Third Grade Mathematics

Curriculum Guide

Dunmore School District

Dunmore, PA

Third Grade Mathematics

Prerequisite:

- Successful completion of second grade

Course Description:
The Third Grade Mathematics course focuses on representing and solving problems involving multiplication and division, understanding properties of multiplication and the relationship between multiplication and division, multiplying and dividing within 100, solving problems involving the four operations, identifying and explaining patterns in arithmetic developing an understanding of fractions as numbers, solving problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects, geometric measurement, and representation and interpretation of data.

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.

Subject: Third Grade Mathematics	Grade Level: 3	Date Completed: 3/7/2019

1st Quarter

Topic	Resources	Standards
Meanings of Multiplication	**Envision Math Core Topic 4**	**CC.2.2.3.A.2, CC.2.2.3.A.1** **M03.B-O.2.1.1, M03.B-O.2.1.2** **M03.B-O.1.1.1, M03.B-O.1.2.1**
Multiplication Facts: Use Patterns and Use Known Facts	**Envision Math Core Topic 5 & 6**	**CC.2.2.3.A.4, CC.2.1.3.B.1** **M03.B-O.3.1.1, M03.B-O.3.1.2** **M03.B-O.3.1.3, M03.B-O.3.1.4** **M03.B-O.3.1.5, M03.B-O.3.1.6,** **M03.B-O.3.1.7**
Meanings of Division	**Envision Math Core Topic 7**	**CC.2.2.3.A.2** **M03.B-O.1.1.2, M03.B-O.1.2.2**
Division Facts	**Envision Math Core Topic 8**	**CC.2.2.3.A.2** **M03.B-O.2.1.1, M03.B-O.2.1.2** **M03.B-O.2.2.1**
Numeration	**Envision Math Core Topic 1**	**CC.2.1.3.B.1** **M03.A-T.1.1.1, M03.A-T.1.1.2** **M03.A-T.1.1.3, M03.A-T.1.1.4**

2ⁿᵈ Quarter

Topic	Resources	Standards
Number Sense: Addition and Subtraction	**Envision Math Core Topic 2**	**CC.2.1.3.B.1, CC.2.2.3.A.4** **M03.A-T.1.1.1, M03.A-T.1.1.2** **M03.B-O.3.1.3**
Using Place Value to add and subtract	**Envision Math Core Topic 3**	**CC.2.1.3.B.1** **M03.A-T.1.1.2**
Money	**Money Activities Unit Worksheets**	**CC.2.4.3.A.3** **M03.D-M.1.3.1, M03.D-M.1.3.2** **M03.D-M.1.3.3**
Understanding Fractions	**Envision Math Core Topic 9**	**CC.2.1.3.C.1** **M03.A-F.1.1.1, M03.A-F.1.1.2**
Fraction Comparison and Equivalence	**Envision Math Core Topic 10**	**CC.2.1.3.C.1** **M03.A-F.1.1.1, M03.A-F.1.1.2** **M03.A-F.1.1.2, M03.A-F.1.1.4** **M03.A-F.1.1.5**

3rd Quarter

Topic	Resources	Standards
Two Dimensional Shapes and their Attributes (Geometry)	**Envision Math Core Topic 11**	**CC.2.3.3.A.1, CC.2.1.3.C.1** **M03.C-G.1.1.1, M03.C-G.1.1.2** **M03.C-G.1.1.3, M03.A-F.1.1.1**
Time	**Envision Math Core Topic 12**	**CC.2.4.3.A.2** **M03.D-M.1.1.1, M03.D-M.1.1.2**
Perimeter	**Envision Math Core Topic 13**	**CC.2.4.3.A.6** **M03.D-M.4.1.1**
Area	**Envision Math Core Topic 14**	**CC.2.4.3.A.5** **M03.D-M.3.1.1, M03.D-M.3.1.2**
Liquid Volume and Mass (Measurement)	**Envision Math Core Topic 15**	**CC.2.4.3.A.1** **M03.B-O.3.1.1, M03.D-M.1.2.1** **M03.D-M.1.2.2, M03.D-M.1.2.3**

