This guide includes:

UPDATES INCLUDED 8/22/17

- New Session Time Limits
- Paper-based Test Schedule Updates
- New Resources and Links

PURPOSE

This document is designed to assist Louisiana educators in understanding the LEAP 2025 mathematics assessment for grade 3, which is administered each spring.

Introduction

All students in grades 3–HS will take the LEAP 2025 mathematics assessments, which provide

- questions that have been reviewed by Louisiana educators to ensure their alignment to the Louisiana Student Standards and appropriateness for Louisiana students;
- measurement of the full range of student performance, including the performance of high- and low-performing students;
- information for educators and parents about student readiness in mathematics and whether students are "on track" for college and careers; and
- comparison of Louisiana student performance with the performance of students in other states.

ASSESSMENT DESIGN

Each item on the LEAP 2025 mathematics assessment is referred to as a task and is identified by one of three types: Type I, Type II, or Type III. As shown in the following table, each of the three task types is aligned to one of four reporting categories: Major Content, Additional & Supporting Content, Expressing Mathematical Reasoning, or Modeling & Application. Each task type is designed to align with at least one of the Louisiana Student Standards for Mathematical Practice (MP), found on pages 6-8 in the K-12 Louisiana Student Standards for Mathematics.

Task Type	Description	Reporting Category	Mathematical Practice (MP)
Type I	conceptual understanding, fluency, and application	**Major Content:** solve problems involving the major content for grade 3 **Additional & Supporting Content:** solve problems involving the additional and supporting content for grade 3	can involve any or all practices
Type II	written arguments/justifications, critique of reasoning, or precision in mathematical statements	**Expressing Mathematical Reasoning:** express mathematical reasoning by constructing mathematical arguments and critiques	primarily MP.3 and MP.6, but may also involve any of the other practices
Type III	modeling/application in a real-world context or scenario	**Modeling & Application:** solve real-world problems engaging particularly in the modeling practice	primarily MP.4, but may also involve any of the other practices

These reporting categories will provide parents and educators valuable information about

- overall student performance, including readiness to continue further studies in mathematics;
- student performance broken down by mathematics subcategories, which may help identify when students need additional support or more challenging work; and
- how well schools and districts are helping students achieve higher expectations.

The LEAP 2025 mathematics assessment in grade 3 contains a total of 43 tasks for 62 points. The table below shows the breakdown of the number of tasks and point values by Reporting Category and Session.

Reporting Category	Session 1		Session 2		Session 3		TOTAL	
	Tasks	Points	Tasks	Points	Tasks	Points	Tasks	Points
Major Content	9-10	10	8-10	10	10	10	27-30	30
Additional & Supporting Content	3-4	4	2-4	4	2	2	7-10	10
Expressing Mathematical Reasoning	1	4	1	3	1	3	3	10
Modeling & Application	1	3	1	3	1	6	3	12
TOTAL Operational	15	21	14	20	14	21	**43**	**62**
Total Embedded Field-Test	2-3	N/A	1	N/A	2-3	N/A	5-7	N/A
Session Time	75 minutes		85 minutes		75 minutes		235 minutes	

Note: The test will contain additional field-test tasks. The field-test tasks do **not** count towards a student's final score on the test; they provide information that will be used to help develop future test forms. Session 2 test time has been increased to allow for an embedded field test constructed-response task.

The following table includes information on the total tasks, total points, and percentage of assessment points by task-type point-values.

Task Types	Point-Values	Total Tasks	Total Points		Percentage of Assessment Points	
Type I	1-point tasks	34	34	40	55%	65%
	2-point tasks	3	6		9.5%	
Type II	3-point tasks	2	6	10	9.5%	16%
	4-point tasks	1	4		6%	
Type III	3-point tasks	2	6	12	9.5%	19%
	6-point tasks	1	6		9.5%	
TOTAL		43	62		100%	

Achievement-Level Definitions

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

- **Advanced:** Students performing at this level have **exceeded** college and career readiness expectations, and are well prepared for the next level of studies in this content area.
- **Mastery:** Students performing at this level have **met** college and career readiness expectations, and are prepared for the next level of studies in this content area.
- **Basic:** Students performing at this level have **nearly met** college and career readiness expectations, and may need additional support to be fully prepared for the next level of studies in this content area.
- **Approaching Basic:** Students performing at this level have **partially met** college and career readiness expectations, and will need much support to be prepared for the next level of studies in this content area.
- **Unsatisfactory:** Students performing at this level have **not yet met** the college and career readiness expectations, and will need extensive support to be prepared for the next level of studies in this content area.

ASSESSABLE CONTENT

The tasks on the LEAP 2025 mathematics test are aligned directly to the Louisiana Student Standards for Mathematics (LSSM) for all reporting categories. Type I tasks, designed to assess conceptual understanding, fluency, and application, are aligned to the major, additional, and supporting content for grade 3. Some Type I tasks may be further aligned to LEAP 2025 evidence statements for the Major Content and Additional & Supporting reporting categories and allow for the testing of more than one of the student standards on a single task. Type II tasks are designed to assess student reasoning ability of selected major content for grades 2 or 3 in applied contexts. Type III tasks are designed to assess student modeling ability of selected content for grades 2 or 3 in applied contexts. Type II and III tasks are further aligned to LEAP 2025 evidence statements for the Expressing Mathematical Reasoning and Modeling & Application reporting categories. All tasks are reviewed and vetted by teacher committees to verify direct and full alignment to the LSSM. LEAP 2025 evidence statements for grade 3 are labeled as "LEAP.I.3.#" for Type I tasks, "LEAP.II.3.#" for Type II tasks, and "LEAP.III.3.#" for Type III tasks. See the table in Appendix A for a listing of assessable content of the LSSM and LEAP 2025 evidence statements.

