 48—Determine the ability of an ecosystem to support a population (carrying capacity) by identifying the resources needed by that population (SE-M-A2)

Use the desert picture below to answer question 27.



- 27** Which factor **most likely** limits the desert's carrying capacity for plant life?
- A** the number of herbivores
 - B** the amount of sunlight
 - C** the availability of water
 - D** the availability of land

Correct Response: C

Match to GLE: This item asks students to identify a key feature of deserts that limit their ability to support life. Other grade 5 iLEAP items that measure this GLE may address other ecosystems and resources.

Science and the Environment

GLE 49—Identify and give examples of pollutants found in water, air, and soil (SE-M-A3)

- 28** Many human activities, such as driving a car, cause the release of air pollutants. Which substance is a common air pollutant when driving a car?
- A** carbon monoxide
 - B** chlorine
 - C** nitrogen
 - D** iron oxide

Correct Response: A

Match to GLE: This item asks students to identify a key pollutant produced by most automobiles. Other grade 5 iLEAP items that measure this GLE may address other pollutants found in water, air, and soil.

Science and the Environment

GLE 50—Describe the consequences of several types of human activities on local ecosystems (e.g., polluting streams, regulating hunting, introducing nonnative species) (SE-M-A4)

- 29** Runoff from farms that use fertilizers is entering a small lake. This will **most directly** affect the lake by causing
- A** the lake to dry up.
 - B** algae to grow in the lake.
 - C** the lake to become deeper.
 - D** water in the lake to become solid.

Correct Response: B

Match to GLE: This item asks students to identify an effect of farming on nearby lakes. Other grade 5 iLEAP items that measure this GLE may address other consequences of human activity on ecosystems.

Science and the Environment

GLE 51—Describe naturally occurring cycles and identify where they are found (e.g., carbon, nitrogen, water, oxygen) (SE-M-A7)

30 Where would nitrogen **most easily** be found in the nitrogen cycle?

- A** in animal waste
- B** in drinking water supplies
- C** in underground mineral deposits
- D** in carbon dioxide released by factories into the atmosphere

Correct Response: A

Match to GLE: This item asks students to identify a stage in the nitrogen cycle. Other grade 5 iLEAP items that measure this GLE may address other naturally occurring cycles

Chapter 4: *i*LEAP Social Studies, Grade 5

This section describes the overall design of the *i*LEAP Social Studies test to be administered to students in grade 5. Test specifications and sample test questions are provided so that teachers may align classroom practices with the state assessment.

Test Structure

The Social Studies test consists of one part and is administered in a single day.

The Social Studies test is a criterion-referenced test (CRT) that includes items based entirely on Louisiana’s social studies content standards. These items are aligned with Louisiana’s Grade-Level Expectations (GLEs) and were developed specifically for Louisiana.

Item Types

The test has forty (40) multiple-choice items.

The multiple-choice items consist of an interrogatory stem and four answer options. These items assess knowledge, conceptual understanding, and application of skills presented in the GLEs. Items will be intermingled across strands, not arranged into separate sections by strand.

To maximize the meaningfulness of multiple-choice items, questions are typically cast in a practical problem-solving context, referring to a single stimulus (e.g., a map) or to a description of a single scenario. The reading difficulty level of test questions is minimized to the extent possible (except for necessary terms) so that students’ reading ability does not interfere with their ability to demonstrate their social studies knowledge and skills.

Description of the Social Studies Test

The Social Studies test was developed specifically for Louisiana. Committees of Louisiana educators reviewed all items for content and alignment with Louisiana’s standards. Separate committees reviewed the items for potential bias and sensitive material.

The Social Studies test is **untimed**. About one hour (60 minutes) is the suggested time to allow students to answer the questions.

The grade 5 test assesses two of the four social studies strands delineated in the Louisiana Comprehensive Curriculum (LCC) and the Louisiana Social Studies Framework: Geography and History.

Geography

The study of American history is integrally linked with the secondary focus of geography. The GLEs for grade 5 expect students to use geographic information, tools, and concepts in learning about human settlement and migration, the effect of the physical environment on human settlement patterns and economic activities, the use of natural resources, and human adaptations to the physical environment.

Students also learn characteristics and applications of various types of maps, how to use latitude and longitude, distance, directions, and symbols to locate places in the United States, and the reasons for European exploration and colonization in the world.

Students continue to employ Economics concepts as they describe economic interdependence among Europeans, the thirteen American colonies, and American Indians.

History

The GLEs for grade 5 center around a comprehensive study of American history from the time of early exploration to the development of conflict between the American colonies and Great Britain that led to the Revolutionary War. Students learn about indigenous cultures that existed in the Americas at the time of European exploration, trade between Europe, Africa, and the Americas, the characteristics and accomplishments of ancient American empires, the course and consequences of the Columbian Exchange, the arrival and impact of Africans in the Americas, the political and social structure of the thirteen British colonies, and the various religious groups in colonial America.

Students continue to employ historical thinking skills in understanding and analyzing American history and civics concepts in studying the origin and structure of American colonial governments.

Description of Stimulus Material

The test will incorporate **at least one of each** of the following types of stimulus material:

- A map or illustration of a globe showing political divisions (e.g., states, countries), geographical features (e.g., topography, bodies of water), or variations in climate, vegetation, population density, etc.
- A table or graph presenting numerical data to be read or interpreted (e.g., a pictograph or a pie or bar graph showing the breakdown of natural resources in a region, or a line graph showing rates of change over time)
- A timeline, chart, illustration, or graphic organizer (e.g., a web showing the relationship between Great Britain and the American colonies, a diagram showing the structure of early colonial governments, or a timeline outlining the major accomplishments of early explorers)
- An excerpt or article from a newspaper or magazine or a similar piece written expressly for the test
- An excerpt from such primary sources as historical documents (e.g., the Magna Carta, the U.S. Constitution, the Mayflower Compact), quotes and speeches, writings, journals, and autobiographies of major historical figures
- An excerpt from such secondary sources as reference books, literature, encyclopedias, artifacts, and nonfiction books on cultural, geographical, historical, political, or economic themes

Scoring Information

The *i*LEAP Social Studies test contains multiple-choice items only. These items have four response options (A, B, C, D) and are scored right or wrong. Correct answers receive a score of 1; incorrect answers receive a score of 0.

Social Studies Test Specifications

Table 4.1 provides the test specifications for the grade 5 *i*LEAP Social Studies assessment.

Table 4.1: Grade 5 Social Studies Test Specifications

Strand/Category	% of Total Points
Geography	50
A. The World in Spatial Terms	
B. Places and Regions	
C. Physical and Human Systems	
D. Environment and Society	
History	50
A. Historical Thinking Skills	
B. United States History	
Total	100

Strands, Benchmarks, and GLEs Assessed

Louisiana’s Social Studies content standards encompass four strands: Geography, Civics, Economics, and History. At grade 5, only two strands are taught and assessed: Geography and History. Each benchmark within a standard delineates what students should know and be able to do at the end of a grade cluster.

Strand G: Geography—Physical and Cultural Systems

Standard: Students acquire a spatial understanding of Earth’s surface and the physical processes that shape it, and use geographic information and concepts as they study early America and how the United States developed.

Strand H: History—Time, Continuity, and Change

Standard: Students develop a sense of historical time and historical perspective as they learn about peoples and cultures in the study of early America and the settlement of the New World.

The GLEs for social studies further define the knowledge and skills students are expected to master by the end of each grade level or high school course. The GLEs for each grade are developmentally appropriate and increase in complexity to build the knowledge and skills that students need. For example, the GLE for prekindergarten, “demonstrate an awareness of time,” begins the development of the concept “demonstrate an understanding of relative and absolute chronology by interpreting data presented in a timeline.” In subsequent grades, GLEs build on this historical thinking skills concept.

Most of the grade 5 GLEs are eligible for assessment on the *iLEAP* Social Studies test. Some, however, do not lend themselves to testing on a statewide assessment. For the Geography strand, GLE numbers 5 and 9 cannot be assessed in a multiple-choice format. For the Civics and Economics strands, GLE numbers 17, 18, and 19 are not directly measured by items in the grade 5 *iLEAP*. In addition, GLE numbers 20, 21, 22, 25 and 26 focus on historical thinking skills that require students to use outside resources unavailable during the test and cannot be assessed in a multiple-choice format. Finally, in accordance with the Comprehensive Curriculum, GLE number 40 may not be taught prior to the spring test administration and therefore will not be assessed. It is important, however, that the skills represented by these GLEs are taught at this grade level to prepare students for classroom assessment purposes as well as the grade 8 LEAP test.

Explanation of Codes

GLEs are numbered consecutively in each grade level and grouped by strand and thematic category. For example:

- Strand:** Geography
Categories: A. The World in Spatial Terms
 B. Places and Regions
 C. Physical and Human Systems
 D. Environment and Society

Benchmarks are organized into three or four thematic categories within each strand: Geography, Civics, Economics, and History. These categories (e.g., Places and Regions, or Historical Thinking Skills) provide further content definition by highlighting the underlying themes within the domain of each strand.

Benchmarks are coded by strand, standard, category, and grade cluster (E, M, H). The first term in the code always refers to the strand. The second term gives the standard number and category. The third term indicates the grade cluster and benchmark number. The fourth part indicates the GLE number.

Table 4.2 provides two examples of benchmark codes.

