GRADE 6

iLEAP

August 2012

Assessment Guide

- ENGLISH LANGUAGE ARTS
- MATH
- SCIENCE
- SOCIAL STUDIES

LDOE | Louisiana Department of EDUCATION

Louisiana Believes.

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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 (*i*LEAP). In addition to providing teachers with a description of the overall design of the *i*LEAP tests, this guide presents sample test items and suggested informational resources.

Teachers should use this guide to:

- become familiar with the *i*LEAP 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 *i*LEAP during the transition to the CCSS.

It is important to note that the *i*LEAP Science and Social Studies tests have <u>not</u> changed. The content standards and benchmarks that form the basis for these tests have <u>not</u> 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 *i*LEAP 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 *i*LEAP 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 *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, 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 *i*LEAP 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 *i*LEAP?

Through the *i*LEAP, 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 *i*LEAP 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 *i*LEAP 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 *i*LEAP 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 *i*LEAP 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 *i*LEAP at grades 3, 5, 6, and 7 starting in 2013.

Table 2: Tests and Grade Levels for *i*LEAP

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 *i*LEAP. Separate guides are available for each of the *i*LEAP 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 *i*LEAP Test Design

The *i*LEAP includes multiple-choice and constructed-response items, depending on the content being assessed. Table 3 presents the overall design (test components) of the *i*LEAP 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 *i*LEAP

	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 93 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 *i*LEAP 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 *i*LEAP. The existing LEAP ALDs guided the development of those for *i*LEAP. 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 *i*LEAP in 2006, a final version of *i*LEAP 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 6

This section describes the overall design of the *i*LEAP English Language Arts (ELA) test to be administered to students in grade 6. 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 6 Survey Battery Test Lengths and Times

Test	Time (min.)	No. of Questions
Reading		
Vocabulary	5	13
Reading Comprehension	25	21
Language		
Spelling, Capitalization, Punctuation, Usage and Expression	30	54
Total	**60**	**88**

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

Reading

Vocabulary
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, colons, and semicolons 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 (4 to 5 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 *i*LEAP 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 6, 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	• sharply focused central idea • shows a complete understanding of the task	• clear central idea • shows a general understanding of the task	• vague central idea • shows a partial understanding of the task	• 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.**			
	• includes ample, well-chosen evidence from the passage to support central idea • Evidence and ideas are developed thoroughly. • Details are specific, relevant, and accurate.	• 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.	• 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.	• 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	• 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	• Logical order allows reader to move through the composition. • has a beginning and an ending • transitions	• attempt at organization • digressions, repetition • weak beginning and ending • may lack transitions	• 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	• sharply focused central idea • shows a complete understanding of the task	• clear central idea • shows a general understanding of the task	• vague central idea • shows a partial understanding of the task	• 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.**			
	• includes ample, well-chosen evidence from the passages to support central idea • Evidence and ideas are developed thoroughly. • Details are specific, relevant, and accurate.	• 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.	• 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.	• 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	• 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	• Logical order allows reader to move through the composition. • has a beginning and an ending • transitions	• attempt at organization • digressions, repetition • weak beginning and ending • may lack transitions	• 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	• precise • effective • vivid words and phrases appropriate to the task	• clear but less specific • includes some interesting words and phrases appropriate to the task	• generic • limited • repetitive • overused	• functional • simple (below grade level) • may be inappropriate to the task
SENTENCE FLUENCY	• fluid, very easy to follow, because of variety in length, structure, and beginnings	• generally varied in length and structure • Most sentences have varied beginnings.	• little or no variety in length and structure • Awkward sentences may affect the fluidity of the reading. • same beginnings	• simple sentences • no variety • Construction makes the response difficult to read.
VOICE (individual personality of the writing)	• compelling and engaging	• clear, but may not be particularly compelling	• weak and/or inconsistent voice	• 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 sixth-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 6 *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 6 ELA Test Specifications

Standards	Percentage of Total Points
Standard 1	21
Standard 6	0
Standard 7	12
Standard 2	13
Standard 3	47
Standard 5	8
Total	**100**

Ninety-six 1-point multiple-choice items plus the 8-point Writing prompt equals a 104-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 6 standards, benchmarks, and GLEs are eligible for assessment on the grade 6 *i*LEAP. Some, however, do not lend themselves to statewide assessment. Standard 4, which focuses on speaking and listening skills, will not be assessed on *i*LEAP. GLE numbers 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 6 NRT survey battery align with the grade 6 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 *i*LEAP assessments because teachers should make sure they cover the GLEs at grade 6 but also review related GLEs in earlier grades since they may be assessed on the NRT portion of the *i*LEAP 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: • using context clues (e.g., definition, restatement, example, contrast) • using structural analysis (e.g., roots, affixes) • determining word origins (etymology) • using knowledge of idioms • explaining word analogies	RL.6.4 RI.6.4 L.6.4 L.6.5
2	Identify common abbreviations, symbols, acronyms, and multiple-meaning words	L.6.4
3	Develop specific vocabulary (e.g., scientific, content-specific, current events) for various purposes	L.6.4 L.6.6 RI.6.4
4	Identify and explain story elements, including: • theme development • character development • relationship of word choice and mood • plot sequence (e.g., exposition, rising action, climax, falling action, resolution)	RL.6.2 RL.6.3

GLE #	Grade-Level Expectation Text	Aligned CCSS #
5	Identify and explain literary and sound devices, including: • foreshadowing • flashback • imagery • onomatopoeia	L.6.5
9	Compare and contrast elements (e.g., plot, setting, characters, theme) in a variety of genres	RL.6.9
11	Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including: • sequencing events and steps in a process • summarizing and paraphrasing information • identifying stated or implied main ideas and supporting details • comparing and contrasting literary elements and ideas • making simple inferences and drawing conclusions • predicting the outcome of a story or situation • identifying literary devices	RL.6.1 RI.6.1 RI.6.2 RL.6.2
14	Analyze an author's stated or implied purpose for writing (e.g., to explain, to entertain, to persuade, to inform, to express personal attitudes or beliefs)	RI.6.6
15	Identify persuasive techniques (e.g., unsupported inferences, faulty reasoning, generalizations) that reflect an author's viewpoint (perspective) in texts	RI.6.6
17	Write multiparagraph compositions on student- or teacher-selected topics organized with the following: • an established central idea • organizational patterns (e.g., comparison/contrast, order of importance, chronological order) appropriate to the topic • elaboration (e.g., fact, examples, and/or specific details) • transitional words and phrases that unify ideas and points • an overall structure including an introduction, a body/middle, and a concluding paragraph that summarizes important ideas	W.6.4 W.6.2 W.6.1
19	Develop grade-appropriate compositions on student- or teacher-selected topics that include the following: • 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.6.3 W.6.4
20	Develop grade-appropriate compositions applying writing processes such as the following: • selecting topic and form • prewriting (e.g., brainstorming, researching, raising questions, generating graphic organizers) • drafting • conferencing (e.g., peer, teacher) • revising based on feedback and use of various tools (e.g., Writer's Checklist, rubrics) • proofreading/editing • publishing using technology	W.6.5 W.6.6
21	Develop grade-appropriate paragraphs and multiparagraph compositions using the various modes of writing (e.g., description, narration, exposition, persuasion), emphasizing narration and exposition	W.6.2 W.6.1 W.6.3

GLE #	Grade-Level Expectation Text	Aligned CCSS #
22	Use the various modes to write compositions, including: • comparison/contrast • essays based on a stated opinion	W.6.1
23	Develop writing using a variety of literary devices, including foreshadowing, flashback, and imagery	W.6.3
24	Write for various purposes, including: • business letters that include a heading, inside address, salutation, body, and signature • evaluations, supported with facts and opinions, of newspaper/magazine articles and editorial cartoons • text-supported interpretations of elements of novels, stories, poems, and plays	W.6.9
25	Use standard English punctuation, including: • hyphens to separate syllables of words and compound adjectives • commas and coordinating conjunctions to separate independent clauses in compound sentences • colons after salutation in business letters	L.6.2
26	Capitalize names of companies, buildings, monuments, and geographical names	L.6.2
27	Write paragraphs and compositions following standard English structure and usage, including: • possessive forms of singular and plural nouns and pronouns • regular and irregular verb tenses • homophones	L.6.1
28	Apply knowledge of parts of speech in writing, including: • prepositional phrases • interjections for emphasis • conjunctions and transitions to connect ideas	L.6.1
29	Spell high-frequency, commonly confused, frequently misspelled words and derivatives (e.g., roots and affixes) correctly	L.6.2
41	Locate and select information using organizational features of grade-appropriate resources, including: • 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 • organizational features of electronic texts (e.g., bulletin boards, databases, keyword searches, e-mail addresses)	ELA.6.41
42	Locate and integrate information from grade-appropriate resources, including: • multiple printed texts (e.g., encyclopedias, atlases, library catalogs, specialized dictionaries, almanacs, technical encyclopedias) • electronic sources (e.g., Web sites, databases) • other media sources (e.g., audio and video tapes, films, documentaries, television, radio)	RI.6.7 W.6.8 SL.6.2
43	Identify sources as primary and secondary to determine credibility of information	W.6.8
44	Locate, gather, and select information using data-gathering strategies, including: • surveying • interviewing • paraphrasing	W.6.8

GLE #	Grade-Level Expectation Text	Aligned CCSS #
45	Generate grade-appropriate research reports that include information presented in a variety of forms, including: • visual representations of data/information • graphic organizers (e.g., outlines, timelines, charts, webs) • bibliographies	W.6.7
46	Use word processing and/or other technology to draft, revise, and publish a variety of works, including compositions, investigative reports, and business letters	W.6.6
47	Give credit for borrowed information following acceptable-use policy, including: • integrating quotations and citations • using endnotes • creating bibliographies and/or works cited lists	W.6.8
48	Interpret information from a variety of graphic organizers , including timelines, charts, schedules, tables, diagrams, and maps in grade-appropriate sources	RI.6.7

Sample Test Items: Grade 6 ELA

The sample passages and items that follow are similar in content and format to those that appear on the grade 6 *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 school field trips. As you read the passage, think about whether or not you think schools should have field trips. Then use the passage to help you write a well organized multiparagraph composition.

Field Trips: Worth the Money?

Field trips have been a part of sixth-grade education for many years. They allow students to take information from the classroom and link it to the real world, and they are fun. Students and parents alike are in favor of field trips. Who wouldn't want to visit a space observatory after learning about the universe in science class? Or visit a museum to see Chinese art after a unit on China in social studies class? These are surely positive experiences for kids. The question is, at what cost?

"Seeing something in person helps it come alive for students in a way that textbook learning can't do," says sixth-grade teacher Marco Hernandez. Indeed, field trips provide students an opportunity to learn something different from what they can do within the walls of their classrooms.

To make sure a field trip is successful, teachers should be instructing before, during, and after the trip. In preparation for the trip, teachers should tell students what they will be seeing and learning. Teachers should also help students make connections between what they are going to see and what they have been learning in school. During the trip itself, students should be given time to explore and should complete a journal or some other task. This helps keep them engaged. When field trips are well-planned and executed, they provide students with the visual aids and hands-on opportunities that build their understanding.

In school districts across the country, however, the budget for field trips is being slashed. With schools facing budget shortfalls, field trips are an easy thing to remove. Critics agree that field trips can provide valuable educational experiences, but they argue that often they are treated as a day off by both the teachers and students.

Principal Jean Simms argues that field trips seem to be an unnecessary expense when classrooms don't have money for textbooks and other school supplies. "What some students and parents don't seem to understand is just how expensive field trips are for districts. There is the cost of gas, insurance, and admission fees. That can add up to tens or even hundreds of thousands of dollars district wide," she states. In addition, "There are just so many time constraints," argues teacher Phillip Johnson. "Teachers have so much information to cover. Maybe experiences like field trips have to fall more to parents, camps, and after-school programs. Maybe they need to happen outside of the school day."

Districts have to operate within their budgets. That much is clear. However, schools also have a duty to provide students with the best possible learning opportunities. They will have to make tough choices on whether these kinds of educational experiences are the best way to spend limited funds.

Writing Topic

Think about the types of field trips you have taken as a student. Where did you go? What did you learn?

Write a multiparagraph composition for your teacher explaining whether you think schools should or should not have field trips. Use details from the passage to help you explain your opinion.

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 and to check your composition for correct spelling, punctuation, and grammar.

Description:

This prompt measures a student's ability to write an expository composition. Other prompts 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: Biomes

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

1. Excerpts from the Book *All About Biomes*
   a. Copyright Page (page ___)
   b. Major World Biomes Chart (page ___)
   c. Index (page __)

2. Results of a Search Using FindIt.net
   Biomes (page __)

3. Article from the Magazine *Science for Today's Kids*
   "World Watch: The Alpine Biome" (page __)

4. Excerpt from the Book *The World of Biology*
   Three World Biomes Map (page __)

Note: Models of 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. Excerpt from the Book *All About Biomes*

a. Copyright Page

Published by William Morrow Press

Library of Congress Cataloging-in-Publication Data Rogers, Grace All about Biomes I. Title. ISBN: 12-4444-77-5693

Printed in the United States of America August 1994

Cover art by Marilyn Atkins

1. Excerpt from the Book *All About Biomes*

b. Major World Biomes Chart

Major World Biomes

Biome	Example	Temperature	Precipitation	Vegetation
Coniferous Forest	Beaverlodge, Alberta, Canada	–40°C to 20°C; average summer temperature of 10°C	300 to 900 millimeters of rain per year	Coniferous, mainly evergreen trees (trees that produce cones and needles; some needles remain on the trees all year long)
Temperate Deciduous Forest	Staunton, Virginia, United States	–30°C to 30°C; yearly average of 10°C; hot summer, cold winter	750 to 1,500 millimeters of rain per year	Broadleaf trees (oaks, maples, beeches), shrubs, perennial herbs, mosses
Desert	El-Qasr el-Akhdar, Egypt	Average of 38°C in the day, –3.9°C at night	About 250 millimeters of rain per year	Cacti, small bushes, short grasses
Grassland	Ingeniera White, Argentina	Dependent on latitude, yearly range of –20°C to 30°C	About 500 to 900 millimeters of rain per year	Grasses (prairie clover, salvia, oats, wheat, barley, coneflowers)
Rain Forest	Campa Pita, Belize	20°C to 25°C must remain warm and frost-free	2,000 to 10,000 millimeters of rain per year	Vines, palm trees, orchids, ferns
Shrubland	Middelburg, South Africa	Hot, dry summer, cool, moist winter	200 to 1,000 millimeters of rain per year	Aromatic herbs (sage, rosemary, thyme, oregano), shrubs, acacia, chamise, grasses
Tundra	Yakutsk, Russia	–40°C to 18°C	150 to 250 millimeters of rain per year	Almost no trees because of short growing season and permafrost; lichens, mosses, grasses, sedges, shrubs

1. Excerpt from the Book *All About Biomes*

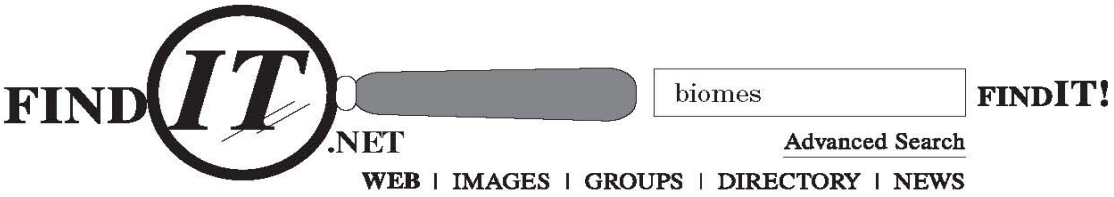
c. Index

Index

Page numbers in **bold** contain photos, pictures, or diagrams.

2. Results of a Search Using FindIt.net

Biomes



Results 1–5 of about 675,000 for **biomes**.

Biomes for Kids
Learn about the various **biomes** of the world on this Web site. You can see photographs of the many different types of **biomes**. This site also includes colorful maps that show where **biomes** are located. You will learn things about the plants and animals that exist in each biome.
http://www.biomesforkids.com

All about the Rain Forest
This site includes information about both the temperate and tropical rain forest **biomes**. Charts, graphs, photos, maps, and articles are at your fingertips.
http://www.worldbiomes.com/rainforest

Internet Zoo
Visit animals from all over the world at our Web Zoo! We have animals from all of the Earth's various **biomes**, including the rarest creatures from the ocean and tundra.
http://www.internetzoo.org

Interactive Science Projects
If you are looking for a fun project, you have come to the right place. On this Web site, you will find out about everything you need to make your own **biomes** that show how plants grow in certain environments. There is a list of everything you will need and simple instructions.
http://www.scienceprojects.org

Web Ecotourist
Ever wonder what it would be like to explore a rain forest or visit the distant Arctic tundra? If so, this Web site provides you with everything you need to know about ecotourism. In addition to maps, the site lists places to stay, tours, activities, and other useful information about vacations to all **biomes** on the planet.
http://www.webecotourist.org

3. Article from the Magazine *Science for Today's Kids*

"World Watch: The Alpine Biome"

Science for Today's Kids *April 2005*

World Watch: The Alpine Biome

By Jason Alexander

Location

The alpine biome is found in the world's highest mountain regions. To qualify as "alpine," an area must be higher than 10,000 feet above sea level. Some of the better-known alpine regions are the Rocky Mountains, the Andes, and the Himalayas.

Temperature

The alpine biome is generally somewhat severe in temperature. Summer temperatures may warm to 60° but plummet in winter to below freezing. The general rule is that the higher the altitude, the colder the temperature. Rainfall in the alpine biome averages only 12 inches per year, making it a dry climate as well as a cold one.

Plants and Animals

The alpine biome is home to a very special collection of cold-hardy plants and animals. Plants in the alpine biome grow low to the ground and have adapted to growing with little water and carbon dioxide. The alpine biome is home to one of the oldest species of tree on the planet: the bristlecone pine. These trees have been carbon-dated at much more than 4,000 years old.

Sharing the bristlecone pine's sparse landscape are a variety of warm-blooded goats, sheep, llama elk, and alpaca, as well as some cold-hardy insects, such as grasshoppers, beetles, and butterflies. Mammals at this altitude have adapted to the cold by developing shorter legs, more body fat, and thick fur coats. Wool from animals who live in the alpine biome is prized the world over for its warmth and water-repellent ability. For the people who live in these alpine regions, herding these fur-bearing goats, sheep, and alpaca has become a good source of income.

The People

Like the plants and animals of the alpine biome, the people who live in this harsh climate have adapted amazingly well to life in the extreme. Scientists have discovered that the populations of both the Himalayas and the Andes have adapted larger lungs and more hemoglobin in their blood, which makes them ideally suited to living in the oxygen-deprived climate.

