



New Mexico Instructional Scope 2nd Grade Number and Operations in Base Ten Guide

The NMIS is a teacher-influenced tool, designed to provide instructional planning support at the programmatic level for districts and instructional level for teachers. Its foundation stems from the vision and mission of the PED and came into existence to assure that students in NM will be engaged in a culturally and linguistically responsive educational system that meets the social, emotional, and academic needs of ALL students. This is also rooted in the belief that all students must have access to on-grade-level standards, focusing on acceleration. The purpose of this tool is to help educators understand each of the grade level standards and how those standards connect to the students' overall preparation for college and career readiness.

Standards are defined as the most critical prerequisite skills and knowledge. This document is color-coded to reflect both anchor and priority standards. Though previous emphasis was placed on priority standards to address lost learning due to COVID-19, New Mexico teachers should note that moving forward, while priority standards allow for acceleration of learning, **all** standards should be addressed in instruction throughout the school year.

In this guide you will find:

- A [breakdown](#) of each of the grade level standards within the cluster, including:
 - Standards of Mathematical Practice
 - Common Misconceptions
 - Identification of Priority Standards, as identified by NMPED.
 - Level of Rigor Identification
- Sample aligned [assessment](#) items
- [Suggested Student Discourse Guide](#) (only provided for clusters with Conceptual Understanding standards)
- A [multilayered system of supports \(MLSS\) and culturally and linguistically responsive instruction \(CLR\) guide](#)

Key		
	<i>Priority Standard</i>	Priority standards, as identified by NMPED, are denoted with red highlighting. Priority standards are the most critical prerequisite skills and knowledge a student needs. This does not mean that these are only standards required to be taught, just these are the standards that will allow for the acceleration the students of New Mexico need during this time.
	<i>Conceptual Understanding</i>	Conceptual Understanding standards help students build a deep understanding of the how and why of mathematics.
	<i>Application</i>	Application standards help students identify the appropriate concepts and skills to tackle novel real-world problems .
	<i>Procedural Skill and Fluency</i>	Procedural standards help students develop efficiency and accuracy in computations.

Standards Breakdown

- Understand place value.
 - [2.NBT.A.1](#)
 - [2.NBT.A.2](#)
 - [2.NBT.A.3](#)
 - [2.NBT.A.4](#)
- Use place value understanding and properties of operations to add and subtract.
 - [2.NBT.B.5](#)
 - [2.NBT.B.6](#)
 - [2.NBT.B.7](#)
 - [2.NBT.B.8](#)
 - [2.NBT.B.9](#)

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Understand place value.
 Cluster Standard: 2.NBT.A.1		
Standard		Standards for Mathematical Practice
<p>Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <ul style="list-style-type: none"> 2.NBT.A.1.A: 100 can be thought of as a bundle of ten tens — called a "hundred." 2.NBT.A.1.B: The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). 		<ul style="list-style-type: none"> SMP 7: Look for and make use of structure. SMP 8: Look for and express regularity in repeated reasoning.
Clarification Statement		Students Who Demonstrate Understanding Can...
<ul style="list-style-type: none"> In second grade, students continue to develop a deep understanding of place value and use that understanding to add and subtract within 1,000. This cluster focuses on the development of place value up to and beyond 100. Students should use the structure of building tens out of 10 ones, building hundreds out of 10 tens, and building a thousand out of 10 hundreds. This is the structure of our base-ten place value system. It is built on repeated reasoning that every time you have 10 of a particular item, you group it to make the next place value unit. Students use precision in describing their work with appropriate vocabulary and reading numbers accurately. They explain their reasoning to classmates throughout the cluster and compare their thinking with that of their peers. 		<ul style="list-style-type: none"> Count by 10s, ten 10s equals 100, ten 1's equals 10. Explain the names of places (ones, tens, hundreds) and how the place impacts the value of the digit. Explain the difference and relationship between value and place. Use base ten blocks to model numbers. Represent place values with pictures or representations. Utilize a place value chart to determine and identify places and values for digits in a three-digit number.

