

Interpretive Guide

Grades 3–8

Science and Social Studies

Spring 2015



John C. White
State Superintendent of Education

Louisiana State Board of Elementary and Secondary Education

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INTRODUCTION

OVERVIEW

Purpose of the Interpretive Guide

Student performance in science and social studies is assessed using the Louisiana Educational Assessment Program (LEAP) and *integrated* LEAP (*i*LEAP) tests. This interpretive guide is designed to help district and school administrators, teachers, parents, and the general public better understand the LEAP and *i*LEAP Science and Social Studies tests. Through a better understanding of the assessments, school and district personnel will be able to use the results in more strategic ways.

History of LEAP and *i*LEAP, Science and Social Studies

In spring 2000, LEAP Science and Social Studies tests were first administered to students in grades 4 and 8. The LEAP Science and Social Studies tests were designed to measure the knowledge and skills contained in the state's content standards and benchmarks that were clustered by grades K–4 in the grade 4 LEAP assessments and grades 5–8 in the grade 8 LEAP assessments.

In spring 2006, the *i*LEAP Science and Social Studies tests were first administered to students in grades 3, 5, 6, and 7. The *i*LEAP Science and Social Studies tests are entirely criterion-referenced and are aligned to the state content standards, benchmarks, and GLEs.

The design of the multiple-choice and constructed-response sessions of the LEAP Science tests remained the same through 2012–2013. In 2012–2013 and all previous administrations, the design of the *i*LEAP tests included only multiple-choice sessions. In the 2013–2014 tests, both the LEAP and *i*LEAP Science tests added a new task aligned to Louisiana's content standards. This task was field tested during spring 2013 operational testing.

Like the Science tests, in 2013–2014 the Social Studies tests also added a new task, aligned to Louisiana's content standards. The designs of the multiple-choice sessions of the tests remained the same as they were in 2012–2013 and previous administrations. For LEAP, the task replaced two traditional constructed-response items.

In 2014–2015, the design of both LEAP and *i*LEAP Science and Social Studies tests remained the same as in 2013–2014.

For more details about the structure of each content-area test for this year, see the Test Design section on pages 1–3.

Testing Schedule

The LEAP Science and Social Studies tests are administered to students in grades 4 and 8 during a single phase, over a period of two days.

The *i*LEAP Science and Social Studies tests are administered to students in grades 3, 5, 6, and 7 over the same two-day period as the LEAP tests.

TEST DESIGN

The Science Test

The Science tests for grades 3–8 require that students use their content knowledge of science to explain, connect, and apply concepts to new situations. Students are also expected to have had a variety of experiences applying content knowledge using inquiry-based learning in all science content strands.

The Science tests are aligned to Louisiana's science content standards—broad statements of expectations for student learning—which encompass five strands: Science as Inquiry, Physical Science, Life Science, Earth and Space Science, and Science and the Environment.

For all grades, the tests contain multiple-choice items and a task. For grades 4 and 8, the tests also contain constructed-response items. The design of the multiple-choice session of the tests remains the same as it was in 2013–2014 and previous administrations.

The science task consists of two (for grade 3) or four (for grades 4–8) multiple-choice items and one extended-response item. The items are based on one or two stimulus materials, such as excerpts from a text-based source, charts, maps, or descriptions of scientific investigations. The extended-response portion of the task requires students to provide a written response that will be scored using a 0–2 point rubric for grade 3 or a 0–4 point rubric for grades 4–8. The task asks students to incorporate science content knowledge with evidence from the stimulus materials.

Table 1 on page 2 shows the total points and percentage of points for each strand that is assessed. The percentage of points may not equal 100 due to rounding.

Table 1: Science Content Standards

Content Standards	Grade 3				Grade 4					Grade 5			
	MC Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	CR Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	Task Pts*	Total Pts	%
Science as Inquiry	8	0	8	18	8	0	0	8	14	10	0	10	19
Physical Science	8	0	8	18	8	2	8	18	32	9	0	9	17
Life Science	8	4	12	27	8	2	0	10	18	9	8	17	31
Earth and Space Science	8	0	8	18	8	2	0	10	18	10	0	10	19
Science and the Environment	8	0	8	18	8	2	0	10	18	8	0	8	15
Total	40	4	44	100	40	8	8	56	100	46	8	54	100

Content Standards	Grade 6				Grade 7				Grade 8				
	MC Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	CR Pts (non-Task)	Task Pts*	Total Pts	%
Science as Inquiry	20	0	20	36	20	0	20	36	8	0	0	8	14
Physical Science	20	8	28	50	0	0	0	0	8	2	0	10	18
Life Science	0	0	0	0	20	8	28	50	8	2	0	10	18
Earth and Space Science	0	0	0	0	0	0	0	0	8	2	8	18	32
Science and the Environment	8	0	8	14	8	0	8	14	8	2	0	10	18
Total	48	8	56	100	48	8	56	100	40	8	8	56	100

MC = Multiple-choice item. CR = Constructed-response item.

