Louisiana Guide to Illustrative Mathematics

Grade 1

To assist teachers with the implementation of the Illustrative Mathematics curriculum for Grade 1, this document provides multiple layers of guidance regarding how Illustrative Mathematics lessons correlate with the Louisiana Student Standards for Mathematics (LSSM). Illustrative Mathematics is a focused, coherent math curriculum that provides ample instructional guidance for teachers. This Louisiana Guide to Implementing Illustrative Mathematics goes a step further to point out places in which teachers may need to make strategic decisions considering student needs and time availability by offering a suggested pacing calendar, highlighting the prerequisite standards and grade level standards by unit, detailing standards by lesson, and showcasing the alignment to the Louisiana Student Standards for Mathematics.

The guidance document is considered a “living” document. We believe that educators will find ways to make improvements to the guidance document as they use it. Please send feedback to STEM@la.gov.

March 26, 2024

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Grade 1 Suggested Implementation Calendar

Grade 1	Unit	Approximate Number of Days	Number of Lessons
Weeks 1-3	Unit 1: Adding, Subtracting, Working with Data	15 Days	15 Lessons
Weeks 4-8	Unit 2: Addition and Subtraction Story Problems	24 Days	22 Lessons
Weeks 9-13	Unit 3: Adding and Subtracting within 20	30 Days	28 Lessons
Weeks 14-17	Unit 4: Numbers to 99	24 Days	23 Lessons
Weeks 17-19	Unit 5: Adding Within 100	15 Days	14 Lessons
Weeks 20-22	Unit 6: Length Measurements within 120 Units	15 Days	17 Lessons
Weeks 23-25	Unit 7: Geometry and Time	15 Days	17 Lessons
Weeks 26-38	Unit 8: Putting It All Together	10 Days	10 Lessons

Alignment to Louisiana Student Standards for Mathematics

Focus in the Standards

Not all content at given grades is emphasized equally in the standards. Some clusters require greater emphasis than others based on the depth of ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Louisiana Standards for Mathematical Practices. To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. Students should spend the large majority of their time on the major work on the grade (■). Supporting work (◘) and, where appropriate, additional work (○) can engage students in the major work of the grade.

Grade 1: Standards by Unit							
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**	**Unit 7**	**Unit 8**
1.OA.C.5 1.OA.C.6 1.OA.B.4 1.MD.C.4 1.NBT.B.1 1.NBT.B.2	1.OA.A.1 1.OA.D.7 1.OA.C.6 1.NBT.A.1 1.OA.B.3 1.OA.C.5 1.MD.C.4 1.OA.D.8 1.OA.B.4	1.OA.A.1 1.OA.A.2 1.OA.D.7 1.OA.C.6 1.NBT.A.1 1.NBT.B.2 1.NBT.B.2a 1.NBT.2b 1.OA.B.3 1.OA.C.5 1.OA.D.8 1.OA.B.4	1.NBT.A.1 1.NBT.B.2 1.NBT.B.2a 1.NBT.B.2b 1.NBT.B.2c 1.NBT.B.3 1.NBT.C.4 1.NBT.C.5 1.NBT.C.6 1.OA.C.5 1.OA.C.6 1.OA.D.8	1.NBT.A.1 1.NBT.B.2 1.OA.A.1 1.OA.D.7 1.OA.D.8 1.NBT.B 1.NBT.C.6	1.MD.A.1 1.MD.A.2 1.NBT.A.1 1.OA.A.1 1.OA.B.4 1.NBT.C.4 1.OA.C.6	1.G.A.1 1.G.A.2 1.G.A.3 1.NBT.C.4 1.NBT.C.5 1.OA.C.6 1.OA.D.7 1.MD.B.3	1.OA.C.6 1.OA.D.8 1.OA.D.7 1.OA.A.1 1.NBT.A.1 1.NBT.C.4 1.NBT.B.3
Prerequisite Standards: K.CC.B K.CCA.1 K.CC.B.4		Prerequisite Standards: K.NBT.A.1			Prerequisite Standards: K.MD.A.2		

