

Northpoint Horizons

Math Elevations™ (Comprehensive Intervention System) Correlated to Pennsylvania State Academic Standards

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet Pennsylvania State Academic Standards.

Grade 5 State Academic Standards	<i>Math Elevations</i> Level D Teacher's Guide Examples/Lessons	<i>Math Elevations</i> Level E Teacher's Guide Examples/Lessons
2.1 Numbers, Number Systems and Number Relationships		
A. Use expanded notation to represent whole numbers or decimals.		
B. Apply number theory concepts to rename a number quantity (e.g., six, 6 , $\frac{12}{2}$, 3×2 , $10 - 4$).	Unit 1 – Lesson 6: <i>Fractions as Decimals</i> pp. 28–29	Unit 3 – Lesson 2: <i>Equivalent Fractions and Simplest Form</i> pp. 56–57 Lesson 3: <i>Mixed Numbers and Improper Fractions</i> pp. 58–59 Lesson 4: <i>Relating Decimals and Fractions</i> pp. 60–61 Lesson 5: <i>Comparing and Ordering Fractions</i> pp. 62–63 Lesson 6: <i>Comparing Fractions Using the LCD</i> pp. 64–65 Lesson 7: <i>Converting Fractions to Decimals</i> pp. 66–67 Lesson 8: <i>Comparing and Ordering Fractions and Decimals</i> pp. 68–69
C. Demonstrate that mathematical operations can represent a variety of problem situations.	Unit 2 – Lesson 5: <i>Word Problems (Three- and Four-Digit Numbers)</i> pp. 44–45 Lesson 8: <i>Word Problems (Five-Digit Numbers)</i> pp. 50–51	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
D. Use models to represent fractions and decimals.	Unit 1 – Lesson 4: <i>Fractions as Part of a Whole</i> pp. 24–25 Lesson 5: <i>Fractions as Part of a Set</i> pp. 26–27 Lesson 6: <i>Fractions as Decimals</i> pp. 28–29 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30–31	Unit 1 – Lesson 1: <i>Whole Number Place Value</i> pp. 18–19 Lesson 2: <i>Place Value Through Thousandths</i> pp. 20–21 Lesson 4: <i>Working with Decimal Numbers</i> pp. 24–25 Unit 2 – Lesson 5: <i>Multiplying Decimals</i> pp. 44–45
E. Explain the concepts of prime and composite numbers.		Unit 1 – Lesson 5: <i>Primes and Composites</i> pp. 26–27
F. Use simple concepts of negative numbers (e.g., on a number line, in counting, in temperature).		Unit 1 – Lesson 4: <i>Working with Decimal Numbers</i> pp. 24–25
G. Develop and apply number theory concepts (e.g., primes, factors, multiples, composites) to represent numbers in various ways.		Unit 1 – Lesson 5: <i>Primes and Composites</i> pp. 26–27 Lesson 7: <i>Greatest Common Factor</i> pp. 30–31 Lesson 8: <i>Least Common Multiple</i> pp. 32–33
2.2 Computation and Estimation		
A. Create and solve word problems involving addition, subtraction, multiplication and division of whole numbers.	Unit 2 – Lesson 5: <i>Word Problems (Three- and Four-Digit Numbers)</i> pp. 44–45 Lesson 8: <i>Word Problems (Five-Digit Numbers)</i> pp. 50–51	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101
B. Develop and apply algorithms to solve word problems that involve addition, subtraction, and/or multiplication with decimals with and without regrouping.	Unit 2 – Lesson 5: <i>Word Problems (Three- and Four-Digit Numbers)</i> pp. 44–45 Lesson 8: <i>Word Problems (Five-Digit Numbers)</i> pp. 50–51	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101
C. Develop and apply algorithms to solve word problems that involve addition, subtraction, and/or multiplication with fractions and mixed numbers that include like and unlike denominators.	Unit 4 – Lesson 5: <i>Addition of Fractions with Like Denominators</i> pp. 80–81 Lesson 6: <i>Subtraction of Fractions with Like Denominators</i> pp. 82–83 Lesson 7: <i>Addition and Subtraction of Mixed</i>	Unit 4 – Lesson 2: <i>Addition and Subtraction of Mixed Numbers (Like Denominators)</i> pp. 74–75 Lesson 3: <i>Addition and Subtraction of Fractions (Unlike Denominators)</i> pp. 76–77 Unit 4 –