Natural mountaineers, the Sherpas of Nepal have become world-renowned for their hiking skill and have accompanied climbers from all over the world in their ascents to the top of Mt. Everest. In the Andes, the Quechua people have developed sophisticated irrigation systems to water their crops and use natural freeze-drying methods to preserve food during off seasons.

A theme of many of the cultures in these alpine communities is "living with nature." Their example of embracing and adapting to the natural conditions of their climate (instead of altering the climate to suit their human needs) is an example the people in every biome could learn from.

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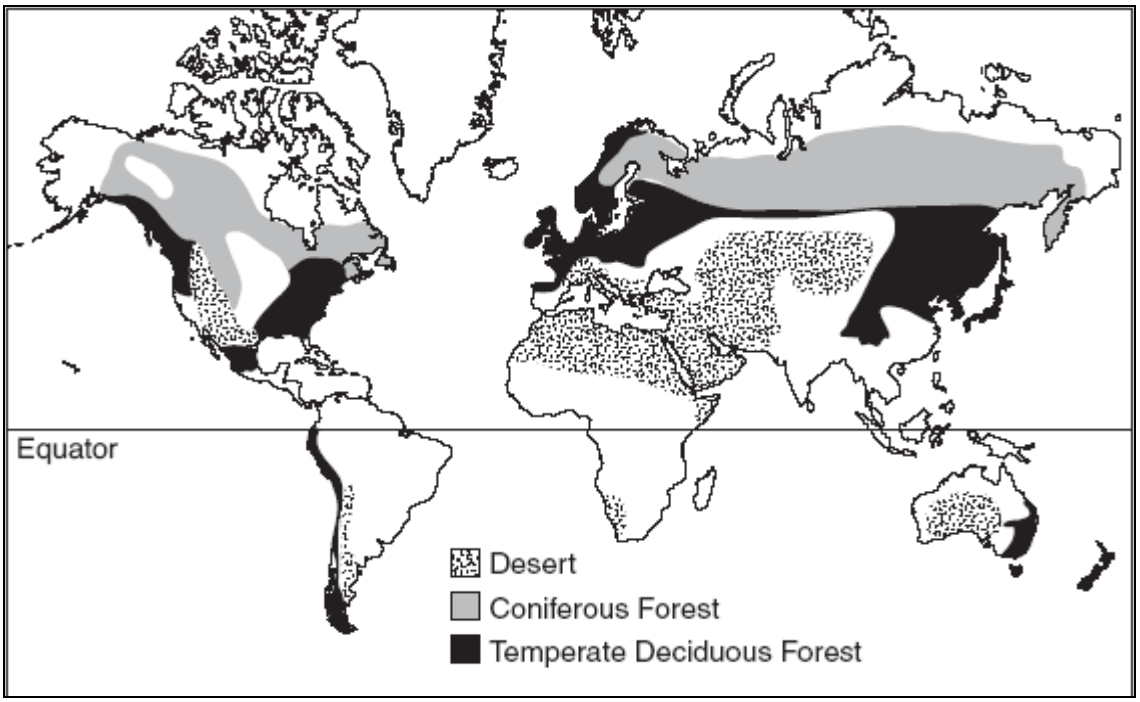
4. Excerpt from the Book *The World of Biology*

Three World Biomes Map

Three World Biomes This map shows three of the world's major biomes. Notice that deserts and temperate deciduous forests exist both in the Northern and Southern Hemispheres, while coniferous forests exist only in the Northern Hemisphere.



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 page of the book *All About Biomes* could you find a picture of an evergreen tree?**

A Page 27
B Page 28
C Page 37
D Page 44

Correct Response: D

This item measures GLE 41: Locate and select information using organizational features of grade-appropriate resources.

2 **Which resource <u>most likely</u> would direct you to more information about plant and animal life in a biome?**

A The Three World Biomes map from the book *The World of Biology*
B "Biomes" from *World Geography Encyclopedia*
C The Biomes for Kids link from the search using FindIt.net
D The Major World Biomes chart from the book *All About Biomes*

Correct Response: C

This item measures GLE 42: Locate and integrate information from grade-appropriate resources, including multiple printed texts, electronic sources, and other media sources.

3 Look at the outline of "World Watch: The Alpine Biome" from *Science for Today's Kids*.

I. Location
   A. _____
   B. Rockies, Himalayas, Andes
II. Temperature
   A. _____
   B. Dry and cold
III. Plants and Animals
   A. _____
   B. Thick coats and layers of fat
IV. The People
   A. _____
   B. Sherpas and Quechua

Which information goes in the blank at IV.A?

A Require little water or carbon dioxide
B Larger lungs and additional hemoglobin
C Range from 60 degrees to below freezing
D Must be higher than 10,000 feet above sea level

Correct Response: B

This item measures GLE 45: Generate grade-appropriate research reports that include information presented in a variety of forms, including visual representations of data/information, graphic organizers, and bibliographies.

4 What is the acceptable bibliographic entry for the book *All About Biomes*? Refer to the model bibliographic entries.

A Grace Rogers. "All About Biomes." William Morrow Press, 1994.
B William Morrow Press. All About Biomes. Chicago: Grace Rogers, 1994.
C Rogers, Grace. All About Biomes. Chicago: William Morrow Press, 1994.
D "All about Biomes." Chicago: William Morrow Press, 1994. Rogers, Grace.

Correct Response: C

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

5 Which biome listed in the Major World Biomes chart from the book *All About Biomes* gets the least amount of precipitation?

A Tundra
B Desert
C Shrubland
D Coniferous forest

Correct Response: A

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

Sample NRT Items
Questions 6 through 28 are sample items representative of those used on the norm-referenced parts of the *i*LEAP 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 6, 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 <u>Reclined</u> in the chair

A sat up
B dozed off
C leaned back
D bent over

Correct response: C

7 Generous <u>donation</u>

A contribution
B definition
C appropriation
D manifestation

Correct response: A

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

Sample Reading Comprehension Items

Directions: Questions 8 through 13 are based on the following passage.

Old Ramón and the boy sat by the fire eating in the silence of good appetites. Old Ramón cleaned off his plate and set it down beside him and drained his third cup of black coffee and set the cup down on the plate. The boy finished too and set his plate down beside him and his cup on it. Old Ramón reached to his own cup and rattled it a little on the plate and looked at the boy. The boy looked straight back at him in the firelight and said, "I prepared the food."

Old Ramón thumped a hand on the ground. "And I took care of the ticks." He pushed up to his feet. "There is one way to decide such a thing. We will toss the coin." He searched the pocket of his shapeless old trousers that had been patched until there was little of the original cloth left and had patches on the patches. He pulled out a small round piece of metal that shone in the firelight from the constant rubbing against the cloth of the pocket.

"I will take the heads," said Old Ramón. He flipped the coin spinning in the air and caught it in his right hand and slapped it down on his left wrist. He peered at it. "Ah, it is the heads. Do you see?" He held the wrist toward the boy, and the boy too peered at the coin.

Slowly the boy rose and began to gather the dishes. He was turning toward the pool that had settled now clear and clean in the dim darkness when Old Ramón spoke, softly, with a small chuckle in his voice. . . . "I cannot do it. To one who thinks himself so clever like my cousin Pablo, yes. To the son of my patron, no. Look you now at this and see." He held out the coin and turned it over slowly between his fingers. Both of the sides were the same.

8 What did the boy mean when he looked at Old Ramón and said, "I prepared the food"?

A He had done his share of the work.
B He wanted to be thanked.
C He did not know how to do anything else.
D He was proud of his work.

Correct response: A

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

9 Why did Old Ramón want to toss the coin?

A To settle something fairly
B To play a trick on the boy
C To show his skill in catching the coin
D To see if heads or tails would come up

Correct response: B

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated or implied main ideas and supporting details, making simple inferences and drawing conclusions.

10 Why would Old Ramón not mind tossing his coin for his cousin Pablo?

A Pablo was a relative.
B Pablo thought he was too smart to be fooled.
C Pablo was older than the boy.
D Pablo was easy to fool.

Correct response: B

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information, making simple inferences and drawing conclusions.

11 Who is the boy?

A Ramón's son
B Ramón's cousin
C The boy Ramón hired to be his helper
D The son of someone important to Ramón

Correct response: D

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including summarizing and paraphrasing information, making simple inferences and drawing conclusions.

12 Where are the boy and Old Ramón eating?

A Outdoors by a campfire
B At a table in a cottage
C In a café or restaurant
D At a picnic table in a park

Correct response: A

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

13 What is the main idea of the last paragraph?

A The boy knew all of the time that Ramón was fooling him.
B The old man never intended to fool the boy.
C The old man could not go through with his plan to fool the boy.
D Old Ramón would never let his patron's son wash his dishes.

Correct response: C

This item measures GLE 4: Identify and explain story elements, including theme development, character development, relationship of word choice and mood, and plot sequence. This item also measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated or implied main ideas and supporting details.

Directions: Questions 14 through 18 are based on the following paragraph.

According to an old story, there lived in France long ago a scientist named Antoine Parmentier. For many years he had tried to get the French farmers to plant potatoes, but in those days few French people had ever eaten potatoes. "Food that grows under the ground would only be fit for pigs," they said.

Some potatoes were secretly planted in a field near Paris. Day and night the field was guarded by soldiers. People called it the "treasure garden." When the potatoes were ripe, the guards were taken away. That very night the Parisians sneaked into the field and dug up the potatoes. Then the "thieves" hurried home to cook and eat the strange vegetables. Lo and behold, everyone liked them!

The news traveled from one end of France to the other. Before many years had passed, potatoes could be found in almost every French home. Antoine Parmentier had won out at last.

14 Why didn't French farmers want to plant potatoes?

A No one liked the taste of potatoes.
B The soil was not good for potatoes.
C People did not think potatoes were fit to eat.
D People had never heard of potatoes before.

Correct response: C

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated or implied main ideas and supporting details, making simple inferences and drawing conclusions.

15 Why did Parmentier visit the king?

A He wanted to use the king's garden.
B He wanted to borrow money from the king.
C He hoped the king would serve potatoes in the palace.
D He needed the king's soldiers for his plan.

Correct response: D

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

16 What was the <u>most likely</u> reason the king helped Parmentier?

A The king was afraid some people might starve.
B The king hoped to make a lot of money.
C The king liked to eat potatoes himself.
D The king wanted to play a trick on his soldiers.

Correct response: A

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including making simple inferences and drawing conclusions.

17 What is the main idea of the third paragraph?

A Why potatoes had never been grown before
B How the Parisians were tricked
C How potatoes were first cultivated
D How the "treasure garden" got its name

Correct response: B

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated or implied main ideas and supporting details.

18 Did Parmentier's plan work?

A No, people stole the potatoes.
B No, people still laughed at him.
C Yes, people found out that potatoes were good.
D Yes, he proved that potatoes would grow in France.

Correct response: C

This item measures GLE 11: Demonstrate understanding of information in grade-appropriate texts using a variety of strategies, including identifying stated or implied main ideas and supporting details, 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 19 and 20 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).

19
A nature
B tablecloth
C project
D quarter
E (No mistakes)

Correct response: E

This item measures GLE 29: Spell high-frequency, commonly confused, frequently misspelled words and derivatives correctly.

20
A freind
B blackbird
C joke
D cane
E (No mistakes)

Correct response: A

This item measures GLE 29: Spell high-frequency, commonly confused, frequently misspelled words and derivatives correctly.

Sample Capitalization and Punctuation Items

Directions: Questions 21 and 22 ask students to look for mistakes in capitalization. Questions 23 and 24 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).

21
A National leaders gather at
B the lincoln memorial each February
C to mark one president's achievements.
D (No mistakes)

Correct response: B

This item measures GLE 26: Capitalize names of companies, buildings, monuments, and geographical names.

22
A Miss Rider asked us which
B story we wanted. We asked
C for "ferdinand the bull."
D (No mistakes)

Correct response: C

This item measures grade 5 GLE 27: Capitalize the first and other important words in titles.

23 **A** Ben's plate was filled with doughnuts
B and rolls but no apple slices or healthy
C choices were in sight.
D (No mistakes)

Correct response: B

This item measures GLE 25: Use standard English punctuation, including commas and coordinating conjunctions to separate independent clauses in compound sentences.

24 **A** To the Complaint Department at Safemart:
B I am very unhappy with my purchase. It fell
C apart the first day, so I would like a refund.
D (No mistakes)

Correct response: D

This item measures GLE 25: Use standard English punctuation, including colons after salutation in business letters.

Sample Usage and Expression Items

Directions: Questions 25 and 26 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).

25
A I must have left my knew
B gloves somewhere. They
C aren't in my locker.
D (No mistakes)

Correct response: A

This item assesses GLE 27: Write paragraphs and compositions following standard English structure and usage, including possessive forms of singular and plural nouns and pronouns, regular and irregular verb tenses, and homophones.

26
A The seal has balancing a
B beach ball on his nose
C for more than two minutes.
D (No mistakes)

Correct response: A

This item measures GLE 27: Write paragraphs and compositions following standard English structure and usage, including possessive forms of singular and plural nouns and pronouns, regular and irregular verb tenses, and homophones.

Directions: Questions 27 and 28 ask students to read a passage and look for mistakes in usage and expression. **Note that question 28 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 27 and 28.

[1]Some bowerbirds are very colorful, but others are plain. [2]What makes these such interesting birds is the males' building and decorating skills. [3]During much of the year, the males build structures, called bowers, from twigs, leaves, and moss. [4]The males find shells, berries, flowers, or even pieces of glass to decorate his bowers. [5]Some bowerbirds may with berry juice even paint their bowers. [6]I wonder what they use for a paintbrush? [7]A female bowerbird selects the bower she thinks is the neatest and prettiest. [8]The male dances and shows off for the female. [9]Then she flies off to build a nest and raise her chicks.

27 What is the <u>best</u> way to write sentence 4?

A The males find shells, berries, flowers, or even pieces of glass to decorate their bowers.
B The males who find shells, berries, flowers, or even pieces of glass to decorate their bowers.
C They finds shells, berries, flowers, or even pieces of glass to decorate his bowers.
D (No change)

Correct Response: A

This item measures GLE 27: Write paragraphs and compositions following standard English structure and usage, including possessive forms of singular and plural nouns and pronouns, regular and irregular verb tenses, and homophones.

28 Which sentence should be left out of this report?

A Sentence 3
B Sentence 4
C Sentence 6
D Sentence 7

Correct response: C

This item measures grade 3 GLE 24: Develop compositions of two or more paragraphs using writing processes such as revising and proofreading.

Chapter 2: *i*LEAP Math, Grade 6

This section describes the overall design of the *i*LEAP Math test to be administered to students in grade 6. 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 30-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 6 *i*LEAP 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	Multiple Choice, calculator	30	60 minutes
3	Constructed Response, calculator	2	30 minutes
TOTAL		62	150 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 sixty (60) 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 6 *i*LEAP Math Constructed-Response Items

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

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 6 GLEs align to CCSS at other grade levels but will continue to be taught and tested in grade 6 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 #
3	Find the greatest common factor (GCF) and least common multiple (LCM) for whole numbers in the context of problem-solving	6.NS.4
4	Recognize and compute equivalent representations of fractions and decimals (i.e., halves, thirds, fourths, fifths, eighths, tenths, hundredths)	Retained[1]
6	Compare positive fractions, decimals, and positive and negative integers using symbols (i.e., <, =, >) and number lines	6.NS.6 6.NS.7
8	Demonstrate the meaning of positive and negative numbers and their opposites in real-life situations	6.NS.5
9	Add and subtract fractions and decimals in real-life situations	6.NS.3
12	Divide 4-digit numbers by 2-digit numbers with the quotient written as a mixed number or a decimal	6.NS.2
13	Use models and pictures to explain concepts or solve problems involving ratio, proportion, and percent with whole numbers	6.RP.1 6.RP.3
14	Model and identify perfect squares up to 144	Retained[1]
15	Match algebraic equations and expressions with verbal statements and vice versa	6.EE.2 6.EE.6
16	Evaluate simple algebraic expressions using substitution	6.EE.2
17	Find solutions to 2-step equations with positive integer solutions (e.g., $3x – 5 = 13$, $2x + 3x = 20$)	6.EE.5
19	Calculate perimeter and area of triangles, parallelograms, and trapezoids	6.G.1
20	Calculate, interpret, and compare rates such as $/lb., mpg, and mph	6.RP.2 6.RP.3
22	Estimate perimeter and area of any 2-dimensional figure (regular and irregular) using standard units	Retained[1]
25	Relate polyhedra to their 2-dimensional shapes by drawing or sketching their faces	6.G.4
28	Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area	6.NS.8 6.G.3 6.RP.3
29	Collect, organize, label, display, and interpret data in frequency tables, stem-and-leaf plots, and scatter plots and discuss patterns in the data verbally and in writing	Retained[1]
30	Describe and analyze trends and patterns observed in graphic displays	Retained[1]
32	Calculate and discuss mean, median, mode, and range of a set of discrete data to solve real-life problems	6.SP.3 6.SP.5
37	Describe, complete, and apply a pattern of differences found in an input-output table	6.RP.3

[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 6 Math Reporting Categories

Reporting Category	GLEs Covered
Ratio, Proportion, and Algebra	13, 15, 16, 17, 20, 37
Number System	3, 4, 6, 8, 9, 12, 14
Measurement, Data, and Geometry	19, 22, 25, 28, 29, 30, 32

Math Test Specifications

Table 2.4 provides test specifications for the multiple-choice parts of the grade 6 *i*LEAP Math assessment. The values in the table are approximations due to slight variations in the content across test forms at grade 6.

Table 2.4: Grade 6 Math Test Specifications

Reporting Category	% of Multiple-Choice Points
Ratio, Proportion, and Algebra	40
Number System	40
Measurement, Data, and Geometry	20
Total	**100**

Sixty 1-point MC items plus two 4-point constructed-response items equals a 68-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 <u>not</u> 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 6 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 Marcus is looking at the Harry's Hungry Hut menu, which has two sections: entrées and side dishes.

Harry's Hungry Hut	
Entrées	
Hot Dog	$2.50
Tuna	$3.75
Hamburger	$3.25
Chicken	$3.50
Pork Chop	$4.25
Side Dishes	
Fries	$1.55
Salad	$3.35
Onion Rings	$2.00
Drink	$1.65

A **If Marcus orders one item from each section of the menu, what is the <u>least</u> amount he can spend? Show or explain how you found your answer.**

B **On Thursdays, Harry's Hungry Hut offers a special: one pork chop with a side salad for $5.99. How much would Marcus save if he were to order the special instead of ordering one pork chop and one salad on another day of the week? Show or explain how you found your answer.**

C **How many combinations of one item from the entrée section and one item from the side section can Marcus choose? Show or explain how you found your answer.**

Match to GLE: This item measures GLE 9: Add and subtract fractions and decimals in real-life situations. This item also measures GLE 34: Use lists, tree diagrams, and tables to determine the possible combinations from two disjoint sets when choosing one item from each set.