DOK	Blooms
1	Understand

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Understand place value.
 Cluster Standard: 2.NBT.A.2		
Standard	Standards for Mathematical Practice	
Count within 1000; skip-count by 5s, 10s, and 100s.	<ul style="list-style-type: none"> ● SMP 7: Look for and make use of structure. ● SMP 8: Look for and express regularity in repeated reasoning. 	
Clarification Statement	Students Who Demonstrate Understanding Can...	
<ul style="list-style-type: none"> ● In second grade, students continue to develop a deep understanding of place value and use that understanding to add and subtract within 1,000. This cluster focuses on the development of place value up to and beyond 100. Students should use the structure of building tens out of 10 ones, building hundreds out of 10 tens, and building a thousand out of 10 hundreds. This is the structure of our base-ten place value system. It is built on repeated reasoning that every time you have 10 of a particular item, you group it to make the next place value unit. Students use precision in describing their work with appropriate vocabulary and reading numbers accurately. They explain their reasoning to classmates throughout the cluster and compare their thinking with that of their peers. 	<ul style="list-style-type: none"> ● Count using a 100 chart or number line to explain patterns and to skip count to 1000 by 5s, 10s, and 100's. ● Write in or verbally say missing numbers in a skip counting pattern. ● Describe place value patterns when skip counting. 	

DOK	Blooms
1	Understand

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Understand place value.
 Cluster Standard: 2.NBT.A.3		
Standard	Standards for Mathematical Practice	
Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	<ul style="list-style-type: none"> ● SMP 7: Look for and make use of structure. 	
Clarification Statement	Students Who Demonstrate Understanding Can:	
<p>In second grade, students continue to develop a deep understanding of place value and use that understanding to add and subtract within 1,000. This cluster focuses on the development of place value up to and beyond 100. Students should use the structure of building tens out of 10 ones, building hundreds out of 10 tens, and building a thousand out of 10 hundreds. This is the structure of our base-ten place value system. It is built on repeated reasoning that every time you have 10 of a particular item, you group it to make the next place value unit. Students use precision in describing their work with appropriate vocabulary and reading numbers accurately. They explain their reasoning to classmates throughout the cluster and compare their thinking with that of their peers.</p>	<ul style="list-style-type: none"> ● Explain the difference between expanded form and standard form. ● Write numbers out with words. ● Read and write numbers up to 1,000 using base-ten numerals (e.g., 234). ● Read and write numbers up to 1,000 using number names (e.g., two hundred thirty-four). ● Read and write numbers using expanded form (e.g., $200 + 30 + 4$). ● Decompose numbers using expanded form. ● Record number decompositions in various ways (i.e., 234 as $230 + 4$, $199 + 35$, $200 + 34$, or $225 + 14$). 	

DOK	Blooms
1	Understand and Apply

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Understand place value.
 Cluster Standard: 2.NBT.A.4		
Standard	Standards for Mathematical Practice	
Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	<ul style="list-style-type: none"> ● SMP 2: Reason abstractly and quantitatively. ● SMP 3: Construct viable arguments and critique the reasoning of others. ● SMP 7: Look for and make use of structure. 	
Clarification Statement	Students Who Demonstrate Understanding Can...	
<ul style="list-style-type: none"> ● In second grade, students continue to develop a deep understanding of place value and use that understanding to add and subtract within 1,000. This cluster focuses on the development of place value up to and beyond 100. Students should use the structure of building tens out of 10 ones, building hundreds out of 10 tens, and building a thousand out of 10 hundreds. This is the structure of our base-ten place value system. It is built on repeated reasoning that every time you have 10 of a particular item, you group it to make the next place value unit. Students use precision in describing their work with appropriate vocabulary and reading numbers accurately. They explain their reasoning to classmates throughout the cluster and compare their thinking with that of their peers. 	<ul style="list-style-type: none"> ● Compare two three-digit numbers. ● Use inequality symbols to write comparisons about two three-digit numbers. ● Explain how two numbers compare based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols. 	