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
	<i>Numbers</i> pp. 84–85 Lesson 8: <i>Addition and Subtraction of Fractions with Unlike Denominators</i> pp. 86–87	Lesson 4: <i>Addition of Mixed Numbers (Unlike Denominators)</i> pp. 78–79 Lesson 5: <i>Subtraction of Mixed Numbers (Unlike Denominators)</i> pp. 80–81
D. Demonstrate the ability to round numbers.	Unit 1 – Lesson 3: <i>Rounding</i> pp. 22–23	Unit 2 – Lesson 6: <i>Estimating Quotients</i> pp. 46–47
E. Determine through estimations the reasonableness of answers to problems involving addition, subtraction, multiplication and division of whole numbers.	Unit 1 – Lesson 3: <i>Rounding</i> pp. 22–23	Unit 1 – Lesson 4: <i>Working with Decimal Numbers</i> pp. 24–25 Unit 3 – Lesson 5: <i>Comparing and Ordering Fractions</i> pp. 62–63
F. Demonstrate skills for using fraction calculators to verify conjectures, confirm computations and explore complex problem-solving situations.		Unit 3 – Lesson 7: <i>Converting Fractions to Decimals</i> pp. 66–67
G. Apply estimation strategies to a variety of problems including time and money.	Unit 1 – Lesson 3: <i>Rounding</i> pp. 22–23	Unit 2 – Lesson 6: <i>Estimating Quotients</i> pp. 46–47
H. Explain multiplication and division algorithms.	Unit 3 – Lesson 1: <i>Mental Multiplication</i> pp. 54–55 Lesson 2: <i>Patterns of Calculations</i> pp. 56–57 Lesson 5: <i>Division with Remainders</i> pp. 62–63	Unit 1 – Lesson 6: <i>Divisibility</i> pp. 28–29 Lesson 7: <i>Greatest Common Factor</i> pp. 30–31
I. Select a method for computation and explain why it is appropriate.	Unit 3 – Lesson 2: <i>Patterns of Calculations</i> pp. 56–57	
2.3 Measurement and Estimation		
A. Select and use appropriate instruments and units for measuring quantities (e.g., perimeter, volume, area, weight, time, temperature).	Unit 6 – Lesson 1: <i>Perimeter of Squares and Rectangles</i> pp. 108–109 Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110–111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113 Lesson 4: <i>Metric Measurement</i> pp. 114–115 Lesson 5: <i>Measuring Capacity</i> pp. 116–117	Unit 6 – Lesson 1: <i>Area and Perimeter</i> pp. 108–109 Lesson 2: <i>Investigating Area and Perimeter</i> pp. 110–111 Lesson 3: <i>Perimeter of Irregular Shapes</i> pp. 112–113 Lesson 4: <i>Area of Parallelograms</i> pp. 114–115 Lesson 5: <i>Area of Triangles</i> pp. 116–117 Lesson 6: <i>Volume of Rectangular Solids</i> pp.

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
	Lesson 6: <i>Capacity Conversions</i> pp. 118–119 Lesson 7: <i>Weight</i> pp. 120–121 Lesson 8: <i>Appropriate Units</i> pp. 122–123	118–119
B. Select and use standard tools to measure the size of figures with specified accuracy, including length, width, perimeter and area.	Unit 6 – Lesson 1: <i>Perimeter of Squares and Rectangles</i> pp. 108–109 Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110–111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113 Lesson 4: <i>Metric Measurement</i> pp. 114–115 Lesson 5: <i>Measuring Capacity</i> pp. 116–117 Lesson 6: <i>Capacity Conversions</i> pp. 118–119 Lesson 7: <i>Weight</i> pp. 120–121 Lesson 8: <i>Appropriate Units</i> pp. 122–123	Unit 6 – Lesson 1: <i>Area and Perimeter</i> pp. 108–109 Lesson 2: <i>Investigating Area and Perimeter</i> pp. 110–111 Lesson 3: <i>Perimeter of Irregular Shapes</i> pp. 112–113 Lesson 4: <i>Area of Parallelograms</i> pp. 114–115 Lesson 5: <i>Area of Triangles</i> pp. 116–117 Lesson 6: <i>Volume of Rectangular Solids</i> pp. 118–119
C. Estimate, refine and verify specified measurements of objects.	Unit 6 – Lesson 1: <i>Perimeter of Squares and Rectangles</i> pp. 108–109 Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110–111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113 Lesson 4: <i>Metric Measurement</i> pp. 114–115 Lesson 5: <i>Measuring Capacity</i> pp. 116–117 Lesson 6: <i>Capacity Conversions</i> pp. 118–119 Lesson 7: <i>Weight</i> pp. 120–121 Lesson 8: <i>Appropriate Units</i> pp. 122–123	Unit 6 – Lesson 1: <i>Area and Perimeter</i> pp. 108–109 Lesson 2: <i>Investigating Area and Perimeter</i> pp. 110–111 Lesson 3: <i>Perimeter of Irregular Shapes</i> pp. 112–113 Lesson 4: <i>Area of Parallelograms</i> pp. 114–115 Lesson 5: <i>Area of Triangles</i> pp. 116–117 Lesson 6: <i>Volume of Rectangular Solids</i> pp. 118–119
D. Convert linear measurements within the same system.	Unit 6 – Lesson 4: <i>Metric Measurement</i> pp. 114–115	Unit 6 – Lesson 7: <i>Converting Within the Metric System</i> pp. 120–121 Lesson 8: <i>Converting Within the Customary System</i> pp. 122–123
E. Add and subtract measurements.	Unit 6 – Lesson 1: <i>Perimeter of Squares and Rectangles</i> pp. 108–109	Unit 6 – Lesson 1: <i>Area and Perimeter</i> pp. 108–109 Lesson 2: <i>Investigating Area and Perimeter</i> pp.