4th Quarter

Topic	Resources	Standards
Data and Graphs	**Envision Math Core Topic 16**	**CC.2.4.3.A.4** **M03.D-M.2.1.1, M03.D-M.2.1.2** **M03.D-M.2.1.3, M03.D-M.2.1.4**
Review	**Review of chosen 3rd grade topics**	
Step Up to 4th Grade	**Topics will be given to by 4th grade teachers**	

| General Topic | Anchor/ Descriptor | Eligible Content, | Resources & Activities | Assessments | Suggested |
| | | Essential Knowledge, | | | Time |
	PA Core Standards	**Skills & Vocabulary**			**(In Days)**
Multiplication (Meaning)	**M03.B-O.2 Understand properties of multiplication and the relationship between multiplication and division.** **M03.B-O.2.1 Use properties to simplify and solve multiplication problems.** **M03.B-O.2.2 Relate division to a missing-number multiplication equation.** **CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and** division. **M03.B-O.1 Represent and**	**M03.B-O.2.1.1 Apply the commutative property of multiplication (not identification or definition of the property).** **M03.B-O.2.1.2 Apply the associative property of multiplication (not identification or definition of the property).** **Interpret and/or model division as a multiplication equation with an unknown factor.** **Example: Find 32 ÷ 8 by solving 8 × ? = 32.** **M03.B-O.1.1.1 Interpret and/or describe products of whole numbers (up to and including 10 × 10).** **Example 1: Interpret 35 as the total number of objects in 5 groups, each containing 7 objects.** **Example 2: Describe a**	**EnVisionMath 2012 Pearson Education (text book, workbook)** **Online website and Interactive Videos:** **https://www.pearsonrealize.com** **Meanings of Multiplication (TOPIC 4)** **--strategies reinforced are repeated addition, arrays, and groups of.** **Multiplication as Repeated Addition (4-1)** **Arrays and Multiplication (4-2)** **The Commutative Property (4-3)** **Writing to explain (4-5)**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online. (Optional)**	**7 days**

	solve problems involving multiplication and division. **M03.B-O.1.1** **Understand various meanings of multiplication and division.** **M03.B-O.1.2** **Solve mathematical and real-world problems using multiplication and division, including determining the missing number in a multiplication and/or division equation.** **CC.2.2.3.A.1 Represent and solve problems involving multiplication and division.**	context in which a total number of objects can be expressed as 5 × 7. **M03.B-O.1.2.1** **Use multiplication (up to and including 10 × 10) and/or division (limit dividends through 50 and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.** <u>**Vocabulary**</u> • **Multiplication,** • **factors** • **product** • **array** • **Commutative (order) property of Multiplication**			

| Multiplication (Facts) | M03.B-O.3 Solve problems involving the four operations, and identify and explain patterns in arithmetic.

M03.B-O.3.1
Use operations, patterns, and estimation strategies to solve problems (may include word problems).

CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic. | M03.B-O.3.1.1
Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.

M03.B-O.3.1.2
Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.

M03.B-O.3.1.3
Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.

M03.B-O.3.1.4
Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).

M03.B-O.3.1.5 | EnVisionMath 2012 Pearson Education (text book, workbook)

Online website and Interactive Videos:
https://www.pearsonrealize.com

Multiplication Facts: Use Patterns & Use Known Facts (TOPICS 5 & 6)

2 and 5 as factors (5-1)

9 as a factor (5-2)

Multiplying with 0 and 1 (5-3)

Pattern for facts (5-4)

10 as a factor (5-5)

Multiplying by multiples of 10 (5-6)

3 as a factor (6-2)

4 as a factor (6-3)

6 and 7 as factors (6-4)

8 as a factor (6-5)

Multiplying with 3 factors (6-6)

Multiplication facts (6-7) | Teacher prepared tests, quizzes, etc.

Series available assessments online. (Optional) | 12 days |

| | | Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations. **Example 1:** Observe that 4 times a number is always even. **Example 2:** Explain why 6 times a number can be decomposed into three equal addends.

