Fourth Grade Mathematics

Curriculum Guide

Dunmore School District

Dunmore, PA

Fourth Grade Mathematics

Prerequisite:

- Successful completion of third grade

Course Description:
This fourth-grade course places emphasis on multiplication and division with whole numbers and solving problems involving addition and subtraction of fractions and decimals by finding common multiples and factors. Students will be fluent in the basic multiplication facts through the twelves table and the corresponding division facts as they become proficient in multiplying and dividing larger numbers. Students also will refine their estimation skills for computations and measurements. Students will identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices. Concrete materials and two-dimensional representations will be used to solve problems involving perimeter, patterns, probability, and equivalence of fractions and decimals. Students will recognize images of figures resulting from geometric transformations. Students will investigate and describe the properties for addition and multiplication.

Special Education:
After a student has been evaluated and found to be eligible for specially designed instruction under one of the 13 disability categories, an individualized education plan will be developed to help the student succeed through a more intense intervention program. Special Education is the practice of educating students in a way that addresses their individual differences and needs. The purpose of special education is to provide equal access to education for children ages birth through 21 by providing specialized services that will lead to school success in general education. Our goal for each student is for him/her to be educated in his/her least restrictive environment with additional supports by way of specially designed instruction. After all interventions in the general education setting have been exhausted and the student is still not making progress, students can receive direct instruction in a special education classroom. Direct instruction provides more intense intervention and replacement instruction in order to minimize skill deficits. In our special education classrooms, students will have access to the standards-based general education curriculum, as well as using various research-based intervention programs. Resources and activities will be adjusted based on individual student needs. Suggested time found within the curriculum will be adjusted as needed per individual student's needs.

Special Education Strategies can be located in the IEP Enhancements table located in Appendix: A at the end of this document.

<u>Year-at-a-glance</u>

Subject: Mathematics	Grade Level: 4	Date Completed: 2/18/2019

1st Quarter

Topic	Resources	Standards
Place Value	**Envision Math Common Core Topic 3**	**CC.2.1.4.B.1: M04.A-T.1.1.1, M04.A-T.1.1.2, M04.A-T.1.1.3, M04.A-T.1.1.4**
Addition and Subtraction of Whole Numbers	**Envision Math Common Core Topic 4**	**CC.2.1.4.B.2: M04.A-T.2.1.1, M04.A-T.2.1.4, M04.B-O.1.1.4**
Multiplication of Whole Numbers	**Envision Math Common Core Topic 5-6**	**CC.2.1.4.B.2: M04.A-T.2.1.2, M04.A-T.2.1.2**

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2nd Quarter

Topic	Resources	Standards
Multiplication of Whole Numbers	**Envision Math Common Core Topic 5-6**	**CC.2.1.4.B.2: M04.A-T.2.1.2, M04.A-T.2.1.2**
Division of Whole Numbers	**Envision Math Common Core Topic 7-8**	**CC.2.2.4.A.1, CC.2.1.4.B.2 : M04.A-T.2.1.3, M04.A-T.2.1.4, M04.B-O.1.1.2, M04.B-O.1.1.3, M04.B-O.1.1.4**

