Louisiana Believes

2020-2021 Important Prerequisite Math Standards



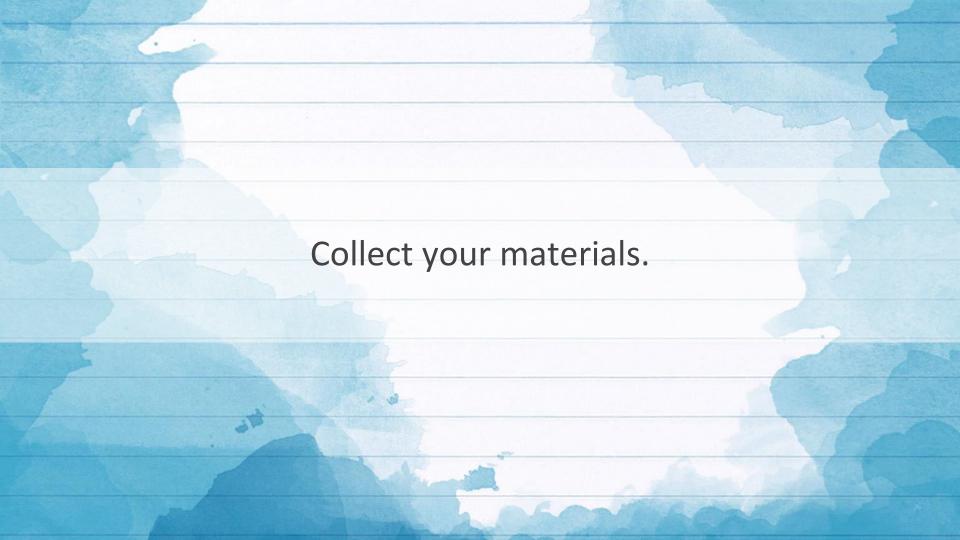
Important Prerequisite Math Standards Guidance for 2020-2021

In this training we will

- learn about the Louisiana Important Prerequisite Math Standards;
- experience two planning scenarios using the new document; and
- practice planning for "just in time" supports.

You will need

- Grade 2 Module 4 Teacher Edition
- Grade 2 Standards Remediation Guide
- Louisiana Guide to Implementing Grade 2 Eureka Math
- Louisiana Important Prerequisite Math Standards 2020-2021

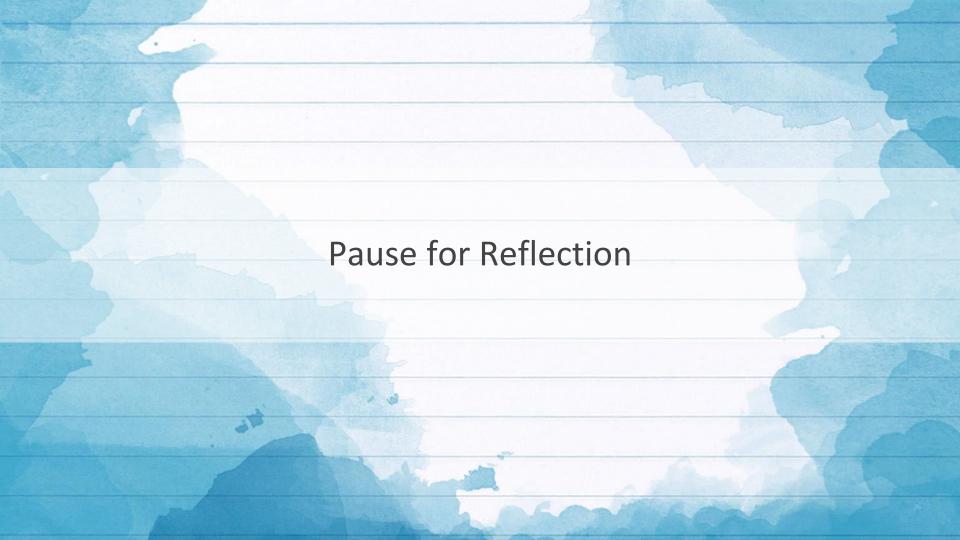


Think

Take a few minutes and reflect on the approaches you are taking this year to make sure your students are prepared.

