# **Sixth Grade Mathematics**

**Curriculum Guide** 

**Dunmore School District** 

Dunmore, PA



#### **Sixth Grade Mathematics**

Prerequisite:

• Satisfactory completion of fifth grade

#### **Course Description:**

In the Sixth Grade Mathematics course students extend their work with fraction operations to dividing fractions and mixed numbers. Student develop fluency with whole-number division and decimal operations (addition, subtraction, multiplication, division) using the standard algorithms. They learn about negative integers and negative rational numbers and locate these on the number line. They also learn absolute value, and they plot points in all four quadrants of the coordinate plane.

#### **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.

#### Year-at-a-glance

Subject: Sixth Grade Math	Grade Level: 6	Date Completed: 3/5/2019

#### 1<sup>st</sup> Quarter

Achieving Fluency: Adding, Subtracting, and Multiplying Decimals	Envision Math Common Core	CC.2.1.6.E.2, M06.A-N.2.1.1
	Topic 4	CC.2.2.6.B.1, M06.AN.2.1
Achieving Fluency: Dividing Whole Numbers and Decimals	Envision Math Common Core	CC.2.1.6.E.2 M06.AN.2.1
	Topic 5	CC.2.2.6.B.1 M06.A.N.2.1.1
Dividing Fractions	Envision Math Common Core	CC.2.1.6.E.1, CC.2.1.6.E.3
	Topic 6	CC.2.2.6.B.1, M06.A-N.1.1
		M06.A-N.1.1.1
Variables and Expressions	Envision Math Common Core	CC.2.2.6.B.1. M06.B-E.2.1
		CC.2.2.6.B.2. M06.B-F.2.1.1
		M06.B-F.2.1.2, M06.B-F.2.1.3
		M06 B-F 2 1 4

2<sup>nd</sup> Quarter

Торіс	Resources	Standards
Equations and Inequalities	Envision Math Common Core	CC.2.2.6.B.1, CC.2.2.6.B.2
	Topic 2	M06.B-E.2.1, M06.B-E.2.1.1
		M06.B-E.2.1.2, M06.B-E.2.1.3
		M06.B-E.2.1.4
Patterns and Equations	Envision Math Common Core	CC.2.2.6.B.3, M06.B-E.3.1
	Topic 3	CC.2.2.6.B.1, M06.B-E.3.1.1
		M06.B.E.3.1.2
Integers and Rational Numbers	Envision Math Common Core	CC.2.1.6.E.4. M06.A-N.3.2
	Topic 7	M06.A-N.3.2.1. M06.A-N.3.2.2
		M06.A-N.3.2.3
Coordinate Geometry	Envision Math Common Core	CC.2.1.6.E.4, M06.A-N.3.2
	Topic 8	M06.A-N.3.2.1, M06.A-N.3.2.2
		M06.A-N.3.2.3

3 <sup>rd</sup> Quar	ter
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Торіс	Resources	Standards
Ratios	Envision Math Common Core Topic 9	CC.2.1.6.D.1, M06.A-R.1.1 M06.A-R.1.1.1, M06. A-R.1.1.2 M06. A-R.1.1.3, M06.A-R.1.1.4 M06.A-R.1.1.5
Rates	Envision Math Common Core Topic 10	CC.2.1.6.D.1, M06.A-R.1.1 M06.A-R.1.1.1, M06.A.R.1.1.2 M06.AR.1.1.3, M06.A-R.1.1.4 M06. A-R.1.1.5
Percents	Envision Math Common Core Topic 11	CC.2.1.6.D.1, M06.A-R.1.1 M06.A-R.1.1.1, M06. A-R.1.1.2 M06.A-R.1.1.3, M06. A-R. 1.1.4 M06. A.1.1.5
Area	Envision Math Common Core Topic 12	CC.2.3.6.A.1, M06.C-G. 1.1 M06.C-G.1.1.1, M06C-G.1.1.2 M06.C-G. 1.1.3, M06C-G. 1.1.4 M06.C-G.1.1.5, M06.C-G.1.1.6