3rd Quarter

Topic	Resources	Standards
Fractions and Decimals	**Envision Math Common Core Topics 11, 12, 13**	**C.C.2.1.4.C.1, CC.2.1.4.C.2, CC.2.1.4.C.3, CC.2.2.4.A.2: M04.A-F.1.1.1, M04.A-F.1.1.2, M04.A-F.2.1.1, M04.A-F.2.1.2, M04.A-F.2.1.3, M04.A-F.2.1.4, M04.A-F.2.1.5, M04.A-F.2.1.6, M04.A-F.2.1.7, M04.A-F.3.1.1, M04.A-F.3.1.2, M04.A-F.3.1.3, M04.B-O.2.1.1, M04.B-O.1.1.1, M04.B-O.1.1.2, M04.B-O.1.1.3, M04.B-O.1.1.4**
Geometry	**Envision Math and Common Core Topic 16**	**CC.2.3.4.A.1, CC.2.3.4.A.2, CC.2.3.4.A.3: M04.C-G.1.1.1, M04.C-G.1.1.2, M04.C-G.1.1.3**
Data and Measurement	**Envision Math Common Core Topic 14-15**	**CC.2.4.4.A.1, CC.2.4.4.A.2, CC.2.4.4.A.4, CC.2.4.4.A.6: M04.D-M.1.1.1, M04.D-M.1.1.2, M04.D-M.1.1.3, M04.D-M.1.1.4, M04.D-M.2.1.1, M04.D-M.2.1.2, M04.D-M.2.1.3, M04.D-M.3.1.1, M04.D-M.3.1.1**
Patterns	**Envision Math Common Core Topic 2**	**CC.2.2.4.A.4: M04.B-O.3.1.1, M04.B-O.3.1.2, M04.B-O.3.1.3**

4th Quarter

Topic	Resources	Standards
Patterns (Continued)	Envision Math Common Core Topic 2	CC.2.2.4.A.4: M04.B-O.3.1.1, M04.B-O.3.1.2, M04.B-O.3.1.3
Review		
Step Up to 5th Grade		

General Topic	Anchor Descriptor	Eligible Content, Essential Knowledge,	Resources & Activities	Assessments	Suggested Time
	PA Core Standards	**Skills & Vocabulary**			**(In Days)**
Place Value	**MO4.A-T.1.1 Apply place-value and numeration, find equivalencies, and round.** **_____** **CC.2.1.4.B.1** **Apply place-value concepts to show an understanding of multi-digit whole numbers.**	**M04.A-T.1.1.1 Demonstrate an understanding that in a multi-digit whole number (through 1,000,000), a digit in one place represents ten times what it represents in the place to its right.** *Example: Recognize that in the number 770, the 7 in the hundreds place is ten times the 7 in the tens place.* **M04.A-T.1.1.2 Read and write whole numbers in expanded, standard, and word form through 1,000,000.** **M04.A-T.1.1.3 Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using >, =, and < symbols.** **M04.A-T.1.1.4 Round multi-digit whole numbers (through 1,000,000) to any place.** **Vocabulary** • **odd** • **even** • **number line** • **period**	**Envision: Topic 3** **Representing Numbers (3-1)** **Place Value Relationships through 1,000,000 (3-2)** **Comparing Numbers through 1,000,000 (3-3)** **Ordering Numbers (3-4)** **Rounding Whole Numbers through 1,000,000 (3-5)** **Make an Organized list (3-6)** **Interactive Videos** **Place Value Blocks** **¼ and ½ inch grids** **Number Lines** **Game Boards**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**10 days**

		• digits • place value • standard form • expanded form • word form • compare			
Additions and Subtraction of Whole Numbers	**M04.A-T.2.1 Use operations to solve problems.** **M04.B-O.1.1 Use numbers and symbols to model the concepts of expressions and equations.** **CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic.** **CC.2.2.4.A.1 Represent and solve problems involving the four operations.**	**M04.A-T.2.1.1 Add and subtract multi-digit whole numbers (limit sums and subtrahends up to and including 1,000,000).** **M04.A-T.2.1.4 Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).** **M04.B-O.1.1.4 Identify the missing symbol (+, −, ×, ÷, =, <, and >) that makes a number sentence true (single-digit divisor only).** **Vocabulary** • **rounding** • **sum** • **difference** • **regroup** • **breaking apart**	**Envision: Topic 4** **Add and subtract Multi Digit whole numbers up to and including 1,000,000 (4-1, 4-2)** **Draw a Picture and write and equation (4-6)** **Interactive Video** **Place Value Blocks** **4 square grid** **¼ and ½ inch grids** **Number Lines**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**10 days**

