Mathematical Practices	Vocabulary		
Make sense of problems and persevere in solving them.	Distributive Property Estimate Expanded form		
Reason abstractly and quantitatively.	Factor Hundreds		
 Construct viable arguments and critique the reasoning of others. 	Inverse operations Ones Partial product		
□ Model with mathematics.	Period Place value		
Use appropriate tools strategically.	Product		
□ Attend to precision.	Round Standard form		
Look for and make use of structure.	Tens Ten thousands		
 Look for and express regularity in repeated reasoning. 	Thousands Word form		
Prereguisites			



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Mathematics

Introduction to Your Mathematics Pacing Guide

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Major Focus	Supporting Work	Additional Work (Minor)
 Represent and solve problems involving multiplication and division. Understand properties of multiplication and the relationship between multiplication and division. Multiply and divide within 100. Solve problems involving the four operations, and identify and explain patterns in arithmetic. Develop understanding of fractions as numbers. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 	Represent and interpret data. Reason with shapes and their attributes.	Use place value understanding and properties of operations to perform multi-digit arithmetic. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

Last year, teachers spent a large majority of the instructional time on these focus skills. This year, students should have a strong foundation in the following areas:



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Mark Coscarella, Ed.D. Deputy Superintendent

Camela Diaz Interim Assistant Director for Student Learning

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Fourth Grade • First Ouarter Pacing Guide

The following tips may be helpful as you use the Pacing Guide:

Grade 4		Mathematics	
Operations & Algebraic Thinking	Number & Operations in Base Ten	Number & Operations - Fractions	Measurement &
 4.OA.1 CAN interpret and understand an equation as a comparison using groups. ICAN explain a multiplication equation. 4.OA.2 ICAN represent word problems using equations with a letter standing for the unknown number. 4.OA.3 ICAN apply addition and subtraction to solve multi-step word problems. ICAN estimate and tell if my answer is reasonable using rounding. 	 4.NBT.1 CAN name the value of any given digit in a number up to 1,000,000. I CAN compare the value of two different places within a number up to 1,000,000. 4.NBT.2 I CAN read and write a multi-digit whole number up to 1,000,000 in all 3 forms (standard, word, and expanded). I CAN compare two multi-digit numbers using >, < or =. 4.NBT.3 I CAN round a multi-digit whole number to any place. 4.NBT.4 I CAN fluently add and subtract multi-digit whole numbers. 4.NBT.5 I CAN multiply a whole number up to four digits by a one digit whole number. 	<text></text>	This is not a focul Continue to reinforce concepts previously in as necessary

First Quarter

& Data

us area arter.

e skills and introduced, 'y.

Geometry

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Ma	athematical Practices	Vocabulary		
	Make sense of problems and persevere in solving them.	Array	Estimate	Prime number
	Reason abstractly and quantitatively	Common factor	Equation	Product
		Common multiple	Equivalence	Quotient
	Construct viable arguments and critique the reasoning of others.	Compatible numbers	Factor	Regroup
	Model with mathematics.	Composite number	Multiple	Round
		Divide	Multiplication	Term
		Dividend	Pattern	Associative Property
	Attend to precision.	Divisible	Partial product	of Multiplication
	Look for and make use of structure.	Division	Partial quotient	Commutative Property of Multiplication
	Look for and express regularity in repeated reasoning.	Divisor	Place value	Distributive Property

Prerequisites

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Major Focus	Supporting Work	Additional Work (Minor)
Represent and solve problems involving multiplication and division. Understand properties of multiplication and the relationship between multiplication and division. Multiply and divide within 100. Solve problems involving the four operations, and identify and explain patterns in arithmetic. Develop understanding of fractions as numbers. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	Represent and interpret data. Reason with shapes and their attributes.	Use place value understanding and properties of operations to perform multi-digit arithmetic. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.		



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Fourth Grade • Second Ouarter Pacing Guide Go Math! Chapters 3-5



Mathematics

The following tips may be helpful as you use the Pacing Guide:

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Grade 4 **Mathematics Operations & Algebraic Thinking** Number & Operations in Base Ten Number & Operations - Fractions **Measurement & D** 4.OA.3 **4.NBT.5** □ I CAN apply the four basic operations to □ I CAN multiply two 2 digit numbers us-This is not a focus area This is not a focus are solve multi-step word problems. ing strategies based on place value and during this quarter. during this quarter. the properties of operations. □ I CAN understand the meaning of remainders in multi-step word problems. Continue to reinforce skills Continue to reinforce skills and □ I CAN illustrate and explain my concepts previously introduced, calculations by using a written equation, concepts previously introd □ I CAN estimate and tell if my answer is reasonable using rounding. rectangular array, and/or area model. as necessary. as necessary. 4.0A.4 **4.NBT.6** □ I CAN find multiples of any given one □ **I CAN** apply the inverse operation to digit number. demonstrate the relationship between

multiplication and division.

□ I CAN illustrate and explain my

without remainders.

□ I CAN use place value and properties

of operations to divide up to 4 digit dividends by 1 digit divisors with or

calculations by using a written equation,

rectangular array, and/or area models.

□ I CAN find all factor pairs of any given number from 1-100.

number.

□ I CAN tell whether any number 1-100 is a prime or composite by listing its factors.

□ I CAN determine if any number from 1-100 is a multiple of a given one digit

4.OA.5

- □ I CAN generate the next number in any pattern.
- □ I CAN create a number pattern which follows a given rule.
- □ I CAN find a rule for any number pattern.

