Math Pacing Guide 2020-2021 NOTE: See <u>NJSLS Math</u>

	Grade 5 / Math				
Time Frame	Primary Math Skills	Instructional Strategy	Standards & Math Practice		
5 days	 Preparing for technology Students uploaded and able to login to: Savvasrealize.com GoFormative.com Google Classroom Google Meet Ixl.com reflexmath.com Show students how and when to use the resources and provide time to instill organizational skills. 				

	Grade 5 / Math				
Time Frame	Primary Math Skills	Instructional Strategy	Academic Vocabulary	Standards & Math Practice	
9 days Topic 1 Lessons 1-7	• Use patterns and properties of multiplication to calculate a product when multiplying by a power of 10; use whole-number	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge	Power Exponent Base Value Expanded form	5.NBT A. 1-4 Mathematical Practice: 1-8	

Essential Question: How are whole numbers and decimals written, compared, and ordered?	 exponents to write powers of 10. Represent decimals to thousandths as fractions and fractions with denominators of 1,000 as decimals. read and write decimals in standard, expanded, and number names Read and write numbers with decimals through thousandths using standard form, expanded form, and number names; identify equivalent decimals Use place value to compare decimals through thousandths Use place value to round decimals to different places Use the structure of the decimal place-value system to solve problems involving patterns 	Convince Me! Another Example Guided Practice Independent Practice/Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org	Thousandths Equivalent decimals	
8 days Topic 2 Lessons 1-6 Essential Question:	 Use properties of addition and strategies to solve problems mentally. Use rounding or compatible numbers to estimate sums and differences. Model sums and differences of decimals. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice	Compatible numbers Associative Property of Addition Commutative Property of Addition Compensation	5.NBT.B.7 5.NBT.A.4 Mathematical Practice: 1-8

How can sums and difference s of decimals be estimated ? What are some common procedure s for adding and subtractin g decimals? How can sums and difference s be found mentally?	 Add decimals to the hundredths using partial sums. Subtract decimals to the hundredths using partial differences. Use prior math knowledge and equations or bar diagrams to solve problems. 	Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org parcconline.org; illustrativemathematics.org		
11 days Topic 3 Lessons 1-9 Essential question:	 Use place-value understandings and patterns to mentally multiply whole numbers and powers of 10. Use rounding and compatible numbers to estimate products. Use place value and the standard algorithm to multiply 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice	Underestimate Overestimate Partial products Variable	5.NBT.A.1-2 5.NBT.B.5 Mathematical Practice: 1-8

What are the standard procedure s for estimating and finding products of multi- digit numbers?	 multi-digit numbers by 1-digit numbers. Use the expanded and the standard algorithm to multiply 2- digit by 2-digit numbers. Estimate to check if products are reasonable. Multiply 3-digit by 2-digit numbers by adding partial products or by using the standard algorithm. Use knowledge about place value and multiplying with 2-digit and 3-digit numbers to multiply with zeros. Use properties and the standard algorithm for multiplication to find the product of multi-digit numbers. Use models and strategies to solve word problems. Critique the reasoning of others by asking questions, looking for flaws, and using prior knowledge of estimating products. 	Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
10 days Topic 4	 Use knowledge about place value and patterns to find the product of a decimal number and a power of 10. Use rounding and compatible numbers to estimate the product 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge	5.N Ma	IBT.A.2 IBT.B.7 thematical actice: 1-8

Lessons 1-8 Essential Question: What are some common procedure s for estimating and finding products involving decimals?	 of a decimal and a whole number. Use models to represent multiplying a decimal and a whole number. Use place value understandings and an algorithm for multiplying whole numbers to multiply a decimal and a whole number. Use grids to model decimals and find the product of a decimal and a decimal. Multiply decimals using partial products and models. Use properties to multiply decimals. Use number sense and reasoning to place the decimal point in a product. Use previously learned concepts and skills to represent and solve problems. 	Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
		Grade 5 / Math		
Time Frame	Primary Math Skills	Instructional Strategy	Academic Vocabulary	Standards & Math Practice
10 days Topic 5	 Use place-value patterns and mental math to find quotients. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning:		5.NBT.B.6 Mathematical Practice: 1-8

Lessons 1-8 Essential Questions: What are some common procedure s for division and why do they work?	 Use compatible numbers and place-value patterns to estimate quotients. Use models to find quotients. Solve division problems using partial quotients. Use place value and sharing to divide by 2-digit divisors. Use place value and sharing to divide greater dividends. Select from different strategies to divide 3- and 4-digit numbers by 2-digit numbers. Make sense of problems and keep working. 	Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org	
8 days Topic 6 Lessons 1-6	 Use mental math and place-value patterns to divide a decimal by a power of 10. Use reasoning and strategies such as rounding and compatible numbers to estimate quotients in problems with decimals. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example	5.NBT.A.2 5.NBT.B.7 Mathematical Practice: 1-8