Standards by Lesson

Grade 1: Standards by Lesson	
Unit 1 Lessons	**Standards**
1	1.OA.C.5, 1.OA.C.6
2	1.OA.C.5, 1.OA.C.6
3	1.OA.C.5, 1.OA.C.6
4	1.OA.C.5, 1.OA.C.6
5	1.OA.C.5, 1.OA.C.6
6	1.OA.C.5, 1.OA.C.6
7	1.MD.C.4
8	1.MD.C.4
9	1.NBT.B.2
10	1.OA.B.4, 1.OA.C.6

11	1.MD.C.4
12	1.NBT.B.2, 1.MD.C.4
13	1.OA.C.5, 1.OA.C.6, 1.OA.B.4
14	1.MD.C.4, 1.OA.C.5, 1.OA.C.6, 1.OA.B.4
15	1.MD.C.4
Unit 2 Lessons	**Standards**
1	1.OA.A.1
2	1.OA.A.1
3	1.OA.A.1
4	1.OA.A.1, 1.OA.D.7
5	1.OA.A.1
6	1.OA.A.1
7	1.OA.C.6

8	■ 1.NBT.A.1
9	■ 1.OA.A.1, ■ 1.OA.B.3
10	■ 1.OA.A.1
11	■ 1.OA.A.1
12	■ 1.OA.A.1, ■ 1.OA.C.5
13	■ 1.OA.A.1, ▣ 1.MD.C.4
14	■ 1.OA.A.1, ■ 1.OA.D.7, ■ 1.OA.C.5
15	■ 1.OA.A.1, ■ 1.OA.C.6
16	■ 1.OA.C.6
17	■ 1.OA.C.6, ■ 1.OA.D.7
18	■ 1.OA.A.1, ■ 1.OA.D.8
19	■ 1.OA.A.1, ■ 1.OA.B.4
20	■ 1.OA.C.6
21	■ 1.OA.D.8

22	1.OA.B.4, 1.OA.A
Unit 3 Lessons	**Standards**
1	1.OA.C.6
2	1.OA.A.1, 1.OA.B.3, 1.OA.C.5, 1.OA.C.6
3	1.OA.C.6, 1.OA.B.3
4	1.OA.D.7, 1.OA.B.3, 1.OA.C.6
5	1.OA.C.6, 1.OA.D.8, 1.OA.B.4, 1.OA.C.5
6	1.OA.A.1, 1.OA.C.5, 1.OA.C.6
7	1.NBT.A.1, 1.OA.C.6, 1.NBT.2.2a
8	1.NBT.2.2b
9	1.NBT.2.2a, 1.NBT.2b, 1.OA.D.8
10	1.NBT.2b, 1.OA.C.6
11	1.OA.D.7, 1.OA.C.6

12	1.NBT.A.1, 1.OA.C.6, 1.OA.C.8
13	1.OA.C.6, 1.OA.C.5, 1.OA.A.1
14	1.OA.C.6, 1.OA.D.7
15	1.OA.C.6, 1.OA.C.2, 1.OA.B.3, 1.OA.C.5
16	1.OA.B.3, 1.OA.C.6, 1.OA.D.7
17	1.OA.C.6, 1.OA.B.3
18	1.OA.C.6
19	1.OA.C.6, 1.OA.B.3
20	1.OA.C.6, 1.OA.A.2
21	1.OA.C.6, 1.OA.C.5
22	1.OA.C.6, 1.OA.C.5, 1.OA.B.4
23	1.OA.C.6
24	1.NBT.A.1, 1.OA.C.6, 1.OA.C.5, 1.OA.B.4
25	1.NBT.A.1, 1.OA.C.6, 1.OA.C.5, 1.OA.B.4, 1.OA.A.1