M03.B-O.3.1.6 Create or match a story to a given combination of symbols (+, −, ×, ÷, <, >, and =) and numbers.

M03.B-O.3.1.7 Identify the missing symbol (+, −, ×, ÷, <, >, and =) that makes a number sentence true.
Vocabulary

• **Multiples**
• **Identity (one) Property of Multiplication**
• **Zero Property of Multiplication** | Multiplying to find combinations (6-8) | | |
| **Division (Meaning)** | **M03.B-O.1 Represent and** | **M03.B-O.1.1.2** Interpret and/or describe | **EnVisionMath 2012 Pearson** | | **6 days** |

	solve problems involving multiplication and division. **DESCRIPTOR:** **M03.B-O.1.1** **Understand various meanings of multiplication and division.** **CC.2.2.3.A.1 Represent and solve problems involving multiplication and division.**	whole-number quotients of whole numbers (limit dividends through 50 and limit divisors and quotients through 10). **Example 1: Interpret 48 ÷ 8 as the number of objects in each share when 48 objects are partitioned equally into 8 shares, or as a number of shares when 48 objects are partitioned into equal shares of 8 objects each.** **Example 2: Describe a context in which a number of shares or a number of groups can be expressed as 48 ÷ 8.** **M03.B-O.1.2.2** **Determine the unknown whole number in a multiplication (up to and including 10 × 10) or division (limit dividends through 50 and limit divisors and quotients through 10) equation relating three whole numbers.** **Example: Determine the unknown number that makes an equation true.** <u>**Vocabulary**</u> • division	Education (text book, workbook) **Online website and Interactive Videos:** https://www.pearsonrealize.com **Meanings of Division (TOPIC 7)** **Division as sharing (7-1)** **Division as repeated subtraction (7-2)** **Finding missing numbers in a multiplication table (7-3)** **Chose an appropriate equation (7-4)**		

Division (Facts)	M03.B-O.2 Understand properties of multiplication and the relationship between multiplication and division. M03.B-O.2.1 Use properties to simplify and solve multiplication problems. M03.B-O.2.2 Relate division to a missing-number multiplication equation. CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division.	M03.B-O.2.1.1 Apply the commutative property of multiplication (not identification or definition of the property). M03.B-O.2.1.2 Apply the associative property of multiplication (not identification or definition of the property). M03.B-O.2.2.1 Interpret and/or model division as a multiplication equation with an unknown factor. Example: Find 32 ÷ 8 by solving 8 × ? = 32. **Vocabulary** • Dividend • divisor • quotient	EnVisionMath 2012 Pearson Education (text book, workbook) Online website and Interactive Videos: https://www.pearsonrealize.com Division Facts (TOPIC 8) Relating multiplication and division (8-1) Fact families with 2, 3, 4, and 5 (8-2) Fact families with 6 and 7 (8-3) Fact families with 8 and 9 (8-4) Multiple step problems (8-5) Making sense of multiplication and division equations (8-6) Dividing with 0 and 1(8-7) Multiplication and division facts (8-8) Draw a picture and write a number sentence (8-9)	Teacher prepared tests, quizzes, etc. Series available assessments online. (Optional)	10 days
Numeration	M03.A-T.1 Use place-value understanding and properties of operations	M03.A-T.1.1.1 Round two- and three-digit whole numbers to the nearest	EnVisionMath 2012 Pearson Education (text book, workbook)	Teacher prepared tests, quizzes, etc.	10 days