Table 4.2: Examples of Social Studies Codes

Code	Translation
G-1B-E1-16	Geography, Standard 1, Category B, Elementary Benchmark 1, GLE 16
H-1A-H3-9	History, Standard 1, Category A, High School Benchmark 3, GLE 9

Key Concepts for the Grade 5 Assessment

The key concepts are provided to guide teachers in their classroom instruction as it relates to the assessment. These concepts describe important content emphasis regarding the knowledge and skills eligible for assessment of each strand.

Geography

The World in Spatial Terms

- Characteristics, functions, and applications of various types of maps—*e.g., map projections, political map, physical map, resource map, precipitation/climate map, topographical/elevation map, grid system*
- Use of different maps, including comparing two different types of maps of the same area
- Interpretation of a map using key/legend, map symbols, distance scale, compass rose, cardinal (north, south, east, west) or intermediate directions (northeast, southeast, northwest, southwest), the equator, and latitude or longitude
- Location of major landforms and geographic features, places, and bodies of water on a map of the United States
 - Political features—*e.g., identification of all fifty states by shape and position, capital of the United States and other major U.S. cities*
 - Physical features—*e.g., Rocky Mountains, Appalachian Mountains, Mississippi River, Missouri River, Rio Grande River, Atlantic Ocean, Pacific Ocean, Gulf of Mexico, Great Lakes, Grand Canyon*

Places and Regions

- Types of settlements and patterns of land use in colonial America
- Ways that location and physical features influence the development or life in a region of the United States—*e.g., mountains as a barrier to westward expansion, location of cities near bodies of water*
- Physical and other characteristics used to define and distinguish regions in the United States—*e.g., climate, vegetation, culture, elevation*

Physical and Human Systems

- Influence of location and physical setting on the founding of the original thirteen colonies—*e.g., physical boundaries, economic activities, agriculture, harbors*
- Reasons why Europeans chose to explore and colonize the world—*e.g., find riches, gain religious freedom, spread Christianity, locate new trade routes/Northwest Passage*
- Trade of goods between the northern states and the southern states that led to economic interdependence among the thirteen colonies
- Geographic differences and similarities among the thirteen American colonies that led to political cooperation and conflict—*e.g., slavery, agriculture versus manufacturing, desire for more land to expand settlements*

Environment and Society

- Impact of human action on the physical environment of early America—*e.g., reduction in amount of wildlife and forests, drainage of swamps*
- Examples of how American Indians and Europeans adapted to living in the physical environment of North America—*e.g., built homes to keep out heat or floods, used wood for log cabin homes, lived in teepees or igloos*
- Natural resources used by the people in the United States—*e.g., water, forests, fossil fuels such as coal, oil, and natural gas*

History

Historical Thinking Skills

- Causes, effects, or impact of a given event in early American history—*e.g., ideas about architecture, religion, government, and food brought to the colonies by the Europeans; capture of New Amsterdam; French and Indian War; influence of American Indian culture and agriculture on the colonists; King Philip’s War; Fundamental Orders of Connecticut and the Mayflower Compact; religious intolerance in the colonies*
- Primary and secondary sources that describe key events or issues in early American history
 - Primary sources—*e.g., treaty, autobiography, historical document, historical speech or address, journal or diary entry, letter*
 - Secondary sources—*e.g., biography, novel, almanac, atlas or map, encyclopedia article, newspaper, textbook, play, movie*

United States History

- Identification and description of indigenous cultures and groups that existed in the Americas at the beginning of European exploration—*e.g., types of shelter, agricultural and hunting techniques, connection to the land, spiritual beliefs, various uses of animals*
- Triangular Trade that connected the Americas, Western Europe, and Western Africa, prior to 1620, including the goods each supplied and where they were shipped
- Compare/contrast Africans, Europeans, and Native Americans converging in the Western Hemisphere after 1492—*e.g., Spanish system of encomienda, contrast between indentured servitude and slavery*
- Ways cultures change through cultural diffusion, invention, and innovation—*e.g., blending of ideas, religions, literary traditions, foods, music, and art, trade of various animals, crops, and goods*
- Major early explorations and explorers and their reasons for exploration—*e.g., Magellan, La Salle, Columbus, Balboa, Coronado, de Soto, Cabot and Hudson, Cartier, Pizarro, Ponce de Leon*
- Impact of the Spanish conquests in the Americas on the Aztecs, Incas, and other indigenous peoples—*e.g., loss of gold, wealth, and land; decrease in native populations due to foreign diseases and forced labor; invasion of Cortez; spread of Christianity*

- Course and consequences of the Columbian Exchange, including the cultural, ecological, and economic impact—*e.g., goods, agricultural crops, and animals exchanged between Europe, the Americas, and West Africa*
- Influence of the arrival of Africans in the European colonies in the seventeenth century and the increase in the importation of slaves in the eighteenth century—*e.g., reasons for Spanish importation of slaves into their American colonies, reasons for extensive use of slaves in the southern colonies*
- Societal impact of the immersion of Africans in the Americas—*e.g., food, religion, increased population in the South, culture*
- Instances of conflict and cooperation between American Indians and European settlers—*e.g., buying of Indian land by settlers such as William Penn, fur trade between Indians and French settlers, French and Indian War, shared farming and building techniques, King Philip’s War*
- Role of religious groups in colonial American communities—*e.g., Salem witch trials, William Penn, Roger Williams, Anne Hutchinson, Catholics in Maryland, Quakers in Pennsylvania, Puritans in New England, Congregationalists in Massachusetts, Anglicans in Virginia, colleges founded by religious organizations, Great Awakening*
- Organization and structure of the thirteen British colonies that became the United States
 - Economic—*e.g., northern, middle, and southern colonies; royal colonies of the British crown*
 - Political—*e.g., governor, governor’s council, colonial assembly, right to vote and hold office granted only to white male landowners*
 - Social—*e.g., debtors prison in Georgia, religious culture*
- Reflections of European culture, politics, and institutions in American life—*e.g., names of colonies and cities based on names of British royalty, legal concept of trial by jury, legislative elections by the people, English language, colonial assemblies*
- Origins, characteristics, and major achievements of ancient American empires and complex societies in the Americas—*e.g., Inca, Maya, Aztec, Olmec, Anasazi*

Grade 5 Social Studies Standards, Benchmarks, and GLEs

The following chart presents **all** grade 5 Social Studies standards, benchmarks, and GLEs.

GRADE 5 SOCIAL STUDIES STANDARDS, BENCHMARKS, AND GLEs	
Geography—Physical and Cultural Systems: Students develop a spatial understanding of Earth’s surface and the processes that shape it, the connections between people and places, and the relationship between man and his environment.	
<i>A. The World in Spatial Terms</i>	
Benchmarks	Grade-Level Expectations
G-1A-M1: identifying and describing the characteristics, functions, and applications of various types of maps and other geographic representations, tools, and technologies	<ol style="list-style-type: none"> 1. Describe the characteristics, functions, and applications of various types of maps (G-1A-M1) 2. Compare the uses of different types of maps, including two different types of maps of the same area (G-1A-M1)
G-1A-M2: interpreting and developing maps, globes, graphs, charts, models, and databases to analyze spatial distributions and patterns	<ol style="list-style-type: none"> 3. Interpret a map, using a map key/legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude (G-1A-M2) 4. Locate major landforms and geographic features, places, and bodies of water/waterways on a map of the United States (G-1A-M2)
G-1A-M3: organizing and displaying information about the location of geographic features and places by using mental mapping skills	<ol style="list-style-type: none"> 5. Translate a mental map into sketch form to illustrate relative location, size, and distances between places (G-1A-M3)
<i>B. Places and Regions</i>	
G-1B-M1: explaining and analyzing both the physical and human phenomena associated with specific places, including precipitation and settlement patterns	<ol style="list-style-type: none"> 6. Describe types of settlements and patterns of land use in Colonial America and suggest reasons for locations of cities and settlements (G-1B-M1)
G-1B-M2: identifying and describing significant physical features that have influenced historical events	<ol style="list-style-type: none"> 7. Identify ways in which location and physical features influence the development or life in a region of the United States (e.g., effects of natural barriers) (G-1B-M2)
G-1B-M3: identifying criteria used to define regions and explaining how and why regions change	<ol style="list-style-type: none"> 8. Identify physical or other criteria used to define regions and apply criteria to distinguish one region from another in the United States (G-1B-M3)
G-1B-M4: describing and explaining how personal interests, culture, and technology affect people’s perceptions and uses of places and regions	<ol style="list-style-type: none"> 9. Explain ways in which goals, cultures, interests, inventions, and technological advances affected perceptions and uses of places or regions in Colonial America (G-1B-M4)