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
	Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110–111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113 Lesson 4: <i>Metric Measurement</i> pp. 114–115 Lesson 5: <i>Measuring Capacity</i> pp. 116–117 Lesson 6: <i>Capacity Conversions</i> pp. 118–119 Lesson 7: <i>Weight</i> pp. 120–121 Lesson 8: <i>Appropriate Units</i> pp. 122–123	110–111 Lesson 3: <i>Perimeter of Irregular Shapes</i> pp. 112–113 Lesson 4: <i>Area of Parallelograms</i> pp. 114–115 Lesson 5: <i>Area of Triangles</i> pp. 116–117 Lesson 6: <i>Volume of Rectangular Solids</i> pp. 118–119
2.4 Mathematical Reasoning and Connections		
A. Compare quantities and magnitudes of numbers.	Unit 1 – Lesson 1: <i>Large Numbers</i> pp. 18–19 Lesson 2: <i>Comparing Numbers</i> pp. 20–21 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30–31	Unit 1 – Lesson 1: <i>Whole Number Place Value</i> pp. 18–19 Lesson 2: <i>Place Value Through Thousandths</i> pp. 20–21
B. Use models, number facts, properties and relationships to check and verify predictions and explain reasoning.	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148–149 Lesson 4: <i>Bar Graphs</i> pp. 150–151	Unit 8 – Lesson 6: <i>Bar Graphs</i> pp. 154–155 Lesson 7: <i>Line Graphs</i> pp. 156–157 Lesson 8: <i>Circle Graphs</i> pp. 158–159
C. Draw inductive and deductive conclusions within mathematical contexts.	Unit 8 – Lesson 7: <i>Determining Possible Outcomes</i> pp. 156–157	Unit 8 – Lesson 1: <i>Possible Outcomes</i> pp. 144–145
D. Distinguish between relevant and irrelevant information in a mathematical problem.	Unit 3 – Lesson 8: <i>Word Problems</i> pp. 68–69	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101
E. Interpret statements made with precise language of logic (e.g., “all”, “or”, “every”, “none”, “some”, “or”, “many”).		
F. Use statistics to quantify issues (e.g., in social studies, in science).	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148–149 Lesson 4: <i>Bar Graphs</i> pp. 150–151	
2.5 Mathematical Problem Solving and Communication		
A. Develop a plan to analyze a problem, identify the information needed to solve the problem, carry out the plan, check whether an answer makes sense and explain how the problem was	Unit 3 – Lesson 8: <i>Word Problems</i> pp. 68–69	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
solved.		
B. Use appropriate mathematical terms, vocabulary, language symbols and graphs to explain clearly and logically solutions to problems.	Unit 3 – Lesson 5: <i>Division with Remainders</i> pp. 62–63	Unit 5 – Lesson 8: <i>The Coordinate Plane</i> pp. 104–105
C. Show ideas in a variety of ways, including words, numbers, symbols, pictures, charts, graphs, tables, diagrams and models.	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148–149 Lesson 4: <i>Bar Graphs</i> pp. 150–151	Unit 8 – Lesson 6: <i>Bar Graphs</i> pp. 154–155 Lesson 7: <i>Line Graphs</i> pp. 156–157 Lesson 8: <i>Circle Graphs</i> pp. 158–159
D. Connect, extend and generalize problem solutions to other concepts, problems and circumstances in mathematics.	Unit 8 – Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157	Unit 5 – Lesson 6: <i>Problem Solving</i> pp. 100–101
E. Select, use and justify the methods, materials and strategies used to solve problems.	Unit 1 – Lesson 8: <i>Problem Solving</i> pp. 32–33	Unit 8 – Lesson 3: <i>Probability Experiments</i> pp. 148–149
F. Use appropriate problem-solving strategies (e.g., solving a simpler problem, drawing a picture or diagram).	Unit 8 – Lesson 6: <i>Venn Diagrams</i> pp. 154–155	Unit 8 – Lesson 3: <i>Probability Experiments</i> pp. 148–149
2.6 Statistics and Data Analysis		
A. Organize and display data using pictures, tallies, tables, charts, bar graphs and circle graphs.	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148–149 Lesson 4: <i>Bar Graphs</i> pp. 150–151 Lesson 5: <i>Line Graphs</i> pp. 152–153 Lesson 6: <i>Venn Diagrams</i> pp. 154–155	Unit 8 – Lesson 6: <i>Bar Graphs</i> pp. 154–155 Lesson 7: <i>Line Graphs</i> pp. 156–157 Lesson 8: <i>Circle Graphs</i> pp. 158–159
B. Describe data sets using mean, median, mode and range.	Unit 8 – Lesson 2: <i>Mode and Mean</i> pp. 146–147	Unit 8 – Lesson 4: <i>Mode, Median, and Range</i> pp. 150–151 Lesson 5: <i>The Mean</i> pp. 152–153
C. Sort data using Venn diagrams.	Unit 8 – Lesson 6: <i>Venn Diagrams</i> pp. 154–155	
D. Predict the likely number of times a condition will occur based on analyzed data.	Unit 8 – Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157 Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 1: <i>Possible Outcomes</i> pp. 144–145 Lesson 2: <i>Evaluating Probability</i> pp. 146–147 Lesson 3: <i>Probability Experiments</i> pp. 148–149
E. Construct and defend simple conclusions	Unit 8 –	Unit 8 –