Scoring Rubric	
4	The student earns 6 points.
3	The student earns 4 or 5 points.
2	The student earns 2 or 3 points.
1	The student earns 1 point. **OR** The student demonstrates minimal understanding of adding and subtracting decimals, or of determining possible combinations from two disjoint sets when choosing one item from each set.
0	The student's response is incorrect or irrelevant to the skill or concept being measured or is blank.

Sample Answer:

Part A. $4.05 **AND** Marcus orders the least expensive item from the entrée section and the least expensive item from the side dish section (2.50 + 1.55)

Part B. $1.61
AND
4.25 + 3.35 = 7.60; 7.60 - 5.99 = 1.61

Part C. 20 combinations
AND

Hot Dog/Fries	Tuna/Fries	Hamburger/Fries	Chicken/Fries	Pork Chop/Fries
Hot Dog/Salad	Tuna/Salad	Hamburger/Salad	Chicken/Salad	Pork Chop/Salad
Hot Dog/On. Rings	Tuna/On. Rings	Hamburger/On. Rings	Chicken/On. Rings	Pork Chop/On. Rings
Hot Dog/Drink	Tuna/Drink	Hamburger/Drink	Chicken/Drink	Pork Chop/Drink

Points Assigned:

Part A. 2 points
2 points for the correct answer and the correct explanation
OR
1 point for the correct answer with an incorrect or no procedure **OR** 1 point for an incorrect answer based on minor arithmetic errors with the correct procedure

Part B. 2 points
2 points for the correct answer and the correct procedure
OR
1 point for the correct answer with an incorrect or no procedure **OR** 1 point for an incorrect answer based on minor arithmetic errors with the correct procedure

Part C. 2 points
2 points for the correct answer and the correct procedure
OR
1 point for the correct answer with no procedure **OR** 1 point for an incorrect answer based on minor arithmetic errors with the correct procedure

2 The graph shows the number of sandwiches sold at Tom's Deli.

Month	Number of Sandwiches Sold
March	50
April	62
May	56
June	83
July	88
August	80

A **What is the range of the number of sandwiches sold at the deli?**

B **Find the mean number of sandwiches sold over the 6 months at Tom's Deli. Round your answer to the nearest whole number. Show your work.**

C **When buying supplies for the month of May, Tom spent $5.60 for lettuce, $5.60 for pickles, $10.50 for tomatoes, $10.50 for bread, $30.80 for sandwich meat, and $7.00 for onions. How much did each sandwich cost Tom? Show your work.**

D **For September, Tom plans on buying enough supplies to make the mean number of sandwiches sold from March to August. If the cost of supplies for each sandwich is the same as in the month of May, how much will Tom spend on supplies for September? Show or explain how you found your answer.**

Match to GLE: This item measures GLE 32: Calculate and discuss mean, median, mode, and range of a set of discrete data to solve real-life problems. This item also measures GLE 9: Add and subtract fractions and decimals in real-life situations.

Scoring Rubric	
4	The student earns 7 points.
3	The student earns 5 or 6 points.
2	The student earns 2, 3, or 4 points.
1	The student earns 1 point. **OR** The student shows minimal understanding of calculating the mean of a set of data.
0	The student's response is incorrect or irrelevant to the skill or concept being measured or is blank.

Sample Answer:

Part A. The range is 38 OR 88 - 50 = 38.

Part B. The mean is 70 (rounded to the nearest whole number).
AND
50 + 62 + 56 + 83 + 88 + 80 = 419
419/6 = 69.83, ≈ 70 (rounded to the nearest whole number)

Part C. $ 1.25
AND
5.6 + 5.6 + 10.5 + 10.5 + 30.80 + 7 = $70
70/56 = $1.25

Part D. $87.50
AND
70 x 1.25 = $87.50

Points Assigned:

Part A. 1 point
1 point for the correct answer

Part B. 2 points
2 points for the correct answer and the correct procedure
OR
1 point for an incorrect answer based on minor arithmetic errors with the correct procedure **OR** 1 point for the correct answer with an incorrect procedure or no procedure

Part C. 2 points
2 points for the correct answer and the correct procedure
OR
1 point for an incorrect answer based on minor arithmetic errors with the correct procedure **OR** 1 point for the correct answer with an incorrect procedure or no procedure

Part D. 2 points
2 points for the correct answer (or an answer based on an incorrect answer from part B and/or part C) with the correct procedure
OR
1 point for an incorrect answer based on minor arithmetic errors with the correct procedure **OR** 1 point for the correct answer (or an answer based on an incorrect answer from part B and/or part C) with an incorrect procedure or no procedure

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 Alice and Jorge have the same number of stamps. Alice puts her stamps in rows of 8. Jorge puts his stamps in rows of 10. Neither of them have any partial rows. **What is the least number of stamps that Alice and Jorge could each have?**

A 18
B 24
C 40
D 80

Correct response: C

Match to GLE: This item measures GLE 3: Find the greatest common factor (GCF) and least common multiple (LCM) for whole numbers in the context of problem-solving.

4 **What is another way to represent $\frac{1}{2}$?**

A 0.12
B 0.21
C 0.50
D 0.55

Correct response: C

Match to GLE: This item measures GLE 4: Recognize and compute equivalent representations of fractions and decimals (halves, thirds, fourths, fifths, eighths, tenths, hundredths).

5 **Which set of numbers is arranged from largest to smallest?**

A $0.75 > 0.50 > 0.38$

B $0.67 > 0.25 > 0.42$

C $0.50 > 0.67 > 0.83$

D $0.30 > 0.80 > 0.50$

Correct response: A

Match to GLE: This item measures GLE 6: Compare positive fractions, decimals, and positive and negative integers using symbols (i.e., <, =, >) and number lines.

6 The low temperature one day was 5°F. The low temperature the next day was -5°F. **Which statement about the temperatures is true?**

A The difference between the temperatures is 0°F.

B The difference between the temperatures is 5°F.

C The temperatures are the same distance from 0°F.

D The temperatures are the same distance from 5°F.

Correct Response: C

Match to GLE: This item measures GLE 8: Demonstrate the meaning of positive and negative numbers and their opposites in real-life situations.

7 Mrs. Black had $2\frac{1}{8}$ yards of material. She used $1\frac{1}{4}$ yards to make a jacket for Sally. **How much material did she have left?**

A $1\frac{7}{8}$ yards

B $1\frac{1}{4}$ yards

C $\frac{7}{8}$ yard

D $\frac{1}{4}$ yard

Correct response: C

Match to GLE: This item measures GLE 9: Add and subtract fractions and decimals in real-life situations.

8 A farmer sold 5,300 pounds of grain to 16 stores. He sold an equal amount of grain to each store. **How many pounds of grain did each store receive?**

A 331.164 lb.

B $331\frac{1}{4}$ lb.

C $331\frac{2}{5}$ lb.

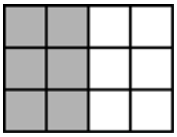
D 331.416 lb.

Correct response: B

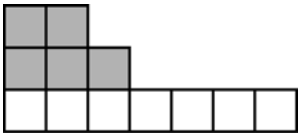
Match to GLE: This item measures GLE 12: Divide 4-digit numbers by 2-digit numbers with the quotient written as a mixed number or a decimal.

9 Which model represents a ratio of 2:1?

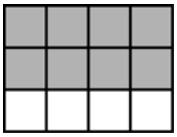
A



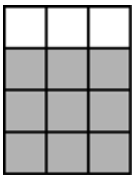
B



C



D



Correct response: C

Match to GLE: This item measures GLE 13: Use models and pictures to explain concepts or solve problems involving ratio, proportion, and percent with whole numbers.

10 Amber has been asked to make a square-shaped collage for a social studies project. **If the length of each side of the collage is a whole number, what could be the area of the collage?**

A 24 square inches

B 32 square inches

C 56 square inches

D 64 square inches

Correct response: D

Match to GLE: This item measures GLE 14: Model and identify perfect squares up to 144.

11 Tamera's class was divided in half to play a game of softball. There were 12 students on each team. **Which algebraic equation could be used to calculate the number of students, *s*, in Tamera's class?**

A $\frac{12}{s} = 2$

B $12 + s = 2$

C $\frac{s}{2} = 12$

D $s + 2 = 12$

Correct Response: C

Match to GLE: This item measures GLE 15: Match algebraic equations and expressions with verbal statements and vice versa.

12 Alana plans to order concert tickets that cost $45 each. She will also have to pay a $10 service charge for the order. To find the total amount she must pay, Alana used the expression $45n + 10$, where n is the number of tickets ordered. **What is the total amount of money Alana must pay if she orders 5 tickets?**

A $19
B $55
C $225
D $235

Correct Response: D

Match to GLE: This item measures GLE 16: Evaluate simple algebraic expressions using substitution.

13 Thirty-seven students in the sixth grade class voted for Jerry for class president. Of those 37 students, 3 fewer than twice the number of boys in the class voted for Jerry. This can be represented by the equation $2b - 3 = 37$, where b represents the number of boys. **How many boys are in the sixth grade class?**

A 17
B 20
C 23
D 32

Correct Answer: B

Match to GLE: This item measures GLE 17: Find solutions to two-step equations with positive integer solutions (e.g., $3x - 5 = 13$, $2x + 3x = 20$).

14 Ray wants to frame a rectangular poster for his room. The dimensions of the poster are 1.5 feet by 2 feet. **What is the perimeter of Ray's poster?**

A 3 feet

B 3.5 feet

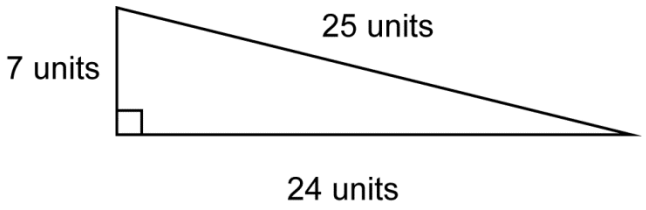
C 5.5 feet

D 7 feet

Correct Response: D

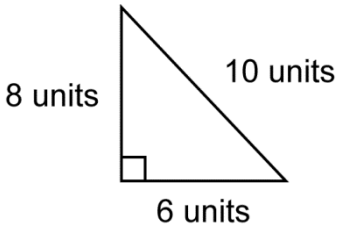
Match to GLE: This item measures GLE 19: Calculate perimeter and area of triangles, parallelograms, and trapezoids.

15 Marcela drew the triangle below.

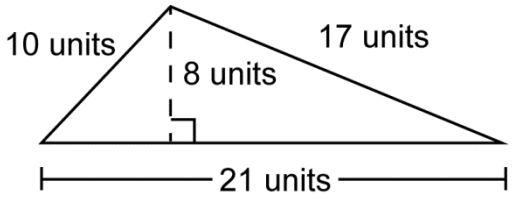


Which triangle has the same area as Marcela's triangle, but has the shortest perimeter? The triangles are <u>not</u> drawn to scale.

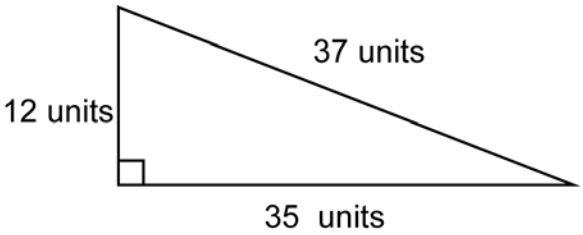
A



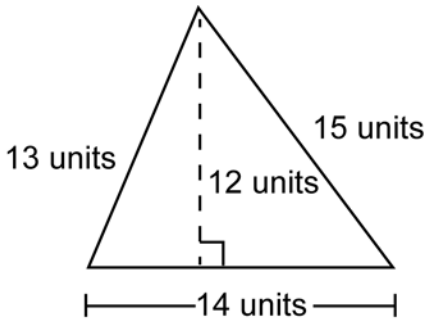
B



C



D



Correct Response: D

Match to GLE: This item measures GLE 19: Calculate perimeter and area of triangles, parallelograms, and trapezoids.

16 Mr. Jones drove 345 miles on 15 gallons of gas. **What was Mr. Jones' average number of miles per gallon?**

A 11.5
B 13.8
C 23
D 69

Correct Response: C

Match to GLE: This item measures GLE 20: Calculate, interpret, and compare rates such as dollar/pound, mpg, and mph.

17 Tyrone bought a new notebook for school. **Which of these is most likely the area of the front cover of the notebook?**

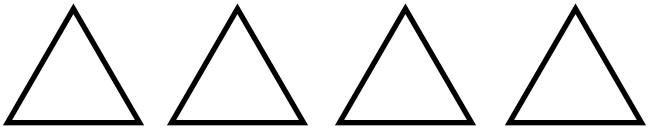
A 5 square inches
B 10 square inches
C 100 square inches
D 500 square inches

Correct Response: C

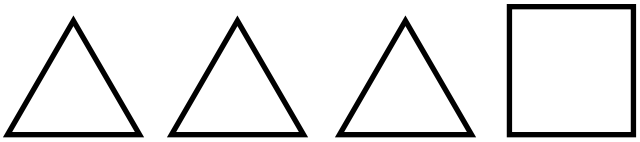
Match to GLE: This item measures GLE 22: Estimate perimeter and area of any two-dimensional figure (regular and irregular) using standard units.

18 **Which set of two-dimensional shapes shows all the faces of a square pyramid?**

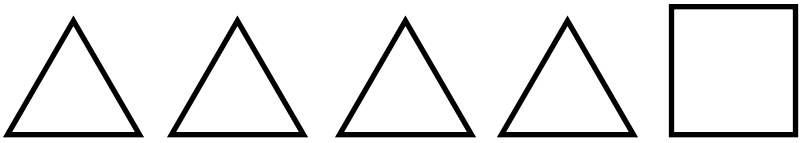
A



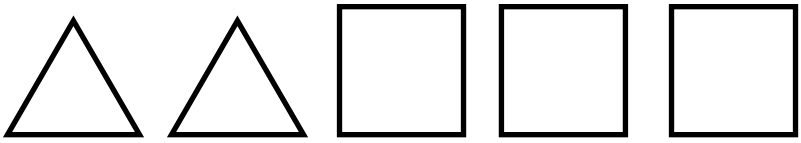
B



C



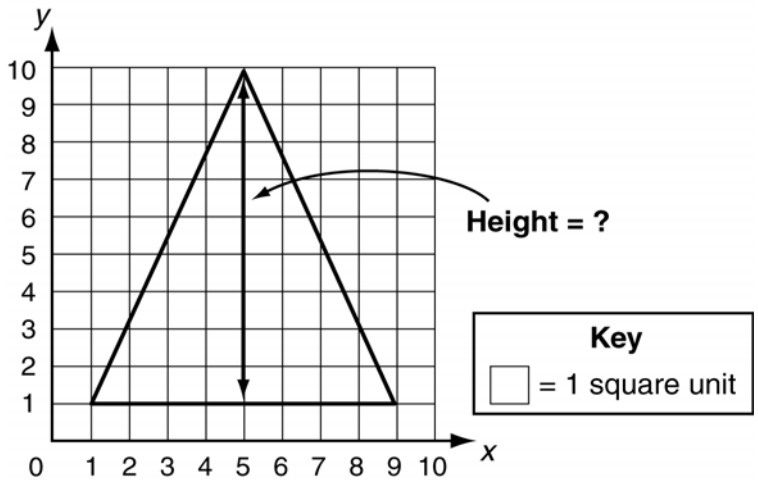
D



Correct Response: C

Match to GLE: This item measures GLE 25: Relate polyhedra to their 2-dimensional shapes by drawing or sketching their faces.

19 Toya found a triangular flag. She traced the flag on graph paper, as shown below.



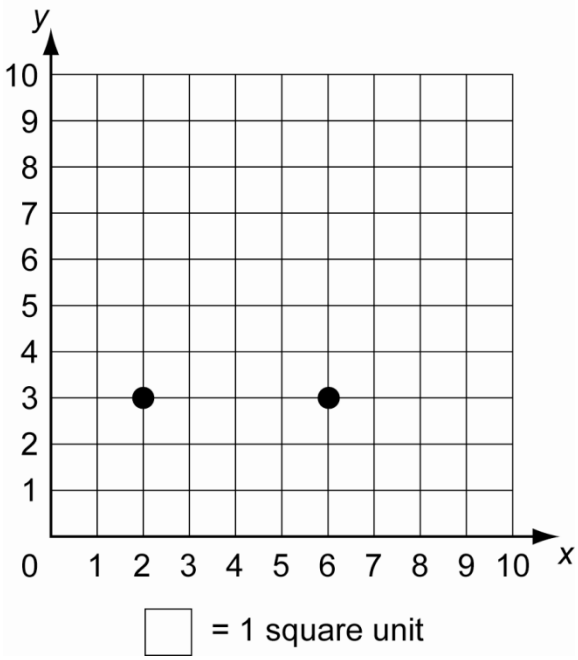
What was the height of the triangular flag?

A 4 units
B 8 units
C 9 units
D 10 units

Correct Response: C

Match to GLE: This item measures GLE 28: Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area.

20 Jahiem plotted two points on a grid.



Which point could Jahiem plot to create a triangle that has an area of 12 square units?

A (2, 8)
B (4, 9)
C (6, 6)
D (9, 6)

Correct Response: B

Match to GLE: This item measures GLE 28: Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area.

21 The stem-and-leaf plot below shows the height in inches of the students in Mr. Hill's science class.

Stem	Leaf
4	8 8 9 9 9
5	0 1 3 3 3 3 4 5 5

Key
5 | 1 = 51

Mr. Hill will make a frequency table of all his students' heights. **How many tally marks should there be in the 45 through 50 range?**

A 5 tally marks

B 6 tally marks

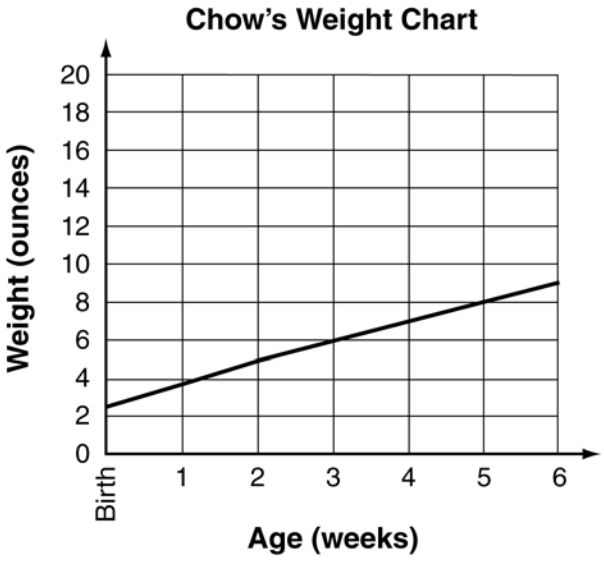
C 9 tally marks

D 14 tally marks

Correct Response: B

Match to GLE: This item measures GLE 29: Collect, organize, label, display, and interpret data in frequency tables, stem-and-leaf plots, and scatter plots and discuss patterns in the data verbally and in writing.