On a piece of paper list your go-to strategies.

We will refer to this note at the end of this presentation.



Important Prerequisite Math Standards Guidance for 2020-2021

The Department, building on resources provided by the Achievement Network, has released Important Prerequisite Math Standards Guidance for teachers for the 2020-2021 school year.

This new document identifies

- critical prerequisite math standards from previous grade levels needed to anticipate potential unfinished learning;
- suggestions for prioritizing content to save instructional time this year; and
- aligned lessons for the most widely used Tier 1 curricula impacted by identified standards.

The purpose of this resource is to guide teachers' strategic decision making to address current and ongoing learning gaps through the 2020-2021 school year.

Just in time support



Important Prerequisite Math Standards Guidance for 2020-2021

	Grade 2 Math Important Prerequisites								
Prerequisite Standard Bridge up or heavy traffic from previous grade	Grade-Level Standard Major Supporting Additional	Standard Language	Instructional Time Preserve or reduce time in 20-21 as compared to a typical year, per <u>SAP quidance</u>	Comments related to most widely used Tier 1 Curriculum Eureka Math					
1.OA.A.1 1.OA.D.8	■2.OA.A.1 Application	situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	Emphasize problems that involve sums less than or equal to 20 and/or the related differences to keep the focus on making sense of different problem types; assign fewer problems with sums greater than 20 or related differences.						
1.OA.C.6	■2.OA.B.2 Procedural	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	Incorporate additional practice on the grade 1 fluency of adding and subtracting within 10 (1.0A.C.6) early in the school year to support the addition and subtraction work of grade 2 (2.0A).						
	2.OA.C.3 Conceptual		Eliminate lessons on foundations for	6.17, 6.18, 6.19					
	2.OA.C.4 Conceptual	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.		6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15					

Sample Planning Grade 2 Module 4 Topics A and B

Pelican Elementary

Seventh Week of School Attended online through Oct 9 Completed Module 2

You will need access to:

- Grade 2 Module 4 Teacher edition
- Grade 2 Standards Remediation Guide
- Louisiana Guide to Implementing Grade 2 Eureka Math
- Louisiana Important Prerequisite Math Standards 2020-2021

Alligator Elementary

Eleventh Week of School

Face to face instruction all year

Completed Module 3

Identify Grade Level Standards - Module 4 Topic A and B

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.1-A	2.OA.A.1	1.NBT.C.5	О	
4.2-A	2.OA.A.1, 2.NBT.B.5	1.NBT.B.3, 1.NBT.C.5	0	
4.3-A	2.OA.A.1, 2.NBT.B.5	1.NBT.C.5	0	
4.4-A	2.OA.A.1, 2.NBT.B.5		0	
4.5-A	2.OA.A.1		0	
4.6-B	2.OA.A.1, 2.NBT.B.5		0	
4.7-B	2.OA.A.1, 2.NBT.B.5		0	Although these Lessons only involve adding within 100, the focus is on mastering the strategies that will help students add within 1000, 2.NBT.B.7.
4.8-B	2.OA.A.1, 2.NBT.B.5		0	
4.9-B	2.OA.A.1, 2.NBT.B.7*		0	These Lessons focus on adding within 1000 using concrete models or drawings and
4.10-B	2.OA.A.1, 2.NBT.B.7*		0	strategies based on place value; understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds which will lead to mastery of 2.NBT.B.7.

Read the Standards

2.OA.A.1

Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ¹

See the LA Important Prerequisite Standards

Prerequisite Standard Bridge up or heavy traffic from previous grade	Grade-Level Standard Major Supporting Additional	Standard Language	Instructional Time Preserve or reduce time in 20-21 as compared to a typical year, per SAP quidance	Comments related to most widely used Tier 1 Curriculum Eureka Math
1.OA.A.1 1.OA.D.8	■2.OA.A.1 Application	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	Emphasize problems that involve sums less than or equal to 20 and/or the related differences to keep the focus on making sense of different problem types; assign fewer problems with sums greater than 20 or related differences.	