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
based on data.	Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157 Lesson 8: <i>Probability</i> pp. 158–159	Lesson 1: <i>Possible Outcomes</i> pp. 144–145 Lesson 2: <i>Evaluating Probability</i> pp. 146–147 Lesson 3: <i>Probability Experiments</i> pp. 148–149
2.7 Probability and Prediction		
A. Perform simulations with concrete devices (e.g., dice, spinner) to predict the chance of an event occurring.	Unit 8 – Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157 Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 2: <i>Evaluating Probability</i> pp. 146–147 Lesson 3: <i>Probability Experiments</i> pp. 148–149
B. Determine the fairness of the design of a spinner.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 3: <i>Probability Experiments</i> pp. 148–149
C. Express probabilities as fractions and decimals.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 2: <i>Evaluating Probability</i> pp. 146–147
D. Compare predictions based on theoretical probability and experimental results.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 3: <i>Probability Experiments</i> pp. 148–149
E. Calculate the probability of a simple event.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 2: <i>Evaluating Probability</i> pp. 146–147 Lesson 3: <i>Probability Experiments</i> pp. 148–149
F. Determine patterns generated as a result of an experiment.	Unit 5 – Lesson 4: <i>Functional Relationships</i> pp. 96–97 Lesson 5: <i>Linear Functions</i> pp. 98–99	Unit 5 – Lesson 2: <i>Investigating Patterns</i> pp. 92–93
G. Determine the probability of an event involving “and”, “or” or “not”.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 2: <i>Evaluating Probability</i> pp. 146–147 Lesson 3: <i>Probability Experiments</i> pp. 148–149
H. Predict and determine why some outcomes are certain, more likely, less likely, equally likely or impossible.	Unit 8 – Lesson 8: <i>Probability</i> pp. 158–159	Unit 8 – Lesson 3: <i>Probability Experiments</i> pp. 148–149
I. Find all possible combinations and arrangements involving a limited number of variables.	Unit 8 – Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157	Unit 8 – Lesson 1: <i>Possible Outcomes</i> pp. 144–145
J. Develop a tree diagram and list the elements.	Unit 8 – Lesson 7: <i>Predicting Possible Outcomes</i> pp. 156–157	Unit 8 – Lesson 1: <i>Possible Outcomes</i> pp. 144–145
2.8 Algebra and Functions		
A. Recognize, reproduce, extend, create and	Unit 5 –	Unit 5 –

