Whole Number Operations

5.4 Number and operations. The student develops and uses strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.

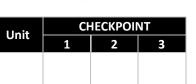
Catholic Identity: Integration of Our Fait	Catholic Identi	: Integration o	f Our Faith
--------------------------------------------	-----------------	-----------------	-------------

- 5.1A display a sense of wonder about mathematical relationships *
- 5.1B respond to the beauty, harmony, proportion, radiance, and wholeness present in mathematics *
- 5.1C show interest in how the mental processes evident within mathematics help us with the development of natural virtues *
- 5.1D exhibit appreciation for the process of discovering meanings and truths and not just arriving at an answer *

	ning Process Standards (Tools to Know)	Unit	CHECKPOINT				
Lean	ning riocess signadias (tools to know)	Onic	1	2	3		
5.2A	determine math needed to solve problems						
5.2B	use problem-solving models						
5.2C	exhibit joy at solving difficult mathematical problems *						

Cont		l lmit	C	HECKPOIN	IT
Conic		Unit	1	2	3
All Ope	erations of Whole Numbers				
5.4A	represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity				
5.4A.1	estimate to determine solutions to mathematical and real-world problems involving addition and subtraction, multiplication, or division				
5.4A.2	multiply with fluency a three-digit number by a two-digit number using the standard algorithm				
5.4A.3	solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm				
Algebr	aic Representations				
5.4B	simplify numerical expressions that do not involve exponents, including up to two levels of grouping				
5.4B.1	describe the meaning of parentheses and brackets in a numeric expression				

Learning Process Standards (Ways to Show)	Unit	CHECKPOINT			
Lean	ning frocess signadias (ways to show)	Unit	1	2	3
5.2D	create representations				
5.2E	analyze information				
5.2F	develop lines of inquiry to determine truth or falsehood *				



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Desimala		CHECKPOINT				
Decimals	Unit	1	2	3		
5.3 Place value. The student represents, compares, and orders positive rational numbers and understand relationships as related to place value.						
5.4 Number and operations. The student develops and uses strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.						

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Learr	ing Process Standards (Tools to Know)	Unit	CH 1	IECKPO	NT 3
5.2A 5.2B 5.2C	determine math needed to solve problems use problem-solving models exhibit joy at solving difficult mathematical problems *		÷		
Cont	ent	Unit	CH 1	IECKPOI 2	NT 3
Compa	uring Decimals				
5.3A	compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =				
5.3A.1	represent the value of the digit in decimals through the thousandths using expanded notation and numerals				
Additi	on/Subtraction of Decimals				
5.4C	add and subtract positive decimals fluently				
5.4C.1	round decimals to tenths or hundredths				
Multip	lication of Decimals				
5.4D	solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers				
5.4D.1	represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models				
Divisio	n of Decimals				
5.4E	solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm				
5.4E.1	represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models				

	rning Process Standards (Ways to Show)	Unit	CHECKPOINT			
Lean	ing rideess signadias (ways to show)	Unit	1	2	3	
5.2D	create representations					
5.2E	analyze information					
5.2F	develop lines of inquiry to determine truth or falsehood *					

Developed in partnership with lead4uard' *CATHOLIC CURRICULAR STANDARDS AND DISPOSITIONS IN MATHEMATICS K-6, Cardinal Newman Society



Fractions	Unit	CHECKPOINT					
Fractions	Onic	1	2	3			
5.4 Number and operations. The student develops and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.							
Catholic Identity: Integration of Our Eaith							

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Logr	ning Propose Standards (Tools to Know)	Unit	CHECKPOINT				
Lear	ning Process Standards (Tools to Know)		1	2	3		
5.2A	determine math needed to solve problems						
5.2B	use problem-solving models						
5.2C	exhibit joy at solving difficult mathematical problems *						

Cont	ant	Unit	CHECKPOINT			
Com		Unit	1	2	3	
Additi	on/Subtraction of Fractions					
5.5F	add and subtract fractions fluently					
5.4F.1	represent and solve addition and subtraction of fractions with unequal denominators					
Multip	plication of Fractions					
5.4G	represent and solve multiplication of a whole number and a fraction					
5.4G.1	identify prime and composite numbers					