4<sup>th</sup> Quarter

Торіс	Resources	Standards
Surface Area and Volume	Envision Math Common Core	CC.2.3.6.A.1, M06.C-G.1.1 M06.C-
	Topic 13	G.1.1.1, M06.C-G.1.1.2
		M06.C-G.1.1.3, M06.C.G.1.1.4
		M06.C.G.1.1.5, M06.C.G.1.1.6
Statistics	Envision Math Common Core	CC.2.4.6.B.1, M06.D-S.1.1 M06.D-
	Topic 14	S.1.1.1, M06.D-S.1.1.2
		M06.D-S.1.1.3, M06.D-S.1.1.4
Review	Envision Math Common Core	
Step up to 7 <sup>th</sup> Grade	Envision Math Common Core	

General Topic	Anchor Descriptor PA Core Standards	Eligible Content, Essential Knowledge, Skills & Vocabulary	Resources & Activities	Assessments	Suggested Time (In Days)
Achieving Fluency: Adding, Subtracting, and Multiplying Decimals	M06.A-N.2.1 Compute with multi-digit numbers using the four arithmetic operations with or without a calculator.	M06.A-N.2.1.1 Solve problems involving operations (+, -, x, and ÷) with whole numbers, decimals (through thousandths), straight computation, or word problems.	Envision Math Common Core Topic 4 Estimating Sums and Differences (4-1)	Teacher prepared tests, quizzes, etc. Series Available Assessments online.(Optional)	10 days
	CC.2.1.6.E.2 Identify and choose appropriate processes to compute fluently with multi-digit numbers.	Vocabulary <ul> <li>estimation</li> <li>expressions</li> <li>equations</li> <li>sum</li> <li>difference</li> <li>products</li> <li>quotients</li> </ul>	Subtraction Expressions(4- 2) Solving Addition and Subtraction Equations (4- 3) Estimating Products (4-4) Multiplying Decimals (4-5) Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board		
Achieving Fluency: Dividing Whole Numbers and	M06.A-N.2.1 Compute with multi-digit	M06.A-N.2.1.1 Solve problems involving	Envision Math Common Core Topic 5	Teacher prepared tests, quizzes, etc.	10 days
Decimals	arithmetic operations with or without a calculator. CC.2.1.6.E.	and ÷) with whole numbers, decimals (through thousandths), straight computation, or word	Estimating Quotients: 2- digit divisors(5-1) Dividing Whole Numbers: 2-digit Divisors (5-2)	Series Available Assessments online.(Optional)	

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	Identify and choose appropriate	problems.			
	processes to compute fluently		More Dividing Whole		
	with multi-digit numbers.	Vocabulary	Numbers (5-3)		
		dividend			
		divisor	Dividing Decimals by a		
		<ul> <li>quotient</li> </ul>	Whole Number (5-4)		
		decimal			
			Dividing Decimals(5-5)		
			Evaluating Expressions		
			with Decimals (5-6)		
			Solving Equations (5-7)		
			Workbook		
			Worksheets		
			www.pearsonrealize.com		
			Promethium Board		
Variables and	M06.B-E.2.1 Create, solve, and	M06.B-E.2.1.1 Use substitution	Envision Math Common	Teacher prepared	10 days
Expressions	interpret one variable	to determine whether a given	Core Topic 1	tests, quizzes, etc.	
	equations or inequalities in real-	number in a specified set makes		Assessments	
	world and mathematical	an equation or	Order of Operations (1-3)	online. Series	
	problems.	inequality true.		Available	
			Evaluating Numerical	(Optional)	
		M06.B-E.2.1.2 Write algebraic	Expressions (1-5)		
	CC.2.2.6.B.2 Understand the	expressions to represent real-			
	process of solving a one variable	world or mathematical	Evaluating Algebraic		
	equation or inequality and apply	problems.	Expressions (1-8)		
	to real- world and mathematical				
	problems.	M06.B-E.2.1.3 Solve real-world	Simplifying Algebraic		
		and mathematical problems by	Expressions (1-10)		
		writing and solving equations of	Workbook		
		the form $x + p = q$	Worksheets		