Read the Standards

2.NBT.B.5

Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2.NBT.B.7

Add and subtract within 1000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; justify the reasoning used with a written explanation. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

See the LA Important Prerequisite Standards

1.NBT.C.5, 1.NBT.C.6	■2.NBT.B.5 Procedural	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
	■2.NBT.B.6 Conceptual, Procedural	Add up to four two-digit numbers using strategies based on place value and properties of operations.	
1.OA.A.2	■2.NBT.B.7 Conceptual, Procedural	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; justify the reasoning used with a written explanation. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	Prioritize strategies based on place value in written work to strengthen the progression toward fluency with multidigit addition and subtraction.
	■2.NBT.B.8 Conceptual	Mentally add 10 or 100 to a given number 100 to 900, and mentally subtract 10 or 100 from a given number 100 to 900.	
	■ 2NBT.B.9 Conceptual	Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.	

Identify Grade Level Standards - Module 4 Topic A and B

Lesson	Course Level Content Standards	Standards from other Grades	Action	Notes/Rationale for Action
4.1-A	2.OA.A.1	1.NBT.C.5	О	
4.2-A	2.OA.A.1, 2.NBT.B.5	1.NBT.B.3, 1.NBT.C.5	0	
4.3-A	2.OA.A.1, 2.NBT.B.5	1.NBT.C.5	0	
4.4-A	2.OA.A.1, 2.NBT.B.5		0	
4.5-A	2.OA.A.1		О	
4.6-B	2.OA.A.1, 2.NBT.B.5		0	
4.7-B	2.OA.A.1, 2.NBT.B.5		0	 Although these Lessons only involve adding within 100, the focus is on mastering the strategies that will help students add within 1000, 2.NBT.B.7.
4.8-B	2.OA.A.1, 2.NBT.B.5		0	
4.9-B	2.OA.A.1, 2.NBT.B.7*		0	These Lessons focus on adding within 1000 using concrete models or drawings and
4.10-B	2.OA.A.1, 2.NBT.B.7*		0	strategies based on place value; understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds which will lead to mastery of 2.NBT.B.7.

Review the Progression of the Lessons

Standards	То	pics and Object	tives	Days
2.OA.1 2.NBT.5 2.NBT.8 2.NBT.9	А	Sums and Diffe Lesson 1: Lesson 2: Lessons 3–4: Lesson 5:	Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. Add and subtract multiples of 10 including counting on to subtract. Add and subtract multiples of 10 and some ones within 100. Solve one- and two-step word problems within 100 using	
2.NBT.7	В	Strategies for C	strategies based on place value. omposing a Ten	5
2.NBT.9 2.OA.1 2.NBT.5		Lesson 6:	Use manipulatives to represent the composition of $10\ \text{ones}$ as $1\ \text{ten}$ with two-digit addends.	
		Lesson 7: Lesson 8:	Relate addition using manipulatives to a written vertical method. Use math drawings to represent the composition and relate drawings to a written method.	

two-digit to a three-digit addend.

Use math drawings to represent the composition when adding a

Review progression of the lessons

Notes on Pacing for Differentiation

If pacing is a challenge, consider the following modifications and omissions. Consider pacing more quickly the lessons that follow Topic A in Module 4 as students readily grasp renaming different hundreds, tens, and ones. Spend additional instructional minutes with word problems, unknowns in different places (e.g., 27 + ____ = 350 or 281 = ____ – 99), and mental math. Note that this same adjustment in pacing can also be made in looking ahead to the lessons that follow Topic A in Module 5.

Consider omitting Lessons 29 and 30. Instead, introduce the concept of "Totals Below" in Lesson 21. Continue to embed "Totals Below" in the Concept Development or in the Debrief of subsequent lessons.

"Notes on Pacing for Differentiation" can be found in every K-5 Eureka teacher edition after the Module Overview.

