# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 1st | 1: Expressions, Equations, and Functions | 3 weeks | |

**Standard and/or initial resources used:**

**Textbook: Algebra I, Glencoe, 2010**

**Textbook resources**

**Kutasoftware**

**Substitute or Added Resources:**

**Algebra with Pizzazz**

**http://classroom.jc-schools.net/franklinte/EOC/Practice_Worksheets.htm**

**Notes:**

| Standards Taught |
|---|
| A1.SSE.A.1<br>Interpret the contextual meaning of individual terms or factors from a given problem that utilizes formulas or expressions. |
| A1.SSE.A.2<br>Analyze the structure of polynomials to create equivalent expressions or equations. |
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| A1.IF.A.1<br>Understand that a function from one set to another set assigns to each element of the domain exactly one element of the range. |
| A1.IF.A.2<br>Use function notation to evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. |
| A1.IF.B.5<br>Determine the average rate of change of a function over a specified interval and interpret the meaning. |
| A1.IF.C.9<br>Compare the properties of two functions given different representations. |
| A1.BF.A.1<br>Analyze the effects of translations and scale changes on functions. |
| A1.CED.A.2<br>Solve problems involving quadratic equations: completing the square, quadratic formula |
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# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 1st | 2: Linear Equations | 3 weeks | |

**Standard and/or initial resources used:**

**Textbook: Algebra I, Glencoe, 2010**

**Textbook resources**

**Kutasoftware**

**Algebra with Pizzazz**

**Substitute or Added Resources:**

**Notes:**

| Standards Taught |
|---|
| A1.CED.A.1<br>Create equations and inequalities in one variable and use them to model and/o solve problems. |
| A1.REI.A.1<br>Explain how each step taken when solving an equation or inequality in one variable creates an equivalent equation or inequality that has the same solutions as the original. |
| A1.REI.B.3<br>Solve a system of linear equations algebraically and/or graphically. |
| A1.CED.A.4<br>Solve literal equations and formulas for a specified variable that highlights a quantity of interest. |
| A1.NQ.A.1<br>Explain how the meaning of rational exponents extends from the properties of integer exponents. |

# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 1st | 3: Linear Functions | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

teacher.desmos.com

**Substitute or Added Resources:**

**https://robertkaplinsky.com/work/in-n-out-100-x-100/**

**Notes:**

| Standards Taught |
|---|
| A1.CED.A.2<br>Create and graph linear, quadratic and exponential equations in two variables. |
| |
| A1.IF.B.4<br>Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes. |
| A1.IF.C.7<br>Graph functions expressed symbolically and identify and interpret key features of the graph. |
| A1.BF.A.1<br>Analyze the effects of translations and scale changes on functions. |
| A1.CED.A.1<br>Create equations and inequalities in one variable and use them to model and/or solve problems. |
| A1.NQ.A.1<br>Explain how the meaning of rational exponents extends from the properties of integer exponents. |
| A1.IF.B.6<br>Interpret the parameters of a linear or exponential function in terms of the context. |
| A1.LQE.B.4<br>Write arithmetic and geometric sequences in recursive and explicit forms, and use them to model situations and translate between the two forms. |
| A1.LQE.A.1<br>Distinguish between situations that can be modeled with linear or exponential functions. |
| A1.LQE.A.3<br>Construct linear, quadratic and exponential equations given graphs, verbal descriptions or tables. |
| A1.LQE.B.6<br>Find the terms of sequences given an explicit or recursive formula. |
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# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 2nd | Linear Functions and Relations | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

teacher.desmos.com

**Substitute or Added Resources:**

**Notes:**

| Standards Taught |
|---|
| A1.CED.A.2<br>Create and graph linear, quadratic and exponential equations in two variables. |
| |
| A1.IF.B.4<br>Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes. |
| A1.IF.C.7<br>Graph functions expressed symbolically and identify and interpret key features of the graph. |
| A1.BF.A.1<br>Analyze the effects of translations and scale changes on functions. |
| A1.CED.A.1<br>Create equations and inequalities in one variable and use them to model and/or solve problems. |
| A1.NQ.A.1<br>Explain how the meaning of rational exponents extends from the properties of integer exponents. |
| A1.IF.B.6<br>Interpret the parameters of a linear or exponential function in terms of the context. |
| A1.LQE.B.4<br>Write arithmetic and geometric sequences in recursive and explicit forms, and use them to model situations and translate between the two forms. |
| A1.LQE.A.1<br>Distinguish between situations that can be modeled with linear or exponential functions. |
| A1.LQE.A.3<br>Construct linear, quadratic and exponential equations given graphs, verbal descriptions or tables. |
| A1.LQE.B.6<br>Find the terms of sequences given an explicit or recursive formula. |
| A1.CED.A.4<br>Solve literal equations and formulas for a specified variable that highlights a quantity of interest. |
| A1.BF.A.1<br>Analyze the effects of translations and scale changes on functions. |
| A1.DS.A.5<br>Construct a scatter plot of bivariate quantitative data describing how the variables are related; determine the use of a function that models the relationship. |
| A1.DS.A.6<br>Interpret the slope (rate of change) and the y-intercept (constant term) of a linear model in the context of the data. |
| A1.DS.A.7<br>Determine and interpret the correlation coefficient for a linear association. |
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# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 2nd | Linear Inequalities | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

