## **Common Core Math Curriculum – Grade 3**

How are multiplication and division related?    Describe whole number products in terms of factors 3.OA.1   Draw a model to represent a given product 3.OA.1   State/ list the factors of a given product 3.OA.1   Draw a model to represent a multiplication equation 3.OA.1   Describe whole number division related?   Represent and solve problems involving multiplication and division   Draw a model to represent a multiplication context to numeric form and vice versa 3.OA.2   Draw a model to represent a multiplication on division word problems within 100 3.OA.3   Draw a word form in a division context to numeric form and vice versa 3.OA.2   Draw a model to represent a given product 3.OA.1   Describe whole number division context to numeric form and vice versa 3.OA.2   Draw a model to represent a multiplication on addivision word problems within 100 3.OA.3   Write an equation to represent a division word problems within 100 3.OA.3   Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems of multiplication and the relationship between multiplication and division and division word problems and properties of multiplication and division word problems and properties of multiplication and division word problems and persevere in solving whole numbers and critique reasoning of them.    Draw a model to represent a multiplication context to numeric form and vice versa 3.OA.2   Draw a model to represent a division equation 3.OA.2   Draw a model to represent a fulliplication or division word problems 3.OA.3   Draw a model to represent a given product 3.OA.1   Draw a model to represent a multiplication or division word problems within 100 3.OA.3   Draw a model to represent a division equation 3.OA.2   Draw a model to represent a division equation 3.OA.2   Draw a model to represent a division equation 3.OA.2   Draw a model to represent a division equation 3.OA.2   Draw a model to represent a division equation 3.OA.2   Draw a wisual representation (array, drawing, area mode	ESSENTIAL	DOMAINS AND	GRADE 3 SKILL	VOCABULARY	MATHEMATICAL	ASSESSMENT
multiplication and division related?    Magebraic Thinking 3.0A   Create a manipulative model to represent a multiplication equation 3.OA.1	QUESTIONS	CLUSTERS		1 .	PRACTICES	NATA C. 2
division related?    Create a manipulative model to represent a multiplication equation 3.OA.1     State/ list the factors of a given product 3.OA.1     Translate word form in a multiplication equation 3.OA.2     Translate word form in a multiplication equation 3.OA.2     Translate word form in a division in terms of equal groups/ partitions 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Translate word form in a division word problem with a symbol for the unknown3.OA.3     Translate word form in a division word problem with a symbol for the unknown3.OA.3     Translate word form in a division word problem with a symbol for the unknown3.OA.4     Tr					•	
Represent and solve problems involving multiplication and division  How do we use multiplication and division  How do we use multiplication and division  How do we use multiplication to solve problems?  How do we use multiplication to solve problems?  How do we use multiplication and division  How do we use multiplication to solve problems with a symbol for the unknown3.OA.3  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems with a symbol for the unknown3.OA.3  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication and the relationship between multiplication and the relationship between multiplication and division  Attend to precision.  Look for and express regularity in repeated reasoning. Math Journ writing  Math Ports  Tools:  Anecdotal  equal groups  digit  solve  factor(s)  factor(		0				Assessment
Represent and solve problems involving multiplication and division  How do we use How do we use multiplication and division  How do we use Problems?  How do we use How do we use problems?  How do we use How do we use problems?  How do we use problems?  How do we use How do we use problems?  How do we use How do we use problems?  How do we use problems?  How do we use How do we use problems?  How do we use problems?  How do we use problems?  How do we use problems within 100 3.OA.2    Draw a model to represent a given product 3.OA.2   Draw a model to represent a division equation 3.OA.2   Solve multiplication and division word problems within 100 3.OA.3   Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems. OA.3   Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems within 100 3.OA.3   Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems with a symbol for the unknown 3.OA.4   Evaluate the truth value of a product for a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4   Evaluate the truth value of a product for a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4   Explain and give a numeric example commutative, associative property of multiplication and the relationship between multiplication and division in terms of multiplication equation 3.OA.5   Describe division in terms of multiplication equation 3.OA.5   Draw a visual representation (array, drawing, area model, etc.) for a given division word problems with a symbol for the unknown 3.OA.4   Explain and give a numeric example commutative, associative property distributive property distributive property distributive property distributive property distributive	division related?	3.0A		•	them.	