C. Physical and Human Systems	
G-1C-M1: predicting and explaining how physical features help to shape patterns and arrangements in the physical environment	
G-1C-M2: identifying key demographic concepts and using these concepts to analyze the population characteristics of a country or region	
G-1C-M3: describing the characteristics and patterns of human settlement in different regions of the world and analyzing the impact of urbanization	10. Describe the influence of location and physical setting on the founding of the original thirteen colonies (G-1C-M3)
G-1C-M4: analyzing types, patterns, and effects of human migration over time	11. Explain the reasons why Europeans chose to explore and colonize the world (G-1C-M4)
G-1C-M5: tracing local and worldwide patterns of cultural diffusion and analyzing their causes and effects	
G-1C-M6: comparing historical and contemporary patterns of economic interdependence	12. Describe the economic interdependence among the thirteen American colonies (G-1C-M6)
G-1C-M7: explaining how cooperation and conflict among people contribute to the political divisions on Earth’s surface	13. Explain how geographic differences and similarities among the thirteen American colonies contributed to political cooperation and conflict (G-1C-M7)
D. Environment and Society	
G-1D-M1: analyzing and evaluating the effects of human actions upon the physical environment	14. Describe the impact of human action on the physical environment of early America (G-1D-M1)
G-1D-M2: explaining and giving examples of how characteristics of different physical environments affect human activities	15. Explain and give examples of how Native Americans and Europeans adapted to living in a particular North American physical environment (G-1D-M2)
G-1D-M3: analyzing the worldwide distribution and utilization of natural resources	16. Identify the natural resources used by people in the United States (G-1D-M3)
G-1D-M4: identifying problems that relate to contemporary geographic issues and researching possible solutions	
Civics—Citizenship and Government: Students develop an understanding of the structure and purposes of government, the foundations of the American democratic system, and the role of the United States in the world, while learning about the rights and responsibilities of citizenship.	
A. Structure and Purposes of Government	
Benchmarks	Grade-Level Expectations
C-1A-M1: explaining major ideas about why governments are necessary and evaluating competing positions on the purposes government should serve	
C-1A-M2: describing the essential characteristics of various systems of government	

C-1A-M3: explaining how the powers of the government are distributed, shared, and limited by the United States and Louisiana constitutions	
C-1A-M4: explaining the purposes of state constitutions and describing the relationship of state constitutions to the federal constitution	
C-1A-M5: describing the organization and major responsibilities of local, state, and national governments	17. Compare aspects of American colonial government (e.g., local, colonial governors, role of the British parliament and Crown) to present-day U.S. local, state, and national government (C-1A-M5)
C-1A-M6: identifying government leaders and representatives at the local, state, and national levels and explaining their powers and the limits on their powers	
C-1A-M7: explaining the importance of law in the American constitutional system and applying criteria to evaluate rules and laws	
C-1A-M8: explaining how public policy is formed, debated, and carried out at local, state, and national levels	
C-1A-M9: explaining the necessity of taxes and describing the purposes for which tax revenues are used	
C-1A-M10: identifying and evaluating different types of taxes	
B. Foundations of the American Political System	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i>	
C. International Relationships	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i>	
D. Roles of the Citizen	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i>	
Economics—Interdependence and Decision Making: Students develop an understanding of fundamental economic concepts as they apply to the interdependence and decision making of individuals, households, businesses, and governments in the United States and the world.	
A. Fundamental Economic Concepts	
Benchmarks	Grade-Level Expectations
E-1A-M1: describing how the scarcity of resources necessitates decision making at both personal and societal levels	
E-1A-M2: analyzing consequences of economic decisions in terms of additional benefits and additional costs	

E-1A-M3: analyzing the consequences and opportunity cost of economic decisions	
E-1A-M4: analyzing the role of specialization in the economic process	
E-1A-M5: giving examples of how skills and knowledge increase productivity and career opportunities	
E-1A-M6: describing the essential differences in the production and allocation of goods and services in traditional, command, and market systems	
E-1A-M7: describing the various institutions, such as business firms and government agencies, that make up economic systems	
E-1A-M8: differentiating among various forms of exchange and money	
E-1A-M9: using economic concepts to help explain historic and contemporary events and developments	<p>18. Describe economic activities within and among American Indian cultures prior to contact with Europeans (E-1A-M9)</p> <p>19. Use economic concepts (e.g., supply and demand, scarcity, interdependence) to identify the economic motivations for European exploration and settlement in the Americas (E-1A-M9)</p>
B. Individuals, Households, Businesses, and Governments	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i>	
C. The Economy as a Whole	
<i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i>	
History—Time, Continuity, and Change: Students develop a sense of historical time and historical perspective as they study the history of their community, state, nation, and world.	
A. Historical Thinking Skills	
Benchmarks	Grade-Level Expectations
H-1A-M1: describing chronological relationships and patterns	<p>20. Construct a timeline of key events in American history (beginnings to 1763) (H-1A-M1)</p> <p>21. Demonstrate an understanding of relative and absolute chronology by interpreting data presented in a timeline (H-1A-M1)</p>
H-1A-M2: demonstrating historical perspective through the political, social, and economic context in which an event or idea occurred	22. Identify different points of view about key events in early American history (H-1A-M2)
H-1A-M3: analyzing the impact that specific individuals, ideas, events, and decisions had on the course of history	23. Identify the causes, effects, or impact of a given event in early American history (H-1A-M3)

H-1A-M4: analyzing historical data using primary and secondary sources	24. Use both a primary and secondary source to describe key events or issues in early American history (H-1A-M4)
H-1A-M5: identifying issues and problems from the past and evaluating alternative courses of action	25. Identify historical issues or problems in early America and explain how they were addressed (H-1A-M5)
H-1A-M6: conducting research in efforts to answer historical questions	26. Conduct historical research using a variety of resources to answer historical questions related to early American history (H-1A-M6)
<i>B. United States History</i>	
H-1B-M1: identifying and describing characteristics of societies in the Americas, Western Europe, and Western Africa that increasingly interacted after 1450	27. Identify and describe indigenous cultures and groups that existed in the Americas at the beginning of European exploration (H-1B-M1) 28. Describe the trade that connected the Americas, Western Europe, and Western Africa prior to 1620, including the origins of the West Africa-European trade connection (H-1B-M1) 29. Compare and contrast Africans, Europeans, and Native Americans converging in the Western Hemisphere after 1492 (H-1B-M1)
H-1B-M2: explaining the cultural, ecological, and economic results of early European exploration and colonization	30. Explain that cultures change through cultural diffusion, invention, and innovation (H-1B-M2) 31. Describe major early explorations and explorers and their reasons for exploration (H-1B-M2) 32. Describe the Spanish conquests in the Americas including the impact on the Aztecs, Incas, and other indigenous peoples (H-1B-M2) 33. Explain the course and consequences of the Columbian Exchange, including its cultural, ecological, and economic impact on Europe, the Americas, and West Africa (H-1B-M2)
H-1B-M3: describing the interactions among Native Americans, early Europeans, and Africans in the Americas	34. Describe the arrival of Africans in the European colonies in the seventeenth century and the increase in the importation of slaves in the eighteenth century (H-1B-M3) 35. Explain the societal impact of the immersion of Africans in the Americas (H-1B-M3) 36. Identify instances of both cooperation and conflict between Indians and European settlers (H-1B-M3)
H-1B-M4: tracing the emergence of religious freedom and changing political institutions in the English colonies	37. Describe and compare the various religious groups in colonial America and the role of religion in colonial communities (H-1B-M4)
H-1B-M5: analyzing the impact of European cultural, political, and economic ideas and institutions on life in the Americas	38. Describe the political, social, and economic organization and structure of the thirteen British colonies that became the United States (H-1B-M5) 39. Describe reflections of European culture, politics, and institutions in American life (H-1B-M5) 40. Explain why some colonists felt loyal to England due to their cultural, political, and economic ties to their homeland (H-1B-M5)

H-1B-M6: explaining the causes and course of the American Revolution and the reasons for the American victory	
H-1B-M7: explaining the impact of the American Revolution on the politics, society, and economy of the new nation	
H-1B-M8: relating the institutions and practices of government established during and after the American Revolution to the foundation of the American political system	
H-1B-M9: describing the territorial expansion of the United States and analyzing the effects on relations with Native Americans and external powers	
H-1B-M10: analyzing the changes and regional tensions created by Jacksonian democracy, the industrial revolution, increasing immigration, the rapid expansion of slavery, and the westward movement	
H-1B-M11: explaining and giving examples of the reform movements that occurred during the antebellum period and evaluating their impact on American society	
H-1B-M12: describing the causes and course of the Civil War and examining the impact of the war on the American people	
H-1B-M13: comparing and evaluating various reconstruction plans of the post–Civil War era	
H-1B-M14: describing the impact of industrialization in the United States	
H-1B-M15: describing the significant economic, political, social, and cultural changes that have occurred in the United States during the twentieth century	
H-1B-M16: identifying the causes and consequences of major world conflicts involving the United States	
H-1B-M17: describing the impact of the Great Depression and World War II on American society	
H-1B-M18: discussing significant developments and issues in contemporary United States history	
<i>C. World History</i>	
H-1C-M1: describing the earliest human communities	
H-1C-M2: explaining the emergence of agricultural societies around the world	

H-1C-M3: identifying the major characteristics of early civilizations in Mesopotamia, Egypt, and the Indus valley	
H-1C-M4: tracing the development and expansion of agricultural societies and the emergence of new states	
H-1C-M5: analyzing the political, social, and cultural consequences of population movements and militarization in Europe and Asia	
H-1C-M6: discussing and giving examples of technological and cultural innovation and change	
H-1C-M7: describing the classical civilizations and examining their interactions and influences	
H-1C-M8: describing and comparing the emergence of major religions and large-scale empires in the Mediterranean basin, China, and India	
H-1C-M9: tracing the expansion of major religions and cultural traditions and examining the impact on civilizations in Europe, Asia, and Africa	
H-1C-M10: analyzing the political, social, and cultural developments and changes that resulted from the rise and fall of empires and kingdoms in Europe, Asia, Africa, and the Americas	
H-1C-M11: analyzing the cultural and economic impact of the interregional system of communication and trade that developed among the peoples of Europe, Asia, and Africa	
H-1C-M12: explaining the developments and events that led to the political, social, cultural, and economic transformation of Europe	
H-1C-M13: describing the development and expansion of complex societies and empires in the Americas	41. Describe the origins, characteristics, and expansion of ancient American empires (e.g., Inca, Maya) and complex societies in the Americas (e.g., Aztec) (H-1C-M13)
H-1C-M14: explaining the political, cultural, and economic developments and trends of major world regions that resulted in the transformation of societies in the fifteenth through the mid-eighteenth centuries	
H-1C-M15: determining and discussing the impact of the political, agricultural, and industrial revolutions on societies around the world	
H-1C-M16: describing the transformation of world societies that occurred during an era of global trade and Western domination	