TEST ADMINISTRATION POLICIES

Administration Schedule

The LEAP 2025 ELA, mathematics, and social studies assessments, and the science field test will be available to districts as paper-based tests (PBT) or computer-based tests (CBT) for grade 3. School and district test coordinators will provide information on the delivery method selected by their district. The table below lists the PBT administration schedule for the grade 3 LEAP 2025 tests, including the science field test.

Paper-Based Test Administration Schedule: Grade 3

Testing Window: April 30, 2018 – May 4, 2018			Session Time (minutes)
Day 1 April 30	English Language Arts Session 1:	Literary Analysis Task **OR** Research Simulation Task	75
	Mathematics Session 1		75
Day 2 May 1	English Language Arts Session 2:	Research Simulation Task **OR** Narrative Writing Task + 1 passage set	75
	Mathematics Session 2		85
Day 3 May 2	English Language Arts Session 3: Reading Literary and Informational Texts		60
	Mathematics Session 3		75
Day 4 May 3	Social Studies Session 1: Item Sets		75
	Social Studies Session 2: Task Set		45
	Social Studies Session 3: Item Sets and Discrete Items		75
Day 5 May 4	Science Field Test Session 1: Discrete Items and Item Sets		*TBD*
	Science Field Test Session 2: Discrete Items and Task Set		*TBD*

The **computer-based testing window opens April 9, 2018 and runs through May 4, 2018**. If your school is participating in computer-based testing, the school or district test coordinator will communicate the testing schedule. For more information about the scheduling of the CBT and online administration policies, refer to the CBT Guidance document, found in the LDOE assessment library.

All LEAP 2025 assessments, including the science field test, are **timed**. No additional time is permitted, except for students who have a documented extended time accommodation (e.g., an IEP).

Paper-Based Tests

Students taking the paper-based tests, except those using braille test materials, will enter all answers in their test booklets. There will be no separate answer documents. Each session of the mathematics test booklet will be sealed and session-indicator bars will appear on the outside margins of the pages. Instructions for how to manage the test booklets, including how to break the seals, will be outlined in the Test Administration Manual.

Multiple-choice tasks for grade 3 have three or four options. Students will shade the bubble of the **one** correct answer.

- (A) Option A
- (B) Option B
- (C) Option C
- (D) Option D

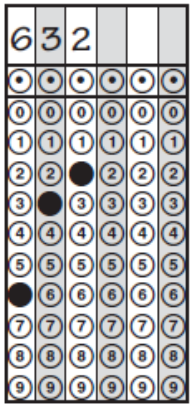
Multiple-select tasks for grade 3 have five or six options. Students will fill in the number of correct answers identified in the stem of the question. **The number of correct answers will vary from task to task.** The sample below asks for two correct answers.

- (A) Option A
- (B) Option B
- (C) Option C
- (D) Option D
- (E) Option E
- (F) Option F

Fill-in-the-blank tasks on paper-based tests have grids for students to write the answer. Each digit of a number (whole number) is written in the boxes at the top of the grid, starting with the first box on the left. Numbers are entered without commas. Students will then shade the bubble in the column that corresponds to the entry (digit) in the top row. Blank spaces within the answer are not allowed. Grade 3 students will not be required to enter responses with decimals, and should ignore the decimal row.

Fractional Answers

Type I tasks with potential fractional answers in PBT forms will be presented in multiple-choice or multiple-select formats. Students are expected to be able to correctly write and apply fractions in Type II and Type III constructed-response tasks.



Note: Should a student mistakenly start in a column other than column 1, the entry will be scored as correct under the following conditions:

- The entry is mathematically correct.
- There are no spaces within the answer.
- The answer fits within the remaining columns.

General Guidelines

When answering Type II and Type III tasks, students need to make sure to write their explanations and/or to show their work in the box provided for each question. Any information written outside the box or which has been scratched out will not be scored. The following information presents guidelines for marking/writing in the mathematics test booklet.

- Students may use yellow highlighters to highlight text in the test booklet.
- Students may write and do scratch work in the test booklet, but must avoid making stray marks in the answer circles on the multiple-choice and multiple-select tasks or in the fill-in-the-blank grids.
- Highlighting text in options and placing an X to the right of the text in an option are recommended ways for students to eliminate options. However, crossing out options could create scoring issues if students mark through answer circles.

Sample Paper-Based Test Items

This section includes three Type I tasks and one Type II task as they would appear on a PBT form. The answer key for each Type I task and scoring rubric for the Type II task are located in Appendix B.

Multiple-Choice Task

Maya's rectangular rug has a perimeter of 16 feet. The length of the rug is 5 feet. What is the width of the rug?

Ⓐ 3 feet
Ⓑ 9 feet
Ⓒ 11 feet
Ⓓ 13 feet

Multiple-Select Task

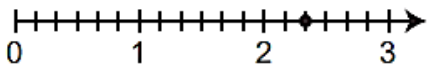
Which shapes are quadrilaterals?

Select the **three** correct answers.

Ⓐ triangle
Ⓑ rhombus
Ⓒ pentagon
Ⓓ hexagon
Ⓔ square
Ⓕ trapezoid

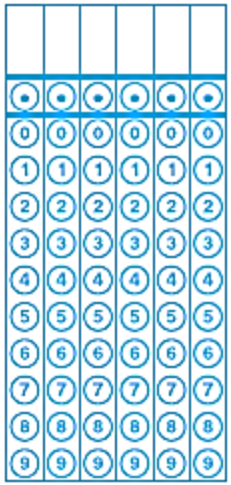
Fill-in-the-Blank Task

Look at the point on the number line.