Problems involving multiplication and division   Describe whole number division in terms of equal groups/ partitions 3.OA.2   Draw a model to represent a given product 3.OA.2   Draw a model to represent a division equation 3.OA.2   Evaluate the truth value of a product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4   Describe whole number division in terms of equal groups/ partitions 3.OA.2   factor(s)   factor		D . 1 1		5		Anecdotal records
Describe whole number division in terms of equal groups/ partitions 3.OA.2     Translate word form in a division context to numeric form and vice versa 3.OA.2     Draw a model to represent a given product 3.OA.2     Draw a visual representation (array, drawing, area model, etc.) for a given multiplication and the relationship between multiplication and division     Understand properties of multiplication and the relationship between multiplication and division     Understand properties of multiplication and division     Understand properties of multiplication and division     Open-ender question (array, drawing, area model, etc.) for a given multiplication and the relationship between multiplication and division     Open-ender questionin (array, drawing, area model, etc.) for a given multiplication and the relationship between multiplication and division     Open-ender questionin (array, drawing, area model, etc.) for a given multiplication or division word problems (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4     Explain and give a numeric example commutative, associative & distributive property of multiplication 3.OA.5     Describe division in terms of multiplication (inverse operations) 3.OA.6     Open-ender questionin (array, drawing, area model, etc.) for a given multiplication     Understand properties of multiplication and division word problems through application of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.5     Explain and give a numeric example commutative, associative & distributive property     Explain and give a numeric example commutative, associative & distributive property     Describe division in terms of multiplication (inverse operations) 3.OA.6     Open-ender division     Multiplication     Multiplication     Multiplication     Multiplication     Multiplication     Look for and express regularity in repeated reasoning.     Investigation     Tools:		*		1 0 1		
How do we use multiplication and division on the problems?    Translate word form in a division context to numeric form and vice versa 3.OA.2					quantitatively.	Higher Order
How do we use multiplication and division to solve problems?  Draw a model to represent a given product 3.OA.2  Create a manipulative model to represent a division equation 3.OA.2  Solve multiplication and division word problems within 100 3.OA.3  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problems on the unknown 3.OA.3  Choose the appropriate operation based on context clues in text 3.OA.3  Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given factor 3.OA.4  Explain and give a numeric example commutative, associative & distributive property of multiplication and the relationship between multiplication and division  and division  Understand properties of multiplication and the relationship between multiplication and division  Describe division in terms of multiplication of fact families 3.OA.6  Solve division problems through application of fact families 3.OA.6  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication and division  Understand properties of multiplication and the relationship between multiplication and division a						Questioning
multiplication and division to solve problems?    Create a manipulative model to represent a division equation 3.OA.2   Solve multiplication and division word problems within 100 3.OA.3   Write an equation to represent a multiplication or division word problem with a symbol for the unknown3.OA.3   Choose the appropriate operation based on context clues in text 3.OA.3   Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4   Evaluate the truth value of a product for a given factor 3.OA.4   Explain and give a numeric example commutative, associative & distributive property of multiplication and the relationship between multiplication and division   Describe division problems through application of fact families 3.OA.6   Solve division problems through application of fact families 3.OA.6   Tools:		division		. ,		