*Note: The content standards to which the Task items align may vary from year to year.

The Social Studies Test

The Social Studies tests for grades 3–8 are aligned to Louisiana’s social studies content standards, which encompass four strands: Geography, Civics, Economics, and History.

For all grades, the Social Studies tests contain multiple-choice items and a task. For grades 4 and 8, the tests also contain constructed-response items.

The designs of the multiple-choice sessions of the tests remain the same as they were in 2013–2014 and previous administrations.

The social studies task consists of two (for grade 3) or four (for grades 4–8) multiple-choice items and one extended-response item. The items are based on two to four authentic stimulus materials, such as excerpts from a text-based source, a map or illustration, a table or graph, or a historical photograph. These materials are referred to as “documents” in the task. The extended-response portion of the task requires students to provide a written response that will be scored using a 0–2 point rubric for grade 3 or a 0–4 point rubric for grades 4–8. The task asks students to synthesize social studies content knowledge with evidence from the documents provided.

Table 2 shows the total points and percentage of points for each strand that is assessed. The percentage of points may not equal 100 due to rounding.

Table 2: Social Studies Content Standards

Content Standards	Grade 3				Grade 4					Grade 5			
	MC Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	CR Pts* (non-Task)	Task Pts*	Total Pts	%	MC Pts (non-Task)	Task Pts*	Total Pts	%
Geography	10	3	13	36	18	0	0	18	27	20	0	20	42
Civics	5	0	5	14	10	0	8	18	27	0	0	0	0
Economics	10	0	10	28	7	4	0	11	17	0	0	0	0
History	7	1	8	22	15	4	0	19	29	20	8	28	58
Total	32	4	36	100	50	8	8	66	100	40	8	48	100
Content Standards	Grade 6				Grade 7				Grade 8				
	MC Pts (non-Task)	Task Pts*	Total Pts	%	MC Pts	Task Pts*	Total Pts	%	MC Pts (non-Task)	CR Pts* (non-Task)	Task Pts*	Total Pts	%
Geography	11	0	11	23	6	0	6	13	15	0	4	19	25
Civics	0	0	0	0	20	8	28	58	12	4	0	16	21
Economics	0	0	0	0	0	0	0	0	9	0	0	9	12
History	29	8	37	77	14	0	14	29	24	4	4	32	42
Total	40	8	48	100	40	8	48	100	60	8	8	76	100

MC = Multiple-choice item. CR = Constructed-response item.

*Note: The content standards to which the non-Task CR items and Task items align may vary from year to year.

PERFORMANCE STANDARDS

Performance standards have three components:

- Achievement-level definitions
- Cut scores
- Achievement Level Descriptors (ALDs)

Achievement-Level Definitions

Achievement-level definitions briefly describe the expectations for student performance at each of Louisiana's five achievement levels, described 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.

Table 3 on page 5 lists the range of scaled scores for each achievement level by grade.

Cut Scores

Cut scores are the lowest possible score in the scaled score range for each achievement level. For example, the cut score for the *Approaching Basic* achievement level for a student taking the grade 3 Science test is 249 (see Table 3). This is the cutoff point; any lower scaled score would place the student at the *Unsatisfactory* achievement level. (For an explanation of the uses and limitations of scaled scores, see pages 6–7.)

Achievement Level Descriptors

Achievement Level Descriptors (ALDs) are grade- and content-area specific descriptions of the knowledge, skills, and abilities exhibited by a typical student at each achievement level. The exception is that for the *Unsatisfactory* achievement level, the ALDs describe what skills the student needs to develop in order to score at a higher achievement level.