	Second Quarter
ata	Geometry
ea	This is not a focus area during this quarter.
s and uced,	Continue to reinforce skills and concepts previously introduced, as necessary.

Μ	athematical Practices	Vocabulary	
П	Make sense of problems and persevere in solving	Benchmark	Multiple
	them.	Common denominator	Numerator
	Reason abstractly and quantitatively.	Common multiple	Place value
		Compare	Product
	Construct viable arguments and critique the reasoning	Decimal	Simplest form
		Decimal point	Unit fraction
	Model with mathematics.	Denominator	Tenth
	Use appropriate tools strategically.	Equivalent decimals	Whole
_		Equivalent fractions	Associative Property of
	Attend to precision.	Factor	Addition
	Look for and make use of structure.	Fraction	Commutative Property of
	Look for and express regularity in	Hundredth	Addition
	repeated reasoning.	Mixed number	Identity Property of Multiplication

Prerequisites

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Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.		
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Mathematics

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Fourth Grade • Third Ouarter Pacing Guide

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Grade 4

Mathematics

Operations & Algebraic Thinking	Number & Operations in Base Ten	Number & Operations - Fractions	Measurement & Data	Geometry
<text></text>	<text></text>	 4.NF.1 I CAN recognize equivalent fractions by using visual models. I CAN generate equivalent fractions using visual models. I CAN explain why two fractions are equivalent using visual models. 4.NF.2 I CAN compare two fractions with different numerators and different denominators using a variety of strategies (visual model, benchmark fractions, number lines, common denominators or numerators). I CAN compare two fractions using >, <, or = and then justify my comparison. 4.NF.3 I CAN use addition and subtraction of fractions to represent any fraction less than one whole. I CAN decompose (break-apart) a fraction into a sum of fractions with the same denominators. I CAN justify my decomposition by using a fraction model. I CAN solve word problems involving addition and subtraction of fractions of fractions of fractions with like denominators. 4.NF.4 I CAN understand a fraction a/b as a multiple of 1/b. I CAN solve word problems using multiplication of a fraction by a whole number. I CAN solve word problems using multiplication of a fraction by a whole number. I CAN solve word problems using multiplication of a fraction by a whole number using visual models and/or equations. 4.NF.5 I CAN show that fractions with a denominator of 10 are equivalent to fractions with a denominator of 10 and 100. 4.NF.6 I CAN compare two decimals to hundredths by reasoning about their size using a variety of strategies. I CAN compare two decimals using >, <, or = and justify the my comparison. 	4.MD.2 ☐ I CAN solve word problems using money.	This is not a focus area during this quarter. Continue to reinforce skills and concepts previously introduced, as necessary.

Third Quarter

M	athematical Practices	Vocabula	ary		
	Make sense of problems and persevere in solving them.	A.M., P.M. Adjacent angles	Elapsed time Fluid ounce	Line segment Line symmetry	Pint Points
	Reason abstractly and quantitatively.	Angles (right, acute, straight, obtuse)	Foot Formula	Meter Metric	Polygon Pound
	Construct viable arguments and critique the reasoning of others.	Area Base Centimeter	Gallon Gram Half-ɑallon	Mile Milliliter Millimeter	Protractor Quadrilateral Quart
	Model with mathematics.	Circle Clockwise	Height Hour	Minute Obtuse	Ray Second
	Use appropriate tools strategically.	Counter clockwise Convert	Inch Kilogram	Ounce Parallel lines	Ton
	Attend to precision.	Cup Decimeter	Kilometer Line	Parallelogram Perpendicular lines	Triangle (acute, obtuse, right)
	Look for and make use of structure.	Degree	Line plot	Perimeter	yard
	Look for and express regularity in repeated reasoning.				

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Mathematics

Introduction to Your Mathematics Pacing Guide





Fourth Grade • Fourth Quarter Pacing Guide Go Math! Chapters 10-13

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Grade 4		Mathematics	
Operations & Algebraic Thinking	Number & Operations in Base Ten	Number & Operations Fractions	Measurement & Dat
4.OA.5 □ 1 CAN generate the next shape in any pattern.	<text></text>	<section-header></section-header>	 4.MD.1 I CAN convert measurements within a system of units (either metric or custants) I CAN record measurement equivaled a two column table and identify the measurements. I CAN solve word problems involving measurement and conversion of measurements. I CAN show measurement quantities diagrams. 4.MD.3 I CAN apply the formula for area of a rectangle to solve real world and mathematical problems using an unknumber. I CAN apply the formula for perimeter of a rectangle to solve real world and mathematical problems using an unknumber. I CAN make and interpret line plots with fractional data. 4.MD.5 I CAN relate angles and fractional pacticle. 4.MD.7 I CAN determine the measure of an a separated into parts. I CAN find an unknown angle using a equation.

Fourth Quarter Geometry 4.G.1 one □ I CAN draw points, lines, line segments, tomary). rays, angles (right, acute, obtuse). nce in □ I CAN draw parallel or perpendicular lines. number □ I CAN identify these geometric attributes in two-dimensional figures. 4.G.2 □ I CAN classify 2D figures based on presence or absence of parallel or perpendicular lines, and angles of specified s using size. □ I CAN identify and recognize right triangles. 4.G.3 known □ I CAN recognize a line of symmetry for a 2D figure. r □ I CAN identify line-symmetric figures and draw lines of symmetry. known vith arts of a nd draw angle an