		• compensation • counting on • communitive property • identity property • associative property • inverse operation			
Multiplication of Whole Numbers	**M04.A-T.2.1 Use operations to solve problems.** **CC.2.1.4.B.2** **Use place value understanding and properties of operations to perform multi-digit arithmetic.**	**M04.A-T.2.1.2 Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.** **M04.A-T.2.1.4 Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).** **Vocabulary** • multiples • arrays • factors • products • partial products • compensation • rounding • equation • compatible numbers • distributive property	**Envision: Topic 5** **Arrays and multiply by 10 and 100 (5-1)** **Break Apart to multiply 2-3 digits by 1 digit (5-3)** **Use Mental Math to multiply (5-4)** **Rounding and Estimating to multiply (5-6)** **Envision: Topic 6** **Arrays and using expanded algorithm Algorithm for 4, 3, and 2 digit numbers by 1 digit numbers** **Envision: Topic 7** **Use arrays for Multiplying by 2 digit numbers (7-1)** **Use break apart for**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**20 days**

			Multiplying by 2 digits (7-2) **Using Rounding and Estimation for Multiplying (7-3)** **Solve Multiple Step Problems involving Multiplication (7-5)** **Envision: Topic 8 Standard Algorithm for 2 digits by 2 digits (8-4) Two-Question Problems involving Multiplication (8-5)**		
Division of Whole Numbers	**M04.A-T.2.1 Use operations to solve problems.** **_____** **CC.2.2.4.A.1 Represent and solve problems involving the four operations.** **CC.2.1.4.B.2 Use place value understanding and properties of operations to perform multi-digit arithmetic.**	**M04.A-T.2.1.3 Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders.** **M04.A-T.2.1.4 Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).** **M04.B-O.1.1.2 Multiply or divide to solve word problems**	**Envision: Topic 9** **Use Mental Math Strategies to divide (9-1)** **Estimate Quotient (9-2)** **Divide with remainders (9-4)** **Multiplication and Division Stories (9-5)** **Draw a Picture and Write an Equation (9-6)**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**25 days**

| | | involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. *Example: Know that 3 × 4 can be used to represent that Student A has 4 objects and Student B has 3 times as many objects not just 3 more objects.*

M04.B-O.1.1.3 Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.

<u>Strategy:</u>
Use Problem Solving Recording sheet to record:
• **What you're asked to find.**
• **What you already know that is provided to you**
• **A visual representation of the problem**
• **The solution** | **Envision: Topic 10**

Division as repeated subtraction (10-1)

Division as Sharing (10-2)

Divide 2-4 digits by 1 digit (10-4, 10-5, 10-7)

Decide where to start dividing (10-6)

Multiple Step Problems (10-8) | | |

		• The answer in a complete sentence • Why the answer is reasonable. **M04.B-O.1.1.4 Identify the missing symbol (+, −, ×, ÷, =, <, and >) that makes a number sentence true (single-digit divisor only).** <u>Vocabulary</u> • divisor • multiples • factor • quotient • product • division • remainder • array • partial products • compatible numbers			
Fractions and Decimals	**M04.A-F.1.1 Find equivalencies and compare fractions.** **M04.A-F.2.1 Solve problems involving**	**M04.A-F.1.1.1 Recognize and generate equivalent fractions.** **M04.A-F.1.1.2 Compare two fractions with different numerators and different denominators (denominators**	**Envision: Topic 11** **Factors and Multiples (11-1, (11-3)** **Prime and Composite**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**40 days**