Table 3: Scaled-Score Ranges

	iLEAP GRADE 3		LEAP GRADE 4	
Achievement Level	Science Scaled-Score Range	Social Studies Scaled-Score Range	Science Scaled-Score Range	Social Studies Scaled-Score Range
Advanced	382–500	396–500	405–500	399–500
Mastery	342–381	341–395	360–404	353–398
Basic	292–341	287–340	306–359	301–352
Approaching Basic	249–291	255–286	263–305	272–300
Unsatisfactory	100–248	100–254	100–262	100–271
	iLEAP GRADE 5		iLEAP GRADE 6	
Advanced	378–500	365–500	380–500	364–500
Mastery	341–377	339–364	343–379	338–363
Basic	292–340	289–338	295–342	292–337
Approaching Basic	248–291	257–288	251–294	261–291
Unsatisfactory	100–247	100–256	100–250	100–260
	iLEAP GRADE 7		LEAP GRADE 8	
Advanced	388–500	372–500	400–500	404–500
Mastery	348–387	339–371	345–399	350–403
Basic	302–347	293–338	305–344	297–349
Approaching Basic	259–301	262–292	267–304	263–296
Unsatisfactory	100–258	100–261	100–266	100–262

SCORING

LEAP and *i*LEAP Science and Social Studies tests include multiple-choice items, constructed-response items (including short answer and extended response), and a task. Different criteria are used to score these different types of items.

Scoring of Multiple-Choice Items (Both Content Areas)

All multiple-choice items are scored correct or incorrect. Correct answers receive a score of 1; incorrect answers receive a score of 0.

Scoring Criteria for Constructed-Response Items (Both Content Areas)

Constructed-response items are scored on a 2- or 4-point scale, depending on the grade, content area, and type of constructed-response item.

For more details about the rubrics for specific grades and content areas, see the [assessment guidance](#) documents, [sample items](#), and [released test items](#) on the LDOE website.

Scoring of the Science Task

The science task consists of two (for grade 3) or four (for grades 4, 5, 6, 7, and 8) multiple-choice items and one extended-response item. The items are based on one or two stimulus materials, such as excerpts from a text-based source, charts, maps, or descriptions of scientific investigations.

The extended-response portion of the task requires students to provide a written response that will be scored using a 0–2 point rubric for grade 3 or a 0–4 point rubric for grades 4, 5, 6, 7, and 8. The task asks students to incorporate science content knowledge with evidence from the stimulus materials.

Scoring of the Social Studies Task

The Social Studies task consists of two (for grade 3) or four (for grades 4, 5, 6, 7, and 8) multiple-choice items and one extended-response item. The items are based on two to four authentic stimulus materials, such as excerpts from a text-based source, a map or illustration, a table or graph, or a historical photograph. These materials are referred to as “documents” in the task. The extended-response portion of the task requires students to provide a written response that will be scored using a 0–2 point rubric for grade 3 or a 0–4 point rubric for grades 4, 5, 6, 7, and 8. The task asks students to synthesize social studies content knowledge with evidence from the documents provided.

READING AND INTERPRETING RESULTS

This section explains some key terms used in the LEAP and *i*LEAP test reports. Please refer to this section as needed when reading other sections of this guide or when using LEAP and *i*LEAP test reports to understand student performance or the performance of a school, a district, or the state.

Scaled Score

Definition

Scaled scores are derived from **raw scores** (the sum of points for all items on the test or all items in a content standard) using methods that take into account differences in difficulty among forms within a content area or grade. These methods are described in the [LEAP](#) and [iLEAP Technical Summary Reports](#). For LEAP and *i*LEAP, scaled scores have a range of 100 to 500 for all grades and content areas. Refer to Table 3 on page 5 to see the scaled-score ranges for all achievement levels across grades and content areas.

Uses

Scaled scores are used to represent student performance on LEAP and *i*LEAP tests. Scaled scores for the same test can be compared regardless of when students were tested or which form was taken. For example, the scaled-score range for the *Basic* achievement level on the LEAP grade 4 Social Studies test is 301–352; the range does not change from year to year. A student who receives a scaled score within this range on the LEAP grade 4 Social Studies test in any year will score at the *Basic* achievement level. A higher scaled score represents more knowledge, skill, and ability than a lower scaled score. Scaled scores are also averaged together to represent the overall performance of a school, a district, and the state.

Limitations

Scaled scores are only comparable within a grade and content area across years. They cannot be compared across grades or content areas. For example, a scaled score of 355 on the grade 4 Science test represents an achievement level of *Basic*, whereas a scaled score of 355 on the grade 4 Social Studies test represents an achievement level of *Mastery*.

Average Scaled Score

Definition

The average scaled score is obtained by adding the scaled scores of all the students in a school, district, or state and dividing the sum by the number of students tested.