division to solve problems?  Solve multiplication and division word problems within 100 3.OA.3  Write an equation to represent a multiplication or division word problem with a symbol for the unknown3.OA.3  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problem3.OA.3  Choose the appropriate operation based on context clues in text 3.OA.3  Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given factor 3.OA.4  Understand properties of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication and division  Explain and give a numeric example commutative, associative & distributive property  Describe division in terms of multiplication equation 3.OA.5  Solve division word problem with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given factor 3.OA.4  Explain and give a numeric example commutative, associative & distributive property  Describe division in terms of multiplication equation 3.OA.5  Solve division problems through application of fact families 3.OA.6  Solve division word problems with a symbol for the unknown 3.OA.3  Choose the appropriate tools witategically.  Multiplication  Commutative property  associative property  associative property  associative property  distributive property  distributive property  distributive property  distributive property  Tools:						Open-ended
Performant tasks    Write an equation to represent a multiplication or division word problem with a symbol for the unknown3.OA.3     Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problem3.OA.3     Choose the appropriate operation based on context clues in text 3.OA.3     Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4     Evaluate the truth value of a product for a given factor 3.OA.4     Explain and give a numeric example commutative, associative & distributive property of multiplication and the relationship between multiplication and division     Describe division problems through application of fact families 3.OA.6     Oral explain and division     Commutative property     associative property     associative property     dividend     quotient divisor     digit     Multiplication     Attend to precision.     Commutative property     associative property     associative property     distributive property					reasoning of others.	questioning
symbol for the unknown3.OA.3  Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problem3.OA.3  Choose the appropriate operation based on context clues in text 3.OA.3  Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given factor 3.OA.4  Explain and give a numeric example commutative, associative & distributive property of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication equation 3.OA.5  Draw a visual representation (array, drawing, area model, etc.) for a given divisor  digit  Multiplication  Attend to precision.  Commutative property  associative property  associative property  Describe division in terms of multiplication (inverse operations) 3.OA.6  Draw a visual representation (array, drawing, area model, etc.) for a given divisor  digit  Choose the appropriate tools strategically.  Pencil and  Commutative property  associative property  associative property  Describe division in terms of multiplication (inverse operations) 3.OA.6  Does ribe division in terms of multiplication of fact families 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:					<b>36</b> 11 12 11 12	
Draw a visual representation (array, drawing, area model, etc.) for a given multiplication or division word problem3.OA.3  Choose the appropriate operation based on context clues in text 3.OA.3  Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Understand properties of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication and advision  Explain and give a numeric example commutative, associative & distributive property of multiplication and agive multiplication equation 3.OA.5  Solve division problems through application of fact families 3.OA.6  Draw a visual representation (array, drawing, area model, etc.) for a given given factor. Graphs and divisor  didition  Multiplication  Commutative property  associative property  associative property  Doscribe division in terms of multiplication (inverse operations) 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:	problems?				Model with mathematics.	Performance-based
multiplication or division word problem3.OA.3 Choose the appropriate operation based on context clues in text 3.OA.3 Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4 Understand properties of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication and addivision in terms of multiplication (inverse operations) 3.OA.6 Solve division problems through application of fact families 3.OA.6  multiplication word problem3.OA.3  digit Multiplication Attend to precision.  Commutative property structure.  Commutative property associative property regularity in repeated reasoning. Math Portion of digit strategically.  Pencil and Oral explate the truth value of a product for a given factor 3.OA.4  Solve division in terms of multiplication equation 3.OA.5 Describe division in terms of multiplication (inverse operations) 3.OA.6 Solve division problems through application of fact families 3.OA.6 Tools:				•	TT	tasks