The denominator for the point on the number line is 6. What is the numerator?

Enter your answer in the box.



Type II Constructed-Response Task

Use the information provided to answer Part A and Part B for question 1.

Cindy is finding the quotient for 27 ÷ 9. She says, "The answer is 18 because addition is the opposite of division and 9 + 18 = 27."

Part A

Identify the incorrect reasoning in Cindy's statement.

Enter your explanation in the box provided.

Part B

Show or explain how Cindy can correct her reasoning.

Find the quotient when 27 is divided by 9.

Enter your answer and your work or explanation in the box provided.

Computer-Based Tests

Students taking the computer-based tests will enter their answers into the online testing system. The way each answer is entered depends on the task type. For example, for a multiple-choice task, a student will select the circle next to the correct answer. For fill-in-the-blank and constructed-response tasks on online test forms, students will type in the number (whole number) or text in the box using the typing tools provided. Some response boxes limit the length of the response that can be typed and whether numbers and/or text can be typed. Computer-based tests allow for the use of technology-enhanced items (TEI) that use innovative, engaging ways to assess student understanding of material beyond the limitations of a traditional selected-response task. A TEI may require the student to sort shapes into categories by using a drag-and-drop tool, show a fraction or an area by selecting cells in a figure, or create angles by rotating rays.

The computer-based tests include the following online tools, which allow a student to select answer choices, "mark" tasks, eliminate answer options, take notes, enlarge the task, guide the reading of a task line by line, use a ruler, and use an equation builder for entering special characters. A help tool is also featured to assist students as they use the online system.

- Pointer tool 
- Highlighter tool 
- Cross-Off tool 
- Sticky Note tool 
- Magnifying tool 
- Line Guide 

- Measurement tools 
- Equation Builder 

- Help tool 

All students taking the computer-based tests should work through the Online Tools Training (available in INSIGHT or here using the Chrome browser) to practice using the online tools so they are well prepared to navigate the online testing system.

Sample Computer-Based Test Items

This section includes six Type I tasks and one Type III task as they would appear on a CBT form. The answer keys for each Type I task and scoring rubric for the Type III task are located in Appendix B. Look for these tasks in the OTT.

Multiple-Choice Task

Maya's rectangular rug has a perimeter of 16 feet.

What is the width of the rug?

(a) 3 feet

(b) 9 feet

(c) 11 feet

(d) 13 feet

Multiple-Select Task

Which shapes are quadrilaterals?

Select the **three** correct answers.

(a) triangle

(b) rhombus

(c) pentagon

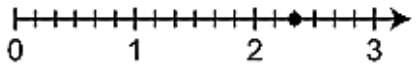
(d) hexagon

(e) square

(f) trapezoid

Fill-in-the-Blank Task

Look at the point on the number line.

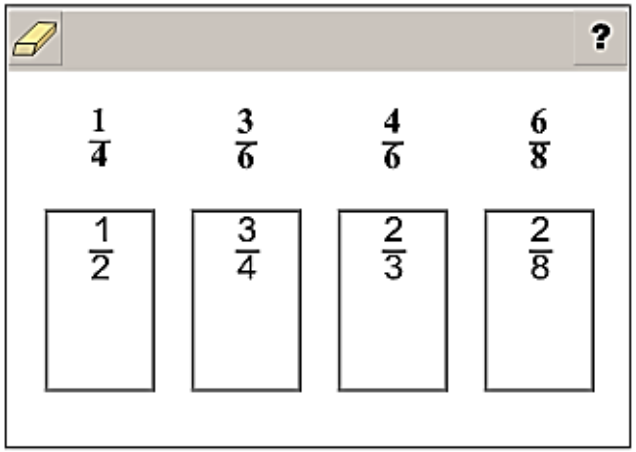


The denominator for the point on the number line is 6. What is the numerator?

Enter your answer in the box.

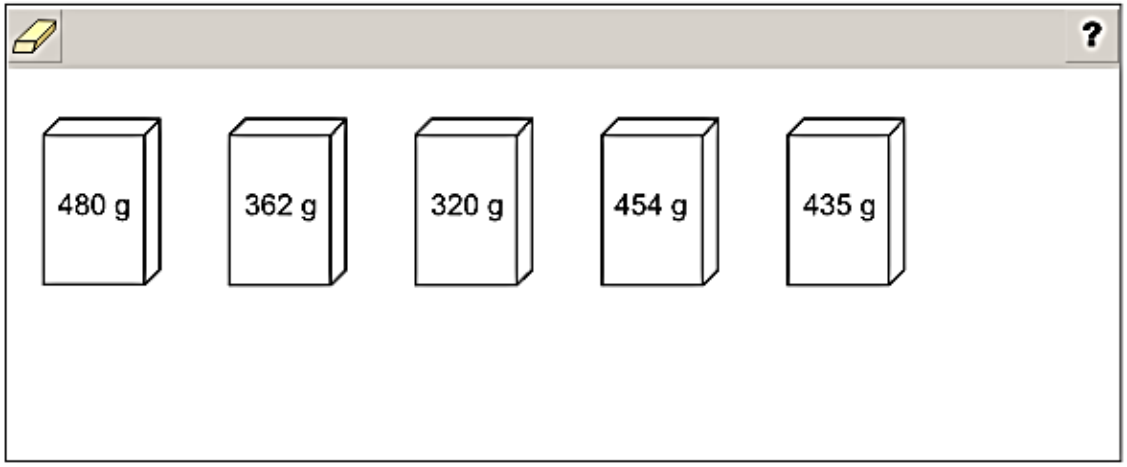
TEI: Drag-and-Drop Task

Drag and drop each fraction into the box labeled with an equivalent fraction.