DOK	Blooms
1-2	Understand and Apply

Common Misconceptions

<ul style="list-style-type: none"> Students may struggle with grouping or bundling, one-to-one correspondence, or skip-counting which will impact their work with place value. 	<ul style="list-style-type: none"> Students may confuse directionality of symbols, thus leading to an incorrect comparison of numbers.
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Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.
 Cluster Standard: 2.NBT.B.5		
Standard		Standards for Mathematical Practice
Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.		<ul style="list-style-type: none"> SMP 2: Reason abstractly and quantitatively. SMP 6: Attend to precision. SMP 7: Look for and make use of structure.
Clarification Statement		Students Who Demonstrate Understanding Can...
<ul style="list-style-type: none"> In 2nd grade, students use place value understanding and properties of operations to add and subtract. They also use strategies based on number sense, mental mathematics, and the relationship between addition and subtraction to solve problem situations with sums to 100. 		<ul style="list-style-type: none"> Apply different strategies to add and subtract within 100. Explain the relationship between addition and subtraction to solve problems. Explain different strategies for adding and subtracting. Use place value to add and subtract. Create concrete models, or drawings and the following strategies to add within 100; place value, properties of operations and the

	<p>relationship between adding and subtracting.</p> <ul style="list-style-type: none"> Utilize number lines, blocks, or items to find unknown numbers.
DOK	Blooms
1-2	Understand and apply

<i>Grade</i>	<i>CCSS Domain</i>	<i>CCSS Cluster</i>
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.
 Cluster Standard: 2.NBT.B.6		
	Standard	Standards for Mathematical Practice
	Add up to four two-digit numbers using strategies based on place value and properties of operations.	<ul style="list-style-type: none"> SMP 6: Attend to precision. SMP 7: Look for and make use of structure.
	Clarification Statement	Students Who Demonstrate Understanding Can...
	In 2nd grade, students use place value understanding and properties of operations to add and subtract. They also use strategies based on number sense, mental mathematics, and the relationship between addition and subtraction to solve problem situations with sums to 100.	<ul style="list-style-type: none"> Model addition using number lines, base ten blocks or other objects, and hundreds charts. Add up to four two-digit numbers Explain strategies for adding multiple two-digit numbers. Explain why addition and subtraction strategies work for adding four two-digit numbers, by citing place value and the properties of operations.
	DOK	Blooms
	1-2	Understand and Apply

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.
 Cluster Standard: 2.NBT.B.7		
Standard		Standards for Mathematical Practice
<p>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; relate the strategy to a written method. 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.</p>		<ul style="list-style-type: none"> ● SMP 2: Reason abstractly and quantitatively. ● SMP 3: Construct viable arguments and critique the reasoning of others. ● SMP 6: Attend to precision.
Clarification Statement		Students Who Demonstrate Understanding Can...
<ul style="list-style-type: none"> ● In 2nd grade, students use place value understanding and properties of operations to add and subtract. They also use strategies based on number sense, mental mathematics, and the relationship between addition and subtraction to solve problem situations with sums to 100. 		<ul style="list-style-type: none"> ● Use models to add and subtract within 1000. ● Explain the relationship between addition and subtraction and use the relationship to solve problems. ● Apply place value understanding to add and subtract each place value. Explain different strategies for adding and subtracting. ● Utilize concrete models or drawings and the following strategies to add within 1000; place value, properties of operations and the relationship between adding and subtracting.
DOK		Blooms
1-2		Understand and Apply

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.
 Cluster Standard: 2.NBT.B.8		
Standard		Standards for Mathematical Practice
Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.		<ul style="list-style-type: none"> ● SMP 7: Look for and make use of structure. ● SMP 8: Look for and express regularity in repeated reasoning.
Clarification Statement		Students Who Demonstrate Understanding Can...
<ul style="list-style-type: none"> ● In 2nd grade, students use place value understanding and properties of operations to add and subtract. They also use strategies based on number sense, mental mathematics, and the relationship between addition and subtraction to solve problem situations with sums to 100. 		<ul style="list-style-type: none"> ● Use place value to mentally add 10 or 100 from any number 100-900. ● Mentally subtract 10 or 100 from any number 100-900 using place value.
DOK		Blooms
1-2		Understand and Apply

