New Mexico Instructional Scope

4th Grade Numbers and Operations in Base Ten Guide

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.

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
- A multilayered system of supports (MLSS) and culturally and linguistically responsive instruction (CLR) guide

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Key		
	Priority Standard	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.
	*Conceptual Understanding*	Conceptual Understanding standards help students build a deep understanding of the **how** and **why** of mathematics.
	*Application*	Application standards help students identify the appropriate concepts and skills to tackle **novel real-world problems.**
	*Procedural Skill and Fluency*	Procedural standards help students develop **efficiency** and **accuracy** in computations.

Standards Breakdown

- Generalize place value understanding for multi-digit whole numbers
  - 4.NBT.A.1
  - 4.NBT.A.2
  - 4.NBT.A.3
- Use place value understanding and properties of operations to perform multi-digit arithmetic
  - 4.NBT.B.4
  - 4.NBT.B.5
  - 4.NBT.B.6

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Grade	*CCSS Domain*	*CCSS Cluster*
4	**Numbers and Operations in Base Ten**	**Generalize place value understanding for multi-digit whole numbers**

Cluster Standard: 4.NBT.A.1

Standard	**Standards for Mathematical Practice**
Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.	• **SMP 2**: Reason abstractly and quantitatively.
Clarification Statement	**Students Who Demonstrate Understanding Can...**
• This standard calls for students to extend their understanding of place value related to multiplying and dividing by multiples of 10. In this standard, students should reason about the magnitude of digits in a number. Students should be given opportunities to reason and analyze the relationships of numbers that they are working with.	• Recognize that 700 ÷ 70 = 10 by applying concepts of place value and division. • Understand that a quantitative relationship exists between the digits in place value positions of a multi-digit number. • Explain that a digit in one place represents ten times what it would represent in the place to its right.
DOK	**Blooms**
1-2	Understand

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Grade	*CCSS Domain*	*CCSS Cluster*
4	**Numbers and Operations in Base Ten**	**Generalize place value understanding for multi-digit whole numbers**

Cluster Standard: 4.NBT.A.2

Standard	**Standards for Mathematical Practice**
Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	• **SMP 3:** Construct viable arguments and critique the reasoning of others. • **SMP 6:** Attend to precision.
Clarification Statement	**Students Who Demonstrate Understanding Can...**
• This standard requires students to read and write multi-digit whole numbers using numerals (standard form), word form, and expanded form. It also requires students to compare 2 multi-digit whole numbers (based on place value meaning) using the symbols <, >, =. Be mindful when teaching not to teach a number is larger because it has more digits or a number is smaller because it has fewer digits. This will confuse students when they move into comparing decimal numbers.	• Explain the difference between standard, word, and expanded forms. • Read multi-digit whole numbers using base-ten numerals, number names, and expanded form. • Write multi-digit whole numbers using base-ten numerals, number names, and expanded form. • Compare two multi-digit numbers and write the comparison using symbols.
DOK	**Blooms**
1-2	Apply

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Grade	*CCSS Domain*	*CCSS Cluster*
4	Numbers and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers

Cluster Standard: 4.NBT.A.3

Standard	Standards for Mathematical Practice
Use place value understanding to round multi-digit whole numbers to any place.	• **SMP 3**: Construct viable arguments and critique the reasoning of others.
Clarification Statement	**Students Who Demonstrate Understanding Can...**
• The standard requires students to use place value to round with any given whole number to any given place value. The standard focuses on using place value. Students need to use visual models or manipulatives when learning to round numbers so they understand the mathematical reasoning for rounding up or down. A number line may be a good visual when rounding.	• Explain the role of place value when rounding whole numbers. • Round multi-digit whole numbers to any place.
DOK	**Blooms**
1-2	Apply

Common Misconceptions

• Students may struggle with numbers such as one thousand two. Many students will understand the 1000 and the 2 but then instead of placing the 2 in the ones place, students will write the numbers as they hear them, 10002 (ten thousand two). • Students often assume that the first digit of a multi-digit number indicates the "greatness" of a number. The assumption is made that 954 is greater than 1002 because students are focusing on the first digit instead of the number as a whole.	• Students may get confused when rounding to specific place values. For example, when asked to round 712 to the nearest ten, they may round to the nearest hundred. Students need work with number lines and other mathematical tools to help build this understanding of rounding.