Decision Point

What we know

- This content is important.
- We must emphasize place value.
- We must be working toward fluency within 20 so that the students can make sense of word problem types.
- Scaffolds and supports should be embedded to support first grade understanding of 10 more/less and word problems within 20.

What next?

- Are we on pace?
- Are the students ready?
- Which strategies, lessons or problems should we prioritize?
- When are we going to take action?
- What other data sources do we have?

Classroom Scenario 1

Pelican Elementary school is located in Southwest Louisiana. Students attend online through Oct 9 then began attending in person. Today is November 13 which is about the 7th week of school. Due to all of the events occuring this fall, the second grade team completed module 2 today. The school year in the district is scheduled to end the last week of May. Normally, the module pacing would be in the twelfth week of school, mid module 4.

Twenty percent of students in this class are mostly fluent with addition within 20. Eighty percent are still working on the related subtraction facts. Most students are fluent with 10 more or 10 less but are still heavily reliant on concrete place value strategies when regrouping is required.

The team must plan to address unfinished learning in their student population and engage with essential content to ensure success for their students in future mathematics.



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Action Plan for Pelican Elementary

Overview of Module Topics and Lesson Objectives

Standards	То	Topics and Objectives					
2.OA.1 2.NBT.5 2.NBT.8 2.NBT.9	А	Sums and Differ Lesson 1: Lesson 2:	Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. Add and subtract multiples of 10 including counting on to subtract.	5			
		Lessons 3- Lesson 5:	Add and subtract multiples of 10 and some ones within 100. Solve one- and two-step word problems within 100 using strategies based on place value.				
2.NBT.7 2.NBT.9 2.OA.1 2.NBT.5	В	Strategies for Co Lesson 6: Lesson 7: Lesson 8: Lessons 9—X:	Use manipulatives to represent the composition of 10 ones as 1 ten with two-digit addends. Relate addition using manipulatives to a written vertical method. Use math drawings to represent the composition and relate drawings to a written method. Use math drawings to represent the composition when adding a two-digit to a three-digit addend.	5			

Scaffold in first grade problems connecting chip models from Grade 1 Mod 2 lesson 11 to the place value chip models for students who are struggling significantly with regrouping.

Action Plan for Pelican Elementary

4.11-C	2.OA.A.1, 2.NBT.B.5, 2.NBT.B.9	0	. Although those Lossons only involve subtracting within 100, the focus is an mastering the
4.12-C	2.OA.A.1, 2.NBT.B.5	0	 Although these Lessons only involve subtracting within 100, the focus is on mastering the strategies that will help students subtract within 1000, 2.NBT.B.7.
4.13-C	2.OA.A.1, 2.NBT.B.5	0	
4.14-C	2.OA.A.1, 2.NBT.B.7*	0	These Lessons focus on subtracting within 1000 using concrete models or drawings and
4.15-C	2.NBT.B.7*	0	strategies based on place value; understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds which will lead to mastery of 2.NBT.B.7.
4.16-C	2.OA.A.1	О	
4.17-D	2.NBT.B.7*	R	These Lessons focus on adding within 1000 using concrete models or drawings and
4.18-D	2.NBT.B.7*	R	strategies based on place value; understanding that in adding or subtracting three-digit
4.19-D	2.NBT.B.7*	R	numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds which will lead
4.20-D	2.NBT.B.7*	R	to mastery of 2.NBT.B.7. Reserve these Lessons to be used with students who are struggling with and/or need
4.21-D	2.NBT.B.7*	R	extra practice to master the concepts and skills presented in Topic B.
4.22-D	2.NBT.B.6	0	



Classroom Scenario 2

Alligator Elementary school is located in north Louisiana. Students have been attending school in person all year. Today is November 13 which is about the 11th week of school. Current pacing has the grade 2 team finishing Module 3 today. The school year in the district is scheduled to end the last week of May. Normally, the module pacing would be in the twelfth week of school, mid module 4.