Grade	CCSS Domain	CCSS Cluster
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.
 Cluster Standard: 2.NBT.B.9		
Standard		Standards for Mathematical Practice
Explain why addition and subtraction strategies work, using place value and the properties of operations.		<ul style="list-style-type: none"> ● SMP 3: Construct viable arguments and critique the reasoning of others.
Clarification Statement		Students Who Demonstrate Understanding Can...
In 2nd grade, students use place value understanding and properties of operations to add and subtract. They also use strategies based on number sense, mental mathematics, and the relationship between addition and subtraction to solve problem situations with sums to 100.		<ul style="list-style-type: none"> ● Explain using place value. ● Apply properties of addition and subtraction. ● Explain why the addition and subtraction strategies work.
DOK		Blooms
1-2		Understand and Apply

Common Misconceptions

- Students with difficulties with place value reasoning skills may have difficulty regrouping when solving addition and subtraction algorithms.

Student Discourse Guide

- Purposeful, rich classroom discourse offers students the opportunity to express their ideas, thinking, and to critique the reasoning of others in a variety of ways (writing, drawing, verbal). Purposeful implementation of classroom discourse allows students to activate funds of knowledge and to refine their mathematical understanding. When students have frequent opportunities for discourse they find various paths to solutions and reveal knowledge or misunderstandings to educators. The process also allows educators to honor students' culture, lived experiences and evolving math identities.
- Discourse that focuses on tasks that promote reasoning and problem solving is a primary mechanism for developing conceptual understanding and meaningful learning of mathematics (Michaels, O'Connor, and Resnick, 2008)

Domain: **Number and Operations in Base Ten**

Strand: **Use place value understanding and properties of operations to add and subtract.**

Suggested Student Discourse Questions

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|---|---|
| <ul style="list-style-type: none"> • What do the names of the place values mean? (ones, tens, hundreds, thousands) • Use non examples (error reasoning), to explain why the equation is correct or incorrect. | <ul style="list-style-type: none"> • How can you show a sum or difference using place value? • Use a relatable word problem that connects place value with adding or subtracting large numbers. |
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ASSESSMENT GUIDE

- [Understand place value](#)
- [Use place value understanding and properties of operations to add and subtract](#)

<i>Grade</i>	<i>CCSS Domain</i>	<i>CCSS Strand</i>
2	Number and Operations in Base Ten	Understand place value.
	Sample Task #1 (Constructed Response)	
	<p>Show a way to count from 68 to 130 using tens and ones. Explain why you chose to count this way.</p>	
	Sample Task #2	

Count each group. What is the total number of sticks in each group?

Bundles of 100 *Bundles of 10* *Ones*



What is the total number of sticks? _____

Grade	CCSS Domain	CCSS Strand
2	Number and Operations in Base Ten	Use place value understanding and properties of operations to add and subtract.

Sample Task #1 (Constructed Response)

Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

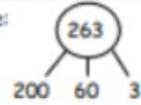
a. $301 + 49$	b. $402 + 48$
c. $315 + 93$	d. $216 + 192$

Sample Task #2 (Multiple Choice)

Make number bonds to show the hundreds, tens, and ones in each number. Then, write the number in unit form.

333

Example:



2 hundreds 6 tens 3 ones

MLSS AND CLR GUIDE

- [Understand place value.](#)
- [Use place value understanding and properties of operations to add and subtract.](#)

CCSS Domain		CCSS Cluster
Number and Operations in Base Ten		Understand place value.
Culturally and Linguistically Responsive Instruction		
Relevance to Families and Communities	During a unit focused on understanding place value consider options for learning from your families and communities the cultural and linguistic ways this mathematics exists outside of school to create stronger home to school connections for students, for example, learning about different places that students see numbers in their communities and real-life situations can help them connect to the true meaning of the value of a number.	
Cross-Curricular Connections	Physical Education: Students can practice skip counting while keeping track of their repetitions when doing activities such as jumping rope.	
Validate/Affirm/Build/Bridge	<ul style="list-style-type: none"> • <i>How can you design your mathematics classroom to intentionally and purposefully legitimize the home culture and languages of students and reverse the negative stereotypes regarding the mathematical abilities of students of marginalized cultures and languages?</i> • <i>How can you create connections between the cultural and linguistic behaviors of your students' home culture and language, the culture and language of school mathematics to</i> 	<ul style="list-style-type: none"> • Using and Connecting Mathematical Representations: The standard for mathematical practice, use appropriate tools strategically, provides a strong foundation to validate and bridge for students. Mathematical representations are mathematical tools. The linguistic and cultural experiences of students provide different and varied types of representations for solving mathematical problems. By explicitly encouraging students to use multiple mathematical representations, students can draw on their "mathematical, social, and cultural competence". By valuing these representations and discussing them we can connect student representations to the representations of school mathematics and build a bridge for students to position them as competent and capable mathematicians. For example, when studying understanding place value, the use of mathematical representations within the classroom is critical because although money is a good representation for