<p>H-1C-M17: identifying the causes and worldwide consequences of major twentieth century conflicts</p>	
<p>H-1C-M18: identifying and discussing significant political, economic, social, cultural, and technological trends that have had an impact on the modern world</p>	
<p><i>D. Louisiana History</i></p>	
<p><i>There are no Grade-Level Expectations for benchmarks in grade 5 for this category.</i></p>	

Sample Test Items: Grade 5 Social Studies

Geography

The World in Spatial Terms

GLE 1—Describe the characteristics, functions, and applications of various types of maps (G-1A-M1)

- 1 Which type of map would provide information about how many people live in Louisiana?
- A historical map
 - B political map
 - C population map
 - D road map

Correct Answer: C

Match to GLE: This item asks students to identify the purpose of a population map. Other grade 5 iLEAP items that measure this GLE may relate to other types of maps and their characteristics, functions, and applications.

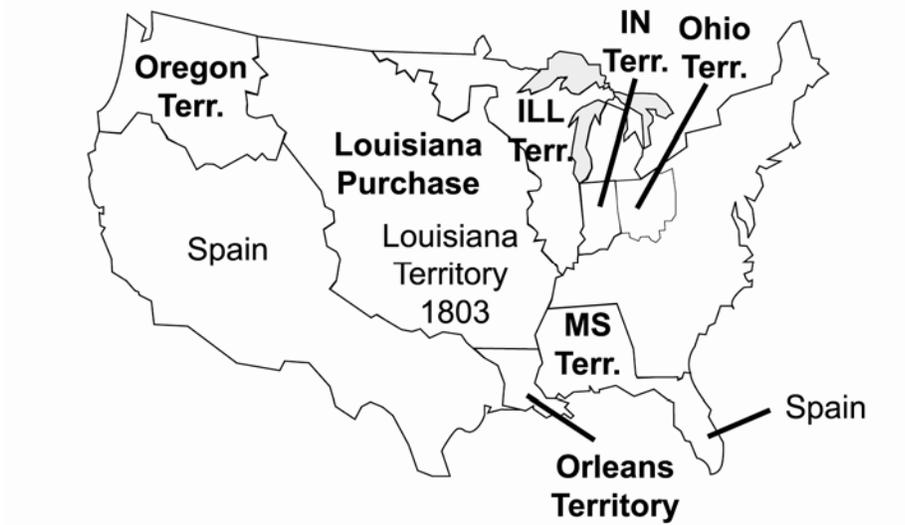
Geography

The World in Spatial Terms

GLE 2—Compare the uses of different types of maps, including two different types of maps of the same area (G-1A-M1)

Use these maps to answer question 2.

Territories in 1810



Major Rivers of the United States



2 Which river created a natural boundary for the Louisiana Purchase of 1803?

- A** Mississippi River
- B** Missouri River
- C** Ohio River
- D** Tennessee River

Correct Answer: A

Match to GLE: This item asks students to compare a map of territories in the continental United States to a map of major rivers. Other grade 5 iLEAP items that measure this GLE may ask students to compare maps in other ways.

Geography

The World in Spatial Terms

GLE 3—Interpret a map, using a map key/legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude (G-1A-M2)

Use this map to answer question 3.

Major U.S. Cities



- 3** An airplane is flying from Dallas, Texas, to San Francisco, California. In which direction is the airplane traveling?
- A** northwest
 - B** northeast
 - C** southwest
 - D** southeast

Correct Answer: A

Match to GLE: This item asks students to apply intermediate directions to a map of the continental United States. Other grade 5 iLEAP items that measure this GLE may relate to map key/legends and symbols, distance scale, compass rose, cardinal directions, and latitude and longitude.

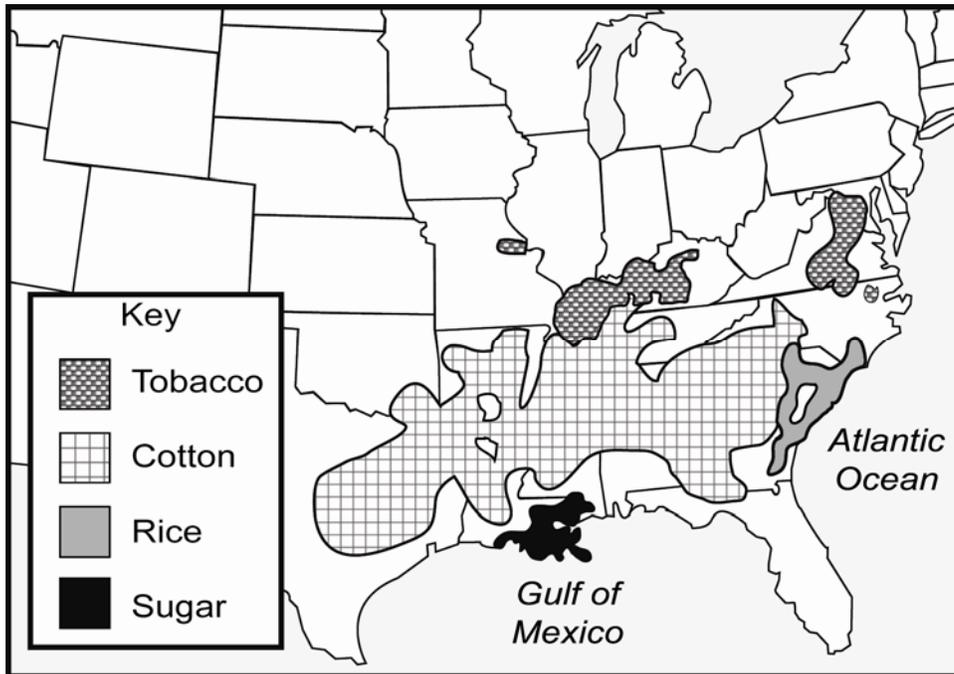
Geography

The World in Spatial Terms

GLE 3—Interpret a map, using a map key/legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude (G-1A-M2)

Use this map to answer question 4.

Slave Crops in the American South, 1860



- 4 This map shows where major crops were grown in the South, using labor from slaves. According to the map, what slave-labor crop covered the **greatest** amount of land?
- A tobacco
 - B rice
 - C cotton
 - D sugar

Correct Answer: C

Match to GLE: This item asks students to use a map key. Other grade 5 iLEAP items that measure this GLE may relate to symbols, distance scale, compass rose, cardinal and intermediate directions, and latitude and longitude.

Geography

The World in Spatial Terms

GLE 4—Locate major landforms and geographic features, places, and bodies of water/waterways on a map of the United States (G-1A-M2)

Use this map to answer question 5.

The Continental United States



- 5 Which of these U.S. states shares a border with both Canada and the Pacific Ocean?
- A Maine (ME)
 - B Minnesota (MN)
 - C California (CA)
 - D Washington (WA)

Correct Answer: D

Match to GLE: This item asks students to relate the location of a state to a major landform and body of water. Other grade 5 iLEAP items that measure this GLE may relate to other prominent features of maps of the United States.

Geography

The World in Spatial Terms

GLE 4—Locate major landforms and geographic features, places, and bodies of water/waterways on a map of the United States (G-1A-M2)

Use this map to answer question 6.

Key Regions of the United States



- 6 According to the map, the Great Plains region is located between
- A the Rocky Mountains and the Appalachian Mountains.
 - B the Appalachian Mountains and the Atlantic Ocean.
 - C the Rocky Mountains and the Pacific Ocean.
 - D the Appalachian Mountains and the Coastal Plain.

Correct Answer: A

Match to GLE: This item asks students to describe the location of a major region of the continental United States. Other grade 5 iLEAP items that measure this GLE may relate to other prominent features of maps of the United States.

Geography
Places and Regions

GLE 6—*Describe types of settlements and patterns of land use in Colonial America and suggest reasons for locations of cities and settlements (G-1B-M1)*

- 7** Most major cities in colonial America were located
- A** near bodies of water.
 - B** in the southern region.
 - C** near the mountains.
 - D** west of the Mississippi River.

Correct Answer: A

Match to GLE: This item asks students to describe a particular feature of land use in Colonial America. Other grade 5 iLEAP items that measure this GLE may relate to other types of settlements or patterns of land use in Colonial America or the reasons for locations of cities and settlements.

Geography
Places and Regions

GLE 7—Identify ways in which location and physical features influence the development or life in a region of the United States (e.g., effects of natural barriers) (G-1B-M2)

Use this map to answer question 8.