Fifty percent of students in this class are mostly fluent with addition within 20 but are working on subtraction. They are fluent with 10 more or 10 less within 1000, but are still heavily reliant on concrete place value strategies when regrouping is required.

The team must plan to address unfinished learning in their student population and engage with essential content to ensure success for their students in future mathematics.



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Action Plan for Alligator Elementary

Overview of Module Topics and Lesson Objectives

Standards	То	Topics and Objectives					
2.OA.1	Α		Sums and Differences Within 100				
2.NBT.5 2.NBT.8		Lesson 1:	Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10.				
2.NBT.9		Lesson 2:	Add and subtract multiples of 10 including counting on to subtract.				
		Lessons 3	Add and subtract multiples of 10 and some ones within 100.				
		Lesson 5:	Solve one- and two-step word problems within 100 using strategies based on place value.				
2.NBT.7	В	Strategies for Composing a Ten					
2.NBT.9 2.OA.1		Lesson 6:	Use manipulatives to represent the composition of 10 ones as 1 ten with two-digit addends.				
2.NBT.5		Lesson 7:	$\label{eq:Relate} \textbf{Relate addition using manipulatives to a written vertical method.}$				
		Lesson 8:	Use math drawings to represent the composition and relate drawings to a written method.				
		Lessons 9–10:	Use math drawings to represent the composition when adding a two-digit to a three-digit addend.				

Scaffold in first grade problems connecting chip models from Grade 1 Mod 2 lesson 11 to the place value chip models for students who are struggling significantly with regrouping.

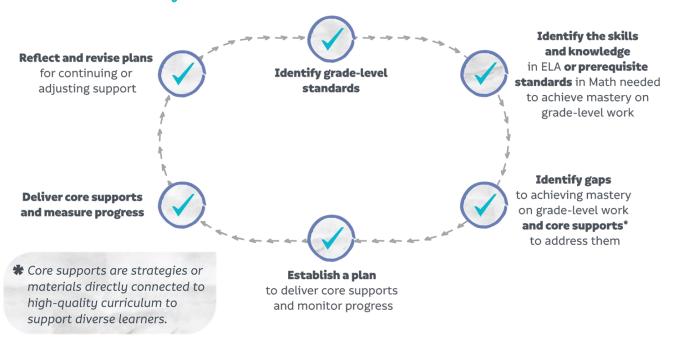
Action Plan for Pelican Elementary

		The second secon		
4.11-C	2.OA.A.1, 2.NBT.B.5, 2.NBT.B.9		0	Although these Lessons only involve subtracting within 100, the focus is on mastering the
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4.13-C	2.OA.A.1, 2.NBT.B.5		0	
4.14-C	2.OA.A.1, 2.NBT.B.7*		0	These Lessons focus on subtracting within 1000 using concrete models or drawings and
4.15-C	2.NBT.B.7*		0	strategies based on place value; understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds which will lead to mastery of 2.NBT.B.7.
4.16-C	2.OA.A.1		0	
4.17-D	2.NBT.B.7*		R	These Lessons focus on adding within 1000 using concrete models or drawings and
4.18-D	2.NBT.B.7*		R	strategies based on place value; understanding that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones;
4.19-D	2.NBT.B.7*		R	and sometimes it is necessary to compose or decompose tens or hundreds which will lead
4.20-D	2.NBT.B.7*		R	to mastery of 2.NBT.B.7. Reserve these Lessons to be used with students who are struggling with and/or need
4.21-D	2.NBT.B.7*		R	extra practice to master the concepts and skills presented in Topic B.
4.22-D	2.NBT.B.6		0	



Diverse Learners Cycle

Diverse Learners Cycle Across Content Areas



Next steps

- Continue to plan with the lens of readiness.
- Be willing to flex and adapt your plan.
- Keep good notes!!

Reflect

Find your list of go-to strategies and reflect on these questions:

- How does your original list compare to what we have learned today?
- What do you commit to trying out in your classroom?

For questions, email STEM@la.gov.