	<p><i>support students in creating mathematical identities as capable mathematicians that can use mathematics within school and society?</i></p>	<p>place value, it may not be the entry point for all students. Students should be encouraged to use a variety of representations for place value including drawing bundles, grouping items, blocks or tiles.</p>
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Planning for Multi-Layered System of Supports

Vertical Alignment

<i>Previous Learning</i>	<i>Current Learning</i>	<i>Future Learning</i>
<ul style="list-style-type: none"> Connect to students will count to 120, starting with any number less than 120. (1.NBT.1) Connect to understanding place value of ones and tens in two-digit numbers. (1.NBT.2) 	<ul style="list-style-type: none"> Connect the skills from within this cluster to represent and solve addition and subtraction, 2-step word problems. (2.OA.1) 	<ul style="list-style-type: none"> Connect to interpret the products of whole numbers, such as interpreting 7×5 as the total number of objects in 7 groups of 5 objects each. (3.OA.1) Connect to use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.

Suggested Instructional Strategies

Pre-Teach

<i>Level of Intensity</i>	<i>Essential Question</i>	<i>Examples</i>
Targeted	<p><i>What pre-teaching will prepare students to productively struggle with the mathematics for this cluster within your HQIM?</i></p>	<p>For example, some learners may benefit from targeted pre-teaching that analyzes common misconceptions when studying understanding place value because many students struggle with understanding the connection between the place and the value. For example, students can name that the 5 is in the tens place in 653, but then</p>

		when asked about values they still might say 5. Strategic and purposeful instruction regarding the most common misconceptions can benefit students.
Intensive	<i>What critical understandings will prepare students to access the mathematics for this cluster?</i>	1.NBT.B2: This standard provides a foundation for work with understanding place value because it teaches the difference between ones and tens. If students have unfinished learning within this standard, based on assessment data, consider ways to provide intensive pre-teaching support prior to the start of the unit to ensure students are ready to access grade level instruction and assignments.
Universal Support Framework		
A student should know/understand...	A student should be able to do...	<i>Potential Scaffolds</i>
<ul style="list-style-type: none"> ● A group of 10 tens is a unit called a “hundred”. ● Three-digit numbers represent different amounts based on place value. ● Multiples of 100 are two groups of 10 tens...9 groups of 10 tens. ● Place value patterns when skip counting. 	<ul style="list-style-type: none"> ● Bundle or group 10 tens to make a hundred. ● Count within 1000 using 1’s, 5’s, 10’s, or 100’s. ● Read and write numbers within 1,000 in multiple forms. ● Compare two three-digit numbers by determining the number of hundreds, the number of tens, and the number of ones in each number. 	<ul style="list-style-type: none"> ● Build on students’ experience with the following skills: <ul style="list-style-type: none"> ○ Understand that the two digits of a two-digit number represent tens and ones (1.NBT.B.2). ○ Compose and decompose numbers from 11 to 19 into tens, ones, and some further ones (K.NBT.A.1). ○ Count within 1000; skip-count by 5s, 10s, and 100s (2.NBT.A.2). ● Cognitive Strategies <ul style="list-style-type: none"> ○ Repeatedly model the strategies ○ Monitor the students’ use of the strategies ○ Provide feedback to students ○ Teach self-questioning and self-monitoring strategies ○ Introduce multiple means of representation for mathematical ideas ● Encourage students to use alternative tools to better access the grade level content. Examples include: <ul style="list-style-type: none"> ○ Use objects or drawings to represent problems ○ Use of ten frames.