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Grade	*CCSS Domain*	*CCSS Cluster*
4	**Numbers and Operations in Base Ten**	**Use place value understanding and properties of operations to perform multi-digit arithmetic**

Cluster Standard: 4.NBT.B.4

Standard	Standards for Mathematical Practice
Fluently add and subtract multi digit whole numbers using the standard algorithm.	• **SMP 6:** Attend to precision.
Clarification Statement	**Students Who Demonstrate Understanding Can...**
• The standard requires students to add and subtract multi-digit whole numbers using the standard algorithm. Students who struggle with the algorithm need more experience with hands-on materials. Scaffolding students with place value understanding will help students with regrouping misconceptions.	• Fluently use standard algorithms to add multi-digit whole numbers. • Fluently use the standard algorithm to subtract multi-digit whole numbers.
DOK	**Blooms**
1-2	Apply

Grade	*CCSS Domain*	*CCSS Cluster*
4	**Numbers and Operations in Base Ten**	**Use place value understanding and properties of operations to perform multi-digit arithmetic**

Cluster Standard: 4.NBT.B.5

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Standard	Standards for Mathematical Practice
Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	• **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...**
• This standard requires students to multiply up to 4 digits by 1 digit and 2 digits by 2-digit numbers using place value AND the properties of operations. Students may calculate using equations, rectangular arrays, AND/OR area models. Properties of operations: commutative, associative, distributive. Previous grade level standards focused on using place value and properties of operations. Also, students often do not notice the need of borrowing and just take the smaller digit from the larger one. Emphasize place value and the meaning of each of the digits. Specific strategies or students having difficulty with lining up similar place values in numbers as they are adding and subtracting.	• Explain the role of place value and the properties of operations when multiplying multi-digit numbers. • Solve multi-digit multiplication problems.
DOK	**Blooms**
1-2	Apply, Understand

Grade	*CCSS Domain*	*CCSS Cluster*
4	**Numbers and Operations in Base Ten**	**Use place value understanding and properties of operations to perform multi-digit arithmetic**

Cluster Standard: 4.NBT.B.6

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4th Grade Numbers and Operations in Base Ten Guide

Standard	Standards for Mathematical Practice
Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	• **SMP 3:** Construct viable arguments and critique the reasoning of others.
Clarification Statement	**Students Who Demonstrate Understanding Can...**

• General methods for computing quotients of multi-digit numbers and one-digit numbers rely on the same understanding as for multiplication, but cast in terms of division. One component is quotients of multiples of 10, 100, or 1000 and one-digit numbers. Another component of understanding general methods for multi-digit division computation is the idea of decomposing the dividend into base-ten units and finding the quotient unit by unit, starting with the largest unit and continuing on to smaller units. As with multiplication, this relies on the distributive property. This work can be done through methods such as partial quotients or area models for division.	• Find whole number quotients with up to 4-digit dividends and 1-digit divisors using strategies based on place value, properties of the operations, AND/OR the relationship between multiplication and division.
	• Students can successfully use one of the following:
	  ○ Illustrate division with equations.
	  ○ Illustrate division with rectangular arrays.
	  ○ Illustrate division with area models.

DOK	**Blooms**
1-2	Understand

Common Misconceptions

• Students may confuse the role of place-value when "regrouping". In addition, students may add 35 + 19 and say the answer is 414. They may add 9 and 5 to get 14 then add 3 and 1 to get 4 and put them together. In subtraction, students may flip numbers in the subtrahend and minuend to make the numbers work to subtract. For example,	• Students DO NOT use the standard algorithm to divide in 4th grade. The standard algorithm is a 6th grade standard. 4th grade should focus on place value, properties, models, etc., to multiply multi-digit numbers. Students who have been taught the algorithm may not understand the importance of place value. They may misapply

for 51-27, a student may think you cannot do 1-7 and may flip it to be 7-1, then subtract 5-2 to get 3, then state the answer is 36. • Students DO NOT use the standard algorithm to divide in 4th grade. Some students may struggle to recognize the place value inherent in multiplication. Do not rush to teach the algorithm, as a knowledge of where the numbers come from is necessary for a full understanding of the algorithm.	the algorithm and get a number that does not make sense. It is important to ensure a full understanding of the importance of place value before even considering the algorithm for multiplication or division.