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
describe patterns, sequences and relationships verbally, numerically, symbolically and graphically, using a variety of materials.	Lesson 4: <i>Functional Relationships</i> pp. 96–97 Lesson 5: <i>Linear Functions</i> pp. 98–99	Lesson 2: <i>Investigating Patterns</i> pp. 92–93
B. Connect patterns to geometric relations and basic number skills.	Unit 5 – Lesson 4: <i>Functional Relationships</i> pp. 96–97 Lesson 5: <i>Linear Functions</i> pp. 98–99	Unit 5 – Lesson 2: <i>Investigating Patterns</i> pp. 92–93
C. Form rules based on patterns (e.g., an equation that relates pairs in a sequence).	Unit 5 – Lesson 4: <i>Functional Relationships</i> pp. 96–97 Lesson 5: <i>Linear Functions</i> pp. 98–99	Unit 5 – Lesson 1: <i>Order of Operations</i> pp. 90–91 Lesson 2: <i>Investigating Patterns</i> pp. 92–93 Lesson 3: <i>Algebraic Expressions</i> pp. 94–95 Lesson 4: <i>Evaluating Expressions</i> pp. 96–97
D. Use concrete objects and combinations of symbols and numbers to create expressions that model mathematical situations.	Unit 5 – Lesson 2: <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92–93 Lesson 3: <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94–95	Unit 5 – Lesson 3: <i>Algebraic Expressions</i> pp. 94–95 Lesson 4: <i>Evaluating Expressions</i> pp. 96–97
E. Explain the use of combinations of symbols and numbers in expressions, equations and inequalities.	Unit 5 – Lesson 2: <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92–93 Lesson 3: <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94–95	Unit 5 – Lesson 3: <i>Algebraic Expressions</i> pp. 94–95 Lesson 4: <i>Evaluating Expressions</i> pp. 96–97 Lesson 5: <i>Solving One-Step Equations</i> pp. 98–99 Lesson 6: <i>Problem Solving</i> pp. 100–101 Lesson 7: <i>Inequalities</i> pp. 102–103
F. Describe a realistic situation using information given in equations, inequalities, tables or graphs.	Unit 5 – Lesson 2: <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92–93 Lesson 3: <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94–95	Unit 5 – Lesson 3: <i>Algebraic Expressions</i> pp. 94–95 Lesson 4: <i>Evaluating Expressions</i> pp. 96–97 Lesson 5: <i>Solving One-Step Equations</i> pp. 98–99 Lesson 6: <i>Problem Solving</i> pp. 100–101 Lesson 7: <i>Inequalities</i> pp. 102–103
G. Select and use appropriate strategies, including concrete materials, to solve number sentences and explain the method of solution.	Unit 5 – Lesson 2: <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92–93 Lesson 3: <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94–95	Unit 5 – Lesson 5: <i>Solving One-Step Equations</i> pp. 98–99 Lesson 6: <i>Problem Solving</i> pp. 100–101

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
H. Locate and identify points on a coordinate system.	Unit 5 – Lesson 7: <i>Ordered Pairs</i> pp. 102–103	Unit 5 – Lesson 8: <i>The Coordinate Plane</i> pp. 104–105
I. Generate functions from tables of data and relate data to corresponding graphs and functions.	Unit 5 – Lesson 4: <i>Functional Relationships</i> pp. 96–97 Lesson 5: <i>Linear Functions</i> pp. 98–99	Unit 5 – Lesson 2: <i>Investigating Patterns</i> pp. 92–93
2.9 Geometry		
A. Give formal definitions of geometric figures.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 1: <i>Geometric Concepts</i> pp. 126–127
B. Classify and compare triangles and quadrilaterals according to sides or angles.	Unit 7 – Lesson 1: <i>Types of Angles</i> pp. 126–127 Lesson 2: <i>Parallel and Perpendicular Lines</i> pp. 128–129 Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 4: <i>Classifying Triangles</i> pp. 132–133 Lesson 7: <i>Classifying Quadrilaterals</i> pp. 138–139
C. Identify and measure circles, their diameters and their radii.		
D. Describe in words how geometric shapes are constructed.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 1: <i>Geometric Concepts</i> pp. 126–127
E. Construct two- and three-dimensional shapes and figures using manipulatives, geoboards and computer software.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 7: <i>Classifying Quadrilaterals</i> pp. 138–139 Lesson 8: <i>Solid Figures</i> pp. 140–141
F. Find familiar solids in the environment and describe them.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 8: <i>Solid Figures</i> pp. 140–141
G. Create an original tessellation.		
H. Describe the relationship between the perimeter and area of triangles, quadrilaterals and circles.	Unit 6 – Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113	Unit 6 – Lesson 1: <i>Area and Perimeter</i> pp. 108–109 Lesson 2: <i>Investigating Area and Perimeter</i> pp. 110–111 Lesson 3: <i>Perimeter of Irregular Shapes</i> pp. 112–113 Lesson 4: <i>Area of Parallelograms</i> pp. 114–115