Essential Question: What are some common procedure s for estimating and finding quotients involving decimals?	 Use models to help find quotients in problems involving decimals. Use models to visualize the relationship between division and multiplication to divide decimals by a 2-digit whole number. Use models to divide a decimal by a decimal. Use reasoning to solve problems by making sense of quantities and relationships in the situation. 	Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
15 days Topic 7 Lessons 1-13 Essential Question: How can sums and difference	 Estimate sums and differences of fractions by using the nearest half or whole number. Find common denominators for fractions with unlike denominators. Add fractions with unlike denominators using equivalent fractions with a common denominator. Subtract fractions with unlike denominators. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving	Benchmark fraction Equivalent fraction Common denominator Mixed number	5.NF.A.1 5.NF.A.2 Mathematical Practice: 1-8

s of fractions and mixed numbers be estimated ? What are common procedure s for adding and subtractin g fractions and mixed numbers?	 Write equivalent fractions to add and subtract fractions with unlike denominators. Estimate sums and differences of fractions and mixed numbers. Add mixed numbers using models. Add mixed numbers using equivalent fractions and a common denominator. Use models to subtract mixed numbers. Subtract mixed numbers using equivalent fractions and a common denominator. Add and subtract mixed numbers using equivalent fractions and a common denominator. Add and subtract mixed numbers using equivalent fractions and a common denominator. Represent a problem situation with a mathematical model. 	Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
		Grade 5 / Math		
Time Frame	Primary Math Skills	Instructional Strategy	Academic Vocabulary	Standards & Math Practice
11 days Topic 8 Lessons 1-9	 Multiply a fraction by a whole number. Multiply a whole number by a fraction. Multiply fractions and whole numbers. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example		5.NF.B.4a 5.NF.B.4b 5.NF.B.5a 5.NF.B.5b 5.NF.B.6 Mathematical Practice: 1-8

Essential Question: What does it mean to multiply whole numbers and fractions? How can multiplicati on with whole numbers and fractions be shown using models and symbols?	 Use models to multiply two fractions. Multiply two fractions. Find the area of a rectangle using fractions and diagrams. Use models, equations, and previously learned strategies to multiply mixed numbers. Compare the size of the product to the size of one factor without multiplying to consider multiplication as scaling. Use previously learned knowledge to make sense of problems and persevere in solving them. 	Guided Practice Independent Practice/Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
10 days Topic 9 Lessons 1-8 Essential questions: How are	 Understand how fractions are related to division. Implement division of fractions to show quotients as fractions and mixed numbers. Use multiplication to divide a whole number by a unit fraction. Use models such as pictorial models or a number line to show 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice	Unit fraction	5. NF.B.3 5.NF.B.7a 5.NF.B.7b 5.NF.B.7c Mathematical Practice: 1-8

fractions related to division? How can you divide with whole numbers and unit fractions?	 dividing a whole number by a unit fraction. Use models to divide unit fractions by non-zero whole numbers. Use models to divide whole numbers and unit fractions. Check your answer using multiplication. Solve multi-step problems involving division with unit fractions. Notice repetition in calculations and generalize about how to divide whole numbers and unit fractions. 	Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
		Grade 5 / Math		
Time Frame	Primary Math Skills	Instructional Strategy	Academic Vocabulary	Standards & Math Practice
6 days Topic 10	 Read and analyze line plots. Organize and display data in a line plot. Solve problems using data in a line plot. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge	Data Line plot	5.NF.A.2 5.NF.B.6 5.MD.B.2 Mathematical Practice: 1-8

Lesson 1- 4 Essential Question: How can line plots be used to represent data and answer questions ?	 Critique the reasoning of others using understanding of line plots and fractions. 	Convince Me! Another Example Guided Practice Independent Practice/Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
7 Days Topic 11 Lesson 1- 5	 Review 4th grade concept area & perimeter Find the volume of solid figures. Find the volume of rectangular prisms using a formula. Find the volume of a solid figure that is the combination of two or more rectangular prisms. Use models, prior knowledge of volumes, and previously learned strategies to solve word 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice	Volume Cubic unit Cube Rectangular prism Unit cube Formula	4.MD.3 5.MD.C.3a 5.MD.C.3b 5.MD.C.4 5.MD.C.5a 5.MD.C.5b 5.MD.C.5c