		<ul style="list-style-type: none"> ○ Base-10 blocks. ○ Hundreds chart.
Re-Teach		
<i>Level of Intensity</i>	<i>Essential Question</i>	<i>Examples</i>
Targeted	What formative assessment data (e.g., tasks, exit tickets, observations) will help identify content needing to be revisited during a unit?	For example, students may benefit from re-engaging with content during a unit on understanding place value by examining tasks from a different perspective through a short mini-lesson because students may need to view the number as money, or view the number as a quantity so that they can truly understand the meaning of all digits in a number.
Intensive	What assessment data will help identify content needing to be revisited for intensive interventions?	For example, some students may benefit from intensive extra time during and after a unit understanding place value by addressing conceptual understanding because students need to be clear that the number system is based on the number 10. Extra time can be spent showing the relationship between the number one, ten and hundred.
Extension		
	<i>Essential Question</i>	<i>Examples</i>
	What type of extension will offer additional challenges to 'broaden' your student's knowledge of the mathematics developed within your HQIM?	For example, some learners may benefit from an extension such as open-ended tasks linking multiple disciplines when studying understanding place value because students can link their ideas to real-world situations with comparing numbers.

CCSS Domain		CCSS Cluster	
Number and Operations in Base Ten		Use place value understanding and properties of operations to add and subtract	
Culturally and Linguistically Responsive Instruction			
Relevance to Families and Communities	During a unit focused on using place value understanding and properties of operations to add and subtract, consider options for learning from your families and communities the cultural and linguistic ways this mathematics exists outside of school to create stronger home to school connections for students. For example, learning when in real life situations students may be required to add and subtract can give students a sense of connection and understanding.		
Cross-Curricular Connections	Science: Students can mentally add and subtract measurements rounded to the nearest ten or one hundred.		
Validate/Affirm/Build/Bridge	<ul style="list-style-type: none"> <i>How can you design your mathematics classroom to intentionally and purposefully legitimize the home culture and languages of students and reverse the negative stereotypes regarding the mathematical abilities of students of marginalized cultures and languages?</i> <i>How can you create connections between the cultural and linguistic behaviors of your students' home culture and language, the culture and language of school mathematics to support students in creating mathematical identities as capable mathematicians that can use mathematics within school and society?</i> 	<ul style="list-style-type: none"> Tasks: The type of mathematical tasks and instruction students receive provides the foundation for students' mathematical learning and their mathematical identity. Tasks and instruction that provide greater access to mathematics and convey the creativity of mathematics by allowing for multiple solution strategies and development of the standards for mathematical practice, lead to more students viewing themselves mathematically successful capable mathematicians than tasks and instruction which define success as memorizing and repeating a procedure demonstrated by the teacher. For example, when studying using place value understanding and properties of operations to add and subtract, because there are multiple ways to add and subtract including the traditional method, breaking apart place value, and decomposing numbers. Students should be encouraged to explore different methods, compare methods, and choose methods that promote their success. Students should be encouraged to articulate how methods are related. 	

Planning for Multi-Layered System of Supports		
Vertical Alignment		
<i>Previous Learning</i>	<i>Current Learning</i>	<i>Future Learning</i>
<ul style="list-style-type: none"> Connect to add with one- and two-digit numbers and multiples of 10 within 100 using models and strategies and use the concepts of place value, properties of operations, and the relationship between addition and subtraction. (1.NBT.4) (1.NBT.5) Connect to subtract by units of 10 using properties of operations, place value, and addition/subtraction relationship. (1.NBT.6) Connect to apply properties of operations as strategies to add and subtract. (1.OA.3) Connect to understanding subtraction as an unknown-addend problem. (1.OA.4) 	<ul style="list-style-type: none"> Connect to represent and solve addition and subtraction, 2-step word problems within 100. (2.OA.1) Connect to fluently add and subtract within 20 using mental strategies. (2.OA.2) Connect to understanding that the three digits of a three-digit number represent specific amounts (2.NBT.1). Connect to fluently and subtract within 100 using strategies, place value, and relationship between addition and subtraction (2.NBT.5). Connect to using addition and subtraction within 100 to solve word problems involving lengths (2MD.5). 	<ul style="list-style-type: none"> Connect to solve two-step word problems. (3.OA.8) Connect to fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (3.NBT.2)
Suggested Instructional Strategies		
Pre-Teach		
<i>Level of Intensity</i>	<i>Essential Question</i>	<i>Examples</i>
Targeted	<i>What pre-teaching will prepare students to productively struggle with the mathematics for this</i>	For example, some students may benefit from targeted pre-teaching that provides additional time for confusion to happen with new mathematical ideas when studying place value and properties of operations to add and