- 8** Which of these features made it **most** difficult for a settler to travel across the state of Colorado by covered wagon?
- A** lack of fresh water sources
 - B** extremely hot temperatures
 - C** thick vegetation and brush
 - D** high, snow-covered mountains

Correct Answer: D

Match to GLE: This item asks students to relate physical features of the United States with challenges in transportation and settlement. Other grade 5 iLEAP items that measure this GLE may relate to other ways that location and physical features impacted settlement and living in the United States.

Geography
Places and Regions

GLE 8—Identify physical or other criteria used to define regions and apply criteria to distinguish one region from another in the United States (G-1B-M3)

Use this map to answer question 9.

Key Regions of the Continental United States



- 9 This map shows the United States divided into four major regions. Which state is a Midwestern state?
- A Michigan (MI)
 - B Colorado (CO)
 - C Arkansas (AR)
 - D New Mexico (NM)

Correct Answer: A

Match to GLE: This item asks students to associate a state with a major region of the continental United States. Other grade 5 iLEAP items that measure this GLE may relate to regions of the United States in other ways.

Geography

Places and Regions

GLE 8—Identify physical or other criteria used to define regions and apply criteria to distinguish one region from another in the United States (G-1B-M3)

- 10** In colonial America, what was the **main** reason the southern colonies had more slaves than the northern colonies?
- A** Slavery was illegal in the northern colonies.
 - B** The southern colonies were more dependent upon farming.
 - C** There were no shipping ports along the North Atlantic coast.
 - D** The southern colonies had the largest cities in colonial America.

Correct Answer: B

Match to GLE: This item asks students to identify an economic distinction between the regions defined by the northern and southern colonies. Other grade 5 iLEAP items that measure this GLE may relate to regions of the United States in other ways.

Geography

Physical and Human Systems

GLE 10—Describe the influence of location and physical setting on the founding of the original thirteen colonies (G-1C-M3)

- 11** Which statement best describes how the environment influenced the economy of the colonies?
- A** The middle colonies developed a system of trade based mostly on fishing.
 - B** Large, snow-covered mountains made it difficult for the southern colonies to grow or trade crops.
 - C** The hot, humid weather in the south made it difficult to grow cash crops such as tobacco and rice.
 - D** Due to rocky soil and a harsh climate, New England colonies grew staple crops such as corn and squash.

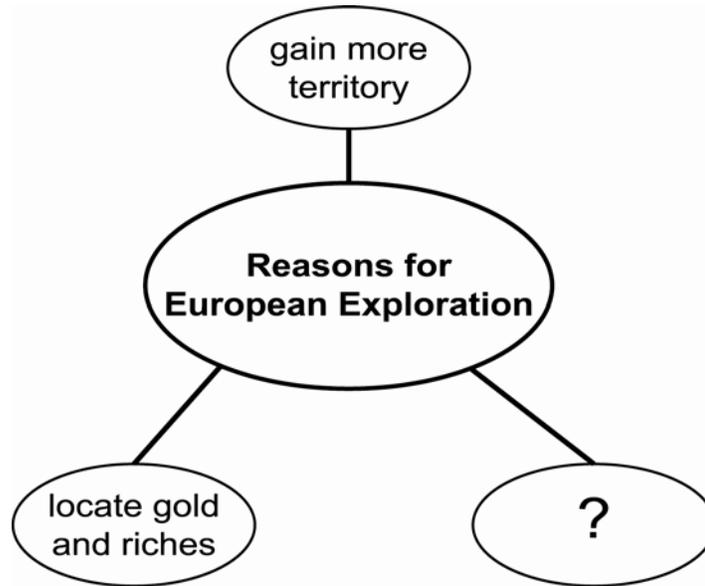
Correct Answer: D

Match to GLE: This item asks students to identify how the environment influenced the economy of the thirteen colonies. Other grade 5 iLEAP items that measure this GLE may relate to the ways that location and physical settings influenced the founding of the colonies.

Geography
Physical and Human Systems

GLE 11—*Explain the reasons why Europeans chose to explore and colonize the world (G-1C-M4)*

Use the concept web below to answer question 12.



12 Which of these best completes the concept web?

- A** spread disease
- B** build more ships
- C** find better trade routes
- D** share scientific knowledge

Correct Answer: C

Match to GLE: This item asks students to complete a concept web by identifying a reason for European exploration. Other grade 5 iLEAP items that measure this GLE may have students identify or describe reasons for European exploration and colonization in other ways.

Geography

Physical and Human Systems

GLE 11—*Explain the reasons why Europeans chose to explore and colonize the world (G-1C-M4)*

- 13** What was the **main** reason the Puritans immigrated to New England?
- A** to explore new lands
 - B** to gain religious freedom
 - C** to escape poverty
 - D** to live in warmer climates

Correct Answer: B

Match to GLE: This item asks students to identify the main reason that the Puritans immigrated to New England. Other grade 5 iLEAP items that measure this GLE may have students identify or describe reasons for European exploration and colonization in other ways.

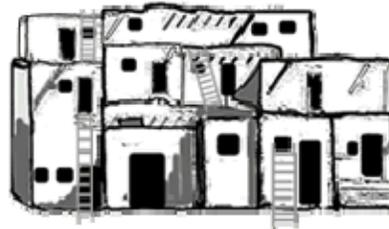
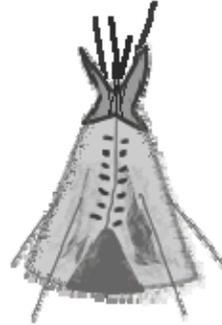
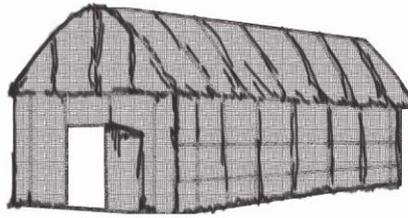
Geography

Environment and Society

GLE 15—*Explain and give examples of how Native Americans and Europeans adapted to living in a particular North American physical environment (G-1D-M2)*

Use the pictures below to answer question 14.

Types of Native American Homes



- 14** What is the **main** reason that different cultures of Native Americans had various types of homes?
- A** Homes were designed to protect families from wild animals.
 - B** The number of people was different from tribe to tribe.
 - C** Homes were built from natural resources that were found nearby.
 - D** Native Americans built their homes to look like the homes of European settlers.

Correct Answer: C

Match to GLE: This item asks students to connect physical environment with homebuilding by Native Americans. Other grade 5 iLEAP items that measure this GLE may have students identify or describe other ways that physical environment led to adaptations by Native Americans and European settlers.

Geography

Environment and Society

GLE 16—*Identify the natural resources used by people in the United States (G-1D-M3)*

15 Which natural resource is found in the Pacific Northwest?

- A** wheat
- B** cotton
- C** lumber
- D** oranges

Correct Answer: C

Match to GLE: This item asks students to identify a significant natural resource of the Pacific Northwest. Other grade 5 iLEAP items that measure this GLE may have students identify other natural resources used by people in other regions of the United States.

History

Historical Thinking Skills

GLE 23—Identify the causes, effects, or impact of a given event in early American history (H-1A-M3)

Use this chart to answer question 16.

Colonial Acts

Year(s)	Event
1663–1696	Navigation Acts require all colonial trade to be done with English ships. Heavy duties are placed on goods imported by the colonies.
1699	The Wool Act forbids the New England colonies to export wool.
1733	The Sugar Act imposes heavy duties on sugar imported from West Indies.
1750	The Iron Act limits the growth of the iron industry in the New England colonies.
1751	The Currency Act forbids the New England colonies to issue their own money.

- 16** This chart shows several acts the British passed during the colonial period. What was the **main** reason Great Britain passed these acts?
- A** to help the early colonists survive in America
 - B** to tighten control over colonial trade
 - C** to help the colonists form an independent government
 - D** to encourage competition among British colonies and other European settlements in America

Correct Answer: B

Match to GLE: This item asks students to identify the cause of various British acts. Other grade 5 iLEAP items that measure this GLE may relate to the causes, effects, or impact of other events in early American history.

History

Historical Thinking Skills

GLE 24—Use both a primary and secondary source to describe key events or issues in early American history (H-1A-M4)

Use this quotation to answer question 17.

And now I set on foot my first project of a public nature, that for a subscription library. I drew up the proposals . . . and . . . procured fifty subscribers of forty shillings each to begin with, and ten shillings a year for fifty years, the term our company was to continue. We afterwards obtain'd a charter, the company being increased to one hundred: this was the mother of all the North American subscription libraries, now so numerous. It is become a great thing itself, and continually increasing. These libraries have improved the general conversation of the Americans, made the common tradesmen and farmers as intelligent as most gentlemen from other countries, and perhaps have contributed in some degree to the stand so generally made throughout the colonies in defense of their privileges.

—*The Autobiography of Benjamin Franklin*, 1791

- 17** How did the creation of public libraries contribute to the growth of democracy in the American colonies?
- A** by promoting the growth of public business
 - B** by boosting the growth of the colonial printing industry
 - C** by making Benjamin Franklin more famous throughout the colonies
 - D** by allowing many more people to become educated about important ideas

Correct Answer: D

Match to GLE: This item asks students to interpret an excerpt from the Autobiography of Benjamin Franklin. Other grade 5 iLEAP items that measure this GLE may ask students to interpret other primary or secondary sources.