TEI: Hot Spot Select Task

A scientist weighs food to list on packaging. A box of pasta weighs 400 grams when rounded to the nearest 100. Select **two** boxes that could be the weight of the box of pasta.



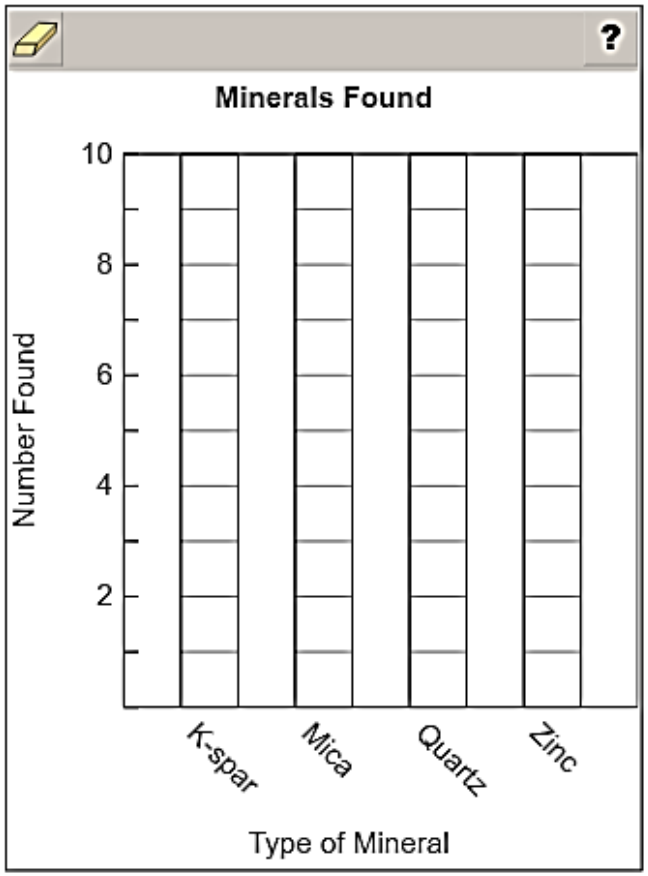
TEI: Bar Graph Task

Lars is finding different types of minerals. The table below shows how many minerals he finds.

Minerals Found

Type of Mineral	Number Found
K-spar	4
Mica	2
Quartz	8
Zinc	6

Make a bar graph showing the total number of each kind of mineral Lars finds.



Type III Constructed-Response Task

Part A

Nolan has 16 pennies in one jar and 94 pennies in another jar.

He uses some of the pennies to buy a pencil that costs 25 cents. What is the total number of pennies Nolan has left after he buys the pencil? Show your work.

Enter your answer and your work in the box provided.

EQ

Part B

Nolan saves some more pennies and now has 187 pennies all in one jar. He finds 10 more pennies in his pocket.

What is the total number of pennies Nolan has after he adds the 10 pennies from his pocket to the jar?

Enter your answer in the box.

Part C

The table shows the number of pennies Nolan saved each week for four weeks.

Pennies Saved Each Week

Week	Number of Pennies
Week 1	18
Week 2	40
Week 3	32
Week 4	25

What is the total number of pennies Nolan saved during the four weeks? Show your work.

Enter your answer and your work in the box provided.

EQ

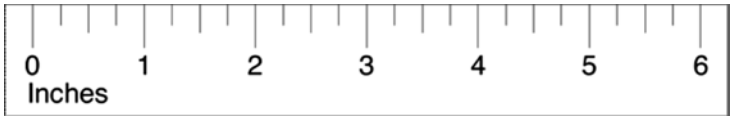
Permitted Testing Materials

The chart that follows summarizes the tools and resources for the grade 3 mathematics assessment.

Provided (by vendor or part of online system)	**Required** (provided by school)	**Other Allowable** (may be used, not required)
• $\frac{1}{4}$-inch ruler	• scratch paper (lined, graph, or un-lined)	• yellow highlighter

Provided tools are sent by the test vendor to the districts for the districts to distribute during testing; districts and students may **not** substitute their own tools for provided tools. Required tools must be supplied by the school and distributed to all testers during testing. Schools may provide or permit students to bring *allowable* tools. If schools permit students to bring their own *allowable* tools, tools must be given to the test administrator prior to testing to ensure that the tools are appropriate for testing (e.g., tools do not have any writing on them).

Grade 3 ruler provided on the LEAP 2025 PBT (not actual size):



Grade 3 ruler provided on the LEAP 2025 CBT (not actual size):

To ensure accurate measurement, the size of the computer-based ruler, along with the object being measured, varies depending on the computer monitor's resolution. To practice with the computer-based ruler, visit the Online Tools Training (available in INSIGHT or here using the Chrome browser).

Calculator Policy

Students are not allowed to use calculators during the administration of any mathematics test in grade 3.

For students with the approved accommodation, a hand-held four-function calculator is allowed for all sessions.

- Square root, percent, memory, and +/- keys are also allowed but not required.
- A hand-held calculator is necessary for both the PBT and CBT; **an online calculator will not be available**.
- If a student needs an adaptive calculator (e.g., large key, talking), the student may bring his or her own or the school may provide one, as long as it is specified in his or her approved IEP or 504 Plan.
- The student should use the calculator they have used regularly throughout the school year in their classroom and are most familiar with, provided their regular-use calculator is not outside the boundaries of what is allowed, as detailed above.

Reference Sheet

Students in grade 3 will **not** have a reference sheet because the LSSM for this grade do not require one.