	to perform multi-digit arithmetic. **M03.A-T.1.1** **Apply place-value strategies to solve problems.** **CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.**	ten or hundred, respectively. **M03.A-T.1.1.2** **Add two- and three- digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit numbers from three-digit whole numbers.** **M03.A-T.1.1.3** **Multiply one-digit whole numbers by two-digit multiples of 10 (from 10 through 90).** **M03.A-T.1.1.4** **Order a set of whole numbers from least to greatest or greatest to least (up through 9,999, and limit sets to no more than four numbers).** **Vocabulary** • **digits** • **place value** • **standard form** • **word form** • **expanded form** • **round**	Online **https://www.pearsonrealize.com** **NUMERATION (TOPIC 1)** **Representing Numbers (1-1)** **Understanding Numbers (1-2)** **Counting on number Lines (1-3)** **Finding the Halfway Number (1-4)** **Rounding (1-5)** **More Rounding (1-6)** **Make an organized list (1-7)**	Series available assessments online. (Optional)	
Adding and Subtracting	**M03.A-T.1 Use place-value understanding and properties of operations to perform multi-digit**	**M03.A-T.1.1.1** **Round two- and three-digit whole numbers to the nearest ten or hundred,**	**EnVisionMath 2012 Pearson Education (text book, workbook)** **Online website and Interactive**	**Teacher prepared tests, quizzes, etc.** **Series available**	**8 days**

	arithmetic. **M03.A-T.1.1** **Apply place-value** **strategies to solve** **problems.** **CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.** **M03.B-O.3 Solve problems involving the four operations, and identify and explain patterns in arithmetic.** **M03.B-O.3.1** **Use operations, patterns, and estimation strategies to solve problems (may include word problems).** **CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.**	respectively. **M03.A-T.1.1.2** **Add two- and three- digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit numbers from three-digit whole numbers.** **M03.B-O.3.1.3** **Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.** Vocabulary • addends • sum • Commutative (order) Property of Addition Associative (Grouping) • Property of Addition • Identity (Zero) Property of Addition • difference • fact family • estimate • compatible numbers	**Videos:** **https://www.pearsonrealize.com** **Number Sense: Addition and Subtraction (TOPIC 2)** **Addition Meanings and Properties (2-1)** **Subtraction Meanings (2-2)** **Estimating Sums (2-5)** **Estimating Differences (2-6)** **Reasonableness (2-7)**	**assessments** **online. (Optional)**	

Place Value	M03.A-T.1 Use place-value understanding and properties of operations to perform multi-digit arithmetic.	M03.A-T.1.1.2 Add two- and three- digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit numbers from three-digit whole numbers.	EnVisionMath 2012 Pearson Education (text book, workbook)	Teacher prepared tests, quizzes, etc.	12 days
	M03.A-T.1.1 Apply place-value strategies to solve problems.	**Vocabulary** • equation • inverse operations	Online website and Interactive Videos: https://www.pearsonrealize.com **PLACE VALUE** Using Place Value to add and subtract (TOPIC 3)	Series available assessments online. (Optional)	
	CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.		Models for adding 3-digit numbers (3-2) Adding 3-Digit Numbers (3-3) Adding 3 or more Numbers (3-4) Draw a Picture (3-5) Models for subtracting 3-digit numbers (3-7) Subtracting 3-Digit Numbers (3-8) Subtracting across zero (3-9) Making sense of Addition Equations (3-10) Making sense of Subtraction Equations (3-11) Adding and subtracting (3-12) Draw a picture and write a number		

			sentence (3-13)		
Money	M03.D-M.1 Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. M03.D-M.1.3 Count, compare, and make change using a collection of coins and one-dollar bills. CC.2.4.3.A.3 Solve problems and make change involving money using a combination of coins and bills.	M03.D-M.1.3.1 Compare total values of combinations of coins (penny, nickel, dime, and quarter) and/or dollar bills less than $5.00. M03.D-M.1.3.2 Make change for an amount up to $5.00 with no more than $2.00 change given (penny, nickel, dime, quarter, and dollar). M03.D-M.1.3.3 Round amounts of money to the nearest dollar.	Money Activities Unit Worksheets	Teacher prepared tests, quizzes, etc.	5 days
Fractions (Understanding)	M03.A-F.1 Develop an understanding of fractions as numbers. M03.B-O.3.1 Use operations, patterns, and estimation strategies to solve problems (may	M03.A-F.1.1.1 Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole	EnVisionMath 2012 Pearson Education (text book, workbook) Online website and Interactive Videos: https://www.pearsonrealize.com Understanding Fractions	Teacher prepared tests, quizzes, etc. Series available assessments online. (Optional)	9 days