	<i>cluster within your HQIM?</i>	subtract because making the jump from identifying places and values to adding and subtracting may take additional time. In addition, students need time to find entry points for word problems and real-life contexts.
Intensive	<i>What critical understandings will prepare students to access the mathematics for this cluster?</i>	1 NBT.C 4: This standard provides a foundation for work with place value understanding and properties of operations to add and subtract because if students can add within 100 their connections to adding within 1,000 will be smoother. If students have unfinished learning within this standard, based on assessment data, consider ways to provide intensive pre-teaching support prior to the start of the unit to ensure students are ready to access grade level instruction and assignments.
Universal Support Framework		
A student should know/understand...	A student should be able to do...	Potential Scaffolds
<ul style="list-style-type: none"> ● How to extend strategies for adding two two-digit numbers to add up to four two-digit numbers. ● How composing and decomposing is an efficient way to add and subtract three-digit numbers. ● Only the tens place changes when mentally finding 10 more or 10 less. ● Only the hundreds place changes when mentally finding 100 more or less. 	<ul style="list-style-type: none"> ● Solve addition examples with sums to 100 using mental computation and written strategies such as benchmark numbers and number lines. ● Model subtraction examples with sums to 100 using concrete materials, pictures, and numerals. ● Model addition examples with sums to 1,000 using concrete materials, pictures, and numerals. ● Mentally find 10 or 100 more or 10 or 100 less than a given number. 	<ul style="list-style-type: none"> ● Build on students' experience with the following skills: <ul style="list-style-type: none"> ○ Add within 100, including adding a two-digit number and a one-digit number (1.NBT.C.4) ○ Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count, explain reasoning used (1.NBT.C.5) ○ Subtract multiples of 10 in the range 10-90 (1.NBT.C.6) ○ Fluently add and subtract within 20 using mental strategies (2.OA.B.2) ● Cognitive Strategies <ul style="list-style-type: none"> ○ Repeatedly model the strategies ○ Monitor the students' use of the strategies ○ Provide feedback to students ○ Teach self-questioning and self-monitoring strategies ○ Introduce multiple means of representation for mathematical ideas ● Encourage students to use alternative tools to

		<p>better access the grade level content. Examples include:</p> <ul style="list-style-type: none"> ○ Use objects or drawings to represent problems. ○ Use of ten frame. ○ Base-10 blocks. ○ 100s chart.
Re-Teach		
<i>Level of Intensity</i>	<i>Essential Question</i>	<i>Examples</i>
Targeted	What formative assessment data (e.g., tasks, exit tickets, observations) will help identify content needing to be revisited during a unit?	For example, students may benefit from re-engaging with content during a unit on understanding properties of operations to add and subtract by revisiting student thinking through a short mini-lesson because it will be helpful to determine if students have a grasp of the basic place value system before expecting addition and subtraction with larger numbers.
Intensive	What assessment data will help identify content needing to be revisited for intensive interventions?	For example, some students may benefit from intensive extra time during and after a unit on using place value understanding and properties of operations to add and subtract by confronting student misconceptions because students may still need clarification regarding the meaning of regrouping. It is imperative students understand what they are taking or giving when they apply the process of regrouping.
Extension		
	<i>Essential Question</i>	<i>Examples</i>
	What type of extension will offer additional challenges to 'broaden' your student's knowledge of the mathematics developed within your HQIM?	For example, some students may benefit from an extension such as the opportunity to understand concepts more quickly and explore them in greater depth than other students when studying understanding and properties of operations to add and subtract because students can benefit from the chance to determine the reasonableness of their answers using what they know

	about place value. For example, students can explore estimation strategies.
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