Choose the appropriate operation based on context clues in text 3.OA.3  Solve for a missing factor of a given product (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Understand properties of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication equation 3.OA.5  State the property shown in a given multiplication equation 3.OA.6  Describe division problems through application of fact families 3.OA.6  Multiplication  Attend to precision.  Commutative property  property  associative property  associative property  distributive property  easoning.  Math Portication  Math Portication  Tools:						
Understand properties of multiplication and the relationship between multiplication and division  Understand division  Understand properties of multiplication and division  Understand properties of multiplication and the relationship between multiplication  Solve division problems through application of fact families 3.OA.6  Understand properties of multiplication and the relationship between multiplication and division  Solve division problems through application of fact families 3.OA.6  Understand properties of multiplication (divisor, dividend or quotient) with a symbol for the unknown 3.OA.4  Evaluate the truth value of a product for a given factor 3.OA.4  Commutative property  associative property  associative property  Tools:  Math Portion of a distributive property  associative property  Tools:					strategically.	Pencil and paper
symbol for the unknown 3.OA.4  Understand properties of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication equation 3.OA.5  State the property shown in a given multiplication (inverse operations) 3.OA.6  Describe division problems through application of fact families 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:  Look for and make use of structure.  Math Portion of structure.  Look for and express regularity in repeated reasoning.  Math Journ writing				• Multiplication	A., 1,	1 1
Understand properties of multiplication and the relationship between multiplication and division    Describe division problems through application of fact families 3.OA.6			symbol for the unknown 3.OA.4		Attend to precision.	Oral explanations
of multiplication and the relationship between multiplication and division  Explain and give a numeric example commutative, associative & distributive property of multiplication 3.OA.5  State the property shown in a given multiplication equation 3.OA.5  Describe division in terms of multiplication (inverse operations) 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:			□ Evaluate the truth value of a product for a given factor 3.OA.4		Look for and make use of	N. 1. D. 10.11
the relationship between multiplication and division  Tools:    Cook for and express property of multiplication 3.OA.5		* *		<ul><li>Commutative</li></ul>	structure.	Math Portfolio
between multiplication and division  Describe division in terms of multiplication (inverse operations) 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:  property  distributive property  Tools:						
and division  Describe division in terms of multiplication (inverse operations) 3.OA.6  Solve division problems through application of fact families 3.OA.6  Tools:		•		<ul><li>associative</li></ul>		Investigations
Solve division problems through application of fact families 3.OA.6 property  Tools:		*				
Tools:	a	and division		<ul><li>distributive</li></ul>	reasoning.	Math Journal
			□ Solve division problems through application of fact families 3.OA.6	property		writing
Multiply and divide   Fluently multiply and divide within 100 (know from memory all product of two   Deer assess					Tools:	
		Multiply and divide	☐ Fluently multiply and divide within 100 (know from memory all product of two			Peer assessment
What are the within 100 one-digit numbers) 3.OA.7		within 100		•		
properties of Describe the relationship between factors & products in terms of multiplication & inverse operation Base ten blocks Teacher						Teacher
multiplication? Solve problems division 3.OA.7  In factor(s)  Number lines Ruler  Observation			division 3.OA.7	• factor(s)		Observation
			□ Solve two-step word problems using the four operations (apply order of	<ul><li>product</li></ul>		Checklists
What strategies can and explain patterns in operations rules: Multiplication & division are first (read left to right) then operation Multiplication chart						CHECKIISTS
	<u> </u>			±		Stenmark, J. K.
				•		(ed). (1991).
Write an equation to represent a multiplication or division word problem with a factor(s) Wrap-up facts						(Cu). (1991).