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: **Numbers and Operations in Base Ten**	Strand: **Generalize place value understanding for multi-digit whole numbers**

Suggested Student Discourse Questions

• In a multi-digit number, the value of the digit to the right is how many times less? • How can we use the value of a digit to	• How do we use our place value knowledge in expanded notation? • How can we use place value to round

compare multi-digit numbers?	numbers? • What manipulatives or models can you use to represent place value problems more efficiently?

ASSESSMENT GUIDE

- Generalize place value understanding for multi-digit whole numbers
- Use place value understanding and properties of operations to perform multi-digit arithmetic

Grade	*CCSS Domain*	*CCSS Strand*
4	**Numbers and Operations in Base Ten**	**Generalize place value understanding for multi-digit whole numbers**
	Sample Task #1 (Constructed Response)	
	According to their pedometers, Mrs. Alsup's class took a total of 42,619 steps on Tuesday. On Wednesday, they took ten thousand more steps than they did on Tuesday. On Thursday, they took one thousand fewer steps than they did on Wednesday. How many steps did Mrs. Alsup's class take on Thursday?	
	Sample Task #2 (Multiple Choice)	
	In which number is the value of the digit 9 ten times the value of the digit 9 in 359,712? A. 198,457 B. 286,293 C. 743,950 D. 928,614	

Grade	*CCSS Domain*	*CCSS Strand*
4	**Numbers and Operations in Base Ten**	**Use place value understanding and properties of operations to perform multi-digit arithmetic**

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	Sample Task #1 (Constructed Response)
	For a play, adult tickets cost $10 and child tickets cost $5. a. On Saturday, 98 adult tickets were sold and 245 child tickets were sold. What was the total amount of money, in dollars, collected from ticket sales on Saturday? Show your work or explain how you know.
	Sample Task #2 (Multiple Choice)
	What is the product of 20 and 36? A. 56 B. 72 C. 360 D. 720

MLSS AND CLR GUIDE

- Generalize place value understanding for multi-digit whole numbers
- Use place value understanding and properties of operations to perform multi-digit arithmetic

CCSS Domain	*CCSS Cluster*
Numbers and Operations in Base Ten	**Generalize place value understanding for multi-digit whole numbers**

Culturally and Linguistically Responsive Instruction

Relevance to Families and Communities	During a unit focused on generalizing place value understanding for multi-digit whole numbers, 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, students can gather information from home about ways that parents would use rounding in everyday life. These examples can be shared and explored as tasks that directly relate back to home and culture.
Cross-Curricular Connections	Science: Study of planets' distance from the sun may present an opportunity to connect to concepts of base-10 and place value. Social Studies: Study of populations (state, country, and world) may present an opportunity to connect to concepts of base-10 and place value.

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Validate/Affirm/Build /Bridge	• *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?* • *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?*	• Equity Based Practice (Eliciting and Using Evidence of Student Thinking): Eliciting and using student thinking can promote a classroom culture in which mistakes or errors are viewed as opportunities for learning. When student thinking is at the center of classroom activity, "it is more likely that students who have felt evaluated or judged in their past mathematical experiences will make meaningful contributions to the classroom over time. For example, when studying generalizing place value understanding for multi-digit whole numbers eliciting and using student thinking is critical because students need to work with very abstract numbers. Students will need to manipulate these numbers by understanding movement between place values and rounding numbers. This work is best done with students working together on tasks to explain and expand thinking through discourse. The teacher can further discourse by asking prompting questions or extending thinking through questions.

Planning for Multi-Layered System of Supports

Vertical Alignment

Previous Learning	*Current Learning*	*Future Learning*
• Connect to understanding that the three digits of a three-digit number represent amounts of hundreds, tens, and ones **(2.NBT.1)** • Connect to reading and writing numbers to 1,000 using base-ten numerals, number names and expanded form **(2.NBT.3)** • Connect to comparing two three-	• Connect to multiplying a whole number up to four digits by a one-digit whole number, and multiply two two-digit numbers using strategies based on place value **(4.NBT.5)** • Connect to finding whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies	• Connect to recognizing that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. **(5.NBT.1)** • Connect to explaining patterns in the numbers of zeros of the product when multiplying a