Essential Question: What is the meaning of volume of a solid? How can the volume of a rectangula r prism be found?	 problems involving volume. Use previously learned knowledge about volumes to choose the appropriate tools to solve volume problems. 	Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
11 days Topic 12 Lessons 1-9 Essential Question: What are customary measurem ent units	 Convert customary units of length. Convert customary units of capacity. Convert customary units of weight. Convert metric units of length. Convert metric units of capacity. Convert metric units of mass. Convert units of time. Solve real-world problems with measurement conversions. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving	Foot (ft) Inch (in.) Yard (yd) Mile (mi) Capacity Gallon (gal) Quart (qt) Pint (pt) Cup (c) Fluid ounce (fl oz) Weight Ton (T)	5.MD.A.1 5.NBT.B.5 5.NBT.A.2 Mathematical Practice: 1-8

and how are they related? What are metric measurem ent units and how are they related?	Be precise when solving measurement problems.	Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org	Pound (lb) Ounce (oz) Kilometer (km) Meter (m) Centimeter (cm) Millimeter (mm) Liter (L) Milliliter (ml) Mass Milligram (mg) Gram (g) Kilogram (kg)	
6 days Topic 13 Lessons 1-4 Essential question:H ow is the value of a numerical expressio n found?	 Review 4 grade concepts order of operations Use the order of operations to evaluate expressions. Write simple expressions that show calculations with numbers. Interpret numerical expressions without evaluating them. Use reasoning to solve problems by making sense of quantities and relationships in the situation. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach	Numerical expression Evaluate Order of operations Parenthesis Brackets Braces	4.OA.3 & 5 5.OA.A.1 5.OA.A.2 Mathematical Practice: 1-8

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Websites: ixl.co savvarealize.co khanacademy. GoFormative.c achievethecore illustrativemath	org; om e.org;

6 days Topic 14 Lessons 1-4 Essential question:H ow are points plotted? How are relationshi ps shown on a graph?	 Locate points on a coordinate grid. Graph points on a coordinate grid. Solve real-world problems by graphing points. Use reasoning to solve problems by making sense of quantities and relationships in the situation. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment	Coordinate plane Ordered pair X - axis Y - axis Origin X - coordinate Y - coordinate	5.G.A.1 5.G.A.2 Mathematical Practice: 1-8
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		Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org; GoFormative.com achievethecore.org; illustrativemathematics.org		
6 days Topic 15 Lessons 1-4 Essential question: How can number patterns be analyzed and graphed? How can number patterns be used to solve problems?	 Analyze numerical patterns. Use tables to identify relationships between patterns. Analyze patterns, and graph ordered pairs generated from number sequences. Make sense of problems, and persevere in solving them. 	Problem-Based Learning: Solve and Share with three reads Look Back! Visual Learning: Visual Learning Bridge Convince Me! Another Example Guided Practice Independent Practice/ Assessment Practice Small Groups- Problem Solving Activity Centers (enVisionSTEM, Pick a Project, Problem-Solving Reading Mat) Assess and Differentiate: Reteach Build Math Literacy Enrichment Websites: ixl.com; reflexmath.com; savvarealize.com; khanacademy.org;	Corresponding terms Number sequence	5.OA.B.3 5.G.A.2 Mathematical Practice: 1-8

		GoFormative.com achievethecore.org; illustrativemathematics.org		
6 days Topic 16 Lessons 1-4 Essential question: How can triangles and quadrilater als be described, classified, and named?	 Review 4th grade concepts classifying triangles; draw points, rays, perpendicular lines, and lines of symmetry Classify triangles by their angles and sides. Classify quadrilaterals by their properties. Classify quadrilaterals using a hierarchy. Construct arguments about geometric figures. 	Problem-Based Learning:Solve and Share with three readsLook Back!Visual LearningVisual Learning BridgeConvince Me!Another ExampleGuided PracticeIndependent Practice/ AssessmentPracticeSmall Groups- Problem SolvingActivity Centers (enVisionSTEM,Pick a Project, Problem-SolvingReading Mat)Assess and Differentiate:ReteachBuild Math LiteracyEnrichmentWebsites: ixl.com; reflexmath.com;savvarealize.com;khanacademy.org;GoFormative.comachievethecore.org;illustrativemathematics.org	Equilateral triangle Isosceles triangle Scalene triangle Right triangle Acute triangle Obtuse triangle Trapezoid Parallelogram Rectangle Rhombus Square	4.G.1-3 4.MD.5-7 5.G.B.3 5.G.B.4 Mathematical Practice: 1-8

Formative Assessment Plan	Summative Assessment Plan	
 Practice Buddy Quick check IXL Slates/Whiteboards 	 Common Assessments Performance Task Online Assessments 	
Main Resources	Supplementary Resources	
Envisions	 Khan Academy IXL Reflex Math 	

Unit 1 Appendix