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			symbol for the unknown 3.OA.8	•	Equation	Hundreds chart	Mathematics
			Create a numeric pattern using addition & multiplication 3.OA.9	-	estimation	Fraction tiles	Assessment: Myths,
			Explain a given numeric pattern shown in a table or chart 3.OA.9		Communication	Analog clocks	Models, Good
			Explain a given numeric pattern shown in a table or chart 3.OA.9			Liquid measurement	Questions. Reston,
	Number and		Solve for a missing number (term) in a given arithmetic pattern 3.OA.9			containers	VA: NCTM
	Operations in Base	_	Solve for a missing number (term) in a given aritimetic pattern 5.0A.)			Balance scale	VA. INCTIVI
	Ten		Round whole numbers to the nearest 10 or 100 3.NBT.1	۱.	place value	Gram weights	http://palm.sri.com/
Why is	3.NBT		Explain the rounding rule and rational (as related to the number line) for a given		round	Graph/graph paper	intp.//paiiii.sii.com/
understanding place	3.NB1	_	number to nearest 10 or 100.		number line	Unit square tiles	http://teach-
value important?	Use place value and		State the value of a given digit (ex. 297 the value of 9 is 90), up to 10,000	-		_	nology.com/web_to
varue important?	properties of operations	_	3.NBT.1	-	digit ones	Polygon shapes	ols/rubrics/math/
							OIS/TUDITCS/IIIaui/
	to perform multi-digit arithmetic		State the place value of a given digit 10,000 3.NBT.1	-	tens		
	aritimetic		Write numbers in standard, expanded, and word form 3.NBT.1 Explain/ define 100 as 10 tens 3.NBT.2	[	hundreds thousands		
			Explain/ define 1000 as 10 tens 3.NBT.2  Explain/ define 1000 as 10 hundreds 3.NBT.2		ten thousands		
				-			
Harrida manad			State the value of a given digit up to 10,000 3.NBT.2		expanded form standard form		
How do we round			State the place value of a given digit 10,000 3.NBT.2		word form		
numbers to 1,000			Explain/ define each property with written examples 3.NBT.2				
	37 7 7		Estimate sums/differences 3.NBT.2	•	identity property		
	Number and	u	Multiply one-digit whole numbers by multiples of 10 (range of 10-90). 3.NBT.3	•	sum		
	Operations – Fractions			•	difference		
	3.NF		Define a fraction as partitioning one whole into equal parts. The number of equal	•	product		
XXII			parts is determined by the denominator of the fraction. 3.NF.1		<b>75</b> - 111		
What is a fraction?	Develop understanding		Draw/using manipulatives create a model representing the number of partitions of	•	Partition		
	of fractions as numbers		the whole (denominator), and how many you have/shaded in (numerator).3.NF.1	•	Numerator		
			Partition the number line between 0 and 1 into equal parts based on the	•	Denominator		
			denominator of the fraction. 3.NF.2a	•	Partition		
What are different			Partition the number line between 0 and 1 into equal parts based on the	•	Number line		
types of fractions?			denominator of the fraction. Then mark a point on the number line where the	•	fraction		
			fraction lies based on the numerator. 3.NF.2b	•	equivalent		
			Compare and order fractions. 3.NF.3a		fractions		
How are fractions			Draw/use models/convert numerically to represent equivalent fractions. 3.NF.3a	-	Fraction		
used in our daily			Plot two or more equivalent fractions on a number line to prove equivalency.	-	equal to		
lives?			3.NF.3a	•	greater than		
			Draw/use manipulatives to translate numeric equivalent fractions to visual	•	less than		
			representations (vice versa). 3.NF.3b				
What are equivalent			Explain why two fractions are equivalent. 3.NF.3b				
fractions?			Compose whole numbers as fractions (vice versa). 3.NF.3c				
			Plot a whole number and its fractional equivalent on a number line. 3.NF.3c				
			Plot multiple fractional representations of 1. 3.NF.3c	1			

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Measurement and Data 3.MD  Solve problems involving measurement and write time to the nearest minute?  How do we tell and write time to the nearest minute?  How do we thoose the appropriate unit of measurement and of measurement?  How do we choose the appropriate unit of measurement?  Represent and interpret data  Represent and interpret data  How do we represent information in a picture graph or bar graph with several categories based on a data set. 3.MD.3  Construct a scale in which each bar/picture represents more than one object (one fish represents 5 fish/bar graph in increments of 10), 3.MD.3  Construct a picture graph or bar graph with several categories based on a data set. 3.MD.3  Construct a picture graph or bar graph with several categories based on a picture graph or bar graph or bar graph with several parts. 