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digit numbers based on meanings of the hundreds, tens, and one's digits, using >, =, and< symbols to record the results of comparisons. **(2.NBT.4)** ● Connect to using place value understanding to round two-digit and three-digit numbers to the nearest 10 and 100 **(3.NBT.1)** ● Connect to multiplying one-digit whole numbers by multiples of ten **(3.NBT.3)**	based on place value **(4.NBT.6)**	number by powers of 10 **(5.NBT.2)** ● Connect to reading, writing, and comparing decimals to thousandths. **(5.NBT.3)** ● Connect to using place value understanding to round decimals to hundredths **(5.NBT.4)**

Suggested Instructional Strategies

Pre-Teach

Level of Intensity	***Essential Question***	***Examples***
Targeted	*What pre-teaching will prepare students to productively struggle with the mathematics for this cluster within your HQIM?*	For example, some learners may benefit from targeted pre-teaching that analyzes common misconceptions when studying generalizing place value understanding for multi-digit whole numbers because students are working with multiples of ten moving from one place value to another. Students that are taught to "just add a zero" when multiplying by ten will not understand mathematically why this works. Similarly, with rules for rounding, students need to understand why we round up from 5 and up. Knowing this rule does not help them, but visually seeing which number is closer will help with rounding.
Intensive	*What critical understandings will prepare students to access the mathematics for this cluster?*	2.NBT.A.1: This standard provides a foundation for work with generalizing place value understanding for multi-digit whole numbers because this standard builds student understanding of place values and values of these numbers up to the hundreds place. 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

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A student should know/understand...	A student should be able to do...	***Potential Scaffolds***

• A digit in one place represents 10 times more than the place to its right.
• The difference between standard, word, and expanded forms.
• How place value helps round numbers.
• How to identify situations that call for rounding numbers.
	• Read and write numbers to 1,000,000 based on place value understanding.
	• Write numbers using various forms of expanded notation.
	• Compare numbers using place value and <, >, = symbols to show the comparison.
	• Use rounding in a variety of situations, including estimation, solving problems, and determining if their answers make sense.
		• Build on students' experience with the following skills:
		  ○ Understanding of powers of ten
		  ○ Round to the nearest 10 and 100
		  ○ Identify standard forms of numbers
		
		• Cognitive Strategies
		  ○ 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:
		  ○ Place value chart
		  ○ Number line

Re-Teach		
Level of Intensity	***Essential Question***	***Examples***
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 generalizing place value understanding for multi-digit whole numbers by revisiting student thinking through a short mini-lesson because targeting revisiting of student thinking will allow the teacher to correct misconceptions and/or give more help with conceptual understanding.
Intensive	What assessment data will help identify content needing to be revisited for intensive	For example, some students may benefit from intensive extra time during and after a unit generalizing place value understanding for multi-digit whole numbers by

	interventions?	revisiting student thinking by addressing conceptual understanding because conceptual understanding needs to be built with manipulatives or visual models.

Extension	
Essential Question	***Examples***
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 the opportunity to understand concepts more quickly and explore them in greater depth than other students when studying generalizing place value understanding for multi-digit whole numbers because students need extensive practice to become fluent with multi-digit numbers, including manipulating them and using them in different contexts.

CCSS Domain	***CCSS Cluster***
Numbers and Operations in Base Ten	**Use place value understanding and properties of operations to perform multi-digit arithmetic**

Culturally and Linguistically Responsive Instruction

Relevance to Families and Communities	During a unit focused on using place value understanding and properties of operations to perform multi-digit arithmetic, 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, possible examples include: students look for ways they use arithmetic outside of school, students ask family members and/or friends how they use arithmetic in their everyday lives, students look for examples of arithmetic in their daily lives. Students can share their findings with class by: having conversations, creating written and/or visuals in print or non-print formats. As students share with each other, they will make connections.	
Cross-Curricular Connections	Social Studies: Consider giving students an opportunity to study and compare populations in various geographic areas within the state, country, or world. Students can use their understanding of place value to solve real-world problems that require them to compare populations using addition and subtraction.	
Validate/Affirm/Build/ Bridge	• *How can you design your mathematics classroom*	• Equity Based Practice (Goal Setting): Setting challenging but attainable goals with students can

	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? • *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?*	communicate the belief and expectation that all students can engage with interesting and rigorous mathematical content and achieve in mathematics. Unfortunately, the reverse is also true, when students encounter low expectations through their interactions with adults and the media, they may see little reason to persist in mathematics, which can create a vicious cycle of low expectations and low achievement. For example, when studying using place value understanding and properties of operations to perform multi-digit arithmetic goal setting is critical because when students reach goals with adding, subtracting, multiplying, and dividing they realize success which increases math confidence. Multi-digit arithmetic success relies on fluency, and many students may need to continue to work toward fluency.

