

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

HAZLETON AREA SCHOOL DISTRICT



GRADE 3
Math Curriculum

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Place Value					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
4 Weeks	Place Value Understanding operations	CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.	M03.A-T.1.1.1 M03.A-T.1.1.4	<ul style="list-style-type: none"> Round two- and three-digit whole numbers to the nearest ten or hundred, respectively. Order a set of whole numbers from least to greatest or greatest to least. 	<ul style="list-style-type: none"> Associative property (Grouping) Commutative property (Order) Digit Estimate Expanded Form Identity Property (Zero) Inverse Operation Parenthesis () Round Standard Form Unknown \square Whole-Number Word Form Even Number Odd Number Difference Sum $<$ is less than $>$ is greater than $=$ is equal to

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

					<ul style="list-style-type: none">• Least• Greatest• Compare• Order
--	--	--	--	--	--

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Addition Properties					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
2 Weeks	Addition Properties and Fluently Add within 1,000	CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.	M03.A-T.1.1.1 M03.A-T.1.1.2	<ul style="list-style-type: none"> Round two- and three- digit whole numbers to the nearest ten or hundred, respectively. Add two- and three-digit whole numbers and/or subtract two- and three-digit numbers from three- digit whole numbers. 	<ul style="list-style-type: none"> Associative property (Grouping) Commutative property (Order) Digit Estimate Identity Property (Zero) Inverse Operation Parenthesis () Round Unknown \square Whole-Number Sum Add Addition Sentence Number Sentence Equation Fact Family Addend

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

1 Week	Four Operations Solve and explain patterns	CC.2.2.3.A.4 Solve problems involving the addition operation.	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	<ul style="list-style-type: none"> • Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers. • 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. • Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers. • Solve two-step equations using order of operations. • Identify arithmetic patterns and/or explain them using properties of operations. • Create or match a story to a given combination of symbols and numbers. • Identify the missing symbol that makes a number sentence true. 	<ul style="list-style-type: none"> • Add • In All • Sum • Total • Increase • Both • How Many • Combined • Altogether
-------------------	--	--	---	---	---

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Subtraction					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
3 Weeks	Subtraction	CC.2.1.3.B.1 Apply place-value understanding and properties of operations to perform multi-digit arithmetic.	M03.A-T.1.1.1 M03.A-T.1.1.2	<ul style="list-style-type: none"> Round two- and three- digit whole numbers to the nearest ten or hundred, respectively. Add two- and three-digit whole numbers and/or Subtract two- and three-digit numbers from three- digit whole numbers 	<ul style="list-style-type: none"> Digit Estimate Inverse Operation Round Unknown <input type="checkbox"/> Difference Fact Family

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

1 Week	Four Operations Solve and explain patterns	CC.2.2.3.A.4 Solve problems involving the subtraction operation.	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	<ul style="list-style-type: none"> • Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers. • 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. • Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers. • Solve two-step equations using order of operations. • Identify arithmetic patterns and/or explain them using properties of operations. • Create or match a story to a given combination of symbols and numbers. • Identify the missing symbol that makes a number sentence true. 	<ul style="list-style-type: none"> • Take Away • Difference • How Many More • How Many Less • Fewer • Minus • Making Change • Decrease
-------------------	--	---	---	---	--

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Money					
1 Week	Money Solve problems and combination of coins and 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 M03.D-M.1.3.2 M03.D-M.1.3.3	<ul style="list-style-type: none"> • Compare total values of combinations of coins and/or dollar bills less than \$5.00 • Make change for an amount up to \$5.00 with no more than \$2.00 change given • Round amounts of money to the nearest dollar 	<ul style="list-style-type: none"> • Decimal • Dollar \$ • Cents • Penny • Nickel • Dime • Quarter • Making Change

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Multiplication					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
4 Weeks	Multiplication	CC.2.2.3.A.1 Represent and solve problems involving multiplication and division CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division.	M03.B-O.3.1.1 M03.B-O.2.1.1 M03.B-O.2.1.2	<ul style="list-style-type: none"> • Multiply one-digit whole numbers by two-digit multiples of 10. • Apply the commutative property of multiplication • Apply the associative property of multiplication 	<ul style="list-style-type: none"> • Associative property (Grouping) • Commutative property (Order) • Digit • Estimate • Identity Property (Zero) • Inverse Operation • Parenthesis () • Round • Unknown \square • Whole-Number • Factor • Product • Array • Equal Groups • Repeated Addition • Multiply • Multiplication • Multiples