22 The graph shows the weight of Ben's dog, Chow, over 5 weeks.



Based on the graph, which of these is the <u>best</u> prediction for Chow's weight at 7 weeks?

A 4 oz.

B 9 oz.

C 10 oz.

D 20 oz.

Correct Response: C

Match to GLE: This item measures GLE 30: Describe and analyze trends and patterns observed in graphic displays.

23 Anjenette recorded the prices, in dollars, of 10 CDs at a store.

9, 9, 10, 10, 13, 15, 15, 15, 19, 25

Which measurements of the prices of the 10 CDs are the same?

A Median and range
B Mean and median
C Mode and mean
D Range and mode

Correct response: B

Match to GLE: This item measures GLE 32: Calculate and discuss mean, median, mode, and range of a set of discrete data to solve real-life problems.

24 Gretchen planned to make color photocopies of a poster for the school play. At the copy center she saw the table below.

Number of Color Photocopies	Total Cost of Photocopies
2	$0.30
4	$0.60
6	$0.90
8	$1.20

If Gretchen makes 14 color photocopies, what will be the total cost?

A $0.15
B $1.80
C $2.10
D $2.40

Correct Response: C

Match to GLE: This item measures GLE 37: Describe, complete, and apply a pattern of differences found in an input-output table.

Chapter 3: *i*LEAP Science, Grade 6

This section describes the overall design of the *i*LEAP Science test to be administered to students in grade 6. 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-eight (48) 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 6 Science test assesses three of the five science strands delineated in the Louisiana Science Framework and the Comprehensive Curriculum: Science as Inquiry, Physical 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 and details of science investigations, and/or
- Maps showing geographical features.

Scoring Information

The *i*LEAP 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 6 *i*LEAP Science assessment. The values in the table are approximations due to slight variations in the content across test forms.

Table 3.1: Grade 6 Science Specifications

Strand/Category	% of Total Points
Science as Inquiry	42
A. The Abilities Necessary to Do Scientific Inquiry	
B. Understanding Scientific Inquiry	
Physical Science	42
A. Properties and Changes of Properties in Matter	
B. Motions and Forces	
C. Transformations of Energy	
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 6, only three strands are addressed: Science as Inquiry, Physical Science, and Science and the Environment.

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.

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 6 Louisiana students is Physical Science concepts. The content explored at this grade level includes the nature of matter, elements, simple chemical reactions, the effects of forces on the motions of objects, forms of energy, and characteristics and outcomes of energy transformations. Selected Science and the Environment concepts are integrated with Physical Science content. For this reason, the grade 6 *i*LEAP Science test assesses the following stands: Science as Inquiry, Physical 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 6 GLEs are eligible for assessment on the grade 6 *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, or draw a diagram. 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, 37, and 40 are not assessed. Physical Science GLEs 1, 3, 6, 7, 20, and 31 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 1–41

Science and the Environment—GLEs 42–47

Key Concepts for the Grade 6 Assessment

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 independent variable, dependent variable, and variables that should be controlled/constant
    - Select appropriate tools, equipment, and technology to use in an investigation
    - Measure using appropriate or accurate units of the metric system
    - 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 the same tools

2. Communication
    - Understand and be able to identify the difference between a description and an explanation
    - Understand and be able to identify the difference between an observation and an inference
    - 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
    - Use multiple ways to interpret data that may result in alternate explanations
    - Identify statements not supported by data/faulty reasoning
    - 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 that technology expands the human senses
    - Recognize that present technology limits answering all questions
    - Understand 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, experimental 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 ways technology has changed human life

Physical Science

1. Matter

A. Properties of Matter

- Identify physical properties and chemical properties of substances
- Determine physical and chemical changes
- Describe the movement of atoms in solid, liquid, and gaseous states
- Make comparisons about the temperature at which water changes phases (freezing point, melting point, and boiling point)
- Calculate density from a given set of data

B. Chemical Changes of Matter

- Describe the products of chemical reactions
- Describe the properties of reactants
- Identify atomic mass of a given element
- Identify the mass of reactants and products in a given chemical reaction
- Identify how particle size of the same reactant affects the rate of chemical reactions
- Identify elements and compounds from a variety of sources

2. Forces and Motion

- Analyze motion graphs and predict future movement
- Identify that velocity is speed and direction.
- Differentiate velocity from speed.
- Identify acceleration, deceleration, and constant speed graphs
- Identify forces acting on objects
- Recognize balanced and unbalanced forces
- Explain net force
- Explain that an object will remain at rest or in a constant motion unless an unbalanced force acts upon it
- Give examples of forces
- Describe friction
- Describe gravity
- Describe how resistance of materials affects electrical flow
- Identify objects with potential and kinetic energy

3. Energy
    - Identify forms of energy (light, heat, sound, electrical, nuclear, mechanical)
    - Explain transmission, reflection, absorption of sound, light, and heat energy
    - Explain the law of conservation of energy
    - Describe energy transformations in a simple system
    - Understand simple machines (relationship of work input to work output)
    - Recognize and compare heat transfer (conduction, convection, and radiation)
    - Recognize that heat energy flows from a system of higher energy to a system of lower energy
    - Explain that electricity is produced from other types of energy (magnetism, solar, mechanical)
    - Identify exothermic and endothermic reactions
    - Identify wave characteristics (wavelength, frequency, amplitude)
    - Predict direction of refracted light waves when passing through transparent materials
    - Apply the law of reflection and law of refraction in common objects
    - Using experimentation, determine whether light is reflected, transmitted, and/or absorbed
    - Explain how humans see an object's color based on the wavelength of light transmitted to the viewer's eye

Science and the Environment

1. Energy and Resources
    - Identify and classify energy as renewable, nonrenewable, and inexhaustible
    - Compare pollutions amounts/capabilities of different energy sources
    - Describe how inexhaustible energy is harnessed for energy production
    - Identify methods for sustaining renewable resources
    - Identify ways to reuse, recycle, and reduce
    - Describe how technology influences resource use in an ecosystem (forestry, fishing, and soil conservation)

Grade 6 Science Standards, Benchmarks, and GLEs

The following chart presents **all** grade 6 science strands and standards, benchmarks, and GLEs.

GRADE 6 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.	
A. The Abilities Necessary to do Scientific Inquiry	
Benchmarks	**Grade-Level Expectations**
SI-M-A1: identifying questions that can be used to design a scientific investigation	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	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	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)

SI-M-A4: developing descriptions, explanations, and graphs using data	10. Identify the difference between description and explanation (SI-M-A4) 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) 12. Use data and information gathered to develop an explanation of experimental results (SI-M-A4) 13. Identify patterns in data to explain natural events (SI-M-A4)
SI-M-A5: developing models and predictions using the relationships between data and explanations	14. Develop models to illustrate or explain conclusions reached through investigation (SI-M-A5) 15. Identify and explain the limitations of models used to represent the natural world (SI-M-A5) 16. Use evidence to make inferences and predict trends (SI-M-A5)
SI-M-A6: comparing alternative explanations and predictions	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) 18. Identify faulty reasoning and statements that misinterpret or are not supported by the evidence (SI-M-A6)
SI-M-A7: communicating scientific procedures, information, and explanations	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) 20. Write clear step-by-step instructions that others can follow to carry out procedures or conduct investigations (SI-M-A7) 21. Distinguish between *observations* and *inferences* (SI-M-A7) 22. Use evidence and observations to explain and communicate the results of investigations (SI-M-A7)
SI-M-A8: utilizing safety procedures during scientific investigations	23. Use relevant safety procedures and equipment to conduct scientific investigations (SI-M-A8) 24. Provide appropriate care and utilize safe practices and ethical treatment when animals are involved in scientific field and laboratory research (SI-M-A8)

B. Understanding Scientific Inquiry	
SI-M-B1: recognizing that different kinds of questions guide different kinds of scientific investigations	25. Compare and critique scientific investigations (SI-M-B1) 26. Use and describe alternate methods for investigating different types of testable questions (SI-M-B1) 27. Recognize that science uses processes that involve a logical and empirical, but flexible, approach to problem solving (SI-M-B1)
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	29. Explain how technology can expand the senses and contribute to the increase and/or modification of scientific knowledge (SI-M-B3) 30. Describe why all questions cannot be answered with present technologies (SI-M-B3) 31. Recognize that there is an acceptable range of variation in collected data (SI-M-B3) 32. Explain the use of statistical methods to confirm the significance of data (e.g., mean, median, mode, range) (SI-M-B3)
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	34. Recognize the importance of communication among scientists about investigations in progress and the work of others (SI-M-B5) 35. Explain how skepticism about accepted scientific explanations (i.e., hypotheses and theories) leads to new understanding (SI-M-B5) 36. Explain why an experiment must be verified through multiple investigations and yield consistent results before the findings are accepted (SI-M-B5) 37. Critique and analyze their own inquiries and the inquiries of others (SI-M-B5)
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	39. Identify areas in which technology has changed human lives (e.g., transportation, communication, geographic information systems, DNA fingerprinting) (SI-M-B7) 40. Evaluate the impact of research on scientific thought, society, and the environment (SI-M-B7)

Physical Science: Students will develop an understanding of the characteristics and interrelationships of matter and energy in the physical world.	
A. Properties and Changes of Properties in Matter	
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 and record the volume and mass of substances in metric system units (PS-M-A1) 2. Calculate the density of large and small quantities of a variety of substances (e.g., aluminum foil, water, copper, clay, rock) (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. Construct models that replicate atomic structure for selected common elements from the periodic table (PS-M-A2)
PS-M-A3: grouping substances according to similar properties and/or behaviors	4. Differentiate between the physical and chemical properties of selected substances (PS-M-A3) 5. Compare physical and chemical changes (PS-M-A3)
PS-M-A4: understanding that atoms and molecules are perpetually in motion	6. Draw or model the movement of atoms in solid, liquid, and gaseous states (PS-M-A4) 7. Simulate how atoms and molecules have kinetic energy exhibited by constant motion (PS-M-A4)
PS-M-A5: investigating the relationships among temperature, molecular motion, phase changes, and physical properties of matter	8. Determine the temperatures at which water changes physical phases (e.g., freezing point, melting point, boiling point) (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	9. Describe the properties of reactants and products of chemical reactions observed in the lab (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	10. Identify the average atomic masses of given elements using the periodic table (PS-M-A7) 11. Compare the masses of reactants and products of a chemical reaction (PS-M-A7)
PS-M-A8: discovering and recording how factors such as temperature influence chemical reactions	12. Determine the effect of particle size of the same reactants on the rate of chemical reactions during a lab activity (e.g., powdered vs. solid forms) (PS-M-A8)
PS-M-A9: identifying elements and compounds found in common foods, clothing, household materials, and automobiles	13. Use a variety of resources to identify elements and compounds in common substances (PS-M-A9)

B. Motions and Forces	
PS-M-B1: describing and graphing the motions of objects	14. Construct and analyze graphs that represent one-dimensional motion (i.e., motion in a straight line) and predict the future positions and speed of a moving object (PS-M-B1) 15. Explain why velocity is expressed in both speed and direction (PS-M-B1) 16. Compare line graphs of acceleration, constant speed, and deceleration (PS-M-B1)
PS-M-B2: recognizing different forces and describing their effects (gravity, electrical, magnetic)	17. Describe and demonstrate that friction is a force that acts whenever two surfaces or objects move past one another (PS-M-B2) 18. Explain how the resistance of materials affects the rate of electrical flow (PS-M-B2)
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	19. Identify forces acting on all objects (PS-M-B3) Also see GLE 22
PS-M-B4: describing how forces acting on an object will reinforce or cancel one another, depending upon their direction and magnitude	20. Draw and label a diagram to represent forces acting on an object (PS-M-B4) 21. Determine the magnitude and direction of unbalanced (i.e., net) forces acting on an object (PS-M-B4)
PS-M-B5: understanding that unbalanced forces will cause changes in the speed or direction of an object's motion	22. Demonstrate that an object will remain at rest or move at a constant speed and in a straight line if it is not subjected to an unbalanced force (PS-M-B5) (PS-M-B3) 23. Predict the direction of a force applied to an object and how it will change the speed and direction of the object (PS-M-B5)
C. Transformations of Energy	
PS-M-C1: identifying and comparing the characteristics of different types of energy	24. Describe and give examples of how all forms of energy may be classified as potential or kinetic energy (PS-M-C1) 25. Compare forms of energy (e.g., light, heat, sound, electrical, nuclear, mechanical) (PS-M-C1) 26. Describe and summarize observations of the transmission, reflection, and absorption of sound, light, and heat energy (PS-M-C1)
PS-M-C2: understanding the different kinds of energy transformations and the fact that energy can be neither destroyed nor created	27. Explain the relationship between work input and work output by using simple machines (PS-M-C2) 28. Explain the law of conservation of energy (PS-M-C2) 29. Compare and/or investigate the relationships among work, power, and efficiency (PS-M-C2) 30. Trace energy transformations in a simple system (e.g., flashlight) (PS-M-C2)

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	31. Compare types of electromagnetic waves (PS-M-C3)
PS-M-C4: observing and describing the interactions of light and matter (reflection, refraction, absorption, transmission, scattering)	32. Identify and illustrate key characteristics of waves (e.g., wavelength, frequency, amplitude) (PS-M-C4) 33. Predict the direction in which light will refract when it passes from one transparent material to another (e.g., from air to water, from prism to air) (PS-M-C4) 34. Apply the law of reflection and law of refraction to demonstrate everyday phenomena (e.g., how light is reflected from tinted windows, how light is refracted by cameras, telescopes, eyeglasses) (PS-M-C4) 35. Determine through experimentation whether light is reflected, transmitted, and/or absorbed by a given object or material (PS-M-C4) 36. Explain the relationship between an object's color and the wavelength of light reflected or transmitted to the viewer's eyes (PS-M-C4)
PS-M-C5: investigating and describing the movement of heat and the effects of heat in objects and systems	37. Compare how heat is transferred by conduction, convection, and radiation (PS-M-C5) 38. Identify conditions under which thermal energy tends to flow from a system of higher energy to a system of lower energy (PS-M-C5)
PS-M-C6: describing the types of energy that can be involved, converted, or released in electrical circuits	39. Describe how electricity can be produced from other types of energy (e.g., magnetism, solar, mechanical) (PS-M-C6)
PS-M-C7: understanding that energy is involved in chemical reactions	40. Identify heat energy gains and losses during exothermic and endothermic chemical reactions (PS-M-C7)
PS-M-C8: comparing the uses of different energy resources and their effects upon the environment	41. Identify risks associated with the production and use of coal, petroleum, hydroelectricity, nuclear energy, and other energy forms (PS-M-C8)
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.	
There are no Grade-Level Expectations for benchmarks in grade 6 for this strand.	
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.	
There are no Grade-Level Expectations for benchmarks in grade 6 for this strand.	

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 6
SE-M-A2: demonstrating an understanding of how carrying capacity and limiting factors affect plant and animal populations	
SE-M-A3: defining the concept of pollutant and describing the effects of various pollutants on ecosystems	
SE-M-A4: understanding that human actions can create risks and consequences in the environment	
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	
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	42. Identify energy types from their source to their use and determine if the energy types are renewable, nonrenewable, or inexhaustible (SE-M-A6) 43. Explain how the use of different energy resources affects the environment and the economy (SE-M-A6) 44. Explain how an inexhaustible resource can be harnessed for energy production (SE-M-A6) 45. Describe methods for sustaining renewable resources (SE-M-A6) 46. Identify ways people can reuse, recycle, and reduce the use of resources to improve and protect the quality of life (SE-M-A6)
SE-M-A7: demonstrating knowledge of the natural cycles, such as the carbon cycle, nitrogen cycle, water cycle, and oxygen cycle	Not addressed at grade 6
SE-M-A8: investigating and analyzing how technology affects the physical, chemical, and biological factors in an ecosystem	47. Illustrate how various technologies influence resource use in an ecosystem (e.g., forestry management, soil conservation, fishery improvement) (SE-M-A8)
SE-M-A9: demonstrating relationships of characteristics of soil types to agricultural practices and productivity	Not addressed at grade 6
SE-M-A10: identifying types of soil erosion and preventive measures	

Sample Test Items: Grade 6 Science

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 1—*Generate testable questions about objects, organisms, and events that can be answered through scientific investigation (SI-M-A1)*

1 Julie has the following objects:

- two ice cubes
- an empty glass
- a glass of water at room temperature

Which question could Julie answer **most easily** by conducting a scientific investigation?

A What is the temperature of the water?
B Does ice melt faster in air or in water?
C How long does it take for water to freeze?
D Does the mass of an ice cube change when it melts?

Correct response: B

Match to GLE: This item relates to conducting an investigation in physical science. Other grade 6 iLEAP items that measure this GLE may include investigations relating to science and the environment.

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 3—*Use a variety of sources to answer questions (SI-M-A1)*

2 In which activity would using the Internet be **most** helpful?

A analyzing the results of an experiment
B predicting the outcome of an experiment
C measuring the variables used in an experiment
D performing research before conducting an experiment

Correct response: D

Match to GLE: This item identifies the Internet as a source of science information. Other grade 6 iLEAP items that measure this GLE may include other sources such as encyclopedias, textbooks, lab notebooks, and real-world data.

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 10—*Identify the difference between description and explanation (SI-M-A4)*

3 Which statement is an explanation rather than a description?

A The elephant weighs over 5 tons.
B The rock has many crystals in it.
C The bird flaps its wings while it is flying.
D The pond became smaller from evaporation.

Correct response: D

Match to GLE: This item asks students to identify an explanation from a set of choices. Other grade 6 iLEAP items that measure this GLE may ask students to identify a description.

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 16—*Use evidence to make inferences and predict trends (SI-M-A5)*

Use this data table to answer question 4.

Insect Species on Different Trees

Tree	Number of Insects: Species A	Number of Insects: Species B
A	542	3
B	7	1098
C	0	763
D	876	5

4 A scientist examined the numbers of two different species of insects on four different kinds of trees in the same forest. The results of her examination are shown on the data table. What inference can the scientist make about the insects?

A Species B insects are the main food source for species A insects.
B Species A and species B insects are very closely related.
C There are more of species B insects than species A insects in the entire forest.
D Species A insects prefer different kinds of trees from species B insects.

Correct response: D

Match to GLE: This item asks students to make an inference from data presented in a table. Other grade 6 iLEAP items that measure this GLE may ask students to predict trends and/or use information presented in graphs or verbal descriptions.

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 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)*

Use this data table to answer question 5.