	include word problems). CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.	(limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary). **M03.A-F.1.1.2** **Represent fractions on a number line (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).** <u>Vocabulary</u> • halves • thirds • fourths • fifths • sixths • eighths • tenths • twelfths • fraction • numerator • denominator • unit fractions • benchmark fractions • mixed number	(TOPIC 9) Dividing regions into equal parts (9-1) Fractions and regions (9-2) Fractions and sets (9-3) Fractional parts of a set (9-4) Fraction number lines (9-5) Locating fractions on the number line (9-6) Fractions and lengths (9-7)		

Fractions (Comparison and equivalence)	M03.A-F.1 Develop an understanding of fractions as numbers. M03.B-O.3.1 Use operations, patterns, and estimation strategies to solve problems (may include word problems). CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.	M03.A-F.1.1.1 Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary). M03.A-F.1.1.2 Represent fractions on a number line (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary). M03.A-F.1.1.3 Recognize and generate simple equivalent fractions (limit the denominators to 1, 2, 3, 4, 6, and 8 and limit numerators to whole numbers less than the denominator). Example 1: 1/2 = 2/4 Example 2: 4/6 = 2/3	EnVisionMath 2012 Pearson Education (text book, workbook) Online website and Interactive Videos: https://www.pearsonrealize.com Fraction Comparison and Equivalence (TOPIC 10) Using models to compare fractions: same denominator (10-1) Using models to compare fractions: same numerator (10-2) Using fractions (10-3) Comparing fractions on a number line (10-4) Finding equivalent fractions (10-5) Equivalent fractions and the number line (10-6) Whole numbers and fractions (10-7) Draw a picture (10-8)	Teacher prepared tests, quizzes, etc. Series available assessments online. (Optional)	11 days

		M03.A-F.1.1.4			
		Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers (limit denominators to 1, 2, 3, 4, 6, and 8).			
		Example 1: Express 3 in the form 3 = 3/1.			
		Example 2: Recognize that 6/1 = 6.			
		M03.A-F.1.1.5			
		Compare two fractions with the same denominator (limit denominators to 1, 2, 3, 4, 6, and 8), using the symbols >, =, or <, and/or justify the conclusions.			
		<u>**Vocabulary**</u>			
		• **equivalent fractions** • **simplest form**			
Geometry	**M03.C-G.1 Reason with shapes and their attributes.** **M03.C-G.1.1** **Analyze characteristics of polygons.**	**M03.C-G.1.1.1 Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category.** *Example 1: A rhombus and a rectangle are both quadrilaterals since they both*	**EnVisionMath 2012 Pearson Education (text book, workbook)** **Online website and Interactive Videos:** **https://www.pearsonrealize.com** **Two Dimensional Shapes and their Attributes (TOPIC 11)**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online. (Optional)**	**7 days**

	CC.2.3.3.A.1 Identify, compare, and classify shapes and their attributes.	*have exactly four sides.* *Example 2: A triangle and a pentagon are both polygons since they are both multi-sided plane figures.*	Polygons (11-1) Quadrilaterals (11-2) Classifying shapes (11-3) Make and test generalizations (11-4) Solve a simpler problem (11-5)	
	M03.A-F.1 Develop an understanding of fractions as numbers. M03.A-F.1.1 Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers.	M03.C-G.1.1.2 Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories. M03.C-G.1.1.3 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.		
	CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.	*Example 1: Partition a shape into 4 parts with equal areas.* *Example 2: Describe the area of each of 8 equal parts as 1/8 of the area of the shape.* M03.A-F.1.1.1 Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole (limit denominators to		

2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).