fractions and whole numbers (straight computation or word problems). **M04.A-F.3.1 Use operations to solve problems involving decimals, including converting between fractions and decimals (may include word problems).** **M04.B-O.2.1 Develop and apply number theory concepts to represent numbers in various ways.** **M04.B-O.1.1 Use numbers and symbols to model the concepts of expressions and equations.**	limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100) using the symbols >, =, or < and justify the conclusions. **M04.A-F.2.1.1 Add and subtract fractions with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; answers do not need to be simplified; and no improper fractions as the final answer).** **M04.A-F.2.1.2 Decompose a fraction or a mixed number into a sum of fractions with the same denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100), recording the decomposition by an equation. Justify decompositions (e.g., by using a visual fraction model).** *Example 1: 3/8 = 1/8 + 1/8 + 1/8 OR 3/8 = 1/8 + 2/8Example 2: 2 1/12 = 1 + 1 + 1/12 = 12/12 + 12/12 + 1/12*	(11-2) **Equivalent Fractions (11-4)** **Fractions on a Number Line (11-5)** **Comparing and Ordering Fractions (11-6, 11-7)** **Envision: Topic 12** **Modeling the addition/subtraction of fractions (12-1)** **Adding/Subtracting Fractions with like denominators(12-2,12-3,12-4)**		
CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering. **CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations**	**M04.A-F.2.1.3 Add and subtract mixed numbers with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; no regrouping with subtraction; fractions do not need to be simplified; and no improper fractions as the final answers).** **M04.A-F.2.1.4 Solve word**	**Adding and subtracting fractions on a number line (12-5)** **Improper Fractions and Mixed Numbers (12-6)** **Adding/Subtracting Mixed Numbers(12-7, 12-8, 12-9)**		

| | on whole numbers.

CC.2.1.4.C.3
Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., 19/100).

CC.2.2.4.A.2
Develop and/or apply number theory concepts to find factors and multiples.

CC.2.2.4.A.1
Represent and solve problems involving the four operations. | problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators(denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).
M04.A-F.2.1.5 Multiply a whole number by a unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).
Example: 5 × (1/4) = 5/4
M04.A-F.2.1.6 Multiply a whole number by a non-unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number). *Example: 3 × (5/6) = 15/6*
M04.A-F.2.1.7 Solve word problems involving multiplication of a whole number by a fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).
M04.A-F.3.1.1 Add two fractions with respective denominators 10 and 100.
Example: Express 3/10 as | **Decomposing and Composing Fractions (12-10)**

Draw a Picture and Write an Equation (12-11)

Envision: Topic 13 Multiply Fractions by whole numbers (13-1, 13-2, 13-3)

Fractions and Decimals (13-4)

Fractions and Decimals on the Number Line (13-5)

Decimal Place Value (13-7)

Comparing and Ordering Decimals (13-8) | | |

		30/100, and add *3/10 + 4/100 = 30/100 + 4/100 =* *34/100.* **M04.A-F.3.1.2 Use decimal notation for fractions with denominators 10 or 100.** *Example: Rewrite 0.62 as 62/100 and vice versa.* **M04.A-F.3.1.3 Compare two decimals to hundredths using the symbols >, =, or <, and justify the conclusions.** **M04.B-O.2.1.1 Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one digit number. Determine whether a given whole number in the interval 1 through 100 is prime or composite.** **M04.B-O.1.1.1 Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.** *Example 1: Interpret 35 = 5 × 7 as a statement that*		

		35 is 5 times as many as 7 and 7 times as many as 5. Example 2: Know that the statement 24 is 3 times as many as 8 can be represented by the equation 24 = 3 × 8 or 24 = 8 × 3. **M04.B-O.1.1.2 Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison.** *Example: Know that 3 × 4 can be used to represent that Student A has 4 objects and Student B has 3 times as many objects not just 3 more objects.* **M04.B-O.1.1.3 Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.** **M04.B-O.1.1.4 Identify the missing symbol (+, −, ×, ÷, =, <, and >) that makes a number**			

		sentence true (single-digit divisor only). **Vocabulary** • **fraction** • **numerator** • **denominator** • **benchmark fractions** • **equivalent fractions** • **prime number** • **composite number** • **simplify** • **factor** • **product** • **mixed number** • **improper fraction** • **number line** • **place value** • **greater than** • **less than** • **digits** • **unit fraction** • **decimal point** • **hundredth** • **tenth** • **decomposing** • **composing**			
Geometry	**M04.C-G.1.1 List properties, classify, draw, and identify geometric figures in two dimensions.**	**M04.C-G.1.1.1 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional**	**Envision: Topic 16** **Plots, Lines, and Planes (16-1)** **Line Segments, Rays,**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online.**	**15 days**