Temperature and Rainfall

Town	Average Temperature (degrees Celsius)	Average Annual Rainfall (centimeters)
Farmon	18	33
Davis	25	72

5 Jenny compared the average temperature and annual rainfall for two towns in the same state. The results are shown in the data table. From these results, Jenny concluded that hotter weather causes more rain to fall. What is another reasonable interpretation of this data?

A Farmon is a very cold place to live.
B Colder weather causes more rain to fall.
C Rain causes the temperature to increase.
D Davis is the rainiest town in the entire state.

Correct response: C

Match to GLE: This item asks students to identify an alternative explanation for data presented in a table. Other grade 6 iLEAP items that measure this GLE may ask students to identify one or more plausible explanations for data presented in other formats.

Science as Inquiry
The Abilities Necessary to Do Scientific Inquiry
GLE 23—*Use relevant safety procedures and equipment to conduct scientific investigations (SI-M-A8)*

6 While working on a class chemistry experiment, Victor dropped a glass test tube filled with an unknown liquid. What should Victor do **first**?

A put on gloves
B inform the teacher
C sweep up the broken glass
D clean up the spilled chemical

Correct response: B

Match to GLE: This item measures students' knowledge of safety procedures. Other grade 6 iLEAP items that measure this GLE may ask students about the use of equipment.

Science as Inquiry
Understanding Scientific Inquiry
GLE 25—*Compare and critique scientific investigations (SI-M-B1)*

Use this data table to answer question 7.

Experimental Design for Studying Effects of Pollutant

Plant	Water (ml/day)	Sunlight (hours/day)	Pollutant (grams)	Initial Height of Plant (meters)
1	100	12	0	0.45
2	200	12	1	0.47
3	300	12	10	0.50
4	400	12	100	0.44

7 Chris wanted to determine the effects of a soil pollutant on the growth of a sunflower plant. He designed an experiment and recorded his results in the data table. Where does Chris make a **mistake** in the design of his experiment?

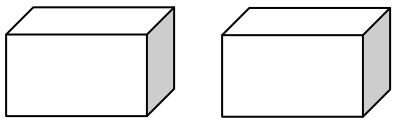
A The experiment doesn't have a control.
B The experiment should use more types of plants.
C The amount of water should be the same for each plant.
D The amount of pollutant should be the same for each plant.

Correct response: C

Match to GLE: This item asks students to identify an error in the design of an experiment. Other grade 6 iLEAP items that measure this GLE may ask students to compare different experiments.

Science as Inquiry
Understanding Scientific Inquiry
GLE 26—*Use and describe alternate methods for investigating different types of testable questions (SI-M-B1)*

8 Lamont has two blocks of metal. The blocks are both the same size, as shown below.



Block 1 **Block 2**

Lamont wants to show that the blocks are made from **different** metals. One way to do this is to show that Block 2 has a different melting temperature than Block 1. However, this would require a very powerful heat source.

Which of these is another way Lamont could show that the blocks are made from **different** metals?

A Show that both blocks conduct electricity.
B Show that the blocks weigh different amounts.
C Show that both blocks can be picked up by a magnet.
D Show that the blocks come from two different regions on Earth.

Correct response: B

Match to GLE: This item asks students to devise an alternate method for testing a scientific question.

Science as Inquiry
Understanding Scientific Inquiry
GLE 31—*Recognize that there is an acceptable range of variation in collected data (SI-M-B3)*

Use this data table to answer question 9.

Height of Plant

Measurement	Height of Plant
1	21.2 cm
2	21.5 cm
3	21.4 cm

9 Damon measured the height of a plant three times with a metric ruler. He recorded the measurements in the data table above. Which statement **most likely** explains the variation in Damon's data?

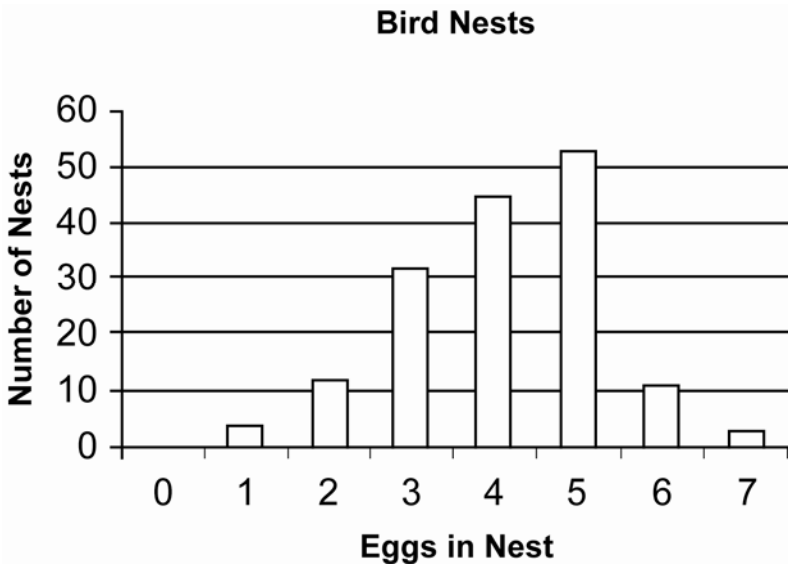
A The plant was growing while Damon measured it.
B Damon used different rulers for each measurement.
C Damon made small errors while measuring the plant.
D The plant expanded and shrank because of temperature changes.

Correct response: C

Match to GLE: This item requires students to recognize that measurements of length can vary due to measurement error. Other grade 6 iLEAP items that measure this GLE may relate to mass, weight, time, or other measurement attributes.

Science as Inquiry
Understanding Scientific Inquiry
GLE 32—*Explain the use of statistical methods to confirm the significance of data (e.g., mean, median, mode, range) (SI-M-B3)*

Use this graph to answer question 10.



10 A scientist studied 160 bird nests and counted the number of eggs in each nest. Her results are shown in the bar graph above. Which statement **best** describes the scientist's results?

A The mode is 5, but the median is less than 5.
B The mode is 5, but the median is greater than 5.
C The median is 5, but the mode is less than 5.
D The median is 5, but the mode is greater than 5.

Correct response: A

Match to GLE: This item asks students to identify and compare median and mode from a bar graph. Other grade 6 iLEAP items that measure this GLE may involve mean or range and ask students to draw conclusions based on these measures.

Science as Inquiry
Understanding Scientific Inquiry
GLE 34—*Recognize the importance of communication among scientists about investigations in progress and the work of others (SI-M-B5)*

11 A scientist makes an important discovery while conducting an experiment. What should the scientist do next?

A Tell other scientists about the experiment and the discovery.
B Tell other scientists about the discovery but not about the experiment.
C Tell other scientists about the experiment but not about the discovery.
D Write about the discovery in his or her notebook but not tell any other scientists about it.

Correct response: A

Match to GLE: This item examines the responsibility of scientists to communicate their experiments and discoveries. Other grade 6 iLEAP items that measure this GLE may examine the benefits of communication among scientists.

Science as Inquiry
Understanding Scientific Inquiry
GLE 36—*Explain why an experiment must be verified through multiple investigations and yield consistent results before the findings are accepted (SI-M-B5)*

12 A scientist performed an experiment that had an unexpected result. Before telling anyone about the result, the scientist performed the experiment again. What is the **most likely** reason the scientist performed the experiment more than once?

A The scientist wanted to make sure no one else could do the experiment.
B The scientist had extra chemicals and wanted to use them all.
C The scientist wanted to be sure the results were accurate.
D The scientist wanted to get different results.

Correct response: C

Match to GLE: This item asks students to determine why a scientist might choose to repeat his or her experiment. Other grade 6 iLEAP items that measure this GLE may relate to the repetition of experiments by other groups of scientists ("peer review").

Physical Science
Properties and Changes of Properties in Matter
GLE 4—*Differentiate between the physical and chemical properties of selected substances (PS-M-A3)*

13 Jeanette is studying a substance. Which property of the substance is chemical?

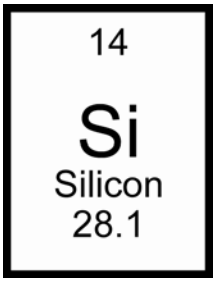
A its density
B its temperature
C its melting point
D its flammability

Correct response: D

Match to GLE: This item asks students to identify a chemical property. Other grade 6 iLEAP items that measure this GLE may ask students to identify or describe physical properties.

Physical Science
Properties and Changes of Properties in Matter
GLE 10—*Identify the average atomic masses of given elements using the periodic table (PS-M-A7)*

Use this element from the periodic table to answer question 14.



14 What is the atomic mass for silicon?

A 14.0
B 14.1
C 28.1
D 42.1

Correct response: C

Match to GLE: This item asks students to identify the atomic mass for silicon. Other grade 6 iLEAP items that measure this GLE may ask students to identify the atomic masses of other elements in the periodic table.

Physical Science
Properties and Changes of Properties in Matter
GLE 12—*Determine the effect of particle size of the same reactants on the rate of chemical reactions during a lab activity (e.g., powdered vs. solid forms) (PS-M-A8)*

15 A scientist has two samples of the same chemical: one sample is a solid block, and the other sample is a powder. The scientist puts the solid block in a beaker of water and observes a reaction.

What would **most likely** happen if the scientist placed the powdered sample into a different beaker of water?

A No reaction would occur.
B A completely different reaction would occur.
C The same reaction would occur but at a faster rate.
D The same reaction would occur but at a slower rate.

Correct response: C

Match to GLE: This item asks students to compare the reaction rates of powdered vs. block forms of the same substance.

Physical Science
Motions and Forces
GLE 15—*Explain why velocity is expressed in both speed and direction (PS-M-B1)*

16 A scientist is trying to track the movement of a rocket. What information does the scientist need to determine the velocity of the rocket?

A the mass and speed of the rocket
B the speed of the rocket and the direction the rocket is moving
C the time the rocket has been traveling and the mass of the rocket
D the time the rocket has been traveling and the direction the rocket is moving

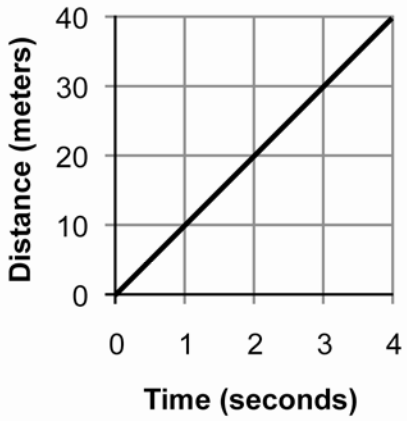
Correct response: B

Match to GLE: This item requires that students understand velocity as both speed and direction. Other grade 6 iLEAP items that measure this GLE may ask students why one or both of these attributes is important in the study of motion.

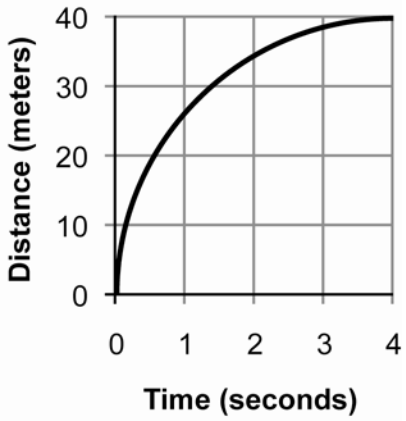
Physical Science
Motions and Forces
GLE 16—*Compare line graphs of acceleration, constant speed, and deceleration (PS-M-B1)*

17 Mrs. Wilson's science class is graphing the movement of vehicles passing their school. Which line graph shows a vehicle slowing down?

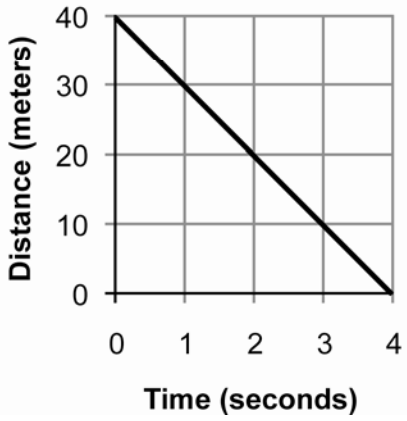
A



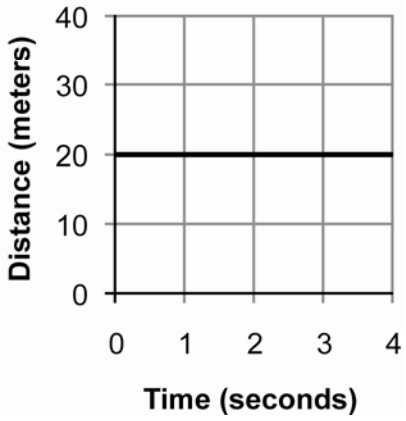
C



B



D

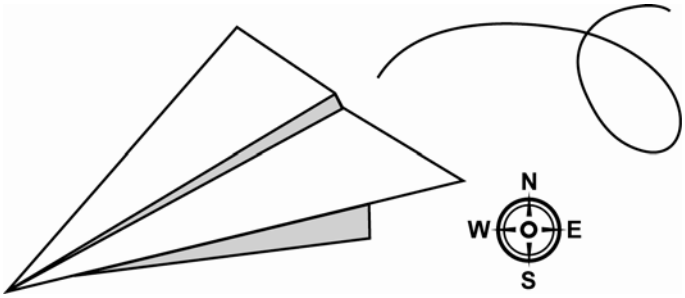


Correct response: B

Match to GLE: This item asks students to identify a line graph that shows deceleration. Other grade 6 iLEAP items that measure this GLE may ask students to analyze line graphs that show constant speed or acceleration.

Physical Science
Motions and Forces
GLE 23—*Predict the direction of a force applied to an object and how it will change the speed and direction of the object (PS-M-B5)*

18 Jenny threw a paper airplane toward the west. The wind, however, caused the airplane to move in a southwestern direction.



Which statement **best** describes the direction of the wind?

A The wind is blowing from the north.
B The wind is blowing from the south.
C The wind is blowing from the west.
D The wind is blowing from the east.

Correct response: A

Match to GLE: This item asks students to determine the direction of a force based on its effect on a moving object. Other grade 6 iLEAP items that measure this GLE may ask students to predict the effect on the speed and/or direction of a moving object when a force is applied in a particular direction.

Physical Science
Transformations of Energy
GLE 24—*Describe and give examples of how all forms of energy may be classified as potential or kinetic energy (PS-M-C1)*

19 Noah carried a skateboard up a hill and then rode the skateboard down the hill. When Noah reached the bottom of the hill, he rolled to a stop. When did Noah have the most **potential energy?**

A while carrying the skateboard up the hill
B while standing on the skateboard at the top of the hill
C while riding the skateboard down the hill
D while standing on the skateboard at the bottom of the hill

Correct response: B

Match to GLE: This item asks students to identify a situation where potential energy is greatest. Other grade 6 iLEAP items that measure this GLE may ask students to compare potential and kinetic energy in other ways.

Physical Science
Transformations of Energy
GLE 26—*Describe and summarize observations of the transmission, reflection, and absorption of sound, light, and heat energy (PS-M-C1)*

20 What happens to green light and red light when they shine on a green leaf?

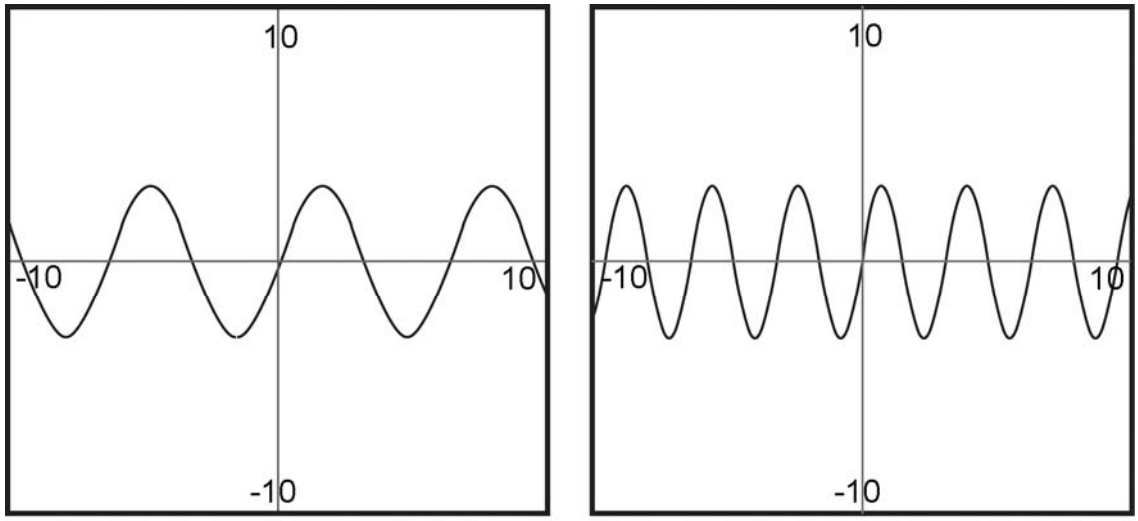
A Both are absorbed.
B Both are reflected.
C Green light is absorbed, and red light is reflected.
D Green light is reflected, and red light is absorbed.

Correct response: D

Match to GLE: This item asks students to describe how light can be reflected and absorbed by an object. Other grade 6 iLEAP items that measure this GLE may relate to sound or heat, and may involve transmission.

Physical Science
Transformations of Energy
GLE 32—*Identify and illustrate key characteristics of waves (e.g., wavelength, frequency, amplitude) (PS-M-C4)*

Use these graphs to answer question 21.



21 The two waves above are traveling at the same speed. Which statement **best** describes the difference between the waves?

A Wave A has a higher frequency than wave B.
B Wave A has a lower frequency than wave B.
C Wave A has a higher amplitude than wave B.
D Wave A has a lower amplitude than wave B.

Correct response: B

Match to GLE: This item asks students to compare waves with different frequencies. Other grade 6 iLEAP items that measure this GLE may relate to amplitude and/or wavelength.

Physical Science
Transformations of Energy
GLE 34—*Apply the law of reflection and law of refraction to demonstrate everyday phenomena (e.g., how light is reflected from tinted windows, how light is refracted by cameras, telescopes, eyeglasses) (PS-M-C4)*

22 What would be the best use for a material that reflects almost all light?

A as a mirror
B as a window
C as a light bulb
D as a sheet of paper

Correct response: A

Match to GLE: This item asks students to relate reflective properties to use of everyday materials. Other grade 6 iLEAP items that measure this GLE may relate to refraction.

Physical Science
Transformations of Energy
GLE 36—*Explain the relationship between an object's color and the wavelength of light reflected or transmitted to the viewer's eyes (PS-M-C4)*

23 Laura sees a red flower. Which statement **best** describes why the flower is red?

A The light that strikes the flower is mostly red.
B The light that is absorbed by the flower is mostly red.
C The light that is reflected from the flower is mostly red.
D The light that passes through the flower is mostly red.

Correct response: C

Match to GLE: This item asks students to relate reflective properties of an object to the color perceived by an observer.

