

## Northpoint Horizons

### *Math Elevations™* Correlated to the Nevada State Mathematics Content Standards

Grade 6

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet the Nevada Mathematics Content Standards.

<b>Nevada Essential Knowledge and Skills (Grade 6)</b>	<b><i>Math Elevations</i> Level F (Grade 6) Teacher's Guide Examples/Lessons</b>
1.6.1 Identify and use place value positions to thousandths.	1.1 Decimals, pp. 18–19
1.6.2 Add and subtract fractions with unlike denominators.  Multiply and divide with fractions using models, drawings, and numbers.  Use models to translate among fractions, decimals, and percents.	3.1 Simplest Form, pp. 54–55 3.3 Converting Fractions to Decimals, pp. 58–69 3.4 Understanding Percents, pp. 60–61 3.5 Converting Between Percents, Fractions, and Decimals, pp. 62–63 3.6 More Converting Fractions, p. 64–65 4.1 Addition and Subtraction of Fractions, pp. 72–73 4.2 Adding Mixed Numbers, pp. 74–75 4.3 Subtracting Mixed Numbers, pp. 76–77 4.4 Multiplying Fractions, pp. 78–79 4.5 Multiplying Mixed Numbers, pp. 80–81 4.6 Dividing Fractions by Whole Numbers, pp. 82–83 4.7 Dividing Fractions by Fractions, pp. 84–85 4.8 Dividing Mixed Numbers, pp. 86–87
1.6.3 Read, write, compare, and order groups of fractions, groups of decimals, and groups of percents.	1.1 Decimals, pp. 18–19 3.2 Comparing and Ordering Fractions, pp. 56–57 3.4 Understanding Percents, pp. 60–61
1.6.5 Identify equivalent expressions between and among fractions, decimals, and percents.	3.2 Comparing and Ordering Fractions, pp. 56–57

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	3.3 Converting Fractions to Decimals, pp. 58–59 3.4 Understanding Percents, pp. 60–61 3.5 Converting Between Percents, Fractions, and Decimals, pp. 62–63 3.6 More Converting Fractions, pp. 64–65
1.6.6 Estimate using fractions, decimals, and percents.  Use estimation strategies in mathematical and practical situations.	Estimation embedded in lessons 2.2 Rounding Numbers, pp. 38–39 2.5 Multiplication of Whole Numbers, pp. 44–45 2.6 Multiplying by Decimals, pp. 46–47 2.7 Division, pp. 48–49
1.6.7 Calculate using fractions, decimals, and percents in mathematical and practical situations.  Use order of operations to evaluate expressions with integers.	2.3 Addition and Subtraction, pp. 40–41 2.6 Multiplying by Decimals, pp. 46–47 2.7 Division, pp. 48–49 2.8 Word Problems, pp. 50–51 4.1 Addition and Subtraction of Fractions, pp. 72–73 4.2 Adding Mixed Numbers, pp. 74–75 4.3 Subtraction Mixed Numbers, pp. 76–77 4.4 Multiplying Fractions, pp. 78–79 4.5 Multiplying Mixed Numbers, pp. 80–81 4.6 Dividing Fractions by Whole Numbers, pp. 82–83 4.7 Dividing Fractions by Fractions, pp. 84–85 4.8 Dividing Mixed Numbers, pp. 86–87 5.1 Order of Operations, pp. 90–91
1.6.8 Use the concepts of number theory, including prime and composite numbers, factors, multiples, and the rules of divisibility to solve problems.	1.1 Decimals, pp. 19–20 1.5 Primes and Composites, pp. 26–27 1.6 Divisibility, pp. 28–29 1.7 Greatest Common Factor, pp. 30–31 1.8 Least Common Multiple, pp. 32–33
2.6.1 Use and create tables and charts to extend a pattern in order to describe a rule for input/output tables and to find missing terms in a sequence.	5.2 Patterns, pp. 92–93
2.6.2 Evaluate formulas and algebraic expressions using whole number values.	5.3 One-Step Algebraic Expressions, pp. 94–95 5.5 Solving Equations, pp. 98–99