		and <i>px</i> = <i>q</i> for cases in which <i>p</i> , <i>q</i> , and <i>x</i> are all non-negative rational numbers. M06.B-E.2.1.4 Write an inequality of the form <i>x</i> > <i>c</i> or <i>x</i> <	www.pearsonrealize.com Promethium Board		
		<i>c</i> to represent a constraint or condition in a real-world or mathematical problem and/or represent solutions of such inequalities on number lines.			
		<ul> <li>algebraic expression</li> <li>expanded form</li> <li>variable</li> <li>compatible</li> <li>exponent</li> <li>commutative property</li> <li>associative property</li> <li>identity property</li> <li>distributive property</li> <li>simplifying</li> </ul>			
Equations and Inequalities	M06.B-E.2.1 Create, solve, and interpret one variable equations or inequalities in real- world and mathematical problems.	M06.B-E.2.1.1 Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	Envision Math Common Core Topic 2 Understanding Equations (2-1)	Teacher prepared tests, quizzes, etc. Assessments online. Series Available (Optional)	10 days

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	CC.2.2.6.B.2 Understand the process of solving a one variable equation or inequality and apply to real- world and mathematical problems. M06.B-E.3.1 Use variables to represent two quantities in a real-world problem that change in relationship to one another. CC.2.2.6.B.3 Represent and analyze quantitative relationships between dependent and independent variables.	M06.B-E.2.1.2 Write algebraic expressions to represent real- world or mathematical problems. M06.B-E.2.1.3 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which $p$ , q, and $x$ are all non-negative rational numbers. M06.B-E.2.1.4 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem and/or represent solutions of such inequalities on number lines. <u>Vocabulary</u> • inequality • properties of equality • writing inequalities • Solving Inequalities	Solving Addition and Subtraction Equations (2- 2) Solving Multiplication and Division Equations (2-5) Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board		
Dividing Fractions	M06.A-N.1.1 Solve real-world and mathematical problems involving division of fractions.	M06.A-N.1.1.1 Interpret and compute quotients of fractions (including mixed numbers), and solve word problems involving	Envision Math Common Core Topic 6 Greatest Common Factor(6- 1)	Teacher prepared tests, quizzes, etc. Series Available	10 days
	CC.2.1.6.E.1 Apply and extend previous	Example 1: Given a story context for (2/3) ÷ (3/4),	Least Common Multiple(6-2)	online.(Optional)	

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	understandings of multiplication and division to divide fractions by fractions.	explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = (a/b) × (d/c) = ad/bc.) Example 2: How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?	Dividing Whole Numbers by Fractions (6-4) Modeling Division of Fractions (6-3 & 6-5) More Dividing Fractions (6- 6)		
		Example 3: How many 2 1/4-foot pieces can be cut from a 15 1/2-foot board?	Estimating Mixed Numbers Quotients (6-7)		
		Review: Adding, Subtracting, & Multiplying Fractions	Dividing Mixed Numbers (6- 8)		
		Vocabulary	Evaluating Expressions with Fractions (6-9)		
		<ul> <li>greatest common factor</li> <li>least common multiple</li> <li>reciprocal</li> </ul>	Solving Equations with Fractions (6-10)		
		<ul><li>mixed numbers</li><li>improper fractions</li></ul>	Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board		
Integers and Other	M06.A-N.3.2 Understand	M06.A-N.3.2.1 Write, interpret,	Envision Math Common	Teacher prepared	10 days
Rational Numbers	ordering and absolute value of rational numbers.	and explain statements of order for	Core Topic 7	tests, quizzes, etc.	
		rational numbers in real-world contexts.	Understanding Integers(7- 1)	Series Available Assessments online.(Optional)	
	Apply and extend previous understandings of numbers to	Example: Write -3°C > -7°C to express the fact that	Comparing and Ordering Integers(7-2)		