Physical Science
Transformations of Energy
GLE 40—*Identify heat energy gains and losses during exothermic and endothermic chemical reactions (PS-M-C7)*

24 Dee adds five grams of a chemical to one liter of liquid and observes a reaction. If the reaction is **endothermic**, what will happen?

A The volume of the liquid will increase.
B The volume of the liquid will decrease.
C The temperature of the liquid will increase.
D The temperature of the liquid will decrease.

Correct response: D

Match to GLE: This item asks students to identify a property of endothermic reactions. Other grade 6 iLEAP items that measure this GLE may relate to exothermic reactions.

Science and the Environment
GLE 42—*Identify energy types from their source to their use and determine if the energy types are renewable, nonrenewable, or inexhaustible (SE-M-A6)*

25 Which nonrenewable energy source comes from the remains of dead organisms?

A gasoline
B solar power
C geothermal heat
D hydroelectricity

Correct response: A

Match to GLE: This item asks students to identify an energy type that comes from organic remains. Other grade 6 iLEAP items that measure this GLE may relate to other sources of energy and have students characterize them as renewable, nonrenewable, or inexhaustible.

Science and the Environment
GLE 43—*Explain how the use of different energy resources affects the environment and the economy (SE-M-A6)*

26 Some electricity is made by damming rivers and using the water to push a turbine. What is a potential negative effect of this form of energy?

A It can cause the river to be heavily polluted.
B It can destroy the habitat of wildlife that live in the river.
C It can produce toxic waste that must be disposed of.
D It can consume too much water.

Correct response: B

Match to GLE: This item asks students to identify a negative environmental effect of hydroelectric damming. Other grade 6 iLEAP items that measure this GLE may relate to other environmental or economic effects of energy use.

Science and the Environment
GLE 44—*Explain how an inexhaustible resource can be harnessed for energy production (SE-M-A6)*

27 Stanley helped his mother install a solar generator on the roof of their home. Which statement **best** explains the advantage of using a solar generator?

A Solar power is easy to store.
B Solar power is readily available.
C Solar generators can produce energy at all times.
D Solar generators can produce very large amounts of energy.

Correct response: B

Match to GLE: This item identifies solar power as an inexhaustible energy resource. Other grade 6 iLEAP items that measure this GLE may relate to other inexhaustible energy sources such as wind.

Science and the Environment
GLE 45—*Describe methods for sustaining renewable resources (SE-M-A6)*

28 After harvesting, a farmer plowed the remaining vegetation into the soil. What is the **most likely** reason the farmer did this?

A to prevent fires
B to prevent erosion
C to save time and energy
D to add nutrients to the soil

Correct response: D

Match to GLE: This item relates to a strategy for maintaining healthy soil. Other grade 6 iLEAP items that measure this GLE may relate to other renewable resources such as forests, fisheries, and wildlife.

Science and the Environment
GLE 46—*Identify ways people can reuse, recycle, and reduce the use of resources to improve and protect the quality of life (SE-M-A6)*

29 What is the **best** ecological reason for using recycled paper?

A Recycled paper lasts longer.
B Recycled paper is safer to use.
C Recycled paper is much cheaper to buy.
D Recycled paper conserves resources.

Correct response: D

Match to GLE: This item asks students to identify a benefit of using recycled paper. Other grade 6 iLEAP items that measure this GLE may relate to other resources that humans can conserve.

Science and the Environment
GLE 47—*Illustrate how various technologies influence resource use in an ecosystem (e.g., forestry management, soil conservation, fishery improvement) (SE-M-A8)*

30 To manage forests, trees are selectively removed. What is the purpose of removing the trees?

A to reduce the risk of fires
B to prevent erosion in the forest
C to increase animal populations
D to improve the soil quality of the forest

Correct response: A

Match to GLE: This item asks students to identify one of the purposes of forestry management. Other grade 6 iLEAP items that measure this GLE may relate to other ways that human technologies and practices affect ecosystems.

Chapter 4*: i*LEAP Social Studies, Grade 6

This section describes the overall design of the *i*LEAP Social Studies test to be administered to students in grade 6. 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, benchmarks, and GLEs. 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 6 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.

History

The GLEs for grade 6 focus on a comprehensive study of world history from the beginnings of human activity through the fifteenth century and the period of intensified hemispheric interaction. Students learn about the rise of agriculture and early civilizations, the accomplishments and influence of such classical civilizations

as Greece and the Roman Empire, the elements and spread of major religions, and the influences that led to the Renaissance, the Reformation, and the Age of Exploration. Students continue to employ historical thinking skills in understanding and analyzing world history.

Geography

The study of world history is integrally linked with the secondary focus of geography. The GLEs for grade 6 set expectations for students to use geographic information, tools, and concepts in learning about human settlement and migration, cultural diffusion, the effect of the physical environment on human activity, and the distribution and role of natural resources in world history.

Students are also expected to apply economics concepts throughout their study of world history, while civics concepts are specifically addressed in their study of ancient Greece and the Roman Empire.

Description of Stimulus Material

The test will incorporate **at least one 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 world religions, a diagram showing the structure of the feudal system, or a timeline outlining the major accomplishments of a ruler)
- An excerpt or article from a newspaper or a 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 Code of Hammurabi), 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 about 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 6 *i*LEAP Social Studies assessment.

Table 4.1: Grade 6 Social Studies Test Specifications

Strand/Category	% of Total Points
Geography	28
A. The World in Spatial Terms	
B. Places and Regions	
C. Physical and Human Systems	
D. Environment and Society	
History	72
A. Historical Thinking Skills	
B. World History	
Total	**100**

Strands, Benchmarks, and GLEs Assessed

Louisiana's social studies content standards encompass four strands: Geography, Civics, Economics, and History. At grade 6, 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 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.

Strand H: History—Time, Continuity, and Change

Standard: Students develop a sense of historical time and historical perspective as they study the history of their community, state, nation, and 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 prekindergarten GLE "demonstrate an awareness of time" begins the development of the concept "interpret data represented in a timeline to identify change and continuity in world civilizations." In subsequent grades, GLEs build on this historical thinking skills concept.

Most of the grade 6 GLEs are eligible for assessment on the *i*LEAP Social Studies test. Some, however, do not lend themselves to testing on a statewide assessment in multiple-choice format. For the Civics and Economics strands, GLE numbers 11, 12, 13, and 14 are not directly measured by questions in the grade 6 *i*LEAP. In addition, GLE numbers 15, 17, 18, 20, and 21 focus on historical thinking skills that require students to use outside resources unavailable during the test; therefore they cannot be assessed in a multiple-choice format. Finally, in accordance with the Comprehensive Curriculum, GLE numbers 45, 46, 47, 48, 49, 50, and 52 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 6 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

- Lines of latitude (parallels) and lines of longitude (meridians) to locate or compare points on a map or representation of a globe
- Cardinal directions and intermediate directions—*NE, NW, SE, SW*
- The equator and prime meridian

Places and Regions

- Land and climatic conditions conducive to human settlement—*e.g., fresh water, fertile soil, mild climate, location near body of water*
- Role of slash-and-burn farming
- Physical features that have influenced world historical events—*e.g., Nile River, Tigris and Euphrates Rivers ("Land between Two Rivers"), Red Sea, Sahara Desert, Indus River, Alps Mountains, Sinai Peninsula, Himalaya Mountains, Gobi Desert, Bering land bridge*
- Cultural goals and interests, inventions, and technological advances that have affected people's perception and use of world regions—*e.g., spread of the Islamic Empire, religious conflict in Jerusalem and Israel, development in the Fertile Crescent, agricultural innovations such as terrace farming and the plow*

Physical and Human Systems

- Reasons for early migrations—*e.g., search for sources of food and water, severe climate changes such as flood or drought, increased opportunity for trade, escape from religious or political persecution*
- Physical features that have discouraged migrations of peoples—*e.g., mountains, deserts, waterfalls*
- Historical migration routes
- Factors that have made cultural diffusion possible—*e.g., trade by the Phoenicians and spread of their alphabet, spread of the Islamic Empire*
- Historical events and trade routes that led to the distribution of culture—*e.g., European exploration, Crusades, Silk Road, Constantinople, Mediterranean Sea*
- Trade of goods and services that encouraged economic interdependence among ancient civilizations—*e.g., cotton, papyrus, silk, wood, spices, pottery, ivory, copper*
- Ancient centers of trade—*e.g., Mycenae, Egypt, China, Mediterranean nations, Mesopotamia, Indus River Valley*
- Political borders established by ancient civilizations—*e.g., natural boundaries such as deserts, bodies of water and mountains, and man-made boundaries such as walls*

Environment and Society

- Effect of physical environments on human activity in ancient civilizations—*e.g., flood plains, deserts, rain forests*
- Human adaptations of physical environment—*e.g., levees and dams, irrigation, canals, trading, growing crops native to environment*
- Characteristics of hunter-gatherers and desert nomads

History

Historical Thinking Skills

- Interpret chronology of dates as presented on vertical and horizontal timelines
- Understand that data presented in a timeline represents elapsed time between and within elapsed time periods
- Describe change and continuity over time
- Identify and interpret primary source material—*e.g., quotes, literature, artifacts*
- Distinguish the difference between a primary and secondary source

World History

- Hunter-gatherer societies—*e.g., wandering and nomadic lifestyle, types of food hunted, use of animals for clothing and shelter*
- Building materials used by early civilizations—*e.g., Mesopotamia, Native Americans*
- Development of early tools and materials used to create them
- Natural resources important to the development of agriculture in early civilizations—*e.g., availability of fresh water supply, rich soil, temperate climate*
- Physical barriers that provided ancient civilizations protection
- Development of agricultural societies from hunters and gatherers—*e.g., domestication and cultivation, Agricultural Revolution, shortage of available food*
- Reasons for the domestication of plants and animals
- Major climatic changes which led to domestication
- Location and characteristics of major river systems—*e.g., Tigris and Euphrates Rivers, Indus River, Nile River, Huang-He River ("River of Sorrows")*
- Characteristics of the major early river valley civilizations
    - Mesopotamia—*e.g., ziggurats, Code of Hammurabi, Sumerian city-states, cuneiform*
    - Egypt—*e.g., rule by pharaohs, pyramids and mummification, hieroglyphics, irrigation methods, papyrus*
    - Indus Valley—*e.g., planned cities of Mohenjo-Daro and Harappa, monsoon winds, agricultural society, caste system*
    - China—*e.g., ideographs, warrior class, Mandate of Heaven/ rule by dynasty, silk*
- Trade of goods and spread of ideas between early river valley civilizations
- Development of agricultural societies in Southwest Asia, the Mediterranean Basin, and temperate Europe—*e.g., methods of food storage, agricultural developments such as irrigation techniques and the plow and their impact, increase of structured governments and defined leaders*

- Military migrations and invasions in Europe and Asia—*e.g., Spartans, Hyskos, Aryans, Hittites, Dorians*
- Origins and influence of the Hittite, Minoan, and Mycenaean civilizations
- Introduction of iron tools and weapons in Southwest Asia and the Mediterranean region—*e.g., metal plow, increased military activity*
- Phoenician trade in the Mediterranean Basin—*e.g., important trading partners such as Egypt and Greece, exchange of goods and information such as phonetic alphabet, indigo dye and cloth, nautical and shipbuilding skills*
- Forms of writing developed in early civilizations—*e.g., Greek alphabet, Egyptian hieroglyphics, Chinese symbols, Indus Valley pictographs*
- Cultural achievements of Greece—*e.g., establishment of direct democracy in Athens, architecture, polis, literature such as epic poems and plays*
- Alexander the Great—*e.g., education and ancestry, expansion of the Greek empire through military conquests (location and methods), spread of Greek culture into Asia*
- Influence of Greek ideas about democracy on the Roman Republic and their impact on the founders of the United States
- Key characteristics of classical civilizations—*e.g., accomplishments in science and engineering, architecture, major goods traded, writing system, language, religious beliefs*
- Compare and contrast the major religions that emerged in the Mediterranean Basin, China, and India (Islam, Judaism, Christianity, Buddhism, Hinduism)—*e.g., location, key beliefs, holy books, holy sites, leaders and founders, common moral beliefs, symbols*
- Spread of major religions and cultural traditions—*e.g., spread of Islamic empire and Christianity, Emperor Constantine, effect of Roman Crusades, Jewish migration*
- Effect of major religions on European, Asian, and African civilizations—*e.g., influence of Roman Catholic Church in medieval Europe, architecture of places of worship, religious motivation for European explorations, caste system of India*
- Developments brought about by the emergence and collapse of major kingdoms prior to A.D. 1000—*e.g., divide of the Roman Empire, romance languages, Goths, expansion of Arabic culture*
- Major events, key figures, and social structure of the Early Middle Ages—*e.g., feudalism (vassals, serfs, knights, priests, lords, manors), effects of the plague, fall of Rome, accomplishments of Charlemagne*
- Major innovations in shipbuilding, navigation, and naval warfare—*e.g., cannon, telescope, magnetic compass, astrolabe, lateen sail, frigate, galleon, caravel*
- Accomplishments of Prince Henry the Navigator

Grade 6 Social Studies Standards, Benchmarks, and GLEs

The following chart presents **all** grade 6 Social Studies standards, benchmarks, and GLEs.

GRADE 6 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.	
A. The World in Spatial Terms	
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	
G-1A-M2: interpreting and developing maps, globes, graphs, charts, models, and databases to analyze spatial distributions and patterns	1. Use latitude and longitude to determine direction or locate or compare points on a map or representation of a globe (G-1A-M2)
G-1A-M3: organizing and displaying information about the location of geographic features and places by using mental mapping skills	
B. Places and Regions	
G-1B-M1: explaining and analyzing both the physical and human phenomena associated with specific places, including precipitation and settlement patterns	2. Identify land and climatic conditions conducive to human settlement in regions of the world and describe the role of these conditions (G-1B-M1)
G-1B-M2: identifying and describing significant physical features that have influenced historical events	3. Identify physical features that influenced world historical events and describe their influence (e.g., the Nile and Tigris-Euphrates as "cradles of civilization") (G-1B-M2)
G-1B-M3: identifying criteria used to define regions and explaining how and why regions change	
G-1B-M4: describing and explaining how personal interests, culture, and technology affect people's perceptions and uses of places and regions	4. Explain ways in which goals, cultures, interests, inventions, and technological advances have affected people's perceptions and uses of places or regions in world history (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	
G-1C-M4: analyzing types, patterns, and effects of human migration over time	5. Explain reasons for different patterns of migration among early peoples (G-1C-M4)
G-1C-M5: tracing local and worldwide patterns of cultural diffusion and analyzing their causes and effects	6. Explain factors or events that have facilitated cultural diffusion (e.g., the Silk Road, Crusades) (G-1C-M5)
G-1C-M6: comparing historical and contemporary patterns of economic interdependence	7. Describe the economic interdependence among various ancient civilizations (G-1C-M6)
G-1C-M7: explaining how cooperation and conflict among people contribute to the political divisions on Earth's surface	8. Explain how ancient civilizations established and maintained political boundaries (G-1C-M7)
D. Environment and Society	
G-1D-M1: analyzing and evaluating the effects of human actions upon the physical environment	
G-1D-M2: explaining and giving examples of how characteristics of different physical environments affect human activities	9. Explain how different physical environments affected human activity in ancient civilizations (G-1D-M2)
G-1D-M3: analyzing the worldwide distribution and utilization of natural resources	10. Analyze world or regional distribution of natural resources in terms of the need to import or the capacity to export (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	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
B. Foundations of the American Political System	
C-1B-M1: explaining the essential ideas and historical origins of American constitutional government	11. Identify the essential elements of Greek and Roman government that would later influence the U.S. government (C-1B-M1)
C-1B-M2: identifying and describing the historical experiences and the geographic, social, and economic factors that have helped to shape American political culture	
C-1B-M3: explaining the meaning and importance of basic principles of American constitutional democracy as reflected in core documents	
C-1B-M4: analyzing the ways in which political and social conflict can be peacefully resolved	
C-1B-M5: analyzing democratic processes used to institute change	

C-1B-M6: analyzing the importance of political parties, campaigns, and elections in the American political system	
C. International Relationships	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
D. Roles of the Citizen	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
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	12. Explain the role of expanding specialization in the development of world civilizations (E-1A-M4)
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	13. Identify the functions and characteristics of money (e.g., money as a store of value) and compare barter exchange to money exchange (E-1A-M8)
E-1A-M9: using economic concepts to help explain historic and contemporary events and developments	14. Use economic concepts (e.g., supply and demand, interdependence) to describe the economic motivations for expanding trade and territorial domination in world history (E-1A-M9)

B. Individuals, Households, Businesses, and Governments	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
C. The Economy as a Whole	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
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	15. Construct a timeline of key developments in world history (political, social, technological, religious/cultural) (H-1A-M1) 16. Interpret data presented in a timeline to identify change and continuity in world civilizations (H-1A-M1)
H-1A-M2: demonstrating historical perspective through the political, social, and economic context in which an event or idea occurred	17. Describe the defining characteristics of major world civilizations from political, social, and economic perspectives (H-1A-M2)
H-1A-M3: analyzing the impact that specific individuals, ideas, events, and decisions had on the course of history	18. Describe the causes, effects, or impact of a given historical development or event in world civilizations (H-1A-M3)
H-1A-M4: analyzing historical data using primary and secondary sources	19. Use multiple primary and secondary sources to describe world civilizations (H-1A-M4)
H-1A-M5: identifying issues and problems from the past and evaluating alternative courses of action	20. Identify historical issues or problems in world civilizations and discuss how they were addressed (H-1A-M5)
H-1A-M6: conducting research in efforts to answer historical questions	21. Conduct historical research using a variety of resources to answer historical questions related to world civilizations (H-1A-M6)
B. United States History	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	
C. World History	
H-1C-M1: describing the earliest human communities	22. Describe features of the earliest communities (e.g., shelter, food, clothing) (H-1C-M1) 23. Describe hunter-gatherer societies, including the development of tools and the use of fire (H-1C-M1)

