**Secondary Math I – Standards Unpacked!**

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| Standard | Concept | Example | Intervention |
| A.SSE.1  *Number Sense* | I can interpret expressions that represent a quantity. I can identify the terms, bases, exponents, coefficients, and factors from an expression.  I can identify the meanings of variables. |  | Flash cards  Posters |
| N.Q.1  *Number Sense* | I can use units of measurement accurately. |  |  |
| N.Q.2  *Number Sense* | I can determine units for rate of change within context and from a graph. |  |  |
| N.Q.3  *Number Sense* | I can determine reasonable place value given the context. |  |  |
| A.REI.1  *Solving* | I can explain (or justify) the steps of solving a simple equation using mathematical properties. |  |  |
| A.REI.3  *Solving* | I can solve and interpret the solution to equations and inequalities, with one variable, including equations with coefficients represented by letters.  I can solve for a specific variable. |  |  |
| A.REI.10  *Solving* | I can identify the graph and solutions of linear equations.  I can identify non-solutions of linear equations.  I can recognize that a line represents infinite solutions to a linear equation. |  | Constant use of vocabulary |
| F.IF.1  *Functions* | I can define a linear function.  I can identify a function from a table, graph, equation, or given context.  I can distinguish between domain and range.  I can write a relation in function notation. |  |  |
| F.IF.2  *Functions* | I can evaluate functions given input values for the domain.  I can interpret context that uses function notation. |  |  |
| F.IF.4  *Functions* | I can identify the x-and y-intercepts of a function give a table or a graph.  I can identify the intervals that a function is increasing, decreasing, constant, negative, or positive given a table or a graph.  I can use x-and y-intercepts and the intervals of a function to graph the function.  I can use interval notation and symbols of inequality to express the intervals of a function. |  | Matching games, graphs, descriptions of equations. |
| F.IF.5  *Functions* | I can identify the domains of functions given a graph.  I can graph a function given a restricted domain.  I can identify the reasonableness of a domain given context. |  |  |
| F.IF.6  *Functions* | I can calculate or interpret the rate of change given a linear function, from an equation, graph, or a table.  I can calculate or interpret the rate of change over a given interval in an exponential function, from an equation, graph, or a table. |  |  |
| F.BF.2  *Linear* | I can write arithmetic sequences both recursively and with an explicit formula.  I can model context with arithmetic sequences. |  |  |
| F.IF.3  *Linear* | I can recognize that sequences are functions.  I can define and express a recursive sequence as a function.  I can recognize that a sequence has a domain that is a subset of integers.  I can generate a sequence given a recursive function. |  |  |
| F.IF.7  *Linear* | I can graph lines in slope-intercept form or standard form.  I can identify intercepts in graphs of linear functions. |  |  |
| A.CED.2  *Linear* | I can write an equation to represent a linear relationship.  I can graph an equation that represents a linear relationship.  I can write a linear equation given a graph, table, or context. |  |  |
| A.CED.4  *Linear* | I can solve for a particular variable.  I can solve for y. |  |  |
| F.BF.1  *Creating Linear*  *Equations* | I can write a function that describes a relationship between two quantities, using an explicit expression, recursive process, or steps from context.  I can combine linear and/or exponential functions using addition, subtraction, multiplication, and division. |  | **Begin Quarter 2** |
| F.BF.3  *Creating Linear*  *Equations* | I can translate (shift) linear equations vertically.  I can identify from a table, equation, or graph what the vertical shift, k, is.  I can explain the vertical translation (shift) of a linear function to its y-intercept. | If I shift the graph down 4 spaces, write the new equation. |  |
| S.ID.7  *Creating Linear*  *Equations* | I can interpret the slope (rate of change) and the y-intercept (constant term) of a linear model in the context of data.  I can identify the slope and y-intercept given a table, graph, or equation. | The tub is filling up at a linear model of What do the slope and y-intercept mean? |  |