Vocabulary

- **polygon**
- **side**
- **vertex of a polygon**
- **diagonal**
- **triangle**
- **quadrilateral**
- **pentagon**
- **hexagon**
- **octagon**
- **decagon**
- **parallel sides**
- **right angle**
- **trapezoid**
- **parallelogram**
- **rectangle**
- **rhombus**
- **square**
- **plane =**
  - **A set of points that forms a flat surface that extends infinitely in all directions.**
  - **It has length and width but no height.**
  - **Informal examples**

		that may aid students in conceptualizing a *plane*: • An infinitely thin sheet of glass that extends infinitely far in all directions • The surface of an infinitely long and wide tabletop—not the tabletop itself, only the infinitely thin surface of the tabletop.			
Time	M03.D-M.1 Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. M03.D-M.1.1 Determine or calculate time and elapsed time. CC.2.4.3.A.2 Tell and write time to the nearest minute and solve	M03.D-M.1.1.1 Tell, show, and/or write time (analog) to the nearest minute. M03.D-M.1.1.2 Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less). Vocabulary • Hour, • half hour, • quarter hour,	EnVisionMath 2012 Pearson Education (text book, workbook) Online website and Interactive Videos: https://www.pearsonrealize.com TIME (TOPIC 12)**SUPPLEMENT WITH WORKSHEETS Time to the half hour and quarter hour (12-1) Time to the minute (12-2) Elapsed time (12-3)		10 days

| | problems by calculating time intervals. | minute, second, A.M., P.M., elapsed time
Time (analog)= Time displayed by an analog clock.
Analog clocks display continuous time.
Traditional two- or three-hand clocks are examples of clocks that display
analog time.
Time (digital) = Time displayed as digits, as seen on digital clocks. *Digital time* **shows each unit of time separated by colons. Digital clocks typically display only whole number hours, minutes, and/or seconds.** *Digital times* **may refer to either elapsed time or the time of the day.** | **Work backwards (12-4)** | | |

		For example: • 2:57 represents 2 hours, 57 minutes • 11:03:20 represents 11 hours, 3 minutes, 20 seconds • 7:45 P.M. represents 7 hours, 45 minutes after noon and is read as "seven forty-five P.M." (On the PSSA, it may be assumed all *digital times* begin with the hour unless Otherwise specified.)			
Perimeter	**M03.D-M.4 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.** **M03.D-M.4.1 Find and use the perimeters of plane figures.** **CC.2.4.3.A.6 Solve problems involving perimeters of polygons and distinguish between linear and area measures.**	**M03.D-M.4.1.1 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.** <u>**Vocabulary**</u> • **Perimeter** • **mile**	**EnVisionMath 2012 Pearson Education (text book, workbook)** **Online website and Interactive Videos:** **https://www.pearsonrealize.com** **PERIMETER (TOPIC 13)** **Understanding perimeter (13-1)** **Perimeter and common shapes (13-2)** **Perimeter and unknown lengths (13-3)** **Different shapes with the same perimeter (13-4)**	**Teacher prepared tests, quizzes, etc.** **Series available assessments online. (Optional)**	**6 days**

| Area | M03.D-M.3 Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

M03.D-M.3.1 Find the areas of plane figures.

CC.2.4.3.A.5 Determine the area of a rectangle and apply the concept to multiplication and to addition. | M03.D-M.3.1.1 Measure areas by counting unit squares (square cm, square m, square in., square ft., and non-standard square units).

M03.D-M.3.1.2 Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Vocabulary

• area
• square unit | EnVisionMath 2012 Pearson Education (text book, workbook)

Online website and Interactive Videos:
https://www.pearsonrealize.com

AREA (TOPIC 14)

Covering regions (14-1)
Area and units (14-2)

Standard units (14-3)

Area of square and rectangles (14-4)

Solve a simpler problem (14-6)

Area of irregular shapes (14-7)

Different area, same perimeter (14-8)

Same area, different perimeter (14-9)

Selecting appropriate measurement units and tools (14-11) | Teacher prepared tests, quizzes, etc.

Series available assessments online. (Optional) | 15 days |
| Measurement (Liquid Volume and Mass) | M03.D-M.1 Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects. | M03.B-O.3.1.1 Solve two-step word problems using the four operations (expressions are not explicitly stated).
Limit to problems with whole numbers and having whole-number answers. | EnVisionMath 2012 Pearson Education (text book, workbook)

Online website and Interactive Videos:
https://www.pearsonrealize.com | Teacher prepared tests, quizzes, etc.