Uses

Average scaled scores are provided in school and district reports. The average scaled score provides an overall summary of group performance. Higher average scaled scores represent better performance. The average scaled score is comparable regardless of when students were tested or which test form was taken. Average scaled scores are therefore used to compare one group's (school or district) performance to another's and to monitor the performance of a school or district over time. Average scaled scores can also help facilitate a comparison of students across subgroups, such as ethnicity or education classification.

Limitations

Like scaled scores, average scaled scores are only comparable within a grade and content area across years. They are not comparable across grades or content areas.

Number and Percent of Students by Achievement Level

Definition

The number of students in an achievement level is the number of students whose scaled score falls in the range associated with that level. The lowest score in the range is the cut score. The highest score in the range is one less than the cut score for the next higher level.

Uses

The number and percent in achievement levels are reported at the school, district, and state levels. Since this information is based on scaled scores, it is comparable across groups for the same test regardless of when the test was taken or which form was taken. It may be used to monitor group performance over time.

Percent Correct by Content Standard

Definition

The percent correct for each content standard is a form of raw score that is obtained by dividing the total points earned for a content standard by the total points possible for that content standard.

Uses

The percent correct by content standard is used to show the proportion of the subtest the student answered correctly. Within the same content standard, this score can be compared among students or to the school, district, or state average. This information shows the student's relative standing compared to the reference group.

Limitations

Like the raw score, the percent correct cannot be compared between content standards within a content area or across content areas because the average item difficulty might differ. It also cannot be compared across years on the same test or content standards. A student who got 67 percent correct (12 items out of 18) on the grade 4 science content standard Physical Science did not necessarily do worse in that content standard than in Earth and Space Science with 70 percent (7 items out of 10) of the items correct. Overall, the items may have been more difficult in one content standard than the other.

Average Percent Correct by Content Standard

Definition

The average percent correct for a content standard is computed by first obtaining, for each student in the group, the total points earned on the content standard (the raw score). The total for each student tested is summed over all students in the group to obtain the total for the group. The total for the group is divided by the product of the number of students in the group and the possible points for the content standard, and the result is multiplied by 100.

Uses

The average percent correct is reported at the school, district, and state levels on summary-level reports. It is used to show group performance at a finer level of content detail than is provided by the scaled score or other performance indices based on scaled scores, such as the average scaled score.

Limitations

Average percent correct, like student percent correct, cannot be compared between content standards within a content area or across content areas because the number of items or the difficulty of items may differ. For example, an average percent correct of 94 percent in one social studies content standard does not necessarily represent higher achievement than an average percent correct of 91 percent in a different social studies content standard. Average percent correct is also not comparable across years on the same test or content standards.

STUDENT-LEVEL REPORTS

Student-level reports provide individual student test scores to students, schools, and districts. Student-level reports contain preliminary data, which does not include straggler documents or preliminary merges. Straggler documents are those received by the testing vendor too late to be included in student-level reporting. District Test Coordinators receive a score memo for these students. Requests to merge responses for portions of a single subject on two documents for a student are not processed until after student-level reports are available.

The following student-level reports are illustrated and described in this *Interpretive Guide*:

Reports for the School

Student Report

School Roster Report

Reports for the District

School Roster Report

The Student Label is described but not shown.

Each sample report includes circled numbers that are referenced in the interpretive information provided with the sample. Online student-level reports will be available to districts and schools via the LEAPweb Reporting System (<https://www.leapweb.org>). LEAPweb is also available through the LDOE website (<http://www.louisianabelieves.com>) and through eDIRECT (<https://la.drcedirect.com>). Printed student labels will be delivered to the districts in early June. Free Adobe Reader software may be downloaded from the LEAPweb Reporting System logon page to view and print all online reports.

Sample Student Report A



Name: BRIAN SMITH
 State ID: XXXXX9999
 Grade: 4

District: 000 Pelican Parish
 School: 002 Egret School

Spring YYYY Student Report

6

Science

Scaled Score: 325 ①

Achievement Level: Basic

Content Standard ②	Score Points ③	Student Percent Correct ④	State Percent Correct
Science as Inquiry	5 of 8	63	68
Physical Science	12 of 18	67	55
Life Science	6 of 10	60	68
Earth and Space Science	7 of 10	70	67
Science and the Environment	7 of 10	70	70

BRIAN scored at the *Basic* level in **Science**. Students scoring at this level generally exhibit the ability to

- perform simple scientific tasks when given clear, sequential directions;
- recognize questions that are appropriate to investigation;
- organize and present data in a graphic form and draw conclusions based on data;
- demonstrate basic knowledge/understanding about properties of objects, motion of objects, and forms of energy as they apply to their everyday life;
- demonstrate basic knowledge/understanding about characteristics, life cycles, and environments of organisms and relationships;
- demonstrate knowledge/understanding about basic concepts of properties of Earth materials, weather, and objects in the night sky; and
- demonstrate knowledge/understanding about basic components of an ecosystem and recognize how change impacts the system.