3.MD.4  Order two fractions (numeric or visual representation) with the same enumerator, 3.NF.3d  Explain the rules for fractions with the same numerator, 3.NF.3d  Explain the rules for fractions with the same denominator using <, > = 3.NF.3d  Creations (numeric or visual representation) with the same denominator as same denominator. 3.NF.3d  Explain the rules for fractions with the same numerator, 3.NF.3d  Explain the rules for fractions with the same denominator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same numerator. 3.NF.3d  Explain the rules for fractions with the same denominator using conditions and analog clock digital clock.  ininute  How do we thoose the ad	T		П	Order two fractions (numeric or visual representation) with the same numerator		I	
Order two fractions (numeric or visual representation) with the same denominator using <, >, = 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   Figure 1.00   Figure 2.00   Figure			]				
Measurement and   Data   3.MD   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   6   Explain the rules for fractions with the same denominator. 3.NF.3d   6   digital clock   digital							
Data 3.MD   Explain the rules for fractions with the same numerator. 3.NF.3d   Explain the rules for fractions with the same denominator. 3.NF.3d   analog clock digital clock   digital clock   digital clock   digital clock   minute   minute minute   min		Measurement and	_	· · · · · · · · · · · · · · · · · · ·			
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.   Write and read time to the nearest minute on an analog and digital clock. 3.MD.1							
Solve problems involving measurement and estimation of intervals of time, liquid write time to the nearest minute?  How do we tell and write time to the nearest minute?  objects.  Write and read time to the nearest minute on an analog and digital clock. 3.MD.1 obconstruct word problem to determine appropriate operation to solve. 3.MD.1 objects.  Solve word problems requiring the addition or subtraction of time intervals in minutes. 3.MD.1 on real life applications (standard units/metric units).3.MD.2  Measure the amount of liquid/solid, using appropriate unit of measurement, based on real life applications (standard units/metric units).3.MD.2  Solve one-step mass or volume word problems using the appropriate operation. 3.MD.2  Deconstruct word problem to determine the appropriate operation to solve. 3.MD.2  Deconstruct word problem to determine the appropriate operation to solve. 3.MD.2  Deconstruct word problem to determine the appropriate operation to solve. 3.MD.2  Deconstruct word problems using the appropriate operation to solve. 3.MD.2  Deconstruct a picture graph or bar graph with several categories based on a data set. 3.MD.3  Construct a scale in which each bar/picture represents more than one object (one fish represents 5 fish/bar graph in increments of 10). 3.MD.3  Construct a scale in which each bar/picture represents more than one object (one fish represents 5 fish/bar graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10). 3.MD.3  Construct a picture graph in increments of 10					analog cloc	k	
Solve problems involving measurement involving measurement involving measurement involving measurement involving measurement involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.		·		1			
involving measurement and estimation of intervals of time, liquid volumes, and masses of nearest minute?  How do we tell and write time to the nearest minute?  How do we choose the appropriate unit of measurement?  How do we choose the appropriate unit of measurement?  Represent and interpret data  Represent and interpret represent and interpret represent more than one object (one fish represents 5 fish/bar graph in increments of 10), 3.MD.3  How do we represent information in a  How do we represent information in a  How do we related and estimation of intervals of time traylar in increments and estimation of time intervals in minutes. 3.MD.1  Solve elapsed time in minutes. 3.MD.1  Deconstruct word problems to determine appropriate operation to solve. 3.MD.2  Deconstruct word problems using the appropriate operation. 3.MD.2  Represent and interpret data  Construct a picture graph or bar graph with several categories based on a data set. 3.MD.3  Construct a scale in which each bar/picture represents more than one object (one fish represents 5 fish/bar graph in increments of 10). 3.MD.3  Solve one- and two-step word problems where information is represented in a scaled bar graph. (Focus on phrases "how many more" and "how many less").  