

Module 2: Multi-Digit Whole Number and Decimal Fraction Operations

(Trimester 1: 35 Days)

Topic A	Multi-Digit Whole Number and Decimal Fraction Operations		5.NBT.1 5.NBT.2 5.OA.1
Topic B	The Standard Algorithm for Multi-Digit Whole Number Multiplication		5.OA.1 5.OA.2 5.NBT.5
Topic C	Decimal Multi-Digit Multiplication		5.NBT.7 5.NBT.1 5.OA.1 5.OA.2
ASSESSMENT	5.OA.1, 2	Reporting Strand: Uses place value to add, subtract, multiply and divide decimal numbers	Report Card: 0-4
Topic D	Measurement Word Problems with Whole Number and Decimal Multiplication		5.NBT.5 5.NBT.7 5.MD.1 5.NBT.1 5.NBT.2
ASSESSMENT	5.NBT.5 5.MD.1	Reporting Strand: Uses place value to add, subtract, multiply and divide decimal numbers	Report Card: 0-4
Topic E	Mental Strategies for Multi-Digit Whole Number Division		5.NBT.1 5.NBT.2 5.NBT.6
Topic F	Partial Quotients and Multi-Digit Whole Number Division		5.NBT.6
Topic G	Partial Quotients and Multi-Digit Decimal Division		5.NBT.2 5.NBT.7
Topic H	Measurement Word Problems with Multi-Digit Division		5.NBT.6 5.NBT.7
ASSESSMENT	5.NBT.6 5.NBT.7	Reporting Strand: Uses place value to add, subtract, multiply and divide decimal numbers	Report Card: 0-4

5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.

5.NBT.1 Recognize 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.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.⁸¹

5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-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.

5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, 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.⁸²

5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Reporting Strand: Uses place value to add, subtract, multiply and divide decimal numbers

CCSS	4 – Mastery	3- Proficient	2 – Basic	1 – Below Basic	0 – No Evidence
5.MD.1	Can extend thinking beyond the standard, including tasks that may involve one of the following:	Solve multi-step, real world problems involving conversions within a given measurement system	Solve multi-step mathematical problems involving conversions within a given measurement system	Solve single-step problems involving conversions within a given measurement system	Little evidence of reasoning or application to solve the problem
5.OA.1, 5.OA.2	<ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	<p>For expressions using parentheses (brackets, or braces), do all of the following:</p> <ul style="list-style-type: none"> • Write a verbal expression numerically • Interpret a numerical expression • Evaluate the expression 	<p>For expressions using parentheses (brackets, or braces), do two of the following:</p> <ul style="list-style-type: none"> • Write a verbal expression numerically • Interpret a numerical expression • Evaluate the expression 	<p>For expressions using parentheses (brackets, or braces), do one of the following:</p> <ul style="list-style-type: none"> • Write a verbal expression numerically • Interpret a numerical expression • Evaluate the expression 	Does not meet the criteria in a level 1
5.NBT.5		Efficiently (quickly) and accurately multiply multi-digit whole numbers using the standard algorithm.	Accurately multiply multi-digit whole numbers using the standard algorithm.	Accurately multiply multi-digit whole numbers, using a strategy other than the standard algorithm.	
5.NBT.6		<p>Divide a whole number with up to four digits by a two-digit whole number by using any of the following:</p> <ul style="list-style-type: none"> • equations • rectangular arrays • area models • place value charts 	<p>Divide a whole number with three digits by a two-digit whole number using any of the following:</p> <ul style="list-style-type: none"> • equations • rectangular arrays • area models • place value charts 	<p>Divide a whole number with two digits by a two-digit whole number, using any of the following:</p> <ul style="list-style-type: none"> • equations • rectangular arrays • area models • place value charts 	
5.NBT.7		<p>Perform all of the following operations on decimals to the hundredths:</p> <ul style="list-style-type: none"> • add • subtract • multiply • divide <p>using models/drawings and strategies based on place value, properties of operations, or the relationship between addition and subtraction.</p> <p>Relate the strategy to a written method and explain the reason.</p>	<p>Perform all of the following operations on decimals to the hundredths:</p> <ul style="list-style-type: none"> • add • subtract • multiply • divide <p>using models/drawings and strategies based on place value, properties of operations, or the relationship between addition and subtraction.</p>	<p>Perform 3 of the following operations on decimals to the hundredths:</p> <ul style="list-style-type: none"> • add • subtract • multiply • divide <p>using models/drawings and strategies based on place value, properties of operations, or the relationship between addition and subtraction.</p>	