	_____ **CC.2.3.4.A.1** **Draw lines and angles and identify these in two-dimensional figures.** **CC.2.3.4.A.2** **Classify two-dimensional figures by properties of their lines and angles.** **CC.2.3.4.A.3** **Recognize symmetric shapes and draw lines of symmetry.**	**figures.** **M04.C-G.1.1.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.** **M04.C-G.1.1.3 Recognize a line of symmetry for a two dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts. Identify line symmetric figures and draw lines of symmetry (up to two lines of symmetry).** <u>**Vocabulary**</u> • **triangle** • **plane figure** • **quadrilateral** • **degree** • **line** • **point** • **line** • **plane** • **parallel** • **lines** • **intersecting lines**	**and Angles (16-2)** **Measuring Angles Complementary and Supplementary Angles(16-4, 16-5, 16-6)** **Polygons, Triangles, and Quadrilaterals (16-7, 16-8, 16-9)** **Lines of Symmetry (16-10)**		

		perpendicular lines **line segment** **rays** **angle,** **right angle** **acute angle** **obtuse angle** **straight angle** **degree** **unit angle** **angle measure** **protractor** **polygon** **side** **vertex** **triangle** **pentagon** **hexagon** **octagon** **equilateral triangle** **isosceles triangle** **scalene triangle** **right triangle** **acute triangle** **obtuse triangle** **rhombus** **trapezoid** **parallelogram** **rectangle** **square** **symmetric** **line of symmetry**			

Data and Measurement	M04.D-M.1.1 Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter. M04.D-M.2.1 Organize, display, and answer questions based on data. M04.D-M.3.1 Use appropriate tools and units to sketch an angle and determine angle measurements. _____ CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit. CC.2.4.4.A.2 Translate information from one type of data display to another. CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.	M04.D-M.1.1.1 Know relative sizes of measurement units within one system of units including standard units (in., ft., yd., mi; oz., lb.; and c, pt., qtr., gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr., day, wk., mo., and yr.). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. A table of equivalencies will be provided. _Example 1: Know that 1 kg is 1,000 times as heavy as 1 g. Example 2: Express the length of a 4-foot snake as 48 in._ M04.D-M.1.1.2 Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.	Envision: Topic 14 Using Customary Units of Length and Capacity (14-1, 14-2) Units of Weight (14-3) Changing Customary Units (14-4) Using Metric units of Length and Capacity (14-6, 14-7) Units of Mass (14-8) Changing Metric Units (14-9) Envision: Topic 15 Solving Perimeter and Area (15-1) Solving Measurement Problems (15-2) Solving Problems involving money (15-3) Solving Problems involving Line Plots (15-4)	Teacher prepared tests, quizzes, etc. Series available assessments online.	10 days

	CC.2.4.4.A.6	M04.D-M.1.1.3 Apply the area			
	Measure angles and use	**and perimeter formulas for**			
	properties of adjacent angles	**rectangles in real-world and**			
	to solve problems.	**mathematical problems (may**			
		include finding a missing side			
		length). Whole numbers only.			
		The formulas will be provided.			
		M04.D-M.1.1.4 Identify time			
		(analog or digital) as the amount			
		of minutes before or after the			
		hour.			
		Example 1: 2:50 is the same as			
		10 minutes before			
		3:00. Example 2: Quarter past			
		six is the same as 6:15.			
		M04.D-M.2.1.1 Make a line plot			
		to display a data set of			
		measurements in fractions of a			
		unit (e.g., intervals			
		of 1/2, 1/4, or 1/8).			
		M04.D-M.2.1.2 Solve problems			
		involving addition and			
		subtraction of fractions by using			
		information presented in line			
		plots (line plots must be labeled			
		with common denominators,			
		such as 1/4, 2/4, 3/4).			
		M04.D-M.2.1.3 Translate			
		information from one type of			
		display to another (table, chart,			
		bar graph, or pictograph).			
		M04.D-M.3.1.1 Measure angles			
		in whole-number degrees using			
		a protractor. With the aid of a			