Measure and record lengths using a ruler. 3.MD.4  Solve and record lengths using a ruler. 3.MD.4  * how of time interval interval intervals in the elaption to solve. 3.MD.1  * how of time interval interval intervals in time elaptication (standard units/metric units).3.MD.2  * Deconstruct word problems to determine the appropriate operation. 3.MD.3  Construct a picture graph or bar graph with several categories based on a data set. 3.MD.3  Solve one- and two-step word problems where information is represented in a scale in which each bar/picture represents more than one object (one fish represents 5 fish/bar graph in increments of 10). 3.MD.3  Solve one- and two-step word problems where information is represented in a scale in which each bar picture graph in increments of 10). 3.MD.		Solve problems		Write and read time to the nearest minute on an analog and digital clock. 3.MD.1	•		
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picture graph or bar   \( \bullet \) Deconstruct word phrases ( now many more and now many less ) to determine					• inches		
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Geometric Construct a line plot of gathered data marked with appropriate units (whole numbers, halves or fourths/quarters). 3.MD.4 square unit		Geometric			• canora unit		
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understand concepts of Define a square unit as a square with sides equaling one. 3.MD.5a				Define a square unit as a square with sides equaling one 3 MD 5a	_		
area and relate area to Define the area of a square with sides equaling one as one square unit. 3.MD.5a plane figure					arca		
multiplication and to  Define the area of a plane figure as the number of non-overlapping square units.  area  area					1 0		
addition 3.MD.5b			]	1 0	area		
□ Measure the area of a figure by counting the number of unit squares (both • non-overlapping		uddition				nning	
customary and standard/metric units). 3.MD.6 unit square						71115	

How do we measure perimeter and area of geometric shapes?	Geometric measurement: recognize perimeter as an attribute of plane	<ul> <li>□ Solve the area of a rectangle by tiling and then counting the number of unit squares. 3.MD.7a</li> <li>□ Describe the relationship between counting the number of unit squares and multiplying the side lengths in finding the area of a rectangle. 3.MD.7a</li> <li>□ Solve the area of a rectangle by multiplying its side lengths. 3.MD.7a</li> <li>□ Solve real-world area problems by either tiling or multiplying the side lengths. 3.MD.7c</li> <li>□ Solve for the area of a rectangle by multiplying the side lengths. 3.MD.7c</li> <li>□ Solve for the area of a rectangle by breaking one side into a sum (example if the length is 5 break it apart as 2+3) then multiplying each part/addend by the other side 3.MD.7c</li> <li>□ Explain why the two strategies above produce the same area (proving distributive property). 3.MD.7c</li> <li>□ Add square units to find the area of a given shape by counting the squares of the visual. 3.MD.7d</li> <li>□ Multiply length times (x) width to find the area of a given shape 3.MD.7d</li> <li>□ Find the area of a rectilinear figure and add the non-overlapping parts/units. 3.MD.7d</li> <li>□ Recognize multiple, appropriate operations to solve real world problems. 3.MD.7d</li> <li>□ Perimeter</li> </ul>	
How do we classify geometric shapes?	figures and distinguish between linear and area measures  Geometry 3.G  Reason with shapes and their attributes	<ul> <li>□ Solve real world problems finding the perimeter of polygons. 3.MD.8</li> <li>□ Solve real world problems finding a missing side of a polygon given the perimeter. 3.MD.8</li> <li>□ Compare/contrast rectangles with the same perimeter and different area3.MD.8</li> <li>□ Compare/contrast shapes by their attributes (sides, vertices, angles). 3.G.1</li> <li>□ Categorize shapes based on their attributes. 3.G.1</li> <li>□ Draw quadrilaterals that cannot be classified as a rhombus, rectangle, parallelogram, etc. 3.G.1</li> <li>□ Categorize quadrilaterals based on their attributes (rectangles share attributes of parallelograms). 3.G.1</li> <li>□ Partition shapes into equal parts/areas based on the denominator of the fraction. 3.G.2</li> <li>□ Define each part of the whole as a unit fraction (1/2, 1/3, 1/4, 1/5, 1/6).</li> <li>3.G.2</li> <li>□ Compare</li> <li>□ Contrast</li> <li>□ Opposite</li> <li>□ Parallel</li> <li>□ Polygon</li> </ul>	

Common Core Math Curriculum-Grade 3 Diocese of Buffalo 2012