⑤ Your child's score on this test provides an estimate of what he or she knows and is able to do. If your child were to take the test again with no change in knowledge or preparation, he or she would be likely to score in the range of **309–341**.

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Social Studies

Scaled Score: 277 ①

Achievement Level: Approaching Basic

Content Standard ②	Score Points ③	Student Percent Correct ④	State Percent Correct
Geography	10 of 18	56	66
Civics	6 of 18	33	51
Economics	5 of 11	45	65
History	6 of 19	32	61

BRIAN scored at the *Approaching Basic* level in **Social Studies**. Students scoring at this level generally exhibit the ability to do the following:

- **Geography:** identify major geographic features on maps and globes; select words that define geographic vocabulary; explain the connection between people, places, man and the environment; identify geographical data; identify the world in spatial terms; and identify processes that shape Earth.
- **Civics:** recognize that the United States has a government that is divided into branches; and state that citizens have rights and responsibilities.
- **Economics:** identify some fundamental economic concepts and terms.
- **History:** recognize a few of the most important people, events, and documents in American history; demonstrate a limited understanding of the concepts of historical perspective and time; and identify some important scientific and technological advancements.

⑤ Your child's score on this test provides an estimate of what he or she knows and is able to do. If your child were to take the test again with no change in knowledge or preparation, he or she would be likely to score in the range of **261–293**.

⑦ This report informs parents/legal guardians of their child's test performance.

⑦ Test results are reported according to five achievement levels: *Advanced*, *Mastery*, *Basic*, *Approaching Basic*, and *Unsatisfactory*. Please contact the school counselor and refer to the *Interpretive Guide* on the LDOE website at <http://www.louisianabelieves.com/resources/library/browse-by-category> for more information.

Sample Student Report B



Name: **ABBY ARNESS**
 State ID: XXXXX9999
 Grade: 6

District: 000 Pelican Parish
 School: 002 Egret School

Spring YYYY Student Report

Science

Scaled Score: **311**

Achievement Level: **Basic**

Content Standard ²	Score Points	Student Percent Correct ⁴	State Percent Correct
Science as Inquiry	11 of 20	55	62
Physical Science	15 of 28	54	53
Life Science [#]			
Earth and Space Science [#]			
Science and the Environment	5 of 8	63	52

ABBY scored at the *Basic* level in **Science**. Students scoring at this level generally exhibit the ability to

- describe investigations by generating testable questions and identifying variables;
- select appropriate tools and resources to collect and analyze data to evaluate explanations and models and to make inferences;
- communicate experimental procedures, data, and analyses;
- recognize that science is improved by mathematics, technology, and the work of others and is continually tested, revised, and advanced;
- identify faulty reasoning and statements that misinterpret or are not supported by evidence;
- determine mass and volume and compare the masses of the same volumes of different substances;
- identify the average atomic masses of given elements, using the periodic table;
- identify physical and chemical properties and changes and describe the temperatures at which changes of the phase of water occurs;
- identify substances in common materials and chemical reactions;
- compare and construct graphs of motion and identify and describe forces acting on objects;
- describe different forms of energy, transformations, and interactions with matter and identify risks associated with energy use; and
- identify and categorize energy types and identify and describe ways people can conserve and sustain resources.

Social Studies

Scaled Score: **298**

Achievement Level: **Basic**

Content Standard ²	Score Points	Student Percent Correct ⁴	State Percent Correct
Geography	6 of 11	55	57
Civics [#]			
Economics [#]			
History	17 of 37	46	54

ABBY scored at the *Basic* level in **Social Studies**. Students scoring at this level generally exhibit the ability to

- use geographical data and tools, including latitude and longitude, to describe real-world scenarios;
- describe how the world's physical environment affected human settlement and how political boundaries were established and maintained;
- describe the cultural impact of migration on world history;
- describe the impact of the natural environment on humans in ancient societies;
- identify aspects of Greek and Roman governments that influenced the U.S. government;
- describe historical examples of fundamental economic concepts and how they motivated human interaction;
- relate information on timelines to historical events and describe information available from multiple historical source documents;
- describe causes and effects, characteristics, and motivations of historical events as presented in narrative form;
- describe the origins, spread, and effects of major world religions and their empires on European, Asian, and African civilizations; and
- describe human continuity and change from the time of river valley civilizations through the early Middle Ages.