| | | protractor, sketch angles of specified measure. M04.D-M.3.1.2 Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems. (Angles must be adjacent and non-overlapping.) **Vocabulary**
• mass
• capacity
• foot length
• inch
• yard
• mile
• weight
• ounce
• pound
• ton
• millimeter
• centimeter
• decimeter
• meter
• kilometer
• milliliter
• liter
• mass
• gram
• kilogram
• area | | | |

		• perimeter • line plot			
Patterns	M04.B-O.3.1 Recognize, describe, extend, create, and replicate a variety of patterns. _____ CC.2.2.4.A.4 Generate and analyze patterns using one rule.	M04.B-O.3.1.1 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *Example 1: Given the rule "add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms alternate between odd and even numbers.* *Example 2: Given the rule "increase the number of sides by 1" and starting with a triangle, observe that the tops of the shapes alternate between a side and a vertex.* M04.B-O.3.1.2 Determine the missing elements in a function table (limit to +, −, or × and to whole numbers or money). M04.B-O.3.1.3 Determine the rule for a function given a table (limit to +, −, or × and to whole numbers). <u>Vocabulary</u> • repeating patterns	Envision: Topic 2 Repeating Patterns (2-1) Number sequences (2-2) Extending Tables (2-3) Writing Rules for situations (2-4) Geometric Patterns (2-5)	Teacher prepared tests, quizzes, etc. Series available assessments online.	10 days

			- increasing - decreasing - compare - regroup - multiply - divide		
Review			Review of chosen 4th grade topics		10 days
Step up to 5th Grade			Place value with decimals Rounding Decimals Adding and Subtracting Decimals Comparing Decimals Multiplying Decimals		30 days

