HIGHLANDS HIGH SCHOOL
ALGEBRA I PACING GUIDE

| ALGEBRA I | Numbers and Operations | Algebraic Concepts |
| :---: | :---: | :---: |
| SAS MODULE 1 <br> Relationships Between Quantities and Reasoning with Equations <br> (Suggested Timeline: 6 weeks) | CC.2.1.HS.F. 1 <br> Apply and extend the properties of exponents to solve problems with rational exponents. <br> ASSMESSMENT | CC.2.2.HS.D. 1 <br> Interpret the structure of expressions to represent a quantity in terms of its context. <br> ASSESSMENT |
|  | CC.2.1.HS.F. 2 <br> Apply properties of rational and irrational numbers to solve real world or mathematical problems. | CC.2.2.HS.D. 2 <br> Write expressions in equivalent forms to solve problems. |
|  | ASSESSMENT | ASSESSMENT |
|  | CC.2.1.HS.F. 4 <br> Use units as a way to understand problems and to guide the solution of multi-step problems. | CC.2.2.HS.D. 3 <br> Extend the knowledge of arithmetic operations and apply to polynomials. |
|  | ASSESSMENT | ASSESSMENT |
|  |  | CC.2.2.HS.C. 5 <br> Construct and compare linear, quadratic, and exponential models to solve problems. |
|  | ASSESSMENT | ASSESSMENT |
| SAS MODULE 2 <br> Linear and <br> Exponential <br> Relationships <br> (Suggested Timeline: 13 weeks) |  | CC.2.2.HS.C. 1 <br> Use the concept and notation of functions to interpret and apply them in terms of their context. |
|  |  | ASSESSMENT |
|  |  | CC.2.2.HS.C. 2 <br> Graph and analyze functions and use their properties to make connections between the different representations, |
|  |  | ASSESSMENT |
|  |  | CC.2.2.HS.C. 6 <br> Interpret functions in terms of the situation they model. |
|  |  | ASSESSMENT |
|  |  | CC.2.2.HS.D. 10 |


|  |  | Represent, solve and interpret equations/inequalities and <br> systems of equations/inequalities algebraically and <br> graphically. |
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|  |  | ASSESSMENT |


| SAS MODULE 3 | Algebraic Concepts | Geometry | Statistics and Probability |
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|  |  | CC.2.3.HS.A. 4 <br> Apply the concept of congruence to create geometric constructions. | CC.2.4.HS.B. 1 <br> Summarize, represent, and interpret data on a single count or measurement variable. |
|  |  | ASSESSMENT | ASSESSMENT |
| Descriptive Statistics <br> (Suggested Timeline: 5 weeks) |  | CC.2.3.HS.A. 7 <br> Apply trigonometric ratios to solve problems involving right triangles. | CC.2.4.HS.B. 2 <br> Summarize, represent, and interpret data on two categorical and quantitative variables. |
|  |  | ASSESSMENT | ASSESSMENT |
|  |  |  | CC.2.4.HS.B.3 <br> Analyze linear models to make interpretations based on the data. |
|  |  |  | ASSESSMENT |
| SAS MODULE 4 <br> Equations and Expressions <br> (Suggested Timeline: 6 weeks) | CC.2.2.HS.D. 1 <br> Interpret the structure of expressions to represent a quantity in terms of its context. |  |  |
|  | ASSESSMENT |  |  |
|  | CC.2.2.HS.D. 2 <br> Write expressions in equivalent forms to solve problems. |  |  |
|  | ASSESSMENT |  |  |
|  | CC.2.2.HS.D. 3 <br> Extend the knowledge of arithmetic operations and apply to polynomials |  |  |
|  | ASSESSMENT |  |  |
|  | CC.2.2.HS.D. 7 <br> Create and graph equations or inequalities to describe numbers or relationships. |  |  |
|  | ASSESSMENT |  |  |


| SAS MODULE 5 | Numbers and Operations | Algebraic Concepts |
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|  | CC.2.1.HS.F. 1 <br> Apply and extend the properties of exponents to solve problems with rational exponents. | CC.2.2.HS.C. 2 <br> Graph and analyze functions and use their properties to make connections between the different representations |
|  | ASSESSMENT | ASSESSMENT |
|  |  | CC.2.2.HS.C. 3 <br> Write functions or sequences that model relationships between two quantities. |
|  |  | ASSESSMENT |
| Quadratic Functions and Modeling <br> (Suggested Timeline: 6 weeks) |  | CC.2.2.HS.C. 4 <br> Interpret the effects transformations have on functions and find the inverses of functions. |
|  |  | ASSESSMENT |
|  |  | CC.2.2.HS.C. 5 <br> Construct and compare linear, quadratic and exponential models to solve problems. |
|  |  | ASSESSMENT |