the system of rational numbers.	–3°C is warmer than –7°C.		
		Absolute Value (7-3)	
	M06.A-N.3.2.2 Interpret the		
	absolute value of a rational	Rational Numbers on a	
	number as its distance from 0 on	Number Line (7-4)	
	the number line and as a		
	magnitude for a positive or	Comparing and Ordering	
	negative quantity in a	Rational Numbers (7-5)	
	real-world situation.		
		Workbook	
	Example: For an account balance	Worksheets	
	of –30 dollars,	www.pearsonrealize.com	
	write  -30  = 30 to describe the	Promethium Board	
	size of the debt in		
	dollars, and recognize that an		
	account balance		
	less than –30 dollars represents		
	a debt greater		
	than 30 dollars.		
	M06.A-N.3.2.3 Solve real-world		
	and mathematical problems by		
	plotting points in all four		
	quadrants of the		
	coordinate plane. Include use of		
	to find distances between neiste		
	with the same first coordinate or		
	with the same first coordinate or		
	the same second coordinate.		
	Vocabulary		
	• integer		

		<ul> <li>absolute value</li> <li>rational number</li> <li>comparing</li> <li>ordering</li> </ul>			
Coordinate Geometry	M06.A-N.3.2 Understand ordering and absolute value of rational numbers. CC.2.1.6.E.4 Apply and extend previous understandings of numbers to the system of rational numbers.	M06.A-N.3.2.1 Write, interpret, and explain statements of order for rational numbers in real-world contexts. Example: Write $-3^{\circ}C > -7^{\circ}C$ to express the fact that $-3^{\circ}C$ is warmer than $-7^{\circ}C$ . M06.A-N.3.2.2 Interpret the absolute value of a rational number as its distance from 0 on the number line and as a magnitude for a positive or negative quantity in a real-world situation. Example: For an account balance of $-30$ dollars, write $ -30  = 30$ to describe the size of the debt in dollars, and recognize that an account balance less than $-30$ dollars represents a debt greater than 30 dollars.	Envision Math Common Core Topic 8 Integers in a Coordinate Plane (8-1) Rational Numbers on a Coordinate Plane (8-2) Distance on the Coordinate Plane (8-3) Polygons on the Coordinate Plane (8-4) Graphing Equations (8-5) More Graphing Equations (8-6) Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board	Teacher prepared tests, quizzes, etc. Series Available Assessments online.(Optional)	10 days

		IVIU6.A-N.3.2.3 Solve real-world			
		and mathematical problems by			
		plotting points in all four			
		quadrants of the			
		coordinate plane. Include use of			
		coordinates and			
		absolute value to find distances			
		between points			
		with the same first coordinate or			
		the same second coordinate.			
		<u>Vocabulary</u>			
		coordinate plane			
		• quadrant			
		distance			
		nolvgons			
		<ul> <li>linear equation</li> </ul>			
Pation	MOG A P 1 1 Paprocent and/or	M06 A P 1 1 1 Uso ratio	Envision Math Common	Toochor propored	10 days
Natios	woo.A-K.1.1 Represent and/or	language and notation (such as 2			10 uays
	Solve real-world and	to 4 2:4 2/4) to describe a ratio	core ropic 9	lesis, quizzes, elc.	
	rates ratios and/or personts	rolationship botwoon	Understanding Paties (0, 1)	Sarias Availabla	
	rates, ratios, and/or percents.	two guantities	Onderstanding Ratios (9-1)	Series Available	
		two quantities.	Faustical ant Paties (0.2)	Assessments	
		Evenue 1. 4. "The netter of side to	Equivalent Ratios (9-2)	online.(Optional)	
		Example 1: "The ratio of girls to			
	CC.2.1.6.D.1	boys in a math	Modeling Ratios (9-3)		
	Understand ratio concepts and	class is 2:3 because for every 2			
	use ratio reasoning to solve	girls there are	Using Ratio (9-4)		
	problems.	3 boys."			
			Ratios and Graphs (9-5)		
		Example 2: "For every five votes			
		candidate A	Workbook		
		received, candidate B received	Worksheets		