This report informs parents/legal guardians of their child's test performance.

Test results are reported according to five achievement levels: *Advanced*, *Mastery*, *Basic*, *Approaching Basic*, and *Unsatisfactory*. Please contact the school counselor and refer to the *Interpretive Guide* on the LDOE website at <http://www.louisianabelieves.com/resources/library/browse-by-category> for more information.

[#] Not assessed or too few items to provide valid data

Sample Student Report: Explanation of Results and Terms

Online Student Reports for each school are posted by grade and may be downloaded and printed from the LEAPweb Reporting System by districts and by schools. Schools should print two copies of the report for each student. One copy should be sent home with the student and the second copy filed in the student's cumulative folder.

The Student Report summarizes the student's performance in science and social studies. Two sample student reports are provided in this guide, one for LEAP and one for *i*LEAP:

- Sample Student Report A—grade 4 LEAP Science/Social Studies
- Sample Student Report B—grade 6 *i*LEAP Science/Social Studies

Both sample reports present realistic data for fictitious students.

Student identification information is provided at the top of the report, including the school and district where the student took the test. For security purposes, only the last four digits of the student's state identification number are shown.

1 SCALED SCORE AND ACHIEVEMENT LEVEL

Results are reported according to five achievement levels: *Advanced*, *Mastery*, *Basic*, *Approaching Basic*, and *Unsatisfactory*. Scaled scores range from 100 to 500 (refer to Table 3 on page 5 of this guide to see the ranges of scaled scores for each achievement level by grade and content area). The student's scaled score and achievement level for each content area are reported at the top of each table on the Student Report.

On sample report A on page 10, Brian's scaled score for the Science test was 325, which corresponds to the *Basic* achievement level, and his scaled score on the Social Studies test was 277, which corresponds to the *Approaching Basic* achievement level.

If the student's test was voided, the achievement level is reported as *Unsatisfactory* and an asterisk (*) next to the scaled score indicates that the score was converted to the lowest scaled score (100) due to a test security violation. If the student did not attempt the test, the Scaled Score and the Achievement Level at the top of the table are both left blank.

2 CONTENT STANDARD

The first column in each table lists the content standards tested. If a content standard is not assessed or contained too few items to provide valid data, it is indicated on the report by a # symbol and no scores are reported for that content standard. In sample report B on page 11, for instance, no scores are reported for the Life Science or Earth and Space Science content standards on the Science test because these standards are not assessed in grade 6. Similarly, the Civics and Economics standards on the Social Studies test are not assessed in grade 6, so no scores are reported.

3 SCORE POINTS

The second column in each table lists the total number of points possible for each content standard and how many points the student received for each. In sample report A, Brian received 5 of 8 total points possible for science standard Science as Inquiry, and he received 12 of 18 total points possible for Physical Science. In social studies, he received 10 of 18 total points possible for Geography and 6 of 18 total points possible for Civics.

If a student's test was voided or if no attempt was made, this column shows a blank space for the student's score points.

The scores in this column are raw scores and therefore must be interpreted with caution because the items do not necessarily have the same level of difficulty across content standards. For a more complete picture of the student's performance, it is helpful to compare the student percent correct to the state percent correct, as discussed below.

4 STUDENT AND STATE PERCENT CORRECT

The third column in each table shows the student's percent correct for each content standard. In sample report A, Brian's 5 points for science content standard Science as Inquiry correspond to 63 percent of possible points correct. In social studies, his 10 points for Geography correspond to 56 percent of possible points correct.

The fourth column shows the percent correct at the state level for each content standard. This allows the reader to compare how an individual student performed as measured against state performance for the same content standard. For example, Brian's score of 67 percent correct for science content standard Physical Science is above the state average of 55 percent. In sample report B, Abby Arness's score of 55 percent correct for social studies content standard Geography is below the state average of 57 percent.