26	1.OA.C.6, 1.OA.C.5, 1.OA.B.4
27	1.OA.C.6
28	1.NBT.B.2, 1.OA.A.1, 1.OA.A.2, 1.OA.B.3
Unit 4 Lessons	**Standards**
1	1.NBT.A.1, 1.OA.C.6, 1.OA.C.5, 1.OA.D.8
2	1.NBT.A.1, 1.NBT.B.2c
3	1.NBT.B.2c, 1.NBT.C.4, 1.NBT.C.6
4	1.NBT.B.2c, 1.NBT.C.4, 1.NBT.C.6
5	1.NBT.C.4, 1.NBT.C.6
6	1.NBT.A.1, 1.NBT.B.2a, 1.NBT.B.2c
7	1.NBT.A.1, 1.NBT.B.2
8	1.NBT.A.1, 1.NBT.B.2a
9	1.NBT.A.1, 1.NBT.B.2

10	1.NBT.A.1, 1.NBT.B.2
11	1.NBT.B.2, 1.NBT.B.2c, 1.NBT.C.4
12	1.OA.C.6, 1.NBT.A.1
13	1.OA.C.6, 1.NBT.A.1
14	1.NBT.C.6, 1.NBT.B.2, 1.NBT.B.3
15	1.NBT.C.6,, 1.NBT.B.3
16	1.NBT.B.2, 1.NBT.B.3
17	1.NBT.B.2, 1.NBT.B.3
18	1.NBT.C.4, 1.NBT.C.5, 1.NBT.C.6
19	1.NBT.B.2, 1.NBT.B.2a
20	1.NBT.B.2a, 1.NBT.B.2b
21	1.NBT.C.4, 1.NBT.B.2, 1.NBT.B.3
22	1.NBT.B.2
23	1.NBT.A.1, 1.NBT.B.2, 1.NBT.B.3

Unit 5 Lessons	Standards
1	1.NBT.A.1, 1.NBT.B.2, 1.NBT.C.4
2	1.NBT.A.1, 1.NBT.C.4
3	1.NBT.C.4
4	1.OA.A.1, 1.NBT.C.4, 1.OA.D.8
5	1.NBT.C.4
6	1.OA.C.6, 1.NBT.C.4
7	1.NBT.C.4
8	1.NBT.C.4
9	1.NBT.C.4
10	1.NBT.C.4
11	1.NBT.C.4, 1.OA.D.7
12	1.NBT.C.4

13	1.NBT.A.1, 1.NBT.C.4, 1.OA.D.8
14	1.NBT.B, 1.NBT.C.4
Unit 6 Lessons	**Standards**
1	1.MD.A.1
2	1.MD.A.1, 1.NBT.C.4
3	1.MD.A.1
4	1.MD.A.1, 1.NBT.C.4
5	1.MD.A.1, 1.MD.A.2
6	1.MD.A.2
7	1.MD.A.2
8	1.MD.A.2, 1.NBT.A.1
9	1.MD.A.2, 1.NBT.A.1
10	1.MD.A.2, 1.NBT.C.4

11	■ 1.MD.A.1, ■ 1.MD.A.2, ■ 1.OA.B.4, ■ 1.OA.C.6
12	■ 1.MD.A.1, ■ 1.OA.C.6
13	■ 1.MD.A.1, ■ 1.NBT.C.4, ■ 1.OA.C.6
14	■ 1.MD.A.1, ■ 1.OA.B.4, ■ 1.OA.C.6
15	■ 1.MD.A.1, ■ 1.NBT.A.1, ■ 1.OA.C.6
16	■ 1.NBT.C.4, ■ 1.NBT.A.1
17	■ 1.MD.A.1, ■ 1.OA.C.6
Unit 7 Lessons	**Standards**
1	○ 1.G.A.1
2	○ 1.G.A.2
3	○ 1.G.A.1
4	○ 1.G.A.1
5	○ 1.G.A.1