Divisio	on of Fractions		
5.4H	divide whole numbers by unit fractions and unit fractions by whole numbers		
5.4H.1	represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1/3 \div 7$ and $7 \div 1/3$ using objects and pictorial models, including area models		

	aing Brooce Standards (Mayo to Show)	Unit	CHECKPOINT				
Lean	ning Process Standards (Ways to Show)	Unit	1	2	3		
5.2D	create representations						
5.2E	analyze information						
5.2F	develop lines of inquiry to determine truth or falsehood *						



Graphing on Coordinate Plane Unit CLECKPOINT 5.6 Geometry and measurement. The student graphs and interprets points, expressions, and equations on a coordinate plane. 1 2 3

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	rning Process Standards (Teels to Know)		CHECKPOINT					
Lear	rning Process Standards (Tools to Know)	Unit	1	2	3			
5.2A	determine math needed to solve problems							
5.2B	use problem-solving models							
5.2C	exhibit joy at solving difficult mathematical problems *							

Con	Content		C	IECKPOII	NT
Con	tent	Unit		2	3
Coord	inate Plane				
5.6A	graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table				
5.6A.1	describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane				
Linear	Representations				
5.6B	generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph				
5.6B.1	recognize the difference between additive and multiplicative numerical patterns given in a table or graph				

Learning Propose Standards (Marsto Show)		Unit	CHECKPOINT			
Lean	ning Process Standards (Ways to Show)	Onic	1	2	3	
5.2D	create representations					
5.2E	analyze information					
5.2F	develop lines of inquiry to determine truth or falsehood *					



CHECKPOINT

2

1

3

Unit

Measurement

5.6 Geometry and measurement. The student solves problems involving perimeter, area and volume and converts within a unit of measurement.

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	rning Process Standards (Tools to Know)	Unit	CHECKPOINT					
Lear	ning Frocess standards (roots to know)	Onit	1	2	3			
5.2A	determine math needed to solve problems							
5.2B	use problem-solving models							
5.2C	exhibit joy at solving difficult mathematical problems *							

Content	Unit	CHECKPOINT			
Comeni	Unit	1	2	3	
Perimeter and Area					
5.6C represent and solve problems related to perimeter and area					

Volum	e		
5.6D	represent and solve problems related to volume including the relationship to perimeter and area		
5.6D.1	recognize a cube with side length of one unit as a unit cube having one cubic unit of volume and the volume of a three-dimensional figure as the number of unit cubes (<i>n</i> cubic units) needed to fill it with no gaps or overlaps if possible		
5.6D.2	determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base		
5.6D.3	use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube ($V = I \times w \times h$, $V = s \times s \times s$, and $V = Bh$)		

Conversions			
5.6E solve problems by calculating conversions within a measurement system, customary or metric			

Logr	Learning Process Standards (Ways to Show)	Unit	CHECKPOINT		
Lean	ning riocess signadius (ways to show)	Onit	1	2	3
5.2D	create representations				
5.2E	analyze information				
5.2F	develop lines of inquiry to determine truth or falsehood *				



Data Analysia	Unit	CHECKPOINT			
Data Analysis	Onit	1	2	3	
5.7 Data analysis. The student solves problems by collecting, organizing, displaying, and interpreting data.					

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	r Propose Standards (Tools to Know)	Unit	CHECKPOINT			
Lear	ning Process Standards (Tools to Know)	Onit	1	2	3	
5.2A	determine math needed to solve problems					
5.2B	use problem-solving models					
5.2C	exhibit joy at solving difficult mathematical problems *					

Cont	Content		CHECKPOINT			
Content		Unit	1	2	3	
Using	Data to Solve Problems					
5.7A	solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot					
5.7A.1	represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and- leaf plots					
5.7A.2	represent discrete paired data on a scatterplot					

Logr	ning Process Standards (Ways to Show)	Unit	CHECKPOINT			
Lean	ning riocess signadius (ways to show)	Onic	1	2	3	
5.2D	create representations					
5.2E	analyze information					
5.2F	develop lines of inquiry to determine truth or falsehood *					