Series available assessments online. (Optional) | 7 days |

		M03.D-M.1.2.1 Measure and estimate liquid volumes and masses of objects using standard units (cups [c], pints [pt], quarts [qt], gallons [gal], ounces [oz.], and pounds [lb]) and metric units (liters [l], grams [g], and kilograms [kg]). M03.D-M.1.2.2 Add, subtract, multiply, and divide to solve one step word problems involving masses or liquid volumes that are given in the same units. M03.D-M.1.2.3 Use a ruler to measure lengths to the nearest quarter inch or centimeter. **Vocabulary** • capacity • liter • milliliter • mass • gram • kilogram	Liquid Volume and Mass (TOPIC 15) Metric units of capacity -liter or milliliter (15-1) Measuring capacity (15-2) Units of mass -gram or kilogram (15-3) Measuring (15-4) Draw a picture (15-5)		
	M03.D-M.1.2 Use the attributes of liquid volume, mass, and length of objects. **CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass or length.**				
Data and Graphs	**M03.D-M.2 Represent and interpret data.** **M03.D-M.2.1 Organize, display, and answer**	**M03.D-M.2.1.1 Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to**	**EnVisionMath 2012 Pearson Education (text book, workbook)** **Online website and Interactive Videos:**	**Teacher prepared tests, quizzes, etc.** **Series available assessments**	**5 days**

	questions based on data.	1, 2, 5, and 10).	https://www.pearsonrealize.com	online. (Optional)
	CC.2.4.3.A.4 **Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.**	**M03.D-M.2.1.2 Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10).** *Example 1: (One-step) "Which category is the largest?"* *Example 2: (Two-step) "How many more are in category A than in category B?"* **M03.D-M.2.1.3 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units— whole numbers, halves, or quarters.** **M03.D-M.2.1.4 Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables.** *Example: Convert a tally chart to a bar graph.*	**DATA AND GRAPHS** **(TOPIC 16)** **Line plots (16-1)** **Length and line plots (16-2)** **Reading pictographs and bar graphs (16-3)** **Making pictographs (16-4)**	

		Vocabulary			
		• bar graph • key • line plot • pictograph • scale			
Review		Review of chosen 3rd grade topics			10 days
Step up to 4th Grade		Basic multiplication facts Basic division facts Place value up to the millions standard, word, place value and expanded forms			30 days

	Appendix: A		
	IEP Enhancements		
General Topic:	**Specially Designed Instruction:**	**Additional Vocabulary:**	**Assessments/Suggested Time:**
Multiplication (Meaning)	• Repeated Addition • Multiplication Charts • Use of Calculator • Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): less problems on page, reduction of problems, larger font on worksheets, reduction of questions/answers on page, vocabulary words defined • Breaking Tasks into more manageable units • Writing to Explain • Extra time to complete all assignments • Orally Read Questions • Preferential Seating		Assessments: Modified Assessment (examples include but not limited to) • less problems on page • reduction of problems • larger font on test • less problems on page • reduction of questions/answers on page • extra time on all assessments Suggested Time: 7 days as specified by curriculum with additional time as needed per individual student
Multiplication (Facts)	• Manipulatives • Repeated Addition • Multiplication Charts • Use of Calculator • Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): less problems on page, reduction of problems, larger font on worksheets, reduction of questions/answers on page, vocabulary words defined • Breaking Tasks into more manageable units • Writing to Explain • Extra time to complete all assignments • Orally Read Questions • Preferential Seating		Assessments: Modified Assessment (examples include but not limited to) • less problems on page • reduction of problems • larger font on test • reduction of questions/answers on page • extra time on assessments Suggested Time: 12 days as specified by curriculum with additional time as needed per individual student