Appendix: A			
IEP Enhancements			
General Topic:	**Specially Designed Instruction:**	**Additional Vocabulary:**	**Assessments/Suggested Time:**
Place Value	**Place Value Chart** **Rounding Chart** **Highlight Place Value** **Hundreds Chart** **Operation Key Words for story problems** **Preferential Seating** **Use of Computer (When available)** **Interactive Online Videos** **Visual Aids** **Anchor Charts** **Highlighter** **Breaking tasks down into more manageable increments** **Breaking down directions with one directive given at a time** **Scrap Paper provided for Additional Workspace** **Frequent Breaks to maintain focus.** **Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined** **Extra time to complete assignments** **Additional textbook sent home.** **Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material** **Sample Problems provided** **Directions read aloud**	- rounding - tens - hundreds - thousands	Assessments: **Extended time to complete** **Elimination of 1-2 Answer Choices** **Questions & Answer Choices read aloud** **Use of highlighter to highlight important details** **Frequent Breaks to maintain focus** **Modified Assessments** **Provide Study Guides** **Change testing location** Suggested Time: **10 days as specified in curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Additions and Subtraction of Whole Numbers	Specially Designed Instruction: • Place Value Chart • Individual Whiteboard • Highlight Signs (Addition or Subtraction) • Counting Cubes • TouchMath • Use of Calculator to check answers. • Hundreds Chart • Operation Key Words for story problems. • Preferential Seating • Use of Computer (When available) • Interactive Online Videos • Visual Aids • Anchor Charts • Highlighter • Breaking tasks down into more manageable increments • Breaking down directions with one directive given at a time • Scrap Paper provided for Additional Workspace • Frequent Breaks to maintain focus. • Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined • Extra time to complete assignments. • Additional textbook sent home. • Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material • Sample Problems provided • Directions read aloud	• regrouping • borrowing • tens • hundreds • thousands	Assessments: • Extended time to complete • Elimination of 1-2 Answer Choices • Questions & Answer Choices read aloud • Use of highlighter to highlight important details and signs (addition or subtraction) • Frequent Breaks to maintain focus • Modified Assessments • Provide Study Guides • Change testing location Suggested Time: **10 days as specified in curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Multiplication of Whole Numbers	• **Repeated Addition for Multiplication** • **Place Value Blocks** • **Multiplication Chart for Basic Facts** • **Graph Paper** • **TouchMath** • **Rounding Chart** • **Number Lines** • **Calculator to Check Answer** • **Counting Cubes** • **Individual Whiteboard for Additional Workspace** • **¼ in. Grid Paper** • **Multiplication Tables** • **Operation Key Words for story problems.** • **Preferential Seating** • **Use of Computer (When available)** • **Interactive Online Videos** • **Visual Aids** • **Anchor Charts** • **Highlighter** • **Breaking tasks down into more manageable increments** • **Breaking down directions with one directive given at a time** • **Scrap Paper provided Additional Workspace** • **Frequent Breaks to maintain focus** • **Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined** • **Extra time to complete assignments** • **Additional textbook sent home** • **Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material** • **Sample Problems provided** • **Directions read aloud**	• expanded form • repeated addition	Assessments: • **Extended time to complete** • **Elimination of 1-2 Answer Choices** • **Questions & Answer Choices read aloud** • **Use of highlighter to highlight important details** • **Frequent Breaks to maintain focus** • **Modified Assessments** • **Provide Study Guides** • **Change testing location** . **Suggested Time:** **20 days as specified in curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Division of Whole Numbers	• Repeated Subtraction for Division • Multiplication Chart for Basic Facts • Use of Calculator to Check Answers. • Two-color Counters • Long Division Organizer • Place Value Blocks • Graph Paper • Read Story Problems aloud • Individual Whiteboard for additional workspace • Unit Cubes • Centimeter Grid Paper • Operation Key Words for story problems. • Preferential Seating • Use of Computer (When available) • Interactive Online Videos • Visual Aids • Anchor Charts • Highlighter • Breaking tasks down into more manageable increments • Breaking down directions with one directive given at a time • Scrap Paper provided Additional Workspace • Frequent Breaks to maintain focus • Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined • Extra time to complete assignments. • Additional textbook sent home • Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material • Sample Problems provided • Directions read aloud	• rounding • repeated • subtraction	Assessments: • Extended time to complete • Elimination of 1-2 Answer Choices • Questions & Answer Choices read aloud. • Use of highlighter to highlight important details • Frequent Breaks to maintain focus • Modified Assessments • Provide Study Guides • Change testing location Suggested Time: 25 days as specified in curriculum with additional time as needed per individual student

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Fractions and Decimals	- Centimeter Grid Paper - Multiplication Chart - Individual Whiteboard for additional workspace - Color Tiles - Two-color Counters - Fraction Strips - Fraction Tiles - Fraction Circles - Fraction Number Lines - Graph Paper - Decimal Models - Place Value Blocks 10 x 10 Grids - Decimal Place Value Chart - Bills and Coins - Operation Key Words for story problems. - Preferential Seating - Use of Computer (When available) - Interactive Online Videos - Visual Aids - Anchor Charts - Highlighter - Breaking tasks down into more manageable increments - Breaking down directions with one directive given at a time - Scrap Paper provided Additional Workspace - Frequent Breaks to maintain focus - Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined - Extra time to complete assignments - Additional textbook sent home. - Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material - Sample Problems provided - Directions read aloud	- array - simplified form - common denominator	Assessments: - Extended time to complete - Elimination of 1-2 Answer Choices - Questions & Answer Choices read aloud - Use of highlighter to highlight important details - Frequent Breaks to maintain focus - Modified Assessments - Provide Study Guides - Change testing location Suggested Time: 40 days as specified in curriculum with additional time as needed per individual student