H-1C-M2: explaining the emergence of agricultural societies around the world	24. Explain how geographical features influenced development of early civilizations (e.g., domestication, cultivation, specialization) (H-1C-M2) 25. Explain why agricultural societies developed from hunters and gatherers (H-1C-M2) 26. Discuss the climatic changes and human modifications of the physical environment that gave rise to the domestication of plants and animals and new sources of clothing (H-1C-M2)
H-1C-M3: identifying the major characteristics of early civilizations in Mesopotamia, Egypt, and the Indus valley	27. Locate and describe the major river systems and discuss the physical settings that supported permanent settlement and early civilizations in Mesopotamia, Egypt, China, and the Indus valley (H-1C-M3) 28. Describe the major characteristics of early river valley civilizations (H-1C-M3)
H-1C-M4: tracing the development and expansion of agricultural societies and the emergence of new states	29. Describe how early river civilizations influenced the development of other cultures through trade and cultural diffusion (H-1C-M4) 30. Describe the development of agricultural societies and individual communities in Southwest Asia, the Mediterranean Basin, and temperate Europe, including the role of plow technology (H-1C-M4)
H-1C-M5: analyzing the political, social, and cultural consequences of population movements and militarization in Europe and Asia	31. Identify the effects of migration and militarization on the politics and social fabric of Europe and Asia (H-1C-M5) 32. Analyze the origins and influence of the Hittite, Minoan, and Mycenaean civilizations (H-1C-M5)
H-1C-M6: discussing and giving examples of technological and cultural innovation and change	33. Explain the significance of the introduction of iron tools and weapons in Southwest Asia and the Mediterranean region (H-1C-M6) 34. Explain the significance of Phoenician trade in the Mediterranean Basin (H-1C-M6) 35. Identify forms of writing developed in early civilizations and discuss how written records changed political, legal, religious, and cultural life (H-1C-M6)
H-1C-M7: describing the classical civilizations and examining their interactions and influences	36. Describe the development of the Greek city-states, the cultural achievements of Athens, and the impact of Alexander the Great's conquests (H-1C-M7) 37. Explain the sharing of ideas, goods, and services through trade between the Greek and Roman civilizations, and the influence of those civilizations on other cultures (H-1C-M7) 38. Describe and compare/contrast the key characteristics of classical civilizations (e.g., Greek, Roman, Persian, Chinese) (H-1C-M7)

H-1C-M8: describing and comparing the emergence of major religions and large-scale empires in the Mediterranean Basin, China, and India	39. Identify the major new religions and relate them to the empires that emerged in the Mediterranean Basin, China, and India (i.e., Christianity, Hinduism, Buddhism, Islam) (H-1C-M8) 40. Compare and contrast the major religions in terms of leaders, key beliefs, and location (H-1C-M8)
H-1C-M9: tracing the expansion of major religions and cultural traditions and examining the impact on civilizations in Europe, Asia, and Africa	41. Trace the spread of major religions and cultural traditions (e.g., the migration of Jews, spread of Christianity, expansion of Islamic rule) (H-1C-M9) 42. Identify the effect that the major religions have had on European, Asian, and African civilizations (H-1C-M9)
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	43. Describe the changes and developments brought about by the emergence and collapse of major empires/kingdoms in Europe, Asia, Africa, and the Americas prior to A.D. 1000 (H-1C-M10) 44. Describe major events, key figures, and social structure of the Early Middle Ages (e.g., the fall of Rome, Charlemagne, feudalism) (H-1C-M10)
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	45. Identify effects of exploration and trade on the economic and cultural development of Europe, Africa, and Asia prior to 1500 (H-1C-M11) 46. Explain how communication among regions was accomplished between A.D 1000 and 1500 (H-1C-M11)
H-1C-M12: explaining the developments and events that led to the political, social, cultural, and economic transformation of Europe	47. Explain how and why Europe changed politically, socially, culturally, or economically during the period of intensified hemispheric interactions (H-1C-M12) 48. Describe the major contributing factors that led to the Renaissance (H-1C-M12) 49. Describe the major contributing factors that would lead to the Reformation (H-1C-M12)
H-1C-M13: describing the development and expansion of complex societies and empires in the Americas	
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	50. Explain the major social, economic, political, and cultural features of European, African, and Asian societies that stimulated exploration and colonization (H-1C-M14) 51. Identify major technological developments in shipbuilding, navigation, and naval warfare, and trace the cultural origins of various innovations (H-1C-M14) 52. Describe the major achievements of the early Renaissance in Europe, including the impact of innovations in printing (H-1C-M14)

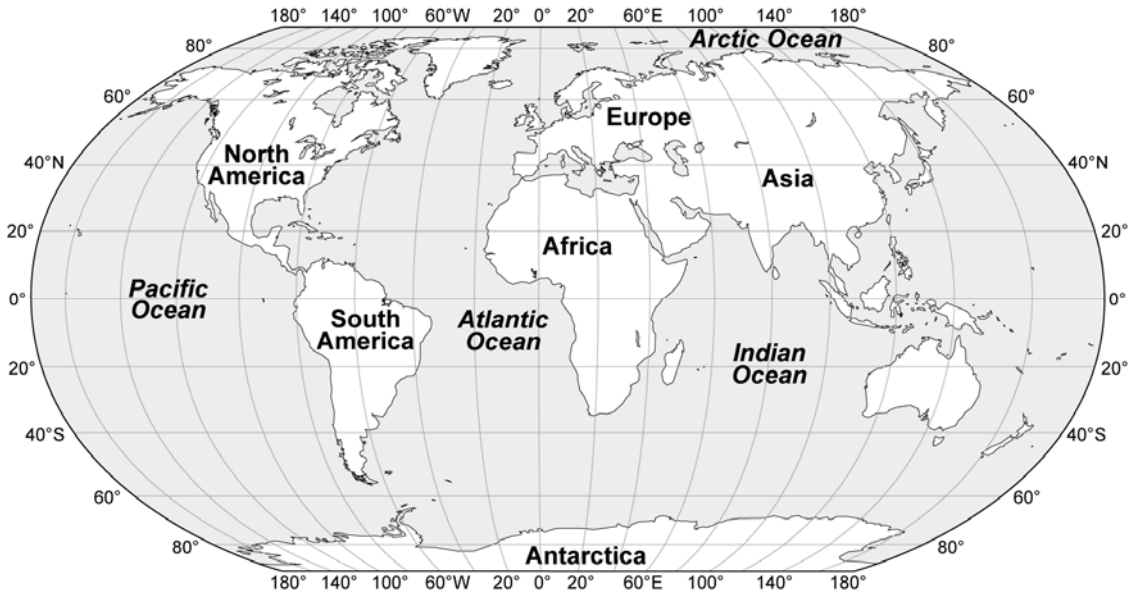
H-1C-M15: determining and discussing the impact of the political, agricultural, and industrial revolutions on societies around the world	
H-1C-M16: describing the transformation of world societies that occurred during an era of global trade and Western domination	
H-1C-M17: identifying the causes and worldwide consequences of major twentieth century conflicts	
H-1C-M18: identifying and discussing significant political, economic, social, cultural, and technological trends that have had an impact on the modern world	
D. Louisiana History	
There are no Grade-Level Expectations for benchmarks in grade 6 for this category.	

Sample Test Items: Grade 6 Social Studies

Geography
The World in Spatial Terms
GLE 1—*Use latitude and longitude to determine direction or locate or compare points on a map or representation of a globe (G-1A-M2)*

Use this map to answer question 1.

World Map



1 A ship is at 20˚ south latitude and 80˚ east longitude. Which **best** describes the location of the ship?

A in the middle of the Indian Ocean
B off the west coast of Africa
C off the west coast of South America
D in the middle of the Arctic Ocean

Correct response: A

Match to GLE: This item asks students to identify a region, given its latitude and longitude. Other grade 6 iLEAP items that measure this GLE may ask students to compare different locations or identify the latitude and/or longitude of a map location.

Geography
Places and Regions
GLE 2—*Identify land and climatic conditions conducive to human settlement in regions of the world and describe the role of these conditions (G-1B-M1)*

2 Many early civilizations were called *riverine* cultures because they developed near rivers. How did the rivers contribute to the survival of these civilizations?

A They were a power source for mechanical devices such as waterwheels.
B They provided a route for transporting goods to other civilizations.
C They provided a fresh water supply and rich soil for growing food.
D They formed protective barriers around civilizations.

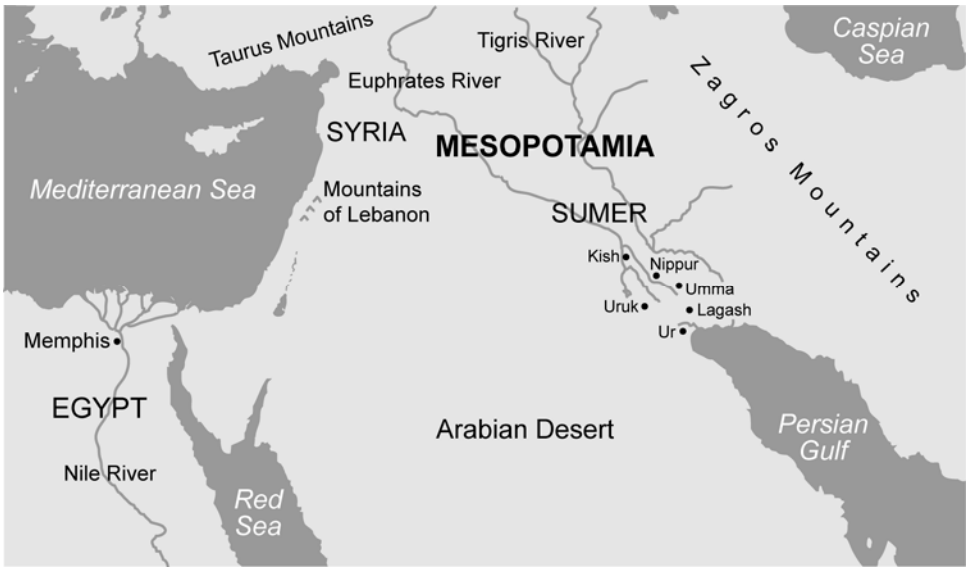
Correct response: C

Match to GLE: This item asks students to explain the significance of rivers to early civilizations. Other grade 6 iLEAP items that measure this GLE may relate to other land or climatic conditions and their roles.

Geography
Places and Regions
GLE 3—*Identify physical features that influenced world historical events and describe their influence (e.g., the Nile and Tigris-Euphrates as "cradles of civilization") (G-1B-M2)*

Use this map to answer question 3.

Mesopotamia, 2500 B.C.



3 Which two geographical features **most likely** provided fertile land that gave rise to multiple city-states in the Mesopotamia region?

A Euphrates River and Tigris River
B Persian Gulf and Arabian Desert
C Mediterranean Sea and Red Sea
D Zagros Mountains and Caspian Sea

Correct response: A

Match to GLE: This item relates to the importance of the Tigris and Euphrates rivers to the rise of civilization. Other grade 6 iLEAP items that measure this GLE may relate to other physical features and their influence on history.

Geography
Places and Regions
GLE 4—*Explain ways in which goals, cultures, interests, inventions, and technological advances have affected people's perceptions and uses of places or regions in world history (G-1B-M4)*

4 Which activity made it easier for rulers to control large areas of land in ancient China?

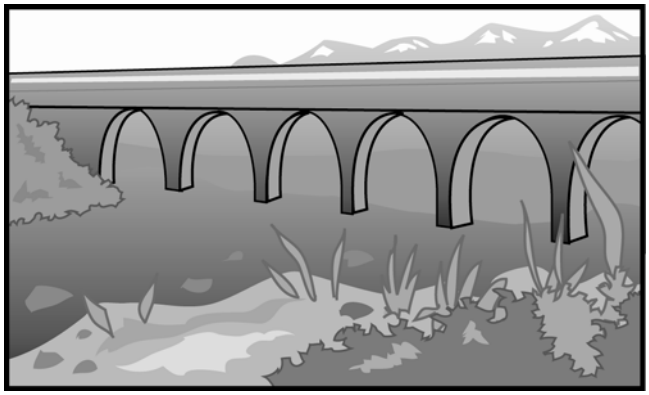
A the use of paper money
B the spread of Buddhism
C the creation of a feudal system
D the invention of the wheelbarrow

Correct response: C

Match to GLE: This item focuses on a social system that allowed rulers to control larger areas of land. Other grade 6 iLEAP items that measure this GLE may relate to other connections between humans and the land they occupy.

Geography
Places and Regions
GLE 4—*Explain ways in which goals, cultures, interests, inventions, and technological advances have affected people's perceptions and uses of places or regions in world history (G-1B-M4)*

Use this picture to answer question 5.



5 This picture shows an ancient Roman aqueduct. Aqueducts brought water from the mountains to lower elevations.

How did the use of aqueducts affect settlement in early Roman civilizations?

A Farmers were able to keep their crops watered.
B Fresh water attracted settlers from other civilizations.
C People who lived in dry areas had access to fresh water.
D Every family was able to have a private bath in its home.

Correct response: C

Match to GLE: This item focuses on a technological advance that allowed humans to live farther from natural sources of fresh water. Other grade 6 iLEAP items that measure this GLE may relate to other connections between humans and the land they occupy.

Geography
Physical and Human Systems
GLE 5—*Explain reasons for different patterns of migration among early peoples (G-1C-M4)*

Use this information to answer question 6.

Reasons for Migration

A. Push factors
- **1. Poverty**
- **2. Political unrest**

B. Pull factors
- **1. Better jobs**
- **2. _____**

6 Maria is making an outline for a school paper. Which factor **best** completes her outline?

A Drought
B Civil war
C Overpopulation
D Religious freedom

Correct response: D

Match to GLE: This item focuses on general "push" and "pull" factors that can influence migration. Other grade 6 iLEAP items that measure this GLE may relate to specific human migrations throughout history.

Geography
Physical and Human Systems
GLE 6—*Explain factors or events that have facilitated cultural diffusion (e.g., the Silk Road, Crusades) (G-1C-M5)*

7 Which outcome was a result of the medieval Crusades?

A peace between Christians and Muslims
B European advances in science and architecture
C the spread of Christianity throughout the Middle East
D greater knowledge of European geography among Muslims

Correct response: B

Match to GLE: This item examines the Crusades as a means of cultural diffusion. Other grade 6 iLEAP items that measure this GLE may relate to other factors or events in history.

Geography
Physical and Human Systems
GLE 6—*Explain factors or events that have facilitated cultural diffusion (e.g., the Silk Road, Crusades) (G-1C-M5)*

8 Which early civilization spread the use of a simple alphabet as it traded with other peoples?

A the Chinese
B the Egyptian
C the Harrappan
D the Phoenician

Correct response: D

Match to GLE: This item examines trade as a means of cultural diffusion. Other grade 6 iLEAP items that measure this GLE may relate to other factors or events in history.

Geography
Places and Regions
GLE 7—*Describe the economic interdependence among various ancient civilizations (G-1C-M6)*

9 Which statement describes the relationship between China and the Middle East in the 8th century A.D.?

A Chinese and Middle Eastern civilizations traded with each other along the Silk Road.
B Chinese and Middle Eastern civilizations fought many wars against each other.
C Chinese and Middle Eastern civilizations practiced the same religion.
D Chinese and Middle Eastern civilizations spoke the same languages.

Correct response: A

Match to GLE: This item examines the economic relationship between ancient China and the Middle East. Other grade 6 iLEAP items that measure this GLE may relate to other ancient civilizations and their economic interdependence.

Geography
Physical and Human Systems
GLE 8—Explain how ancient civilizations established and maintained political boundaries (G-1C-M7)

10 What was the **main** purpose of the Great Wall of China?

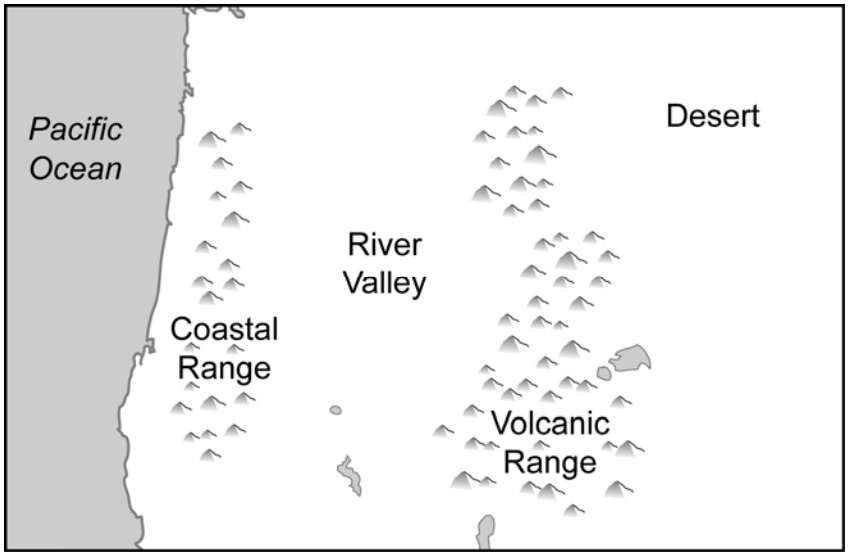
A to create a boundary between China and its neighbors
B to serve as an observatory for astronomers and scientists
C to protect China from earthquakes and other natural disasters
D to spread the ideas of Chinese civilizations to the rest of the world

Correct response: A

Match to GLE: This item asks students to identify the purpose of the Great Wall of China. Other grade 6 iLEAP items that measure this GLE may relate to other ways that ancient civilizations established and maintained boundaries.

Geography
Environment and Society
GLE 9—*Explain how different physical environments affected human activity in ancient civilizations (G-1D-M2)*

Use this map to answer question 11.



11 This map shows the geography of present-day Oregon. Which region would have **best** supported an early Native American farming civilization?

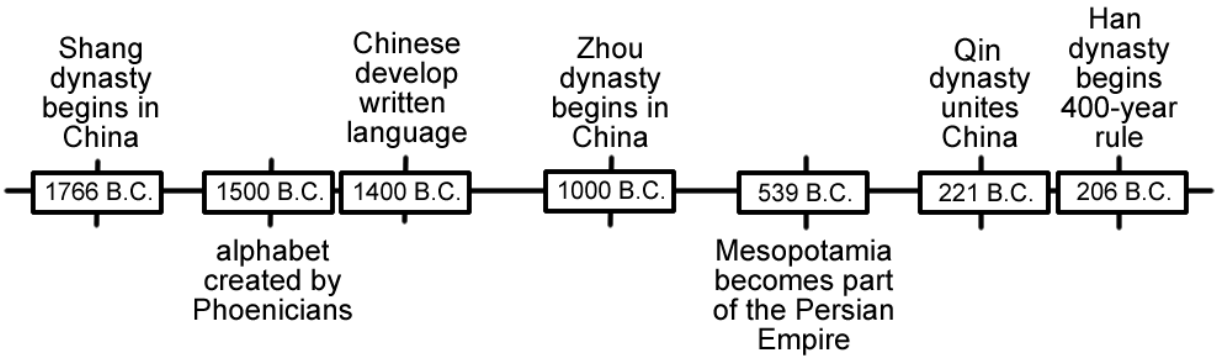
A desert
B river valley
C coastal range
D volcanic range

Correct response: B

Match to GLE: This item asks students to examine the connection between farming and physical environment in North America. Other grade 6 iLEAP items that measure this GLE may relate to other human activities and other parts of the world.

History
Historical Thinking Skills
GLE 16—*Interpret data presented in a timeline to identify change and continuity in world civilizations (H-1A-M1)*

Use this timeline to answer question 12.