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Division (Meaning)	• Manipulatives • Multiplication Charts • Use of Calculator • Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined • Breaking Tasks into more manageable units • Writing to Explain • Extra time to complete all assessments and assignments • Orally Read Questions • Preferential Seating	• divisor • dividend • quotient	Assessments: Modified Assessment (examples include but not limited to) • reduction of problems • larger font on test • less problems on page • reduction of questions/answers on page Suggested Time: 6 days as specified by curriculum with additional time as needed per individual student
Division (Facts)	• Multiplication Charts • Use of Calculator • Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined • Breaking Tasks into more manageable units • Writing to Explain • Extra time to complete all assessments and assignments • Orally Read Questions • Preferential Seating	• divisor • dividend • quotient	Assessments: Modified Assessment (examples include but not limited to) • reduction of problems • larger font on test • less problems on page • reduction of questions/answers on page Suggested Time: 10 days as specified by curriculum with additional time as needed per individual student

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Numeration	• **Manipulatives** • **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): less problems on page, reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined** • **Breaking Tasks into more manageable units** • **Extra time to complete all assignments** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **10 days as specified by curriculum with additional time as needed per individual student**
Adding and Subtracting	• **Number Line** • **Manipulatives** • **Use of Calculator** • **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on all assessments** **Suggested Time:** **8 days as specified by curriculum with additional time as needed per individual student**
Place Value	• **Place Value Chart** • **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page** • **Breaking Tasks into more manageable units** • **Extra time to complete all assignments** • **Orally Read Questions** • **Preferential Seating**	• tens • hundreds • thousands • whole numbers	**Assessments:** **Modified Assessment (examples include but not limited to)** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **12 days as specified by curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Money	• Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on assignments • Breaking Tasks into more manageable units • Writing to Explain • Orally Read Questions • Preferential Seating	• coins • bills	**Assessments:** **Modified Assessment (examples include but not limited to)** • less problems on page • reduction of problems • larger font on test • less problems on page • reduction of questions/answers on page • extra time on assessments **Suggested Time:** **5 days as specified by curriculum with additional time as needed per individual student available**
Fractions (Understanding)	• Visual Aids • Verbal Reminders • Use of Highlighters • Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments • Breaking Tasks into more manageable units • Writing to Explain • Extra time to complete all assessments and assignments • Orally Read Questions • Preferential Seating		**Assessments:** **Modified Assessment (examples include but not limited to)** • less problems on page • reduction of problems • larger font on test • less problems on page • reduction of questions/answers on page • extra time on assessments **Suggested Time:** **9 days as specified by curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Fractions (Comparison and equivalence)	• **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Extra time to complete all assignments** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **11 days as specified by curriculum with additional time as needed per individual student**
Geometry	• **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, reduction of questions/answers on page, vocabulary words defined, extra time on assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **7 days as specified by curriculum with additional time as needed per individual student**
Time	• **Visual Aids** • **Verbal Reminders** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **10 days as specified by curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Perimeter	• **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Extra time to complete all assignments** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **6 days as specified by curriculum with additional time as needed per individual student**
Area	• **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **15 days as specified by curriculum with additional time as needed per individual student**
Measurement (Liquid Volume and Mass)	• **Visual Aids** • **Verbal Reminders** • **Use of Highlighters** • **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** • **Breaking Tasks into more manageable units** • **Writing to Explain** • **Orally Read Questions** • **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** • **less problems on page** • **reduction of problems** • **larger font on test** • **less problems on page** • **reduction of questions/answers on page** • **extra time on assessments** **Suggested Time:** **7 days as specified by curriculum with additional time as needed per individual student**

General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Data and Graphs	**Visual Aids** **Verbal Reminders** **Use of Highlighters** **Modified Assignments (examples include but not limited to): reduction of problems, larger font on worksheets, less problems on page, reduction of questions/answers on page, vocabulary words defined, extra time on all assignments** **Breaking Tasks into more manageable units** **Writing to Explain** **orally read questions** **Preferential Seating**		**Assessments:** **Modified Assessment (examples include but not limited to)** **less problems on page** **reduction of problems** **larger font on test** **less problems on page** **reduction of questions/answers on page** **extra time on assessments** **Suggested Time:** **5 days as specified by curriculum with additional time as needed per individual student**
Review	**As listed above**		
Step up to 4th Grade	**As listed above**		