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Geometry	• **Centimeter Grid Paper** • **Dot Paper** • **Manipulative Clock** • **Patterned Blocks** • **Protractor** • **Rulers** • **Polygon Shapes** • **Geoboards** • **Preferential Seating** • **Use of Computer (When available)** • **Interactive Online Videos** • **Visual Aids** • **Anchor Charts** • **Highlighter** • **Breaking tasks down into more manageable increments** • **Breaking down directions with one directive given at a time** • **Scrap Paper provided Additional Workspace** • **Frequent Breaks to maintain focus.** • **Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined** • **Extra time to complete assignments.** • **Additional textbook sent home.** • **Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material** • **Sample Problems provided** • **Directions read aloud**		**Assessments:** • **Extended time to complete** • **Elimination of 1-2 Answer Choices** • **Questions & Answer Choices read aloud** • **Use of highlighter to highlight important details** • **Frequent Breaks to maintain focus** • **Modified Assessments** • **Provide Study Guides** • **Change testing location** **Suggested Time:** **15 days as specified in curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Data and Measurement	- Yardstick - Inch Ruler - Capacity Examples (cup, pint, quart, gallon containers) - Scale - Customary Units Chart - Reading story problems aloud - Metric Unit of Capacity Examples (milliliter and liter) - Pan Balance - Gram Masses Set - Metric Units Chart - Meter Stick - Units of Time Chart - Manipulative Clock - Line Plot - Graph Paper - Formula Sheet - Centimeter Grid Paper - Bills and Coins - Preferential Seating - Use of Computer (When available) - Interactive Online Videos - Visual Aids - Anchor Charts - Highlighter - Breaking tasks down into more manageable increments - Breaking down directions with one directive given at a time - Scrap Paper provided Additional Workspace - Frequent Breaks to maintain focus - Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined - Extra time to complete assignments - Additional textbook sent home - Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material - Sample Problems provided - Directions read aloud		**Assessments:** - Extended time to complete - Elimination of 1-2 Answer Choices - Questions & Answer Choices read aloud - Use of highlighter to highlight important details - Frequent Breaks to maintain focus - Modified Assessments - Provide Study Guides - Change testing location **Suggested Time:** 10 days as specified in curriculum with additional time as needed per individual student

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Patterns	• **Pattern Blocks** • **Tangram Pieces** • **Polygons** • **Number Line** • **Centimeter Grid Paper** • **Two-color Counters** • **Individual Whiteboard for addition workspace.** • **Counting Cubes** • **Place Value Blocks** • **Preferential Seating** • **Use of Computer (When available)** • **Interactive Online Videos** • **Visual Aids** • **Anchor Charts** • **Highlighter** • **Breaking tasks down into more manageable increments.** • **Breaking down directions with one directive given at a time** • **Scrap Paper provided Additional Workspace** • **Frequent Breaks to maintain focus** • **Modified Assignments - examples (not limited to) less problems on page, reduction of questions, reduced number of answers, larger font on typed worksheets, vocabulary words defined** • **Extra time to complete assignments** • **Additional textbook sent home** • **Multi-Modality instruction including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material** • **Sample Problems provided** • **Directions read aloud**	• rounding	**Assessments:** • **Extended time to complete** • **Elimination of 1-2 Answer Choices** • **Questions & Answer Choices read aloud** • **Use of highlighter to highlight important details** • **Frequent Breaks to maintain focus** • **Modified Assessments** • **Provide Study Guides** • **Change testing location** **Suggested Time:** **10 days as specified in curriculum with additional time as needed per individual student**
Review	**As listed above**		
Step up to 5th Grade	**As listed above**		