four votes."	www.pearsonrealize.com	
M06 A-R 1 1 2 Find the unit rate	Promethium Board	
a/b associated with a ratio $a$ $b$		
(with $h \neq 0$ ) and use rate		
language in the context		
of a ratio relationship		
Example 1: "This recipe has a		
ratio of 3 cups of		
flour to 4 cups of sugar, so there		
is 3/4 cup of flour		
for each cup of sugar."		
Example 2: "We paid \$75 for 15		
hamburgers, which is a rate of		
\$5 per hamburger."		
M06.A-R.1.1.3 Construct tables		
of equivalent ratios relating		
quantities with whole-number		
measurements, find		
missing values in the tables,		
and/or plot the pairs		
of values on the coordinate		
plane. Use tables to compare		
ratios.		
M06.A-R.1.1.4 Solve unit rate		
problems including those		
involving unit pricing and		
constant speed.		
Example: If it took 7 hours to		
mow 4 lawns, then at		

		could be mowed in 35 hours? At what rate were lawns being mowed? At that rate, how many lawns?			
		M06.A-R.1.1.5 Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percentage.			
		Vocabulary			
		<ul> <li>ratio</li> <li>equivalent</li> <li>divisible</li> </ul>			
Rates	M06.A-R.1.1 Represent and/or solve real-world and mathematical problems using	M06.A-R.1.1.1 Use ratio language and notation (such as 3 to 4, 3:4, 3/4) to describe a ratio	Envision Math Common Core Topic 10	Teacher prepared tests, quizzes, etc.	10 days
	rates, ratios, and/or percents.	relationship between two quantities.	Understanding Rates (10- 1)	Series Available Assessments online.(Optional)	
	CC.2.1.6.D.1	Example 1: "The ratio of girls to boys in a math class is 2:3	Comparing Rates (10-2)		
	use ratio reasoning to solve problems.	because for every 2 girls there are 3 boys."	Unit Rates (10-3)		
		Example 2: "For every five veter	Unit Price (10-4)		
		candidate A received, candidate	Workbook		

	B received four votes "	Worksheets	
	MOG A D 1 1 2 Eind the unit rate		
	all associated with a ratio art	Dromothium Poord	
	$u_{J}u$ associated with a ratio $d$ :	Prometnium Board	
	(with $b \neq 0$ ) and use rate		
	language in the context of a		
	ratio relationship.		
	Example 1: "This recipe has a		
	ratio of 3 cups of flour to 4 cups		
	of sugar, so there is 3/4 cup of		
	flour for each cup of sugar."		
	Example 2: "We paid \$75 for 15		
	hamburgers, which is a rate of		
	\$5 per hamburger."		
	M06.A-R.1.1.3 Construct tables		
	of equivalent ratios relating		
	quantities with whole-number		
	measurements, find		
	missing values in the tables,		
	and/or plot the pairs of values		
	on the coordinate plane. Use		
	tables to compare ratios.		
	M06.A-R.1.1.4 Solve unit rate		
	problems including those		
	involving unit pricing and		
	constant speed.		
	Example: If it took 7 hours to		
	mow 4 lawns then at		
	that rate how many lawns could		
	he mowed in		

		35 hours? At what rate were lawns being mowed? M06.A-R.1.1.5 Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percentage.			
		Vocabulary <ul> <li>rate</li> <li>unit rates</li> <li>unit price</li> <li>distance formula</li> <li>Customary Units</li> </ul>			
Percent	M06.A-R.1.1 Represent and/or solve real-world and mathematical problems using rates, ratios, and/or percents. CC.2.1.6.D.1 Understand ratio concepts and	M06.A-R.1.1.1 Use ratio language and notation (such as 3 to 4, 3:4, 3/4) to describe a ratio relationship between two quantities. Example 1: "The ratio of girls to boys in a math class is 2:3 because for every 2 girls there	Envision Math Common Core Topic 11 Understanding Percent (11-1) Fractions, Decimals, and Percents (11-2)	Teacher prepared tests, quizzes, etc. Series Available Assessments online.(Optional)	10 days
	use ratio reasoning to solve problems.	are 3 boys." Example 2: "For every five votes candidate A received, candidate B received four votes."	Percent > 100 or < 1 (11-3) Finding a Percent of a Number (11-5)		