History

United States History

GLE 27—Identify and describe indigenous cultures and groups that existed in the Americas at the beginning of European exploration (H-1B-M1)

- 18** Native American Indian groups of the Southwest region adapted to their environment by
- A** building tepees, hunting large game, and using buffalo hides for clothing.
 - B** building longhouses, fishing and hunting, and using furs for clothing.
 - C** building adobe pueblos, growing maize, and weaving cotton yarn for clothing.
 - D** building cone-shaped bark houses, gathering acorns and nuts, and using deer hides and bark for clothing.

Correct Answer: C

Match to GLE: This item asks students to describe practices of the Native American Indians of the Southwest. Other grade 5 iLEAP items that measure this GLE may relate to other indigenous cultures and groups at the beginning of European exploration.

History

United States History

GLE 28—Describe the trade that connected the Americas, Western Europe, and Western Africa prior to 1620, including the origins of the West Africa-European trade connection (H-1B-M1)

- 19** The first African slaves were brought to the Americas to
- A** be servants for wealthy New England families.
 - B** build missions and settlements for the Spanish.
 - C** work on Portuguese sugar plantations in the Caribbean.
 - D** help colonists fight wars against the Native Americans.

Correct Answer: C

Match to GLE: This item asks students to identify an early reason for the forced importation of African slaves to the Americas. Other grade 5 iLEAP items that measure this GLE may relate to other aspects of early trade among the Americas, Western Europe, and Western Africa.

History

United States History

GLE 30—*Explain that cultures change through cultural diffusion, invention, and innovation (H-1B-M2)*

- 20** Between 1820 and 1860, immigration increased dramatically in the United States. Immigrants had an impact on American culture by
- A** creating a new money system.
 - B** forming their own political parties.
 - C** refusing to attend American schools.
 - D** spreading their customs, languages, and religions.

Correct Answer: D

Match to GLE: This item asks students to identify ways that nineteenth century immigration impacted American culture. Other grade 5 iLEAP items that measure this GLE may relate to other examples of cultural diffusion, invention, and innovation as they pertain to the history of the United States.

History

United States History

GLE 31—Describe major early explorations and explorers and their reasons for exploration (H-1B-M2)

- 21** During the late 1600s, Spain was colonizing the Americas while the English and the French were
- A** exploring China and Japan.
 - B** searching for the Northwest Passage through North America to Asia.
 - C** exploring the western coast of Africa.
 - D** establishing missions in present-day California, New Mexico, and Arizona.

Correct Answer: B

Match to GLE: This item asks students to describe a purpose of English and French exploration. Other grade 5 iLEAP items that measure this GLE may relate to other early explorers and reasons for exploration.

History

United States History

GLE 31—Describe major early explorations and explorers and their reasons for exploration (H-1B-M2)

- 22** In the 1400s, the first Portuguese explorers sailed along the coast of Africa. What was the **main** purpose of their voyages?
- A** finding a water route to India's spices
 - B** finding natives who would trade with them
 - C** finding slaves who could be sold in other lands
 - D** finding a new world that no European had ever seen

Correct Answer: A

Match to GLE: This item asks students to describe the primary purpose of early Portuguese exploration along the African coast. Other grade 5 iLEAP items that measure this GLE may ask students to describe other early explorers and their reasons for exploration.

History

United States History

GLE 32—Describe the Spanish conquests in the Americas including the impact on the Aztecs, Incas, and other indigenous peoples (H-1B-M2)

- 23** What was an effect of Spanish contact with Native American groups in Mexico and South America?
- A** Spanish explorers brought the Aztecs and Incas horses and weapons for battle.
 - B** Brutal attacks by the Spanish conquistadores and the spread of disease led to the fall of the Aztecs and Incas.
 - C** The Spanish joined forces with the Aztecs and Incas against the Mayas and Toltecs.
 - D** Spanish explorers brought the language and religious customs of Native Americans back to Spain.

Correct Answer: B

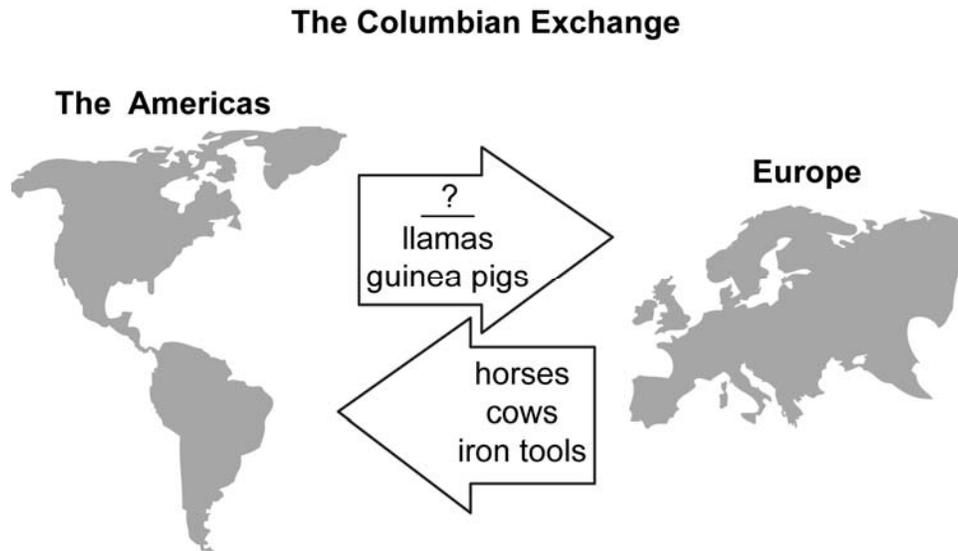
Match to GLE: This item asks students to describe the effects of Spanish conquests on Native American groups in Mexico and South America. Other grade 5 iLEAP items that measure this GLE may ask students to describe other consequences of Spanish contact with indigenous peoples.

History

United States History

GLE 33—*Explain the course and consequences of the Columbian Exchange, including its cultural, ecological, and economic impact on Europe, the Americas, and West Africa (H-1B-M2)*

Use this diagram to answer question 24.



24 Which crop was brought to Europe from the Americas?

- A** rice
- B** oats
- C** corn
- D** wheat

Correct Answer: C

Match to GLE: This item asks students to classify elements of the Columbian Exchange. Other grade 5 iLEAP items that measure this GLE may relate to other aspects of the Columbian Exchange.

History

United States History

GLE 34—Describe the arrival of Africans in the European colonies in the seventeenth century and the increase in the importation of slaves in the eighteenth century (H-1B-M3)

- 25** Which of these was the biggest factor in the increase in African slaves imported to colonial America between 1650 and 1750?
- A** improvements in transportation by sea
 - B** laws making slavery illegal in Europe
 - C** the spread of plantation agriculture
 - D** famine and drought in Africa

Correct Answer: C

Match to GLE: This item asks students to identify a factor in the increased importation of African slaves. Other grade 5 iLEAP items that measure this GLE may relate to other aspects of the arrival and increased importation of African slaves.

History

United States History

GLE 36—Identify instances of both cooperation and conflict between Indians and European settlers (H-1B-M3)

- 26** King Philip’s War was fought because of tensions between
- A** the British and the French.
 - B** the Wampanoag and the Pequot tribes.
 - C** the Wampanoag tribe and the Puritans.
 - D** the English Loyalists and the American Patriots.

Correct Answer: C

Match to GLE: This item asks students to identify a cause of King Philip’s War. Other grade 5 iLEAP items that measure this GLE may relate to other instances of cooperation or conflict between Indians and European settlers.

History

United States History

GLE 37—Describe and compare the various religious groups in colonial America and the role of religion in colonial communities (H-1B-M4)

- 27** Which colony created their community based upon a “holy experiment” that focused on the Quaker ideals of equality and tolerance?
- A** John Winthrop’s Massachusetts Bay Colony
 - B** James Oglethorpe’s colony of Georgia
 - C** William Penn’s colony of Pennsylvania
 - D** Roger Williams’ colony of Rhode Island

Correct Answer: C

Match to GLE: This item asks students to connect the founding of Pennsylvania with the religious ideals of the Quakers. Other grade 5 iLEAP items that measure this GLE may relate to other religious groups and their influence in colonial America.

History

United States History

GLE 38—Describe the political, social, and economic organization and structure of the thirteen British colonies that became the United States (H-1B-M5)

- 28** In colonial America, the leader of a British colony was called the
- A** mayor.
 - B** governor.
 - C** burgess.
 - D** assemblyman.

Correct Answer: B

Match to GLE: This item relates to the political organization of the thirteen colonies. Other grade 5 iLEAP items that measure this GLE may relate to the social or economic organization of the colonies.

History

United States History

GLE 39—Describe reflections of European culture, politics, and institutions in American life (H-1B-M5)

- 29** The British Parliament provided American colonists with an early model of
- A** freedom of religion.
 - B** representative government.
 - C** separation of church and state.
 - D** equality between rich and poor citizens.

Correct Answer: B

Match to GLE: This item asks students to identify a British influence on American political structure. Other grade 5 iLEAP items that measure this GLE may relate to other aspects of European culture, politics, or institutions that are reflected in American life.

History

World History

GLE 41—Describe the origins, characteristics, and expansion of ancient American empires (e.g., Inca, Maya) and complex societies in the Americas (e.g., Aztec) (H-1C-M13)

- 30** Which pre-Columbian civilization in the Americas had a form of writing?
- A** Inca
 - B** Aztec
 - C** Maya
 - D** Anasazi

Correct Answer: C

Match to GLE: This item asks students to associate the Mayan empire with a system of written language. Other grade 5 iLEAP items that measure this GLE may relate to other aspects of ancient American empires and societies.