12 Which statement is supported by information in the timeline?

A China developed an alphabet before the Phoenicians.
B The Shang dynasty ruled after the Qin dynasty.
C The Zhou dynasty ruled before the Han dynasty.
D China united before it developed a written language.

Correct response: C

Match to GLE: This item measures students' ability to infer the order of events from a timeline. Other grade 6 iLEAP items that measure this GLE may ask students to interpret timelines in other ways.

History
Historical Thinking Skills
GLE 19—*Use multiple primary and secondary sources to describe world civilizations (H-1A-M4)*

Use this passage to answer question 13.

> "Our constitution does not copy the laws of neighboring states; we are rather a pattern to others . . .
>
> [Our government] favors the many instead of the few; this is why it is called a democracy. If we look to the laws, they [give] equal justice to all . . .
>
> The freedom which we enjoy in our government extends also to our ordinary life."
>
> —Thucydides, ancient historian

13 This speech most likely described

A China.
B Rome.
C Greece.
D Egypt.

Correct response: C

Match to GLE: This item asks students to recognize the description of a society from a primary source. Other grade 6 iLEAP items that measure this GLE may relate to the importance of primary and secondary sources in learning about the world.

History
Historical Thinking Skills
GLE 19—*Use multiple primary and secondary sources to describe world civilizations (H-1A-M4)*

14 Trevor is writing a report about life in modern China. His teacher asked him to use a primary source and two secondary sources. Which resource could Trevor use as a primary source?

A the diary of a Chinese poet
B an encyclopedia article about China
C a chapter about China from his history book
D a timeline showing major events in Chinese history

Correct response: A

Match to GLE: This item asks students to distinguish between primary and secondary sources. Other grade 6 iLEAP items that measure this GLE may present information using primary or secondary sources and test student understanding.

History
World History
GLE 23—*Describe hunter-gatherer societies, including the development of tools and the use of fire (H-1C-M1)*

15 Which statement correctly describes early hunter-gatherer societies?

A They relied on farming for most of their food supply.
B They traveled with large surpluses of food.
C They often changed their physical location.
D They usually lived together in large cities.

Correct response: C

Match to GLE: This item asks students to recognize a characteristic of hunter-gatherer societies. Other grade 6 iLEAP items that measure this GLE may ask students to describe the way that hunter-gatherers used certain tools.

History
World History
GLE 24—*Explain how geographical features influenced development of early civilizations (e.g., domestication, cultivation, specialization) (H-1C-M2)*

16 Which feature was a necessity for early settlements?

A a warm climate
B nearby water sources
C access to metals such as iron
D large, flat areas for constructing houses

Correct response: B

Match to GLE: This item focuses on the dependency by early civilizations on nearby sources of food. Other grade 6 iLEAP items that measure this GLE may ask students about other conditions that made certain locations favorable for human settlement.

History
World History
GLE 25—*Explain why agricultural societies developed from hunters and gatherers (H-1C-M2)*

17 Which is the **most likely** reason that hunter-gatherers began farming?

A a scarcity of food
B a loss of technology
C wars among groups
D a decline in population

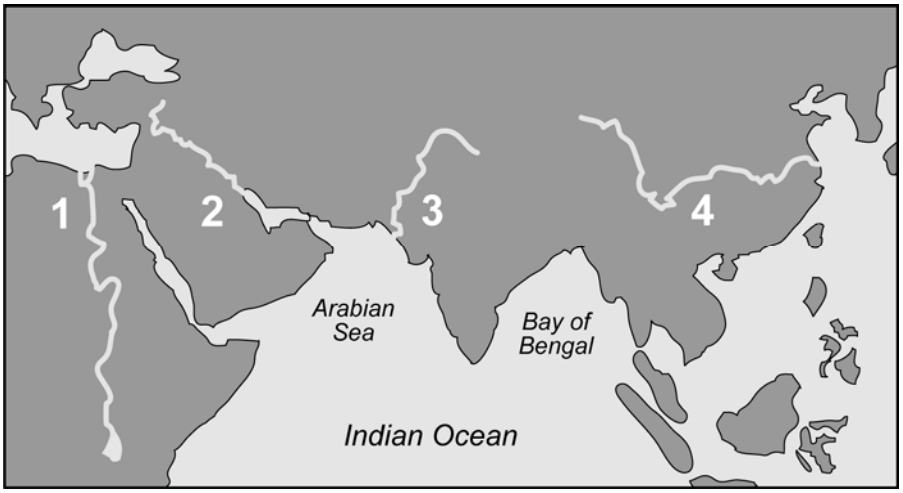
Correct response: A

Match to GLE: This item addresses one reason why agricultural societies emerged from hunter-gatherer societies. Other grade 6 iLEAP items that measure this GLE may address other reasons for the emergence of agricultural societies.

History
World History
GLE 27—*Locate and describe the major river systems and discuss the physical settings that supported permanent settlement and early civilizations in Mesopotamia, Egypt, China, and the Indus valley (H-1C-M3)*

Use this map to answer question 18.

Major River Systems



18 Which number on the map labels the river that **most directly** contributed to the development of ancient Egypt?

A number 1
B number 2
C number 3
D number 4

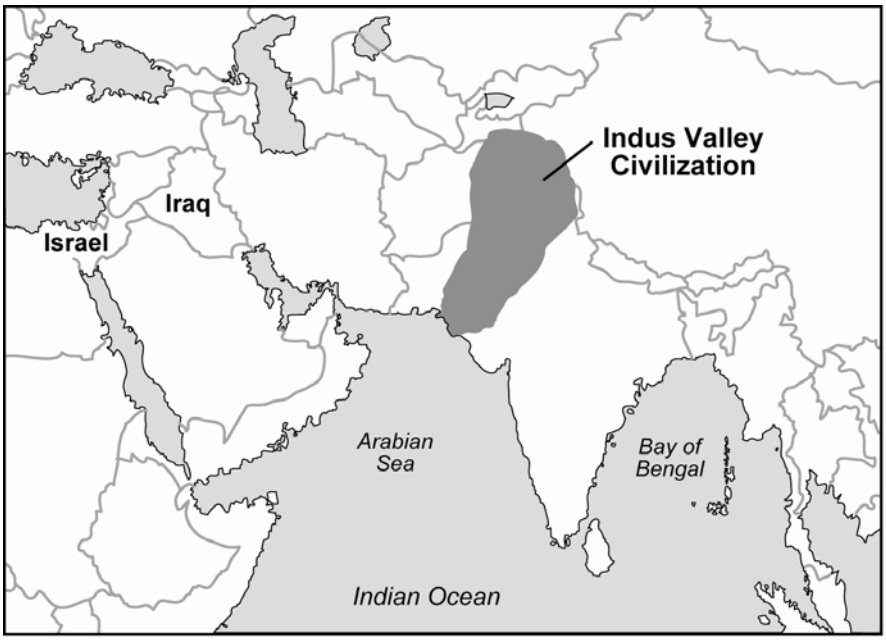
Correct response: A

Match to GLE: This item asks students to connect the Nile River with ancient Egyptian development and locate the Nile on a map. Other grade 6 iLEAP items that measure this GLE may involve other river systems and/or physical settings and ask students to locate them on a map.

History
World History
GLE 29—*Describe how early river civilizations influenced the development of other cultures through trade and cultural diffusion (H-1C-M4)*

Use this map to answer question 19.

Indus River Valley and Surrounding Areas



19 This map shows the area inhabited by the ancient Indus River Valley civilization. Archaeologists have discovered stone seals from the Indus River Valley civilization in both Israel and Iraq.

What is the most common theory for how these seals came to be located in the Indus River Valley?

A Severe weather caused the seals to be carried across the ocean.
B The seals were stolen by invaders and hidden in other lands.
C Merchants from the Indus River Valley traded with merchants from the Middle East.
D The people of the Indus River Valley eventually migrated to modern-day Israel and Iraq.

Correct response: C

Match to GLE: This item identifies a result of trade between the Indus River Valley civilization and other parts of the world. Other grade 6 iLEAP items that measure this GLE may involve other river civilizations and their influence through trade and cultural diffusion.

History
World History
GLE 32—*Analyze the origins and influence of the Hittite, Minoan, and Mycenaean civilizations (H-1C-M5)*

20 Which features of Mycenaean civilization came from the Minoans?

A their religious beliefs and practices
B their alphabet and system of writing
C their use of an army to conquer nearby peoples
D their building of settlements on the Greek mainland

Correct response: B

Match to GLE: This item examines the influence of the Minoan civilization on the Mycenaeans. Other grade 6 iLEAP items that measure this GLE may relate to other aspects of Hittite, Minoan, or Mycenaean civilizations.

History
World History
GLE 34—*Explain the significance of Phoenician trade in the Mediterranean Basin (H-1C-M6)*

21 Why did the Phoenicians establish dozens of colonies along the Mediterranean coast?

A to improve and expand trade
B to spread their religious beliefs
C to protect their main cities from attack
D to explore new territories in Europe and Africa

Correct response: A

Match to GLE: This item identifies the relationship between Phoenician trade and the colonization of areas along the Mediterranean coast. Other grade 6 iLEAP items that measure this GLE may relate to other ways in which Phoenician trade was significant.

History
World History
GLE 35—*Identify forms of writing developed in early civilizations and discuss how written records changed political, legal, religious, and cultural life (H-1C-M6)*

Use this picture to answer question 22.

22 To which ancient civilization did this form of writing belong?

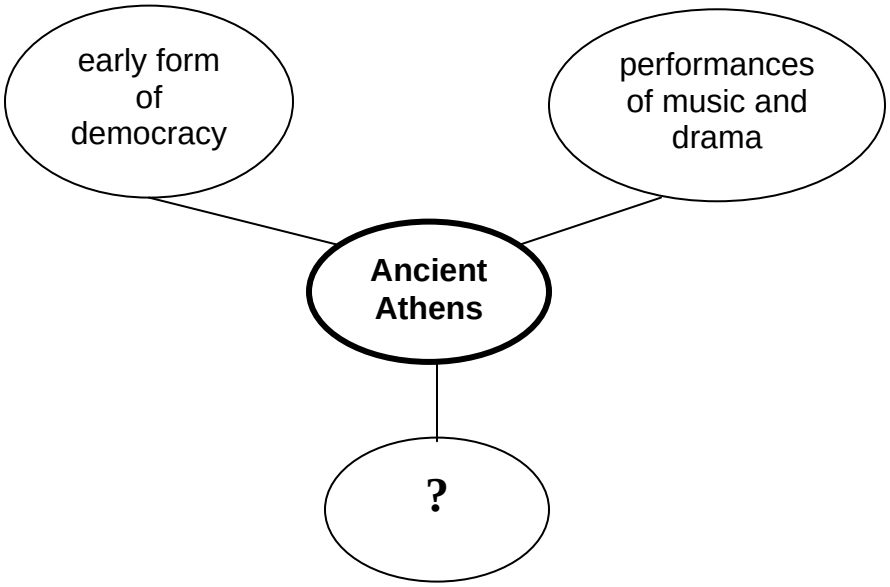
A Greek
B Hebrew
C Egyptian
D Sumerian

Correct response: A

Match to GLE: This item asks students to recognize Greek letters. Other grade 6 iLEAP items that measure this GLE may involve other forms of writing and their effects on political, legal, religious, and cultural life.

History
World History
GLE 36—*Describe the development of the Greek city-states, the cultural achievements of Athens, and the impact of Alexander the Great's conquests (H-1C-M7)*

Use this concept web to answer question 23.



23 Which feature **best** completes the web?

A belief in only one god
B absolute rule by emperors
C buildings made from straw and clay
D lessons in mathematics and philosophy

Correct response: D

Match to GLE: This item asks students to connect the cultural achievements of Athens through a concept web. Other grade 6 iLEAP items that measure this GLE may relate to the development of city-states or the impact of Alexander the Great and will not necessarily be presented through concept webs.

History
World History
GLE 37—*Explain the sharing of ideas, goods, and services through trade between the Greek and Roman civilizations, and the influence of those civilizations on other cultures (H-1C-M7)*

24 Latin was the language written and spoken in ancient Rome. Which group of modern languages is **most** influenced by Latin?

A Italian, French, Spanish
B German, English, Dutch
C Chinese, Japanese, Korean
D Danish, Norwegian, Swedish

Correct response: A

Match to GLE: This item examines an influence of Roman civilization on the modern world. Other grade 6 iLEAP items that measure this GLE may relate to other influences of Roman and/or Greek civilization on different cultures and civilizations.

History
World History
GLE 38—*Describe and compare/contrast the key characteristics of classical civilizations (e.g., Greek, Roman, Persian, Chinese) (H-1C-M7)*

25 Which two ancient civilizations had the **most similar** religious beliefs?

A Greek and Persian
B Roman and Greek
C Chinese and Roman
D Persian and Chinese

Correct response: B

Match to GLE: This item focuses on the similarity between Greek and Roman religious beliefs. Other grade 6 iLEAP items that measure this GLE may ask students to compare or contrast other elements of classical civilizations.

History
World History
GLE 38—*Describe and compare/contrast the key characteristics of classical civilizations (e.g., Greek, Roman, Persian, Chinese) (H-1C-M7)*

Use this list to answer question 26.

- believed in many different gods
- had a democratic form of government
- held legal trials with juries made up of ordinary citizens

26 Which ancient civilization is **best** described by the list?

A ancient Egypt
B ancient China
C ancient Rome
D ancient Greece

Correct response: D

Match to GLE: This item asks students to connect polytheism, democracy, and jury trials with ancient Greece. Other grade 6 iLEAP items that measure this GLE may ask students to compare or contrast other elements of classical civilizations.

History
World History
GLE 39—*Identify the major new religions and relate them to the empires that emerged in the Mediterranean Basin, China, and India (Christianity, Hinduism, Buddhism, Islam) (H-1C-M8)*

Use this list of statements to answer question 27.

- This religion began in India but spread into other parts of Asia.
- This religion is common today in Tibet and Japan.
- Followers of this religion seek enlightenment.
- The leader of this religion is called the Dalai Lama.

27 Which major world religion is **best** described by the statements listed above?

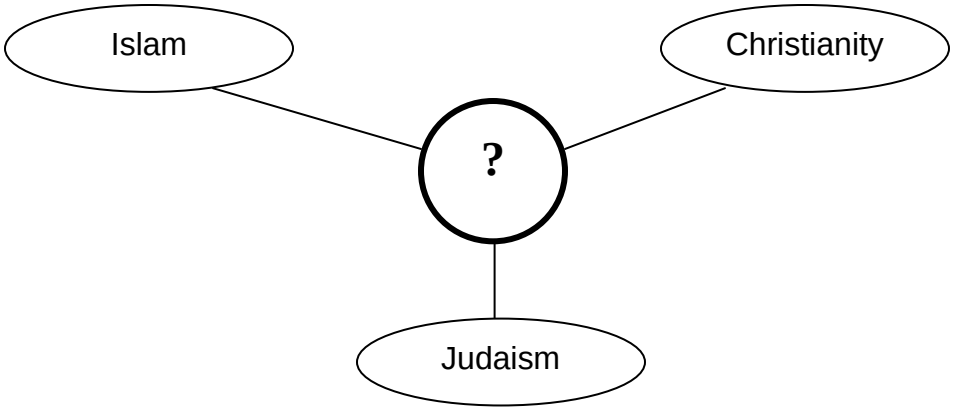
A Islam
B Judaism
C Hinduism
D Buddhism

Correct response: D

Match to GLE: This item asks students to recognize Buddhism from descriptions of its origins, spread, purpose, and leader. Other grade 6 iLEAP items that measure this GLE may ask students to identify other major religions and their influence on emerging empires.

History
World History
GLE 40—*Compare and contrast the major religions in terms of leaders, key beliefs, and location (H-1C-M8)*

Use this concept web to answer question 28.



28 Which trait **best** completes the web?

A Jesus as religious leader
B use of same holy book
C belief in only one god
D holy city of Mecca

Correct response: C

Match to GLE: This item asks students to identify a commonality among Islam, Christianity, and Judaism. Other grade 6 iLEAP items that measure this GLE may ask students to compare or contrast major world religions in other ways.

History
World History
GLE 43—*Describe the changes and developments brought about by the emergence and collapse of major empires/kingdoms in Europe, Asia, Africa, and the Americas prior to A.D. 1000 (H-1C-M10)*

29 Which group **most** increased its power when the Roman Empire fell?

A the Roman generals
B the Christian church
C the Roman land owners
D the Persian Empire

Correct response: B

Match to GLE: This item asks students to describe an outcome of the Roman Empire's collapse. Other grade 6 iLEAP items that measure this GLE may ask students to describe how the emergence or collapse of other empires/kingdoms influenced the course of history prior to A.D. 1000.

History
World History
GLE 44—*Describe major events, key figures, and social structure of the early Middle Ages (e.g., the fall of Rome, Charlemagne, feudalism) (H-1C-M10)*

30 Feudal systems were common in the early Middle Ages. In a feudal system, lords gave land to their vassals in exchange for

A crops.
B livestock.
C medical care.
D military service.

Correct response: D

Match to GLE: This item asks students to describe the social and political structure of the early Middle Ages. Other grade 6 iLEAP items that measure this GLE may ask students to describe major events and key figures.

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 *i*LEAP 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 *i*LEAP, 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.

***i*LEAP** *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 *i*LEAP

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 *i*LEAP 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 *i*LEAP assessments high-stakes for students regarding pupil progression?
No. The *i*LEAP 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 *i*LEAP, 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 *i*LEAP *Test Administration Manual* and in *Bulletin 118.*

- **Braille:** Braille test booklets that include all the items in the regular-print edition of the *i*LEAP 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

iLEAP

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.

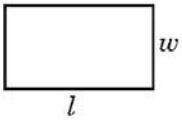
Mathematics Reference Sheet

iLEAP MATHEMATICS REFERENCE SHEET—GRADE 6

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

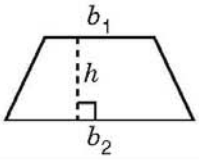
Distance Formula:
distance = rate • time

Rectangle



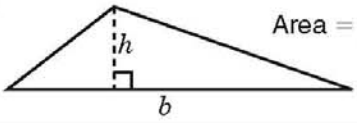
Area = $l \bullet w$
Perimeter = $2 \bullet (l + w)$

Trapezoid



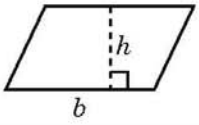
Area = $\frac{1}{2} \bullet h \bullet (b_1 + b_2)$

Triangle



Area = $\frac{1}{2} \bullet b \bullet h$

Parallelogram



Area = $b \bullet h$

Mean:	In a collection of data, the sum of all the data divided by the number of data
Median:	The middle number or average of the two middle numbers in a collection of data when the data are arranged in order
Mode:	The number or numbers that occur most often in a collection of data
Range:	The difference between the greatest and the least numbers in a collection of data