| A.CED.1  *Creating Linear*  *Equations and Inequalities* | I can tell the difference between an expression and an equation.  I can write an equation and solve it from given information.  I can write equations and inequalities, with one variable, and one-step, two-step, or multi-step given context.  I can solve and interpret the solution to equations and inequalities, with one variable.  I can graphically represent equations and inequalities, with one variable, on a number line. | Jimmy takes his car to the mechanic. He pays $65 for a service charge and $15 per hour. How many hours did it take if he pays $155? |  |
| A.CED.3  *Creating Linear*  *Equations and Inequalities* | I can determine whether a point (x, y) is a solution to an equation or inequality.  I can determine whether a solution has meaning in a real world context.  I can write and graph equations and inequalities that represent constraints in real world context. |  |  |
| A.REI.5  *Systems* | I can solve systems of equations by elimination and by substitution. |  |  |
| A.REI.6  *Systems* | I can solve systems of equations by graphing. |  |  |
| A.REI.11  *Systems* | I can solve systems of inequalities by graphing. |  |  |
| A.REI.12  *Inequalities* | I can graph the solution to linear inequalities in two variables.  I can graph the solution to systems of linear inequalities in two variables.  I can identify the solutions as a region of the plane. |  |  |
| F.BF.2  *Exponential* | I can write geometric sequences both recursively and with an explicit formula.  I can model context with geometric sequences. |  |  |
| F.IF.1 *Exponential* | I can define an exponential function.  I can identify a function from a table, graph, equation, or given context.  I can distinguish between domain and range.  I can write a relation in function notation. |  |  |
| F.IF.3 *Exponential* | I can recognize that sequences are functions.  I can define and express a recursive sequence as a function.  I can recognize that a sequence has a domain that is a subset of integers.  I can generate a sequence given a recursive function. |  |  |
| F.IF.7 *Exponential* | I can graph exponential functions.  I can identify intercepts in graphs of exponential functions. |  |  |
| A.CED.1 *Exponential* | I can tell the difference between an expression and an equation.  I can write an equation and solve it from given information.  I can write equations and inequalities, with one variable, and one-step, two-step, or multi-step given context.  I can solve and interpret the solution to equations and inequalities, with one variable.  I can graphically represent equations and inequalities, with one variable, on a number line. |  |  |
| A.CED.2 *Exponential* | I can write an equation that represents an exponential relationship.  I can graph an equation that represents an exponential relationship.  I can write an exponential equation given a graph, table, or context. |  |  |
| A.CED.3 *Exponential* | I can determine whether a point (x, y) is a solution to an equation or inequality.  I can determine whether a solution has meaning in a real world context.  I can write and graph equations and inequalities that represent constraints in real world context. |  |  |
| F.BF.3  *Creating*  *Exponential*  *Functions* | I can translate (shift) exponential equations vertically.  I can identify from a table, equation, or graph what the vertical shift, k, is. |  |  |
| F.LE.1 *Creating*  *Exponential*  *Functions* | I can distinguish between situations that can be modeled with linear functions versus exponential functions.  I can prove that linear functions grow by equal differences over equal intervals.  I can prove that exponential functions grow by equal factors over equal intervals.  I can recognize linear situations and describe the rate of change per unit as constant.  I can recognize exponential situations and describe the rate of change as growth factor (which includes decay) as a constant percent. |  |  |
| F.LE.2 *Creating*  *Exponential*  *Functions* | I can construct linear and exponential functions, including arithmetic and geometric sequences given a graph.  I can construct linear and exponential functions, including arithmetic and geometric sequences given a description of a relationship.  I can construct linear functions, including arithmetic and geometric sequences given two input-output pairs, including those in a table. |  |  |