	M06 $\Lambda_{-}$ R 1 1 2 Find the unit rate	Workbook	
	a / b accord with a ratio arb	Workshoots	
		worksneets	
	(with $b \neq 0$ ) and use rate	www.pearsonrealize.com	
	language in the context of a	Promethium Board	
	ratio relationship.		
	Example 1: "This recipe has a		
	ratio of 3 cups of flour to 4 cups		
	of sugar, so there is 3/4 cup of		
	flour for each cup of sugar."		
	Example 2: "We paid \$75 for 15		
	hamburgers, which is a rate of		
	\$5 per hamburger."		
	M06.A-R.1.1.3 Construct tables		
	of equivalent ratios relating		
	quantities with whole-number		
	measurements, find missing		
	values in the tables, and/or plot		
	the pairs of values on the		
	coordinate plane. Use tables to		
	compare ratios		
	M06 A-R 1 1 4 Solve unit rate		
	nrohlems including those		
	involving unit pricing and		
	involving unit pricing and		
	constant speed.		
	Francisco of the second state		
	Example: If it took / hours to		
	mow 4 lawns, then at		
	that rate, how many lawns could		
	be mowed in		

		35 hours? At what rate were			
		lawns being mowed?			
		M06.A-R.1.1.5 Find a percent of			
		a quantity as a rate per 100 (e.g.,			
		30% of a quantity means 30/100			
		times the			
		quantity); solve problems			
		involving finding the			
		whole, given a part and the			
		percentage.			
		Vocabulary			
		percent			
		ratio			
		<ul> <li>proportion</li> </ul>			
		fraction			
		decimal			
Statistics	M06.D-S.1.1 Display, analyze,	M06.D-S.1.1.1 Display numerical	Envision Math Common	Teacher prepared	10 days
	and summarize numerical data	data in plots on a number line,	Core Topic 14	tests, quizzes, etc.	
	sets in relation to their context.	including line plots, histograms,			
		and box-and-whisker plots.	Mean (14-3)	Series Available	
				Assessments	
		M06.D-S.1.1.2 Determine	Median, Mode, and Range	online.(Optional)	
		quantitative measures of center	(14-4)		
		(e.g., median, mean, mode) and			
		variability (e.g., range,	Frequency Tables and		
		interquartile range, mean	Histograms (14-5)		
		absolute deviation).			
			Box Plots (14-6)		
		IVIUB.D-S.1.1.3 Describe any			
		overall pattern and any	WORKDOOK		
		deviations	worksheets		
		from the overall pattern with	www.pearsonrealize.com		
		reference to the context in	Promethium Board		

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		<ul> <li>which the data were gathered.</li> <li>M06.D-S.1.1.4 Relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</li> <li>Vocabulary <ul> <li>histogram</li> <li>median</li> <li>mode box plot</li> <li>quartiles</li> <li>interval</li> <li>data</li> <li>ratio</li> <li>percent</li> <li>mean</li> <li>range</li> <li>frequency table</li> <li>interquartile range</li> </ul> </li> </ul>			
		<ul><li>interquartile range</li><li>mean absolute deviation</li></ul>			
Area	M06.C-G.1.1 Find area, surface area, and volume by applying formulas and using various strategies.	M06.C-G.1.1.1 Determine the area of triangles and special quadrilaterals (i.e., square, rectangle, parallelogram, rhombus, and trapezoid).	Envision Math Common Core Topic 12 Area of Rectangles (12-1)	Teacher prepared tests, quizzes, etc. Series Available Assessments	10 days
	CC.2.3.6.A.1 Apply appropriate tools to solve	Formulas will be provided. M06.C-G.1.1.2 Determine the area of irregular or compound	Area of Parallelograms and Rhombuses(12-2)	online.(Optional)	