Sample Student Report: Explanation of Results and Terms (continued)

In sample report B, Abby received 55 percent correct (11 of 20 points) in Science as Inquiry, 54 percent correct (15 of 28 points) in Physical Science, and 63 percent correct (5 of 8 points) in Science and the Environment. When Abby's scores for each content standard are compared to the state averages in those standards, some relative strengths and weaknesses begin to emerge. A comparison of her score of 63 percent correct in Science and the Environment to the state average of 52 percent, for instance, indicates Abby's strength in that content standard. Her score of 55 percent correct in Science as Inquiry is below the state average of 62 percent. Her score of 54 percent correct in Physical Science is about the same as the state average of 53 percent.

Please note that it may not be meaningful to compare a student's score on one content standard to the student's score in another content standard. In sample report A, Brian's scores of 70 percent correct in both Earth and Space Science and Science and the Environment seem to suggest that he did equally well in both content standards. However, a comparison of his percent correct to the state percent correct in these content standards shows that he scored 3 percent higher than the state average of 67 percent in Earth and Space Science and the same as the state average of 70 percent in Science and the Environment. Even though Brian received the same percent correct for both content standards, comparing his percentages to the state averages indicates that his performance was slightly stronger in Earth and Space Science compared to his performance in Science and the Environment.

Furthermore, although comparing student percent correct to state averages is useful, it is important to exercise caution in doing so. Major decisions about a student's instruction should not be made based on small differences between student scores and state averages. It is also important to remember that the percentages are based on raw scores, in which the difficulty between content standards is not statistically adjusted to an equivalent scale for valid comparison.

5 STANDARD ERROR OF MEASUREMENT (LEAP)

This paragraph on student reports for LEAP provides an estimate of the range in scaled scores the student would likely receive if he or she were to take the same test again with no change in knowledge or preparation. The statement is not included if the test has been voided. The statement is not included on student reports for *i*LEAP.

6 ACHIEVEMENT LEVEL DESCRIPTORS

To the right of each table are the Achievement Level Descriptors. Achievement Level Descriptors are a summary of the content-area skills for the student's achievement level. If the student scored *Unsatisfactory* or if the student's test was voided, the skills that need to be developed in order to score at the *Approaching Basic* achievement level are listed. If the student did not attempt the test, a summary of skills is not included.

7 FOOTNOTE

The area at the bottom of the report lists the purpose of the report and the five achievement levels. The footnote also provides guidance as to where additional information can be obtained—from the school counselor and from this document.

ADDITIONAL REPORTS

In addition to the Student Report, schools receive one Student Label (not shown) for each student who tested. The label contains student identification information and the student's achievement level for each content area, followed by the scaled score and the testing date. If a student did not attempt a test, no score is reported. The label is designed to be affixed to the student's cumulative folder.

Sample School Roster Report

MM/DD/YYYY

Page 1



Spring YYYY Criterion-Referenced Test School Roster Report Science and Social Studies—Grade 4

District: 000 Pelican Parish

School: 002 Egret School

Achievement Level Scaled Score Ranges					
	1	2	3	4	5
Science	100–262	263–305	306–359	360–404	405–500
Social Studies	100–271	272–300	301–352	353–398	399–500

2 Regular Education Students		3 Science							Social Studies								
		Achievement level	Scaled score	Content Standard					Achievement level	Scaled score	Content Standard						
				Science as Inquiry	Physical Science	Life Science	Earth and Space Science	Science and the Environment			Geography	Civics	Economics	History			
Name	State ID	Percent Correct							Percent Correct								
ANDREPONT, ROBERT	XXXXX9999		R														
AVERETT, DEVAN	XXXXX9999	Approaching Basic	287	50	44	50	50	60	Basic	305	78	44	18	63			
BELLARD, MATTIE	XXXXX9999	Basic	334	75	50	80	80	80	Basic	340	61	67	82	79			
FELLARD, JACK	XXXXX9999	Basic	349	63	72	80	60	100	Advanced	444	89	83	91	100			
GENOT, BRUCE	XXXXX9999	Approaching Basic	303	63	67	50	40	60	Basic	311	67	61	73	37			
LANCHER, DANIELE	XXXXX9999	Mastery	376	100	72	90	60	100	Basic	351	72	78	91	68			
MOAST, SHONDRIK	XXXXX9999	Basic	329	75	56	70	50	100	Basic	305	67	44	64	47			
NOUREAUX, MICHAEL	XXXXX9999	Advanced	407	100	72	100	80	100	Advanced	444	94	72	100	100			
PRIGGS, KRISTINA	XXXXX9999	Approaching Basic	287	50	44	70	50	40	Basic	314	67	44	55	68			
RALAIS, MAREY	XXXXX9999	Approaching Basic	283	50	33	40	60	70	Approaching Basic	293	61	33	55	47			
ROWNY, HESTER	XXXXX9999	Mastery	395	75	94	80	80	90	Mastery	393	94	72	73	100			
SCORMER, MARY	XXXXX9999	Mastery	R361	88	72	90	80	30	Basic	R343	78	50	82	84			
SMITH, BRIAN	XXXXX9999	Basic	325	63	67	60	70	70	Approaching Basic	277	56	33	45	32			
TARBY, MINDY	XXXXX9999	Unsatisfactory	100 *						Unsatisfactory	252	28	33	27	37			
TRENTER, DARIN	XXXXX9999	Unsatisfactory	181	0	28	20	30	30	Basic	333	78	67	82	53			