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

1 Week	Four	CC.2.2.3.A.1	M03.B-O.3.1.1	<ul style="list-style-type: none"> Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers. 	<ul style="list-style-type: none"> Add
	Operations	Represent and solve	M03.B-O.3.1.2	<ul style="list-style-type: none"> Represent two-step word problems using equations with a symbol standing for the unknown quantity. 	<ul style="list-style-type: none"> In All
	Solve and	Multiplication and	M03.B-O.3.1.3	<ul style="list-style-type: none"> Limit to problems with whole numbers and having whole-number answers. 	<ul style="list-style-type: none"> Sum
	explain	division	M03.B-O.3.1.4	<ul style="list-style-type: none"> Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers. 	<ul style="list-style-type: none"> Total
	patterns		M03.B-O.3.1.5	<ul style="list-style-type: none"> Solve two-step equations using order of operations. 	<ul style="list-style-type: none"> Increase
			M03.B-O.3.1.6	<ul style="list-style-type: none"> Identify arithmetic patterns and/or explain them using properties of operations. 	<ul style="list-style-type: none"> Both
			M03.B-O.3.1.7	<ul style="list-style-type: none"> Create or match a story to a given combination of symbols and numbers. Identify the missing symbol that makes a number sentence true. 	<ul style="list-style-type: none"> How Many Combined Altogether Each Product Multiply Fact Family

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

Division					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
3 Weeks	Division	CC.2.2.3.A.1 Represent and solve problems involving multiplication and division	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	<ul style="list-style-type: none"> Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers. 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. Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers. Solve two-step equations using order of operations. Identify arithmetic patterns and/or explain them using properties of operations. Create or match a story to a given combination of symbols and numbers. Identify the missing symbol that makes a number sentence true. 	<ul style="list-style-type: none"> Digit Estimate Dividend Inverse Operation Parenthesis () Round Divisor Unknown \square Whole-Number Quotient Repeated Subtraction Difference Separate Fact Family Share

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

1 Week	Four	CC.2.2.3.A.4	M03.B-O.3.1.1	<ul style="list-style-type: none"> Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers. 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. Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers. Solve two-step equations using order of operations. Identify arithmetic patterns and/or explain them using properties of operations. Create or match a story to a given combination of symbols and numbers. Identify the missing symbol that makes a number sentence true. 	<ul style="list-style-type: none"> Share equally Divide Groups of Each How Many
	Operations	Solve problems involving the division operation.	M03.B-O.3.1.2		
	Solve and		M03.B-O.3.1.3		
	explain		M03.B-O.3.1.4		
	patterns		M03.B-O.3.1.5		
			M03.B-O.3.1.6		
			M03.B-O.3.1.7		

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

Fractions					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
3 Weeks	Fractions Partition, shapes, and express area	CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.	M03.A-F.1.1.1 M03.A-F.1.1.2 M03.A-F.1.1.3 M03.A-F.1.1.4 M03.A-F.1.1.5 M03.C-G.1.1.3	<ul style="list-style-type: none"> • Demonstrate that when a whole or set is partitioned into y equal parts. • Represent fractions on a number line. • Recognize and generate simple equivalent fractions. • Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers • Compare two fractions with the same denominator (limit denominators to 1, 2, 3, 4, 6, and 8), using the symbols >, =, or • Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole 	<ul style="list-style-type: none"> • Denominator • Equivalent Fractions • Fractions • Numerator • Equal Parts • Partition

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

	<p>Fractions</p> <p>- As numbers</p>	<p>CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.</p> <p>CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.</p>	<p>M03.A-F.1.1.1</p> <p>M03.A-F.1.1.2</p> <p>M03.A-F.1.1.3</p> <p>M03.A-F.1.1.4</p> <p>M03.A-F.1.1.5</p> <p>M03.C-G.1.1.3</p>	<ul style="list-style-type: none"> • Demonstrate that when a whole or set is partitioned into y equal parts. • Represent fractions on a number line • Recognize and generate simple equivalent fractions • Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers • Compare two fractions with the same denominator using the symbols $>$, $=$, or $<$, and/or justify the conclusions • Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole 	<ul style="list-style-type: none"> • Half • Third • Fourth • Fifth • Sixth • Eighth • Whole Number • Fraction of a whole • Fraction of a set • Partition • Fraction Bar • Unit Fraction
--	--------------------------------------	---	---	---	---