RESOURCES

- Online Tools Training: provides teachers and students examples of interactive, technology-enhanced items so they can become familiar with the computer-based testing format; available in INSIGHT or here using the Chrome browser; includes Spanish version
- LEAP 2025 Grade 3 Math Paper-Based Practice Test and Answer Key: offers a paper-based grade-level practice test to help prepare students for the spring assessments; Spanish version also available
- LEAP 2025 Grade 3 Math Computer-Based Practice Test and Answer Key: offers a computer-based grade-level practice tests to help prepare students for the spring assessments; accessed through INSIGHT; Spanish version also available
- LEAP 2025 Accessibility and Accommodations Manual: provides information about Louisiana's accessibility features and accommodations for grades 3–8 spring testing
- LEAP 2025 Mathematics Practice Test Guidance: provides teachers with information about test structure, recommended uses, general cautions, item types, and scoring of the paper-based and computer-based tests
- LEAP 2025 Equation Builder for Grades 3-5: provides teachers with information on using the equation builder within the open-response boxes on the CBT; Spanish version also available
- Practice Test Quick Start Guide: provides information regarding the administration and scoring process needed for the online practice tests
- LEAP 2025 Technology Enhanced Item Types: provides a summary of technology enhanced items students may encounter in any of the computer-based tests across courses and grade-levels
- Practice Tests Library: includes current and previous years' practice tests for additional practice with assessment tasks
- Third Grade Teacher Library: provides links to grade-specific resources, such as the standards, shared teacher resources, and instructional plans
- K-12 Louisiana Student Standards for Math: explains the development of and lists the math content standards for Louisiana students
- Grade 3 math - Teachers Companion Document PDF or word doc: contains descriptions of each standard to answer questions about the standard's meaning and how it applies to student knowledge and performance
- Grade 3 Remediation Guide: reference guide for teachers to help them more quickly identify the specific remedial standards necessary for every standard, includes information on content emphasis
- Grade 3 Crosswalk: shows specifically how the math standards have changed from 2015–2016 to 2016–2017
- K-12 LSSM Alignment to Rigor: provides explanations and a standards-based alignment to assist teachers in providing a rigorous education
- LEAP 360: an optional, free high-quality non-summative assessment system that provides educators with a complete picture of student learning at the beginning, middle, and end of the school year; includes diagnostic and interim assessments
- EAGLE Sample Test Items: a part of the LEAP 360 system, which allows teachers to integrate high-quality questions into day-to-day classroom experiences and curricula through teacher-created tests, premade assessments, and individual items for small group instruction

APPENDIX A

Assessable Content for the Major Content Reporting Category (Type I)

LSSM Content Standards	
3.OA.A	Represent and solve problems involving multiplication and division.
3.OA.A.1	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 × 7*.
3.OA.A.2	Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8*.
3.OA.A.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]
3.OA.A.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = _ ÷ 3, 6 × 6 = ?*
3.OA.B	Understand properties of multiplication and the relationship between multiplication and division.
3.OA.B.6	Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8*.
3.OA.C	Multiply and divide within 100.
3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
3.OA.D	Solve problems involving the four operations, and identify and explain patterns in arithmetic.
3.OA.D.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.[2]
3.NF.A	Develop understanding of fractions as numbers.
3.NF.A.1	Understand a fraction 1/*b*, with denominators 2, 3, 4, 6, and 8, as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*.
3.NF.A.2	Understand a fraction with denominators 2, 3, 4, 6, and 8 as a number on the number line; represent fractions on a number line diagram. a. Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line. b. Represent a fraction *a*/*b* on a number line diagram by marking off a lengths 1/*b* from 0. Recognize that the resulting interval has size *a*/*b* and that its endpoint locates the number *a*/*b* on the number line.

[1] See LSSM Table 2, p. 61.

[2] This standard is limited to problems posed with whole numbers and having whole-number answer; students should know how to perform operations in conventional order when there are no parentheses to specify a particular order (Order of Operations).

3.NF.A.3	Explain equivalence of fractions with denominators 2, 3, 4, 6, and 8 in special cases, and compare fractions by reasoning about their size. a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram*. d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
3.MD.A	Solve problems involving measurement and estimation.
3.MD.A.1	Understand time to the nearest minute. a. Tell and write time to the nearest minute and measure time intervals in minutes, within 60 minutes, on an analog and digital clock. b. Calculate elapsed time greater than 60 minutes to the nearest quarter and half hour on a number line diagram. (NEW)[3] c. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
3.MD.A.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).[4] Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.[5]
3.MD.C	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
3.MD.C.5	Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
3.MD.C.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
3.MD.C.7	Relate area to the operations of multiplication and addition. a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

[3] This part of the standard (3.MD.A.1b) was added to the LSSM starting 2016-2017. The spring 2018 test is the first time students may see tasks aligned to this standard.
[4] Excludes compound units such as cm^3 and finding the geometric volume of a container
[5] Excludes multiplicative comparison problems (problems involving notions of "times as much"; see LSSM Table 2, p. 61)