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real-world and mathematical	polygons.	Area of Triangles (12-3)	
problems involving area, surface			
area, and volume.	Example: Find the area of a	Finding Areas of Polygons	
	room in the shape of	(12-5)	
	an irregular polygon by		
	composing and/or decomposing.	Areas of Polygons in a	
		Coordinate Plane (12-6)	
	M06.C-G.1.1.3 Determine the		
	volume of right rectangular	Workbook	
	prisms with fractional edge	Worksheets	
	lengths. Formulas will be	www.pearsonrealize.com	
	provided.	Promethium Board	
	M06.C-G.1.1.4 Given coordinates		
	for the vertices of a polygon in		
	the plane, use the coordinates to		
	find side lengths and area of the		
	polygon (limited to triangles and		
	special quadrilaterals). Formulas		
	will be provided.		
	G.1.1.5 Represent three-		
	dimensional figures using nets		
	made of rectangles and		
	triangles.		
	M06.C-G.1.1.6 Determine the		
	surface area of triangular and		
	rectangular prisms (including		
	cubes). Formulas will be		
	provided.		

		Vocabulary <ul> <li>area</li> <li>polygon</li> <li>parallelogram</li> <li>perpendicular</li> <li>rectangle</li> <li>rhombus</li> <li>triangle</li> <li>quadrilaterals</li> </ul>			
Surface Area and Volume	M06.C-G.1.1 Find area, surface area, and volume by applying formulas and using various strategies. CC.2.3.6.A.1 Apply appropriate tools to solve real-world and mathematical problems involving area, surface area, and volume.	M06.C-G.1.1.1 Determine the area of triangles and special quadrilaterals (i.e., square, rectangle, parallelogram, rhombus, and trapezoid). Formulas will be provided. M06.C-G.1.1.2 Determine the area of irregular or compound polygons. Example: Find the area of a room in the shape of an irregular polygon by composing and/or decomposing. M06.C-G.1.1.3 Determine the volume of right rectangular prisms with fractional edge lengths. Formulas will be provided.	Envision Math Common Core Topic 13 Solid Figures and Nets (13- 1) Surface Area of Prisms and Pyramids (13-2) Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board	Teacher prepared tests, quizzes, etc. Series Available Assessments online.(Optional)	10 days

		M06.C-G.1.1.4 Given coordinates for the vertices of a polygon in the plane, use the coordinates to find side lengths and area of the polygon (limited to triangles and special quadrilaterals). Formulas will be provided. G.1.1.5 Represent three- dimensional figures using nets made of rectangles and triangles. M06.C-G.1.1.6 Determine the surface area of triangular and rectangular prisms (including cubes). Formulas will be provided.			
Patterns and Equations	CC.2.2.6.B.3 Represent and analyze quantitative relationships between dependent and independent variables.	M06.B-E.3.1 Use variables to represent two quantities in a real-world problem that change in relationship to one another. M06.B-E.3.1.1 Write an equation to express the relationship between the dependent and independent variables. <u>Example:</u> In a problem involving motion at a constant speed of 65 units, write the equation d=65t	Dependent and Independent Variables (3- 1) Patterns and Equations (3- 2) More Patterns and Equations (3-3) Workbook Worksheets <u>www.pearsonrealize.com</u> Promethium Board	Teacher prepared tests, quizzes, etc. Series Available Assessments online.(Optional)	10 days

	to represent the relationship between time and distance.		
	M06.B-E.3.1.2 Analyze the relationship between the dependent and the independent variables using graphs and tables and/or relate these to an equation.		
	Vocabulary		
	<ul> <li>independent variable</li> <li>dependent variable</li> <li>input/output table</li> <li>solution</li> </ul>		
Review	Review of chosen 6 <sup>th</sup> grade topics	10 days	·
Step up to 7 <sup>th</sup> Grade	Adding IntegersSubtracting IntegersMultiplying IntegersDividing IntegersEquations with More Than OneOperationCirclesCircumferenceArea of a Circle	30 days	

Appendix: A			
IEP Enhancements			
General Topic:	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Achieving Fluency: Adding, Subtracting, and Multiplying Decimals	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Use of graph paper</li> <li>Multi-Modality Instruction including modeling, explicit instruction, repetition rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>	<ul> <li>tenths</li> <li>hundredths</li> <li>thousandths</li> </ul>	<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>
Achieving Fluency: Dividing Whole Numbers and Decimals	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of a Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Use of graph paper</li> <li>Multi-Modality Instruction including modeling, explicit instruction, repetition rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>	<ul> <li>tenths</li> <li>hundredths</li> <li>thousandths</li> </ul>	<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>