Grade 5 State Academic Standards	Math Elevations Level D Teacher's Guide Examples/Lessons	Math Elevations Level E Teacher's Guide Examples/Lessons
		Lesson 5: <i>Area of Triangles</i> pp. 116–117
I. Represent and use the concepts of line, point and plane.	Unit 7 – Lesson 2: <i>Parallel and Perpendicular Lines</i> pp. 128–129	Unit 7 – Lesson 2: <i>Lines</i> pp. 128–129
J. Define the basic properties of squares, pyramids, parallelograms, quadrilaterals, trapezoids, polygons, rectangles, rhombi, circles, triangles, cubes, prisms, spheres and cylinders.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131 Lesson 7: <i>Solid Figures</i> pp. 138–139	Unit 7 – Lesson 7: <i>Classifying Quadrilaterals</i> pp. 138–139 Lesson 8: <i>Solid Figures</i> pp. 140–141
K. Analyze simple transformations of geometric figures and rotations of line segments.	Unit 7 – Lesson 5: <i>Flips and Slides</i> pp. 134–135 Lesson 6: <i>Turns</i> pp. 136–137	Unit 7 – Lesson 5: <i>Translations</i> pp. 134–135 Lesson 6: <i>Reflections and Rotations</i> pp. 136–137
L. Identify properties of geometric figures (e.g., parallel, perpendicular, similar, congruent, symmetrical).	Unit 7 – Lesson 2: <i>Parallel and Perpendicular Lines</i> pp. 128–129	Unit 7 – Lesson 1: <i>Geometric Concepts</i> pp. 126–127 Lesson 2: <i>Lines</i> pp. 128–129 Lesson 3: <i>Measuring and Classifying Angles</i> pp. 130–131 Lesson 4: <i>Classifying Triangles</i> pp. 132–133 Lesson 7: <i>Classifying Quadrilaterals</i> pp. 138–139 Lesson 8: <i>Solid Figures</i> pp. 140–141
2.10 Trigonometry		
A. Identify and compare parts of right triangles, including right angles, acute angles, hypotenuses and legs.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131	Unit 7 – Lesson 4: <i>Classifying Triangles</i> pp. 132–133
B. Create right triangles on a geoboard.	Unit 7 – Lesson 3: <i>Classifying Polygons</i> pp. 130–131	Unit 7 – Lesson 5: <i>Translations</i> pp. 134–135
2.11 Concepts of Calculus		
A. Make comparisons of numbers (e.g., more, less, same, least, most, greater than, less than).	Unit 1 – Lesson 2: <i>Comparing Numbers</i> pp. 20–21	Unit 8 – Lesson 4: <i>Mode, Median, and Range</i> pp. 150–151
B. Identify least and greatest values represented in bar and circle graphs.	Unit 8 – Lesson 4: <i>Bar Graphs</i> pp. 150–151	Unit 8 – Lesson 6: <i>Bar Graphs</i> pp. 154–155 Lesson 8: <i>Circle Graphs</i> pp. 158–159

Grade 5 State Academic Standards	<i>Math Elevations</i> Level D Teacher's Guide Examples/Lessons	<i>Math Elevations</i> Level E Teacher's Guide Examples/Lessons
C. Identify maximum and minimum.		Unit 8 – Lesson 4: <i>Mode, Median, and Range</i> pp. 150–151
D. Describe the relationship between rates of change and time.		
E. Estimate areas and volumes as the sums of areas of tiles and volumes of cubes.	Unit 6 – Lesson 1: <i>Perimeter of Squares and Rectangles</i> pp. 108–109 Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110–111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112–113	Unit 6 – Lesson 4: <i>Area of Parallelograms</i> pp. 114–115 Lesson 5: <i>Area of Triangles</i> pp. 116–117 Lesson 6: <i>Volume of Rectangular Solids</i> pp. 118–119