LEAP 2025 Evidence Statements	
LEAP.I.3.1	In a contextual situation involving a whole number and two fractions not equal to a whole number, represent all three numbers on a number line diagram, then choose the fraction closest in value to the whole number. Content Scope: Knowledge and skills articulated in • 3.NF.A – Fractions equivalent to whole numbers are limited to 0 - 5.
LEAP.I.3.2	Given a two-step problem situation with the four operations, round the values in the problem, then use the rounded values to produce an approximate solution. Content Scope: Knowledge and skills articulated in • 3.OA.D.8, 3.NBT.A.1, 3.NBT.A.2, 3.NBT.A.3 – Tasks must be aligned to 3.OA.D.8 and 1 or more of the following standards: 3.NBT.A.1, 3.NBT.A.2, 3.NBT.A.3. Tasks do not require computations beyond the grade 3 expectations. Tasks do not require a student to write a single equation with a letter standing for the unknown quantity in a two-step problem, and then solve that equation. Tasks may require students to write an equation as part of their work to find a solution, but students are not required to use a letter for the unknown. Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see LSSM, Table 1, Common Addition and Subtraction Situations, p.60; LSSM, Table 2, Common Multiplication and Division Situations, p. 61; and K–5 Progression on Counting and Cardinality and Operations and Algebraic Thinking).
LEAP.I.3.3	Solve two-step word problems using the four operations requiring a substantial[6] addition, subtraction, or multiplication step, drawing on knowledge and skills articulated in 3.NBT. Content Scope: Knowledge and skills articulated in • 3.OA.D.8, 3.NBT.A.2, and 3.NBT.A.3 – Tasks must be aligned to 3.OA.D.8 and 1 or more of the following standards: 3.NBT.A.2, 3.NBT.A.3. Tasks do not require a student to write a single equation with a letter standing for the unknown quantity in a two-step problem, and then solve that equation. Tasks may require students to write an equation as part of their work to find a solution, but students are not required to use a letter for the unknown. Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see LSSM, Table 1, Common Addition and Subtraction Situations, p.60; LSSM, Table 2, Common Multiplication and Division Situations, p. 61; and K–5 Progression on Counting and Cardinality and Operations and Algebraic Thinking).
LEAP.I.3.4	Add, subtract, or multiply to solve a one-step word problem involving masses or volumes that are given in the same units, where a substantial[6] addition, subtraction, or multiplication step is required drawing on knowledge and skills articulated in 3.NBT, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.7. Content Scope: Knowledge and skills articulated in • 3.MD.A.2, 3.NBT.A.2, and 3.NBT.A.3 – Tasks must be aligned to 3.MD.A.2 and 1 or more of the following standards: 3.NBT.A.2, 3.NBT.A.3.

[6] Values should be towards the higher end of the numbers identified in the standards.

Assessable Content for the Additional & Supporting Content Reporting Category (Type I)

LSSM Content Standards	
3.NBT.A	Use place value understanding and properties of operations to perform multi-digit arithmetic.[7]
3.NBT.A.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
3.NBT.A.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3.NBT.A.3	Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
3.MD.B	Represent and interpret data.
3.MD.B.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets*.
3.MD.B.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
3.MD.D	Geometric measurement: recognize perimeter.
3.MD.D.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
3.MD.E	Work with money. (NEW)[8]
3.MD.E.9	Solve word problems involving pennies, nickels, dimes, quarters, and bills greater than one dollar, using the dollar and cent symbols appropriately. (NEW)[8]
3.G.A	Reason with shapes and their attributes.
3.G.A.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
3.G.A.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape*.

[7] A range of algorithms may be used.

[8] The 3.MD.E cluster and 3.MD.E.9 standard were added to the LSSM starting 2016-2017. The spring 2018 test is the first time students may see tasks aligned to this standard.

LEAP 2025 Evidence Statements	
LEAP.I.3.5	Solve real world and mathematical problems involving perimeters of polygons requiring a substantial[6] addition, subtraction, or multiplication step, drawing on knowledge and skills articulated in 3.NBT. Content Scope: Knowledge and skills articulated in • 3.MD.D.8, 3.NBT.A.2, and 3.NBT.A.3 – Tasks must be aligned to 3.MD.D.8 and 1 or more of the following standards: 3.NBT.A.2, 3.NBT.A.3.
LEAP.I.3.6	Use information presented in a scaled bar graph to solve a two-step "how many more" or "how many less" problem requiring a substantial[6] addition, subtraction, or multiplication step, drawing on knowledge and skills articulated in 3.NBT. Content Scope: Knowledge and skills articulated in • 3.MD.B.3, 3.NBT.A.2, and 3.NBT.A.3 – Tasks must be aligned to 3.MD.B.3 and 1 or more of the following standards: 3.NBT.A.2, 3.NBT.A.3.

Assessable Content for the Expressing Mathematical Reasoning Reporting Category (Type II)

LEAP 2025 Evidence Statements	
LEAP.II.3.1	Base explanations/reasoning on the properties of operations. Content Scope: Knowledge and skills articulated in • 3.OA.B.5– Students need not use formal property names. Products and related quotients are limited to the 10 by 10 multiplication table.[9] • 3.OA.D.9– Students need not use formal property names. • 3.MD.C.7a, 3.MD.C.7b, 3.MD.C.7c – Tasks may include those with and without real-world contexts. Students need not use formal property names.
LEAP.II.3.2	Base explanations/reasoning on the relationship between multiplication and division. Content Scope: Knowledge and skills articulated in • 3.OA.B.6 – Products and related quotients are limited to the 10 by 10 multiplication table.
LEAP.II.3.3	Base arithmetic explanations/reasoning on concrete referents such as diagrams (whether provided in the prompt or constructed by the student in her response), connecting the diagrams to a written (symbolic) method. Content Scope: Knowledge and skills articulated in • 3.NF.A.3b, 3.NF.A.3d – Fractions equivalent to whole numbers are limited to 0 - 5. Tasks may present realistic or quasi-realistic images of a contextual situation (e.g., a drawing of a partially filled graduated cylinder). However, tasks do not provide the sort of abstract drawings that help the student to represent the situation mathematically (e.g., a number line diagram or other visual fraction model).
LEAP.II.3.4	Base arithmetic explanations/reasoning on concrete referents such as diagrams (whether provided in the prompt or constructed by the student in her response). Content Scope: Knowledge and skills articulated in • 3.MD.C.5, 3.MD.C.6, 3.MD.C.7a, 3.MD.C.7b, 3.MD.C.7c – Tasks may include those with and without real-world contexts. Tasks with a context may present realistic or quasi-realistic images of a contextual situation (e.g., a drawing of a meadow). However, tasks do not provide the sort of abstract drawings that help the student to represent the situation mathematically (e.g., a tiling of the meadow).