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Solve and graphically represent equations and simple inequalities in one variable.	5.8 Inequalities, pp. 104–105
2.6.3 Write simple expressions and equations using variables to represent mathematical situations.	5.2 Patterns, pp. 92–93 5.5 Solving Equations, pp. 98–99 5.6 Word Problems, pp. 100–101
2.6.4 When given a rule relating two variables, create a table and represent the ordered pairs on a coordinate plane.	5.7 Graphing Algebraic Expressions, pp. 102–103
3.6.1 Estimate and compare corresponding units of measure for temperature, length, and weight/mass between customary and metric systems.	
3.6.2 Given two measurements of the same object, select the one that is more precise.  Explain how the size of the unit of measure used affects precision.	
3.6.3 Select, model, and apply formulas to find the perimeter, circumference, and area of plane figures.	7.2 Perimeter, pp. 128–129 7.3 Angles, pp. 130–131 7.4 Angles in a Triangle, pp. 132–133 7.5 Areas of Rectangles and Parallelograms, pp. 134–135 7.6 Area of Triangles, pp. 136–137 7.7 Area of Irregular Figures, pp. 138–139
3.6.4 Compare and use unit cost in practical situations.	3.8 Solving Proportions, pp. 68–69
3.6.5 Write and apply ratios in mathematical and practical problems involving measurement and monetary conversions.	3.8 Solving Proportions, pp. 68–69
3.6.6 Use equivalent periods of time to solve practical problems.	
4.6.1 Measure angles using a protractor.  Identify, classify, compare and draw regular and irregular	7.3 Angles, pp. 130–131 7.4 Angles in a Triangle, pp. 132–133

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quadrilaterals.  Identify, draw, and use central angles to represent fractions of a circle.	
4.6.2 Determine actual measurements represented on scale drawings.  Convert actual measurements to scale.	<i>Level G:</i> 5.4 Scale Drawings and Models, pp. 138–140
4.6.3 Using a coordinate plane, identify and locate points.  Graph coordinates representing geometric shapes in all four quadrants on a coordinate plane.	6.5 The Coordinate Plane, pp. 116–117
4.6.4 Make a model of a three-dimensional prism from a two-dimensional drawing.  Make a two-dimensional drawing of a three-dimensional prism.	<i>Level G:</i> 6.8 Solid Figures, pp. 179–181
4.6.5 Model slope (pitch, angle of inclination) using concrete objects and practical examples.	
4.6.6 Draw, identify, and find measures of complementary and supplementary angles using arithmetic and geometric methods.	<i>Level G:</i> 6.1 Angles, pp. 156–159
4.6.7 Determine the measure of missing angles of triangles based on the Triangle Sum Theorem.	7.4 Angles in a Triangle, pp. 132–133
4.6.8 Construct circles, angles, and triangles based on given measurements using a variety of methods and tools including compass, straight edge, paper folding, and technology.	7.1 Triangles, pp. 126–127 7.3 Angles, pp. 130–131 7.4 Angles in a Triangle, pp. 132–133
4.6.9 Identify counterexamples to disprove a conditional statement.	6.2 Classifying Quadrilaterals, pp. 110–111
5.6.1 Pose questions that guide the collection of data.	8.2 Line Plots and Stem-and-Leaf Plots, pp. 146–147 8.3 Scales and Bar Graphs, pp. 148–149

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Organize and represent data using a variety of graphical representations including circle graphs and scatter plots.	8.4 Conducting Surveys, p. 150–151 8.5 Displaying Data, pp. 152–153 8.6 Line Graphs, pp. 154–155
5.6.2 Select and apply the measures of central tendency to describe data.	8.1 Mean, Mode, and Median, pp. 144–145
5.6.3 Analyze the effect a change of graph type has on the interpretation of a set of data.  Interpret data and make predictions using circle graphs and scatter plots.	8.3 Scales and Bar Graphs, pp. 148–149 8.5 Displaying Data, pp. 152–153
5.6.4 Find the number of outcomes for a specific event by constructing sample spaces and tree diagrams.	8.7 Probability, pp. 156–157 8.8 Probability Experiments, pp. 158–159
5.6.5 Find experimental probability using concrete materials.  Represent the results of simple probability experiments as fractions, decimals, percents, and ratios to make predictions about future events.	Embedded in 8.7 Probability, pp. 156–157 8.8 Probability Experiments, pp. 158–159
5.6.6 Analyze various representations of a set of data to draw conclusions and make predictions.  Describe the limitations of various graphical representations.	Embedded in 8.1 Mean, Mode, and Median, pp. 144–145 8.2 Line Plots and Stem-and-Leaf Plots, pp. 146–147 8.3 Scales and Bar Graphs, pp. 148–149 8.4 Conducting Surveys, pp. 150–151 8.5 Displaying Data, pp. 152–153 8.6 Line Graphs, pp. 154–155