Planning for Multi-Layered System of Supports

Vertical Alignment

Previous Learning	*Current Learning*	*Future Learning*
• Connect to fluently adding and subtracting within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. **(2.NBT.5)** • Connect to adding and subtracting within 1,000 using concrete models or drawings. **(2.NBT.7)** • Connect to fluently adding and subtracting within 1000 using	• Connect to recognizing that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. **(4.NBT.1)** • Connect to finding whole-number quotients and remainders with up to four-digit dividends and one-digit divisors. **(4.NBT.6)**	• Connect to fluently multiplying multi-digit whole numbers using the standard algorithm. **(5.NBT.5)** • Connect to finding quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies. **(5.NBT.6)** • Connect to adding, subtracting, multiplying, and dividing decimals to hundredths, using concrete models or drawings and

strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. **(3.NBT.2)** ● Connect to multiplying one-digit whole numbers by multiples of 10 in the range 10–90, for example, 9 × 80 and 5 × 60. **(3.NBT.3)**		strategies. **(5.NBT.7)** ● Connect to explaining patterns in the number of zeros of the product when multiplying a number by powers of 1.0 **(5.NBT.2)**

Suggested Instructional Strategies

Pre-Teach

Level of Intensity	***Essential Question***	***Examples***
Targeted	*What pre-teaching will prepare students to productively struggle with the mathematics for this cluster within your HQIM?*	For example, some learners may benefit from targeted pre-teaching that rehearses prior learning when studying place value understanding and properties of operations to perform multi-digit arithmetic because reviewing models used prior to grade 4 will help students move to adding and subtracting using the standard algorithm. Students can use place value models they used for adding and subtracting as they create place value models when multiplying and dividing.
Intensive	*What critical understandings will prepare students to access the mathematics for this cluster?*	3.NBT.A.2: This standard provides a foundation for work with place value understanding and properties of operations to perform multi-digit arithmetic because being able to fluently add and subtract within 1000 using the properties of operations and/or the relationship between addition and subtraction is the foundation for accuracy and understanding of the algorithm. 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***

• The connection between previous work with addition and subtraction models and representations and efficient algorithms to add and subtract multi-digit numbers.
• Arrays and area models, as well as the properties of multiplication.
• How to extend strategies for multiplication to two two-digit numbers.
• The connection between previous work with division facts to finding compatible numbers.
	• Fluently add and subtract multi-digit whole numbers using one or more strategies.
	• Multiply a number up to four-digits by a one-digit number using a variety of models and strategies.
	• Multiply two two-digit numbers using a variety of models and strategies.
	• Divide a number up to four-digits by a one-digit number using a variety of models and strategies.
		• Build on students' experience with the following skills:
		  ○ Multiplying and dividing single-digit numbers within 100 fluently
		  ○ Adding and subtracting using place value strategies
		  ○ Place value regrouping strategies
		
		• Cognitive Strategies
		  ○ 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:
		  ○ Place value chart

Re-Teach

Level of Intensity	***Essential Question***	***Examples***
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 using place value understanding and properties of operations to perform multi-digit arithmetic by providing specific feedback to students on their work through a short mini-lesson because focusing on solidifying place value understanding will help students when adding and subtracting using the standard algorithm.
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 perform multi-digit arithmetic by confronting student misconceptions because identifying and correcting misconceptions with place value understanding is crucial

		to students being successful with adding and subtracting using the standard algorithm as well as using place value understanding to multiply and divide whole numbers.
Extension		
Essential Question		***Examples***
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 using place value understanding and properties of operations to perform multi-digit arithmetic because through working with adding, subtracting, multiplying, and dividing in various curriculum areas, students will not only make connections between math and the real world, but they will also see the value of math in life.