[9] For example, 2 × 4 × 5, would be acceptable as students can use the associative property to rewrite the expression as 8 × 5 which falls within the content limits of grade 3. The problem 7 × 4 × 5 would exceed the content limits of grade 3 because any use of the associative property would result in a 2-digit multiplier.

LEAP.II.3.5	Distinguish correct explanation/reasoning from that which is flawed, and – if there is a flaw in the argument – present corrected reasoning. (For example, some flawed 'student' reasoning is presented and the task is to correct and improve it.) Content Scope: Knowledge and skills articulated in • 3.OA.B.5 – Students need not use formal property names. Products and related quotients are limited to the 10 by 10 multiplication table. • 3.OA.B.6 – Products and related quotients are limited to the 10 by 10 multiplication table. • 3.OA.D.8 – Tasks do not require a student to write a single equation with a letter standing for the unknown quantity in a two-step problem, and then solve that equation. Tasks may require students to write an equation as part of their work to find a solution, but students are not required to use a letter for the unknown. Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see LSSM, Table 1, Common Addition and Subtraction Situations, p.60; LSSM, Table 2, Common Multiplication and Division Situations, p. 61; and K–5 Progression on Counting and Cardinality and Operations and Algebraic Thinking). • 3.NF.A.3b, 3.NF.A.3d – Fractions equivalent to whole numbers are limited to 0 - 5. • 3.MD.C.7a, 3.MD.C.7b, 3.MD.C.7c – Tasks may include those with and without real-world contexts. • 3.OA.D.9 • 2.NBT – Tasks may have scaffolding.[10] Tasks will not assess "relate the strategy to a written method" previously in standard 2.NBT.B.7.
LEAP.II.3.6	Present solutions to two-step problems in the form of valid chains of reasoning, using symbols such as equals signs appropriately (for example, rubrics award less than full credit for the presence of nonsense statements such as 1 + 4 = 5 + 7 = 12, even if the final answer is correct), or identify or describe errors in solutions to two-step problems and present corrected solutions. Content Scope: Knowledge and skills articulated in • 3.OA.D.8 – Tasks do not require a student to write a single equation with a letter standing for the unknown quantity in a two-step problem, and then solve that equation. Tasks may require students to write an equation as part of their work to find a solution, but students are not required to use a letter for the unknown. Addition, subtraction, multiplication and division situations in these problems may involve any of the basic situation types with unknowns in various positions (see LSSM, Table 1, Common Addition and Subtraction Situations, p.60; LSSM, Table 2, Common Multiplication and Division Situations, p. 61; and K–5 Progression on Counting and Cardinality and Operations and Algebraic Thinking).
LEAP.II.3.7	Present solutions to multi-step[11] problems in the form of valid chains of reasoning, using symbols such as equals signs appropriately (for example, rubrics award less than full credit for the presence of nonsense statements such as 1 + 4 = 5 + 7 = 12, even if the final answer is correct), or identify or describe errors in solutions to multi-step problems and present corrected solutions. Content Scope: Knowledge and skills articulated in • 3.MD.C.7b - Tasks may include those with and without real-world contexts.

[10] Scaffolding in a task provides the student with an entry point into a pathway for solving a problem. In unscaffolded tasks, the student determines his/her own pathway and process.

[11] Multi-step must have at least three steps.

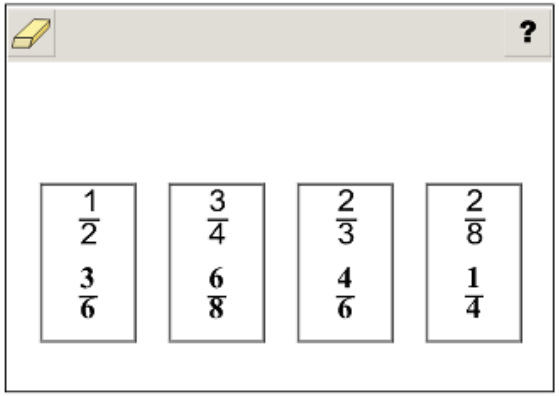
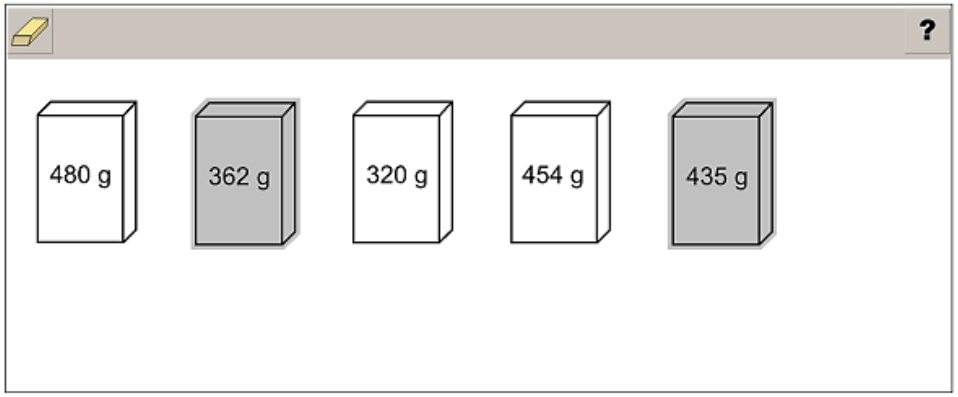
LEAP.II.3.8	Base explanations/reasoning on a number line diagram (whether provided in the prompt or constructed by the student in her response). Content Scope: Knowledge and skills articulated in • 3.NF.A.2 - Fractions equivalent to whole numbers are limited to 0 - 5. • 3.MD.A.1