6	○ 1.G.A.1
7	○ 1.G.A.2
8	○ 1.G.A.2, ■ 1.OA.C.6
9	○ 1.G.A.1, ○ 1.G.A.3
10	○ 1.G.A.3
11	■ 1.NBT.C.5, ○ 1.G.A.3
12	■ 1.OA.C.6, ○ 1.G.A.1
13	■ 1.MD.B.3, ■ 1.NBT.C.4
14	■ 1.MD.B.3
15	■ 1.MD.B.3, ■ 1.OA.D.7, ■ 1.NBT.A.1
16	■ 1.MD.B.3, ■ 1.NBT.C.4
17	■ 1.MD.B.3, ○ 1.G.A.1, ○ 1.G.A.2

Unit 8 Lessons	Standards
1	1.OA.C.6
2	1.OA.C.6, 1.OA.D.8
3	1.OA.C.6, 1.OA.D.8
4	1.OA.C.6
5	1.OA.C.6, 1.NBT.C.4, 1.OA.D.7, 1.OA.A.1
6	1.OA.C.6
7	1.NBT.A.1, 1.NBT.B.2
8	1.NBT.A.1, 1.NBT.B.2
9	1.NBT.B.3, 1.NBT.C.4
10	1.NBT.C.4, 1.NBT.B.2, 1.NBT.C.4

Louisiana Alignment		
Standard Code	Standard Language	Aligned Lessons
1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	Unit 2, Lessons 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 18, 19, 22 Unit 3, Lessons 2, 6, 13, 25, 26, 28 Unit 5, Lesson 4 Unit 6, Lessons 12, 13, 14, 15, 17
1.OA.A.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	Unit 3, Lessons 15, 20, 28
1.OA.B.3	Apply properties of operations to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)	Unit 2, Lesson 9 Unit 3, Lessons 2, 3, 4, 15, 16, 17, 19, 28
1.OA.B.4	Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*	Unit 1, Lesson 14 Unit 2, Lessons 18, 19, 22 Unit 3, Lessons 5, 12, 22, 24, 26 Unit 6, Lessons 11, 14
1.OA.C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	Unit 1, Lessons 1, 2, 3, 4, 5, 6, 14 Unit 2, Lessons 12, 14 Unit 3, Lessons 2, 5, 6, 13, 15, 21, 22 24, 25

1.OA.C.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).	Unit 1, Lessons 1, 2, 3, 4, 5, 6, 9, 14 Unit 2, Lessons 7, 15, 17, 20 Unit 3, Lessons 1, 2, 3, 4, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28 Unit 5, Lesson 6 Unit 6, Lessons 11, 12, 13, 14, 15, 17 Unit 7, Lessons 8, 12 Unit 8, Lessons 1, 2, 3, 4, 5, 6
1.OA.D.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.*	Unit 2, Lessons 4, 14, 17 Unit 3, Lessons 4, 11, 16 Unit 5, Lesson 11 Unit 8, Lesson 5
1.OA.D.8	*Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ? – 3, 6 + 6 = ?.*	Unit 2, Lessons 18, 21 Unit 3, Lessons 5, 9, 12 Unit 4, Lesson 1 Unit 5, Lessons 4, 13 Unit 8, Lessons 2, 3
1.NBT.A.1	*Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.*	Unit 1, Lesson 12 Unit 2, Lessons 8, 19 Unit 4, Lessons 1, 2, 6, 7, 8, 9, 10, 12, 13, 23 Unit 3, Lessons 7, 12, 24, 25 Unit 5, Lessons 1, 2, 13, Unit 6, Lessons 8, 9, 15, 16 Unit 7, Lesson 15 Unit 8, Lessons 7, 8

