**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. | $$2x^{3}+5$$ | Flash cardsPosters  |
| 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. | $$f\left(3\right)=2x+5$$ |  |
| 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. | $f\left(x\right)=3x+5$ 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 $L=\frac{1}{3}m+2$ 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 lineI 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. |  |  |