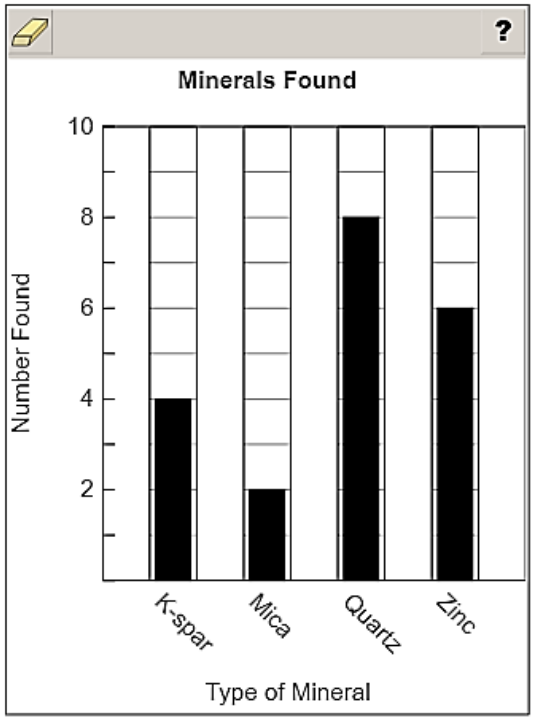
Assessable Content for the Modeling & Applications Reporting Category (Type III)

LEAP 2025 Evidence Statements	
LEAP.III.3.1	Solve multi-step[11] contextual word problems with degree of difficulty appropriate to Grade 3, requiring application of knowledge and skills articulated by the LSSM section of the Major Content Assessable Content table. Tasks may have scaffolding.[10]
LEAP.III.3.2	Solve multi-step[11] contextual problems with degree of difficulty appropriate to Grade 3, requiring application of knowledge and skills articulated in 2.OA.A, 2.OA.B, 2.NBT, and/or 2.MD.B. Tasks may have scaffolding.[10]

APPENDIX B

Answer Key/Rubrics for Sample Items

PBT/CBT	Item Type	Key	Alignment
PBT/CBT	Multiple-Choice	A	3.MD.D.8
PBT/CBT	Multiple-Select	B, E, F	3.G.A.1
PBT/CBT	Fill-in-the-Blank	14	3.NF.A.2b
PBT/CBT	Type II Constructed-Response	See Rubric	LEAP.II.3.5
CBT	TEI: Drag-and-Drop		3.NF.A.3b
CBT	TEI: Hot Spot Select		3.NBT.A.1

PBT/CBT	Item Type	Key	Alignment
CBT	TEI: Bar Graph		3.MD.B.3
PBT/CBT	Type III Constructed-Response	See Rubric	LEAP.III.3.2

Type II Constructed-Response Rubric

PART A	
Score	**Description**
1	Reasoning component: The student correctly identifies the error in Cindy's statement. For example: "Cindy thought addition was the opposite of division."
0	Student response is incorrect or irrelevant
PART B	
Score	**Description**
2	Student response includes each of the following 2 elements. • Reasoning component: The student explains that multiplication is the opposite of division. For example: "To find the quotient of 27 ÷ 9, I need to know what number when multiplied by 9 has a product of 27." • Computation component: 27 ÷ 9 = 3 Notes: • The student does not need to use the term "unknown factor" in his or her explanation. • The equation does not have to be provided to receive credit as long as the student shows clear understanding of using an unknown factor problem to find the answer to a division problem. • The student may provide only the equation for the computation part. • The student may earn credit for another valid explanation, such as repeated addition or subtraction. • The computation may be embedded within the reasoning.
1	Student response includes 1 of the 2 elements.
0	Student response is incorrect or irrelevant

Type III Constructed-Response Rubric

PART A	
Score	**Description**
3	Student response includes each of the following 3 elements. • Computation component: 85 pennies • Modeling component: shows correct use of addition • Modeling component: shows correct use of subtraction Sample Solution 1: Addition of pennies in two jars (16 + 94 = 110) and then subtraction of pencil price from that sum (110 – 25 = 85). OR Subtraction of pencil price from pennies in one jar (94 – 25 = 69) and then addition of the pennies in the other jar to the difference (69 + 16 = 85) Notes: • Student can get credit for both parts with a single equation such as 16 + 94 – 25 = 85. • Student does not need to show an equation, but if an equation is used, the equation must be correct. (e.g., 16 + 94 = 110 – 25 = 85 is considered a nonsense equation and is NOT acceptable.)
2	Student response includes 2 of the 3 elements. Or, the student has a computation error, but provides a valid strategy.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant
PART B	
Score	**Description**
1	Computation component: 197
0	Student response is incorrect.
PART C	
Score	**Description**
2	Student response includes each of the following 2 elements. • Computation component: 115 pennies • Modeling component: The student shows a valid strategy to find the total number of pennies. For example, the student shows the equation 18 + 40 + 32 + 25 = 115
1	Student response includes 1 of the 2 elements. Or, the student has a computation error, but provides a valid strategy.
0	Student response is incorrect or irrelevant

APPENDIX C

Update Log		
Date	**Page**	**Summary of Changes**
8/22/17	1	Added Appendix C to list of internal links Added box outlining primary changes and internal links
	2	Row added to bottom of table to include session times
	4	Column added to the right of table to include session times Row added to bottom of table to include science field test sessions
	16	Updated links Added resources