APPENDICES

APPENDIX A

Glossary

Accommodations changes to test format or administration conditions for students with special needs that do not change the construct being measured but do remove construct-irrelevant contributions to test scores that would otherwise exist for these individuals. Louisiana permits accommodations for students with disabilities according to the Individuals with Disability Education Improvement Act of 2004 (IDEA) or the Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, as well as students identified as limited English proficient.

Accountability the systematic use of assessment data and other information to assure those inside and outside of the educational system that the performance of students, educators, and schools is progressing

Achievement levels expectations for levels of performance. LEAP and iLEAP achievement levels are *Advanced, Mastery, Basic, Approaching Basic, and Unsatisfactory*.

Assessment a systematic method of obtaining evidence from tests and other sources, used to draw inferences about characteristics of people or programs for a specific purpose

Benchmark a broad statement of process and/or content that is used as a reference to develop curriculum and to assess student progress

Common Core State Standards (CCSS) standards adopted by BESE in July 2010, which define the knowledge and skills students should acquire throughout their K-12 education in order to graduate from high school prepared to succeed in their post-secondary pursuits

Constructed-response item a test item with directions that instruct students to generate an answer that is stated in writing or explained by a diagram, a chart, or some other evidence of their thinking

Content standards a description of what a student should know and be able to do through subject matter, knowledge, and proficiencies gained as a result of his or her education

Criterion-referenced test (CRT) an assessment that compares a student's performance to a specific learning objective rather than to the performance of other students

Cut score the critical point for separating scores into achievement level groups based on an established set of criteria

Dimensions of writing the components of the scoring rubric used to evaluate student responses to a writing prompt. For iLEAP, the dimensions of content and style are scored.

Grade-Level Expectation (GLE) a statement that defines what a student should know and be able to do at the end of a given grade level. GLEs add further definition to standards and benchmarks.

Individual Accommodation Plan (IAP) a written plan developed at the school level that describes the accommodations for classroom instruction and testing, as well as statewide assessments, for a student who qualifies under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, also referred to as a Section 504 plan

Individualized Education Program (IEP) a written plan developed by the IEP team that prescribes the educational program designed to meet the specific needs of a student who meets federal special education guidelines under the Individuals with Disability Education Improvement Act of 2004 (IDEA). This plan includes the accommodations students are to receive in classroom instruction and testing, as well as on statewide assessments.

iLEAP *integrated* LEAP, Louisiana’s statewide assessment for grades 3, 5, 6, and 7

Inter-rater reliability the degree to which different scorers agree on the score to be assigned to a test response

Item an individual question or task in an assessment or evaluation instrument

Key Concepts descriptions of important content emphasized in the assessment

LEP abbreviation for limited English proficiency. The No Child Left Behind Act (NCLB) identifies these students as those who do not speak English as their primary language, have a limited ability to read, speak, write, or understand English and whose difficulties with the English language may be sufficient to deny the individual the ability to meet a state’s proficient level of achievement on state assessments.

Multiple-choice item a test item that consists of an interrogatory stem with answer choices. Students are required to select the correct answer from several choices. This kind of item is also referred to as a selected-response item.

NCLB the federal Elementary and Secondary Education Act of 2001, known as No Child Left Behind

Norm-referenced test (NRT) an assessment in which a student’s performance is compared to a larger group. Usually the larger group, or norm group, is a national sample representing a wide and diverse cross-section of students.

Norms indicators of typical performance

Partnership for Assessment of Readiness for College and Careers (PARCC) a consortium of 24 states, including Louisiana, who are developing a common set of assessments in English Language Arts and mathematics that are centered on measuring

student progress on the CCSS, which are based on the knowledge and skills necessary for high school graduates to be prepared for college and careers. Louisiana will fully implement the PARCC assessments during the 2014-2015 school year.

Percentile Rank a point on the norms distribution below which a certain percentage of the scores fall. For example, a student who scores at the 70th percentile has scored higher than 70 percent of the students in the norm group.

Raw score a person's observed score on a test, that is, the number correct

Rubric a scoring guide for open-ended questions or performance tasks. A scoring rubric contains a description of the requirements for varying levels of success in response to the task.

Sample test items examples of the kinds of test items that appear on a test such as *iLEAP*

Scaled score derived scores to which raw scores are converted by numerical transformation (e.g., conversion of raw scores to percentile ranks or scaled scores)

Standard a broad statement of expectations for student learning

Standard setting the process for determining the cut point for each achievement level

Stimulus material the part of a test item that provides information needed to complete the item (e.g., illustrations, maps, charts, and graphs)

Strand categories within particular content areas. Because strands are interrelated, they should be integrated, rather than taught in isolation. For this reason, a test item may assess more than one strand.

Survey battery a shortened version of the Iowa Tests of Basic Skills

Test blueprint a document, usually in the form of a chart, representing the distribution of items for each standard or strand for a content area assessment

Test specifications detailed information about an assessment (e.g., test blueprint, test design, item types, test description, test content)

Writing prompt the topic and explanation provided to students on the English Language Arts writing test that elicits a response to text (one or two passages)

APPENDIX B

***i*LEAP Transitional Assessments Frequently Asked Questions (FAQs)**

1. Why is *i*LEAP being revised?

In 2010, the Board of Elementary and Secondary Education (BESE) approved the Common Core State Standards (CCSS) (http://www.doe.state.la.us/topics/common_core.html), which will eventually replace the current English language arts (ELA) and mathematics standards/GLEs. After adopting the CCSS, Louisiana became a governing member of a 24-state consortium—the Partnership for Assessment of Readiness for College and Careers (PARCC)—working to develop next-generation assessments that measure the full range of the CCSS. In preparation for the PARCC assessments, which are to be administered starting in the 2014-2015 school year, the Department has created transitional assessments in ELA and mathematics.

2. How does the transitional *i*LEAP differ from previous *i*LEAP assessments?

The mathematics transitional assessments will include items that measure content common to the current GLEs and the CCSS (<http://www.louisianaschools.net/topics/gle.html>). The norm-referenced test (NRT) component—the survey battery of The Iowa Tests—of the *i*LEAP Math test will be omitted and replaced by items that more closely match the CCSS focus areas.

In the *i*LEAP ELA assessments, the NRT component will remain, but the current writing prompts will be replaced with a new type of prompt that focuses on a key instructional shift—writing grounded in textual evidence. Instead of responding to a “stand alone” writing prompt, a student will read one or two passages and use the information from the text(s) to support his or her response.

The science and social studies *i*LEAP assessments remain unchanged.

3. What tests will be administered in which grades?

Grade	English Language Arts (ELA)	Mathematics	Science	Social Studies
3	Augmented NRT	CRT	CRT	CRT
5	Augmented NRT	CRT	CRT	CRT
6	Augmented NRT	CRT	CRT	CRT
7	Augmented NRT	CRT	CRT	CRT

4. Will Writer’s Checklists be provided for the ELA transitional tests?

Yes. There will be three new Writer’s Checklists in the future: one for grade 3; one for grades 5, 6, and 7; and one for grades 4 and 8. The Writer’s Checklists have all been modified to reflect the new rubrics that will be used to score the transitional writing prompts.

5. Will students be allowed to use calculators on the transitional Math test?

Part 1 of the test is a multiple-choice session that **does not allow** the use of calculators, Part 2 is a multiple-choice session that **allows** the use of calculators, and Part 3 is a constructed-response session that **allows** the use of calculators.

6. Will Mathematics Reference Sheets be provided?

Yes. Mathematics Reference Sheets have been designed specifically for each grade.

7. Will the kind of scores provided for *iLEAP* change?

Yes. With the omission of the Mathematics NRT components, Mathematics NRT reports will no longer be provided. Mathematics scores are reported in terms of achievement levels and by new reporting categories (See Tables 2.3 and 2.4 on page 2-4 of the *iLEAP Assessment Guide* for additional information on mathematics reporting categories).

The score reports for ELA will not change. The ELA NRT reports, such as percentile ranks, are provided for the ELA tests. The CRTs are reported in terms of achievement levels. The items on the ELA NRT component that align with GLEs are included in the CRT achievement level reports.

8. Are the *iLEAP* assessments high-stakes for students regarding pupil progression?

No. The *iLEAP* scores are part of the school performance score (SPS) and adequate yearly progress (AYP) reporting, but the State does not require the use of these assessments to determine promotion and retention.

APPENDIX C

Testing Special Populations Special Education Students and Students with One or More Disabilities According to Section 504

All special education students are to be tested on *iLEAP*, except those whose IEPs indicate otherwise. All students with one or more disabilities according to Section 504 are to be tested.

A summary of test accommodations that may be used for special education students and for students with disabilities according to Section 504 is given below. All accommodations also must be documented on the IEP or IAP and Verification of Section 504 form for the student to receive them. Full details of allowable accommodations and administration procedures are available in the *iLEAP Test Administration Manual* and in *Bulletin 118*.