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Measurement Length					
1 Week	Measurement Length	CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass, and length.	M03.D-M.1.2.3	<ul style="list-style-type: none">• Use a ruler to measure lengths to the nearest quarter inch or centimeter	<ul style="list-style-type: none">• Half Inch• Inch (in)• Quarter Inch• Centimeter (cm)• Three-fourths

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Geometry					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
2 Weeks	Geometry Compare and Classify shapes	CC.2.3.3.A.1 Identify, compare, and classify shapes and their attributes.	M03.C-G.1.1.1 M03.C-G.1.1.2	<ul style="list-style-type: none"> • Explain that shapes in different categories may share attributes, and that the shared attributes can define a larger category • Recognize rhombi, rectangles, and squares as examples of quadrilaterals, and/or draw examples of quadrilaterals that do not belong to any of these subcategories 	<ul style="list-style-type: none"> • Attribute • Line Segment • Parallel • Parallel Lines • Perpendicular • Point • Polygon • Ray • Rhombus • Right Angle • Quadrilateral • Triangle • Pentagon • Octagon • Trapezoid • Square • Rectangle • Parallelogram • Classify • Hexagon • Intersecting Lines • Line

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

					<ul style="list-style-type: none">• Vertex• Sides• Closed Figure
--	--	--	--	--	--

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Perimeter and Area					
2 Weeks	Perimeter and Area Determine (rectangle) and apply concepts	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 M03.D-M.3.1.2	<ul style="list-style-type: none"> • Measure areas by counting unit squares • Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems. 	<ul style="list-style-type: none"> • Area • Composite figure • Formula • Perimeter • Square Unit • Unit Square
	Perimeter and Area Of polygons and Linear measures	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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Side • Length

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Measure Capacity

2 weeks	Measure Capacity: Temperature, liquid, volume, mass, length	CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass, and length.	M03.D-M.1.2.1 M03.D-M.1.2.2	<ul style="list-style-type: none"> • Measure and estimate liquid volumes and masses of objects using standard units • Add, subtract, multiply, and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units 	<ul style="list-style-type: none"> • Volume • Cup (c) • Pint (pt) • Quart (qt) • Gallon (gal) • Liter (L) • Mass • Ounce (oz) • Pound (lb) • Milliliter (mL) • Gram (g) • Kilogram (kg)
----------------	--	--	------------------------------------	---	---

HAZLETON AREA SCHOOL DISTRICT
Mathematics Curriculum
Grade 3

Interpreting Data					
Timeline	Topic	PA Standard	Eligible Content	Concepts and Competencies The learner will:	Tier 2 & 3 Vocabulary
2 Weeks	Interpret Data Tally charts, tables, pictograph, plots, and bar	CC.2.4.3.A.4 Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.	M03.D-M.2.1.1 M03.D-M.2.1.2 M03.D-M.2.1.3 M03.D-M.2.1.4	<ul style="list-style-type: none"> • Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories. • Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs. • Generate measurement data by measuring lengths using rulers and display the data by making a line plot. • Translate information from one type of display to another. 	<ul style="list-style-type: none"> • Frequency table • Increment • Interval • Round • Label • Title • Scale • Tally Chart • Tally Mark • Bar Graph • Line Plot • Pictograph • Key

HAZLETON AREA SCHOOL DISTRICT

Mathematics Curriculum

Grade 3

Time					
2 Weeks	Time Tell (nearest minute) and write (nearest minute)	CC.2.4.3.A.2 Tell and write time to the nearest minute and solve problems by calculating time intervals.	M03.D-M.1.1.1 M03.D-M.1.1.2	<ul style="list-style-type: none"> • Tell, show and/or write time (analog) to the nearest minute • Calculate elapsed time to the minute in a given situation 	<ul style="list-style-type: none"> • Elapsed Time • Minute (min) • Hour (hr) • Half Hour • Quarter Hour • Quarter past • Half past • Quarter to • AM • PM • Midnight • Noon • Time interval