1.NBT.B.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:	Unit 1, Lessons 9, 10, 12 Unit 3, Lesson 28 Unit 4, Lessons 7, 9, 10, 11, 14, 16, 17, 19, 21, 22, 23 Unit 5, Lesson 1
1.NBT.B.2a	10 can be thought of as a bundle of ten ones — called a “ten.”	Unit 3, Lessons 8, 9 Unit 4, Lessons 6, 8, 19, 20
1.NBT.B.2b	The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	Unit 3, Lessons 9, 10 Unit 4, Lesson 20
1.NBT.B.2c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	Unit 4, Lessons 2, 3, 4, 6, 11
1.NBT.B.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	Unit 4, Lessons 14, 15, 16, 17, 21, 23 Unit 8, Lessons 9, 10
1.NBT.C.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10.	Unit 4, Lessons 3, 11, 18, 21 Unit 5, Lessons 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 Unit 6, Lessons 2, 10,13, 16 Unit 7, Lessons 6, 14, 16 Unit 8, Lesson 5

1.NBT.C.4a	Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a number sentence; justify the reasoning used with a written explanation.	Unit 5, Lessons 7, 8, 9, 10, 11, 12, 13, 14
1.NBT.C.4b	Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	Unit 5, Lessons 7, 8, 9, 10, 11, 12, 13, 14
1.NBT.C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	Unit 4, Lessons 1, 14, 15, 18 Unit 7, Lesson 11
1.NBT.C.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	Unit 4, Lessons 1, 3, 4, 5, 12, 13, 18
1.MD.A.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	Unit 6, Lessons 1, 2, 3, 5
1.MD.A.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*	Unit 6, Lessons 5, 6, 7, 8, 9
1.MD.B.3	Tell and write time in hours and half-hours using analog and digital clocks.	Unit 7, Lessons 14, 15, 16, 17

1.MD.C.4	*Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.*	Unit 1, Lessons 7, 8, 11, 12, 13, 15 Unit 2, Lesson 13
1.MD.D.5	Determine the value of a collection of coins up to 50 cents. (Pennies, nickels, dimes, and quarters in isolation; not to include a combination of different coins.)	
1.G.A.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	Unit 7, Lessons 1, 3, 4, 5, 6, 9, 12, 17
1.G.A.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) and three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.	Unit 7, Lessons 2, 7, 8, 17
1.G.A.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	Unit 7, Lessons 9, 10, 11

Acceleration in Mathematics within the context of Illustrative Mathematics

Diagnose	**Check Your Readiness Assessments and Teacher Guides** • assess prerequisite standards; • provide guidance to support planning for learning acceleration; • offer varied problem types; and • are available in two versions of each pre-unit assessment.
Plan	**Check Your Readiness** gives cues as to when the prerequisite knowledge will be needed. **Adaptation Packs** provide guidance on whole-group acceleration supports **Accelerate Math Materials** are designed for small groups and address prerequisite knowledge standards.
Deliver	During the **Deliver** phase, follow through on the plan. Remember that the plan is not a commitment in the strictest sense. Teachers should feel empowered to adjust as you move through the plan and engage in the acceleration cycle at the lesson level and implement just-in-time supports designed for alignment to your high-quality resource.
Monitor	**To Monitor,** use daily student work from tasks embedded in the curriculum and student work from the support session. Use information gained about student understanding to plan next instructional steps. IM provides suggestions in the form of Cool down guidance to assist teachers in interpreting the urgency of students daily unfinished learning. Each Cool-down is classified in one of three ways: ● **More Chances** suggests to the teacher that there is no need to stop and reteach at this point. There are additional lessons and examples *coming next to support the skill* and the standard should not yet be secure in student knowledge. ● **Points to Emphasize** is the label for cool downs that have key details, definitions, or steps that should be noted. If students struggle with these items, the teacher is guided on where in the next couple lessons to *emphasize* the details and support the unfinished learning. ● A **Press Pause** cool down is a stopping point within the unit where the skill should be retaught and supported with additional examples. *Future lessons are dependent* on students being confident in these items.