School Average (Regular Ed): 4 301 56 62 55 33 51 303 62 67 62 60

* Score converted to lowest scaled score due to test security violation
R Indicates that this student is a retester for this subject

Sample School Roster Report: Explanation of Results and Terms

The School Roster Report is posted in PDF format and may be downloaded and printed from the LEAPweb Reporting System by districts and by schools. The roster report includes a table for science and social studies. The report lists regular education students and special education students separately and presents a summary of their performance. For most schools, the report has multiple pages. The sample report provided shows the first page of science and social studies results for fictitious regular education students in grade 4.

The School Roster Report is a useful tool for identifying regular or special education students who might be performing below the school average in specific content areas, or in specific content standards within those content areas. It can also be helpful in determining if there are school-wide strengths or weaknesses in a particular content standard or content area.

1 ACHIEVEMENT LEVEL SCALED-SCORE RANGES

In this box, the scaled-score ranges associated with each achievement level are reported for each content area. A grade 4 student receiving a scaled score of 283 on the Science test, for example, would achieve *Approaching Basic*, and one receiving a scaled score of 393 on the Social Studies test would achieve *Mastery*.

2 ROSTER OF STUDENTS TESTED

In the far left column of the sample report, a list of students who tested in the school is printed alphabetically by last name and first name. The second column from the left lists the student's state identification number; for security purposes, only the last four digits are shown. The sample report shows only one page of a multi-page report listing regular education students in grade 4.

3 PERFORMANCE DATA

In the sample report, each student's performance on the Science test is reported on the left half of the table; performance on the Social Studies test is reported on the right half of the table. Reading across the row, the student's achievement level and scaled score are presented, followed by the percent correct in each content standard.

Brian Smith received a scaled score of 325 on the Science test, which corresponds to the *Basic* achievement level. He received 63 percent of possible points for Science as Inquiry, 67 percent for Physical Science, 60 percent for Life Science, 70 percent for Earth and Space Science, and 70 percent for Science and the Environment. On the Social Studies test he

received a scaled score of 277, which corresponds to the *Approaching Basic* achievement level. His percent correct for the four content standards was 56 percent, 33 percent, 45 percent, and 32 percent respectively.

The roster facilitates a comparison among students in the same class or school for the same content standard. For example, compared to Jack Fel-lard, Brian scored lower on Physical Science, Life Science, and Science and the Environment, the same on Science as Inquiry, and higher on Earth and Space Science.

The asterisk (*) next to Mindy Tarby's science scaled score indicates that her score was converted to the lowest scaled score (100) due to a test security violation.

The letter *R* in the Scaled score column indicates that students Robert Andrepont and Mary Scormer are retesters in both science and social studies.

If a student did not take a test, the Achievement level, Scaled score, and all Percent Correct fields would be blank. Retester Robert Andrepont did not attempt either test; therefore, he received no scaled score for the Science test or the Social Studies test, and across the row the Achievement level and all Percent Correct fields are blank.

4 SCHOOL AVERAGE

At the bottom of the table, school averages by education classification are presented for scaled scores and percents correct in each content area and in each content standard.

In addition to the comparison between students, the school averages help to assess a student's relative standing within the school or class. On the sample report, Darin Trenter's scaled score of 333 on the Social Studies test is higher than the average scaled score of 303 for the school's regular education students. His score of 82 percent correct for Economics is higher than the school average of 62 percent on that test session, indicating that Darin's skills in economics are above the average for grade 4 regular education students in his school. His score of 67 percent correct for Civics, however, is the same as the school average of 67 percent correct. It is important to remember that percent correct is a raw score that, unlike scaled scores, has not been statistically adjusted to an equivalent scale for valid comparisons. Therefore, percent correct is not directly comparable between content standards within a content area or across content areas.

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Interpretive Guide