- **Braille:** Braille test booklets that include all the items in the regular-print edition of the *iLEAP* are available. The test administrator must transfer all braille answers to a scorable answer document.
- **Large Print:** The large-print edition is essentially an enlarged version of the regular-print edition of the test. All test items in the regular-print edition of the answer document are included in the large-print test booklet. Students who use the large-print edition mark their answers on the large-print test booklet, which must be transferred by the test administrator to a scorable answer document.
- **Answers Recorded:** If a student is unable to write due to his or her disability, the test administrator must record the student's exact answers on the scorable answer document.
- **Assistive Technology:** Assistive technology, for example, a computer, tape recorder, calculator, abacus, grip for a pencil, visual magnification device, communication device, mask or marker to maintain place, speech synthesizer, or electronic reader, may be provided.
- **Extended Time:** Every student must be given sufficient time to respond to every test item. Time may be adjusted for certain students, such as those who have short attention spans or who may be unable to concentrate for long periods of time on a given task.
- **Communication Assistance:** If warranted by the student's reading level as documented on the IEP or Section 504 Individual Accommodation Plan (IAP) and Verification of Section 504 form, communication assistance in signing or cuing modality should be provided for **portions** of the test—**with the exception of the English Language Arts Reading, Part 2 (Comprehension) test.**
- **Transferred Answers:** If accommodations provide for a student to record answers in the test booklet or use braille, large-print, or technological assistive devices, the student's responses must be transferred onto a scorable answer document exactly as the student wrote them.
- **Individual/Small Group Administration:** Tests may be administered to a small group (maximum, eight students) or to an individual requiring more attention than can be provided in a larger classroom. If accommodations affect the standard administration of the test (e.g., *Tests Read Aloud*), individual or small group administration **must** be used.

- **Tests Read Aloud:** Students may have **portions** of the tests read to them, **with the exception of the English Language Arts Reading, Part 2 (Comprehension) test.** Although the passages, questions, or multiple choices on this part of the test cannot be read aloud, the **directions** may be read aloud.
- **Other:** Any necessary accommodations may be used, but they must be determined by the IEP team or Section 504 Committee and documented on the student’s IEP or IAP and Verification of Section 504 form and must not breach test security or invalidate the meaning of the test score or the purpose of the test. Examples of other accommodations include highlighting the task or verbs in the test directions or assisting the student in tracking the test items.

Information for Deaf and Hard of Hearing Students

The intent of the accommodations for students who are deaf or hard of hearing is to present the instructions in a manner that will allow them to demonstrate skills that have been acquired. The signing modality routinely used in the students’ regular classrooms should be considered when administering these tests.

Physical Setting

The physical setting should include verification that students’ auditory listening devices are in good repair and are in use during the testing period. Students who depend primarily on lip reading should be seated no more than ten feet from the test administrator.

Use of Signs and Fingerspelling

- Students may have **portions** of the tests signed to them, **with the exception of the English Language Arts Reading, Part 2 (Comprehension) test.** Although the passages, questions, or multiple choices on this session of the test cannot be signed, the **directions** may be signed. Signed administration of tests that measure reading ability makes little sense, since any score so obtained would offer no information about a student’s ability and thus be invalid.
- Test items should be signed exactly as written but **not** when the sign would reveal the answer to the question. For example, signing the words in the Reading, Part 1 (Vocabulary) portion of the English Language Arts test may indicate the correct answer. These words are to be fingerspelled.
- Fingerspelling must **not** be used to administer items that require students to demonstrate the skill of spelling.

Information For Limited English Proficient Students

All LEP students are to be tested. LEP students qualify for accommodations **used in their classroom instruction and assessment.**

- **Extended Time:** Every student should be given sufficient time to respond to every test item. Time may be adjusted for students who must process from one language to another.
- **Individual/Small Group Administration:** Tests may be administered to a small group (maximum, eight students) or to an individual requiring more attention than can be provided in a larger classroom. If other selected accommodations affect the standard administration of the test (e.g., *Tests Read Aloud*), individual or small group administration **must** be used.
- **Provision of English/Native Language Word-to-Word Dictionary (No Definitions):** LEP students may use either a standard or electronic English/native language word-to-word dictionary (no definitions) on all sessions of the tests. Students may use an English/native language word-to-word dictionary **with definitions** on **only** the English Language Arts **Writing test.**
- **Tests Read Aloud:** Students may have **portions** of the tests read to them, **with the exception of the English Language Arts Reading, Part 2 (Comprehension) test.** Although the passages, questions, or multiple choices on this session of the test cannot be read aloud, the **directions** may be read aloud.
- **Test Administered by ESL Teacher or by Individual Providing Language Services:** Familiarity with the speech patterns of the ESL teacher or the individual providing language services may help the student better understand the test directions or the portions of the test that are read aloud if the student receives the accommodation *Tests Read Aloud.*

Implementing Testing Accommodations— A Planning Checklist for the General Education Teacher

1. Do you know which accommodations are documented on the students' IEPs or IAPs?
2. Does the student use the accommodations in classroom instruction and assessment?
3. Have special test materials been ordered (large print, braille, transparencies)?
4. Have students eligible for the accommodation *Tests Read Aloud* been assigned individual or small-group administration to prevent interfering with the testing of other students?
5. Are any other students eligible for small-group or individual test administration?
6. Where will small-group or individual testing take place, and who is the person trained to supervise the student(s) there?
7. If needed, have trained readers, scribes, and sign-language interpreters been assigned to individual students?
8. Is necessary special equipment available, and has it been checked for correct operation (e.g., word processor, computer, tape recorder, calculator)?
9. During testing, are you providing all eligible students with the accommodations documented on their IEPs or IAPs and used in classroom instruction and assessment? After testing, did you transfer student responses to scorable answer documents for students using braille, large print, and assistive devices?
10. Did you record the specific accommodations **actually used in testing** on the answer document?
11. Have students who took makeup tests received the needed accommodations?

(Verify numbers 1, 3, 4, 5, 6, 7, 8, and 11 with the School Test Coordinator.)

Comments and Cautions

Whenever possible, attend IEP meetings for students you teach. Information from the general education teacher is necessary to help the IEP team determine which instructional and classroom assessment accommodations enable a student to demonstrate best what he or she knows and can do.

Individual or small-group administration **must** be used if the accommodations will interfere with the testing of other students (e.g., *Tests Read Aloud*).

Immediately following testing, all provided accommodations must be marked on scorable answer documents.

Ethical Assessment Practices

Ethical assessment practices relate to actions between test administrators and students taking the test. Unethical practices include coaching students during testing, editing student work, giving clues, paraphrasing, offering additional information, or any other practice that would give students unapproved assistance or provide advantage.

Accommodations must never compromise the purpose of the test. For example, a test of reading comprehension cannot be read aloud because that destroys the purpose of the test—to measure reading ability. However, part or all of the Science and other content-area tests may be read aloud to students who are to receive the accommodation *Tests Read Aloud*.

Finally, accommodations must not compromise test security or confidentiality. All policies and procedures regarding test security and processing of test materials must be followed. (See your district and the BESE Test Security Policy as well as *Bulletin 118*.)

APPENDIX D

Writer's Checklist



GRADES 5, 6 & 7

ENGLISH LANGUAGE ARTS WRITER'S CHECKLIST

As you write your composition, remember these important points.

Content:

- Read the directions, the passage(s), and the writing topic carefully and write on **all** parts as directed.
- Present a clear main idea.
- Give enough details to support and develop your main idea.
- Make sure to use well-chosen details from the passage(s) to support your ideas.
- Present your ideas in a logical order and include a beginning, middle, and ending.

Style:

- Use interesting words that express your meaning well.
- Write complete sentences and use a variety of sentence types and lengths to make your writing easy to follow.



Important Reminders:

Your composition will be scored on content.

- ☞ your central idea
- ☞ development of ideas
- ☞ use of the passage(s)
- ☞ organization

Your composition will be scored on style.

- ☞ word choice
- ☞ expression of ideas
- ☞ sentence variety

DIRECTIONS FOR WRITING

Follow the steps below to help you write your composition.

Step 1: Planning and Drafting

- ☞ Read the directions, the passage(s), and the writing topic in your test booklet carefully.
- ☞ Think about what you will write before you begin.
- ☞ Make sure to use well-chosen details from the passage(s) to support your ideas.
- ☞ Use the space provided in your test booklet for planning your composition and writing your rough draft.
- ☞ Remember that your planning notes and rough draft will not be scored.

Step 2: Revising

- ☞ Review your composition to make sure you have covered all the points on the Writer's Checklist.
- ☞ Reread your rough draft.
- ☞ Rearrange ideas or change words to make your meaning clear and improve your composition.
- ☞ Write your final draft neatly on the correct page(s) in your answer document.
- ☞ Write your final draft in either print or cursive using a No. 2 pencil.
- ☞ Use appropriate formatting.

Step 3: Proofreading

- ☞ Read your final draft.
- ☞ Correct any errors in usage (subject-verb agreement, verb tenses, word meanings, and word endings).
- ☞ Correct errors in punctuation, capitalization, and spelling.
- ☞ Erase or strike through words if necessary.



Only the writing on the Final Draft pages in your answer document will be scored.



Remember to print or write neatly.

Mathematics Reference Sheet



MATHEMATICS REFERENCE SHEET – GRADE 5

Use the information below to answer questions on the Math test.

U.S. Unit Conversions

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

1 pound = 16 ounces

1 ton = 2,000 pounds

1 minute = 60 seconds

1 hour = 60 minutes

1 day = 24 hours

Metric Unit Conversions

1 meter = 1,000 millimeters

1 meter = 100 centimeters

1 kilometer = 1,000 meters

1 kilogram = 1,000 grams