| F.LE.3 *Creating*  *Exponential*  *Functions* | I can observe that a quantity increasing exponentially eventually exceeds a quantity increasing linearly using graphs and tables. |  |  |
| F.LE.5  *Number Sense* | I can identify the slope and x-and y-intercepts of a linear function, given context.  I can interpret the base value, initial value, and vertical shifts in an exponential function. |  |  |
| G.CO.12  *Constructions* | I can construct copying a segment.  I can construct copying an angle.  I can construct bisecting a segment.  I can construct bisecting an angle.  I can construct perpendicular lines.  I can construct perpendicular bisector of a line segment.  I can construct a line parallel to a given line through a point not on the line  I can construct each of these using the following methods: compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.  I can explain why these constructions result in the desired objects. |  |  |
| G.CO.13  *Constructions* | I can construct an equilateral triangle.  I can construct a square.  I can construct a regular hexagon.  I can construct an equilateral triangle inscribed in a circle.  I can construct a square inscribed in a circle.  I can construct a regular hexagon inscribed in a circle. |  |  |
| S.ID.1  *Distributions*  *of Data* | I can create dot plots.  I can create histograms.  I can create box plots.  I can analyze data.  I can compute mean, median, and mode.  I can determine the most appropriate data plot to use. |  | **Begin Quarter 3** |
| S.ID.2  *Distributions*  *of Data* | I can compare two different data sets represented by graphs.  I can compute interquartile range (IQR) and standard deviation (SD) by hand.  I can compute interquartile range (IQR) and standard deviation (SD) with a calculator. |  |  |
| S.ID.3  *Distributions*  *of Data* | I can use data to interpret differences in shape, center, and spread.  I can identify outliers.  I can explore the effects of outliers on a data set. |  |  |
| S.ID.6  *Scatter*  *Plots* | I can plot data on a coordinate grid.  I can graph a linear function.  I can recognize characteristics of linear and exponential functions.  I can write an equation of a scatter plot using two points. |  |  |
| S.ID.8  *Scatter*  *Plots* | I can use graphing technology to interpret the correlation coefficient. |  |  |
| S.ID.9  *Scatter*  *Plots* | I can understand correlation.  I can understand causation.  I can understand the difference between correlation and causation. |  |  |
| G.CO.1  *Basics*  *of Geometry* | I can define an angle, circle, perpendicular lines, parallel lines, line segment, point, line, and arc. |  |  |
| G.CO.2  *Transformations* | I can do reflections, rotations, and translations.  I can identify the different transformations.  I can describe a transformation as a function. |  | **Begin Quarter 4** |
| G.CO.3 *Transformations* | I can identify lines and points of symmetry.  I can identify angle measure and side length of polygons. |  |  |
| G.CO.4 *Transformations* | I can use prior knowledge of angles, circles, perpendicular lines, parallel lines, and line segments to develop definitions of rotations, reflections, and translations. |  |  |
| G.CO.5 *Transformations* | I can perform a rotation, reflection, and translation.  I can identify the sequence of a transformation. |  |  |
| G.CO.6  *Congruence* | I can use rigid motions to justify the congruence of two figures. |  |  |
| G.CO.7  *Congruence* | I can identify corresponding parts of two triangles.  I can show that two triangles are congruent using corresponding parts. |  |  |
| G.GPE.4  *Coordinate*  *Geometry* | I can use prior knowledge of slopes, parallel and perpendicular lines to prove geometric figures. |  |  |
| G.GPE.5 *Coordinate*  *Geometry* | I can prove that parallel lines have the same slope.  I can prove that the product of slopes of perpendicular lines is -1.  I can write the equation of a line that is parallel or perpendicular to a given line, passing through a given point. |  |  |
| G.CO.8 *Coordinate*  *Geometry* | I can understand why ASA, SAS, and SSS show congruence.  I can understand why SSA and AAA do not show congruence. |  |  |
| G.H.1 *Coordinate*  *Geometry* | I can write conditional statements, using converse, inverse, and contrapositive. |  |  |
| G.GPE.7  *Coordinate*  *Geometry* | I can use the distance formula to find the perimeter and area of a variety of shapes. |  |  |