General	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Topic:			
Variables and Expressions	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Extended time to complete</li> </ul>	<ul> <li>operation key words</li> <li>sum</li> <li>difference</li> <li>product</li> <li>quotient</li> </ul>	<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>
Equations and Inequalities	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Number Line</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material Extended time to complete</li> </ul>	• review greater than, less than and equal to	<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> </ul> Suggested Time: <ul> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>
Dividing Fractions	<ul> <li>Manipulative</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>		<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Papers</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>

General	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Topic:			
Integers and Other Rational Numbers	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations/ Signs</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>		Assessments: • Limit choices from 4 to 3 choices (for a multiple choice test) • Test in a small group setting • Quiet Testing Environment • Word Problems Read aloud • Less Problems if needed • Use of Scrap Paper Suggested Time: 10 days as specified by curriculum with additional time as needed per individual student
Coordinate Geometry	<ul> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Signs/Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking material</li> <li>Extended time to complete</li> </ul>		Assessments: • Limit choices from 4 to 3 choices (for a multiple choice test) • Test in a small group setting • Quiet Testing Environment • Word Problems Read aloud • Less Problems if needed Suggested Time: 10 days as specified by curriculum with additional time as needed per individual student
Ratios	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material</li> <li>Extended time to complete</li> </ul>	<ul> <li>percent</li> <li>operation key words</li> </ul>	Assessments: <ul> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> </ul> Suggested Time: <ul> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>

General	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Topic:			
Rates	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues, and chunking of material</li> <li>Extended time to complete</li> </ul>	• equivalent	<ul> <li>Assessments: <ul> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> </ul> </li> <li>Suggested Time: <ul> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul> </li> </ul>
Percent	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>	<ul> <li>rate</li> <li>unit rate</li> </ul>	<ul> <li>Assessments: <ul> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> </ul> </li> <li>Suggested Time: <ul> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul> </li> </ul>

General	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Topic:			
Statistics	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>		Assessments: • Limit choices from 4 to 3 choices (for a multiple choice test) • Test in a small group setting • Quiet Testing Environment • Word Problems Read aloud • Less Problems if needed • Use of Scrap Paper Suggested Time: 10 days as specified by curriculum with additional time as needed per individual student
Area	<ul> <li>Manipulatives</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Graph paper</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>		<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Paper</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>

General	Specially Designed Instruction:	Additional Vocabulary:	Assessments/Suggested Time:
Topic:			
Surface Area and Volume	<ul> <li>Manipulative</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>		<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Papers</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>
Patterns and Equations	<ul> <li>Manipulative</li> <li>Visual Aids</li> <li>Anchor Charts for visual presentations</li> <li>Use of Calculator</li> <li>Times Tables Chart</li> <li>Small group review before tests and quizzes</li> <li>Additional Work Space</li> <li>Highlight Operations</li> <li>Modified Assignments (examples but not limited to: less problems on page, reduction on questions/answers, larger print on typed worksheets)</li> <li>Multi-Modality Instruction, including modeling, explicit instruction, repetition, rephrasing, visual cues and chunking of material</li> <li>Extended time to complete</li> </ul>	<ul> <li>variables</li> <li>rate</li> <li>evaluating</li> <li>expressions</li> <li>equation</li> </ul>	<ul> <li>Assessments:</li> <li>Limit choices from 4 to 3 choices (for a multiple choice test)</li> <li>Test in a small group setting</li> <li>Quiet Testing Environment</li> <li>Word Problems Read aloud</li> <li>Less Problems if needed</li> <li>Use of Scrap Papers</li> <li>Suggested Time:</li> <li>10 days as specified by curriculum with additional time as needed per individual student</li> </ul>
Review	As listed above		
Step up to 7 <sup>th</sup> Grade	As listed above		