Usa el valor posicional para sumar, restar, multiplicar y dividir los números decimales

CCSS	4 – Dominio	3- Apto	2 – Básico	1 – Por debajo de lo Básico	0 – No hay Evidencia
5.MD.1		Resuelven problemas de varios pasos y del mundo real involucrando conversiones dentro de un sistema de medición dado	Resuelven problemas de varios pasos involucrando conversiones dentro de un sistema de medición dado	Resuelven problemas de un paso involucrando conversiones dentro de un sistema de medición dado	
5.OA.1, 5.OA.2	Puede pensar más allá del estándar, incluyendo tareas que puedan involucrar uno de los siguientes aspectos:	<p>Para expresiones que usan paréntesis (corchetes o llaves), hacen <u>todo de lo siguiente</u>:</p> <ul style="list-style-type: none"> • Escriben expresiones numéricas verbales • Interpretan una expresión numérica • Evalúan la expresión 	<p>Para expresiones que usan paréntesis (corchetes o llaves), hacen <u>dos de lo siguiente</u>:</p> <ul style="list-style-type: none"> • Escriben expresiones numéricas verbales • Interpretan una expresión numérica • Evalúan la expresión 	<p>Para expresiones que usan paréntesis (corchetes o llaves), hacen <u>uno de lo siguiente</u>:</p> <ul style="list-style-type: none"> • Escriben expresiones numéricas verbales • Interpretan una expresión numérica • Evalúan la expresión 	Hay poca evidencia de razonamiento o aplicación para resolver el problema
5.NBT.5		Multiplican números enteros de varios dígitos correctamente <u>y eficaz (rápido)</u> , utilizando el algoritmo convencional.	Multiplican números enteros de varios dígitos correctamente, <u>utilizando el algoritmo convencional</u> .	Multiplican números enteros de varios dígitos correctamente, <u>utilizando una estrategia distinta del algoritmo convencional</u> .	
5.NBT.6	<ul style="list-style-type: none"> • Diseñar • Conectar • Sintetizar • Aplicar • Justificar • Criticar • Analizar • Crear • Demostrar 	Dividen un número entero de <u>hasta cuatro dígitos</u> por un número entero de dos dígitos usando cualquiera de lo siguiente: <ul style="list-style-type: none"> • ecuaciones • matrices • rectangulares • modelos de área • tablas de valor posicional 	Dividen un número entero de <u>hasta tres dígitos</u> por un número entero de dos dígitos usando cualquiera de lo siguiente: <ul style="list-style-type: none"> • ecuaciones • matrices • rectangulares • modelos de área • tablas de valor posicional 	Dividen un número entero de <u>hasta dos dígitos</u> por un número entero de dos dígitos usando cualquiera de lo siguiente: <ul style="list-style-type: none"> • ecuaciones • matrices • rectangulares • modelos de área • tablas de valor posicional 	No reúne los criterios del nivel 1
5.NBT.7		<p>Realice todas las operaciones siguientes en decimales hasta las centésimas</p> <ul style="list-style-type: none"> • sumar • restar • multiplicar • dividir <p>utilizando modelos concretos o dibujos y estrategias basadas en valor posicional, propiedades de las operaciones o la relación entre la suma y la resta.</p> <p><u>Relacionan la estrategia a algún método escrito y explican el razonamiento empleado.</u></p>	<p>Realice <u>todas las operaciones</u> siguientes en decimales hasta las centésimas</p> <ul style="list-style-type: none"> • sumar • restar • multiplicar • dividir <p>utilizando modelos concretos o dibujos y estrategias basadas en valor posicional, propiedades de las operaciones o la relación entre la suma y la resta.</p>	<p>Realice al menos de <u>3 de las operaciones</u> siguientes en decimales hasta las centésimas</p> <ul style="list-style-type: none"> • sumar • restar • multiplicar • dividir <p>utilizando modelos concretos o dibujos y estrategias basadas en valor posicional, propiedades de las operaciones o la relación entre la suma y la resta.</p>	