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JC Schools Algebra IB Yearly Math Standards

Overarching Standards

A1.NQ.B.3
Use units of measure as a way to understand and solve problems involving quantities.
a. Identify, label and use appropriate units of measure within a problem.
b. Convert units and rates.
c. Use units within problems.
d. Choose and interpret the scale and the origin in graphs and data displays.

A1.NQ.B.4
Define and use appropriate quantities for representing a given context or problem.

A1.NQ.B.5
Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

A1.CED.A.3
Represent constraints by equations or inequalities and by systems of equations or inequalities, and interpret the data points as a solution or non-solution in a modeling context.

Units	Priority Standards	Supporting Standards
Unit Introduction to Algebra IB 25 Days	**A1.APR.A.1** Add, subtract and multiply polynomials, and understand that polynomials follow the same general rules of arithmetic and are closed under these operations. **A1.APR.A.2** Divide polynomials by monomials. **A1.CED.A.1**	

	Create equations and inequalities in one variable and use them to model and/or solve problems. **A1.CED.A.2** Create and graph linear, quadratic and exponential equations in two variables. **A1.SSE.A.1** Interpret the contextual meaning of individual terms or factors from a given problem that utilizes formulas or expressions.	
Unit 6 Factoring & Solving Quadratic Functions 35 Days	**A1.SSE.A.1** Interpret the contextual meaning of individual terms or factors from a given problem that utilizes formulas or expressions. **A1.SSE.A.2** Analyze the structure of polynomials to create equivalent expressions or equations. **A1.REI.A.2c** Solve problems involving quadratic equations c. Analyze different methods of solving quadratic equations. **A1.CED.A.1** Create equations and inequalities in one variable and use them to model and/or solve problems.	**A1.SSE.A.3.a** Choose and produce equivalent forms of a quadratic expression or equations to reveal and explain properties. a. Find the zeros of a quadratic function by rewriting it in factored form. **A1.REI.A.2.a,** Solve problems involving quadratic equations. a. Use the method of completing the square to create an equivalent quadratic equation.
Unit 7 Exponential Functions 35 Days	**A1.REI.C.6** Explain that the graph of an equation in two variables is the set of all its solutions plotted in the Cartesian coordinate plane. **A1.BF.A.1** Analyze the effect of translations and scale changes on functions.	**A1.CED.A.2** Create and graph linear, quadratic, and exponential equations in two variables. **A1.IF.C.8** Translate between different but equivalent forms of a function to reveal and explain properties of the function and interpret these in terms of a context.

	A1.IF.B.3 Using tables, graphs, and verbal descriptions, interpret key characteristics of a function that models the relationship between two quantities **A1.IF.C.7** Graph functions expressed symbolically and identify and interpret key features of the graph. **A1.LQE.A.3** Construct linear, quadratic and exponential equations given graphs, verbal descriptions or tables.	**A1.LQE.A.1** Distinguish between situations that can be modeled with linear or exponential functions. a. Determine that linear functions change by equal differences over equal intervals. b. Recognize exponential situations in which a quantity grows or decays by a constant percent rate per unit interval.
Unit 8 Systems 35 Days	**A1.REI.C.8** Solve problems involving a system of linear inequalities.	**A1.REI.B.3** Solve a system of linear equations algebraically and/or graphically. **A1.REI.B.4** Solve a system consisting of a linear equation and a quadratic equation algebraically and/or graphically. **A1.CED.A.3** Represent constraints by equations or inequalities and by systems of equations or inequalities and interpret the data points as a solution or non-solution in a modeling context.
Unit 9 Statistics 30 Days	**A1.DS.A.1** Analyze and interpret graphical displays of data.	**A1.DS.A.4** Summarize data in two-way frequency tables. Interpret relative frequencies in the context of the data, and recognize possible associations and trends in the data. **A1.DS.A.5** Construct a scatter plot of bivariate quantitative data describing how the variables are related; determine and use a function that models the relationship. a. Construct a linear function to model bivariate data represented on a scatter plot that minimizes residuals.

		b. Construct an exponential function to model bivariate data represented on a scatter plot that minimizes residuals. **A1.DS.A.8** Distinguish between correlation and causation.