desmos.com

**Substitute or Added Resources:**

**Notes:**

A1.CED.A.1
Create equations and inequalities in one variable and use them to model and/o solve problems.

A1.REI.B.3
Solve a system of linear equations 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.

# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 3rd | Systems of Linear Equations and Inequalities | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

teacher.desmos.com

**Substitute or Added Resources:**

**Notes:**

A1.CED.A.2
Create and graph linear, quadratic and exponential equations in two variables.

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.

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.REI.B.5
Justify that the technique of linear combination produces an equivalent system of equations.

# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 3rd | Polynomials | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

**Substitute or Added Resources:**

**Notes:**

| Standards Taught |
|---|
| A1.SSE.A.2<br>Analyze the structure of polynomials to create equivalent expressions or equations. |
| A1.SSE.A.1<br>Interpret the contextual meaning of individual terms or factors from a given problem that utilizes formulas or expressions. |
| A1.IF.C.8<br>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.APR.A.1<br>Add, subtract and multiply polynomials |

# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 4th | Factoring and Quadratic Equations | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

**Substitute or Added Resources:**

**Notes:**

| Standards Taught |
|---|
| A1.SSE.A.2<br>Analyze the structure of polynomials to create equivalent expressions or equations. |
| A1.SSE.A.3<br>Choose and produce equivalent forms of a quadratic expression or equations to reveal and explain properties: find the zeros; find max/min |
| A1.CED.A.2<br>Create and graph linear, quadratic and exponential equations in two variables. |
| A1.REI.A.1<br>Solve problems involving quadratic equations: completing the square, quadratic formula |
| A1.REI.B.4<br>Solve a system consisteing of a linear equation and a quadratic equation algebraically and /or graphically. |

# Naylor Algebra I Curriculum 2017-2021

| Qtr. | Unit | Time | Standards Taught |
|---|---|---|---|
| 4th | Quadratic and Exponential Functions | 3 weeks | |

**Standard and/or initial resources used:**

Textbook: Algebra I, Glencoe, 2010

Kutasoftware

Algebra with Pizzazz

**Substitute or Added Resources:**

**Notes:**

| Standards Taught |
|---|
| A1.NQ.A.1<br>Explain how the meaning of rational exponents extends from the properties of integer exponents. |
| A1.SSE.A.1<br>Interpret the contextual meaning of individual terms or factors from a given problem that utilizes formulas or expressions. |
| A1.SSE.A.3<br>Choose and produce equivalent forms of a quadratic expression or equations to reveal and explain properties: find the zeros; find max/min |
| A1.CED.A.2<br>Create and graph linear, quadratic and exponential equations in two variables. |
| A1.REI.A.2<br>Solve problems involving quadratic equations: completing the square, quadratic formula |
| A1.REI.B.4<br>Solve a system consistent of a linear equation and a quadratic equation algebraically and /or graphically. |
| A1.REI.C.7<br>Graph the solution to a linear inequality in two variables. |
| A1.APR.A.1<br>Add, subtract and multiply polynomials |
| A1.IF.A.2<br>Divide polynomials by monomials |
| A1.IF.B.3<br>Using tables, graphs and verbal descriptions, interpret key characteristics of a function that models the relationship between two quantities. |
| A1.IF.B.4<br>Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes. |
| A1.IF.B.6<br>Interpret the parameters of a linear or exponential function in terms of the context. |
| A1.IF.C.7<br>Graph functions expressed symbolically and identify and interpret key features of the graph. |
| A1.IF.C.8<br>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.C.9<br>Compare the properties of two functions given different representations. |
| A1.BF.A.1<br>Analyze the effects of translations and scale changes on functions. |
| A1.LQE.A.1<br>Distinguish between situations that can be modeled with linear or exponential functions. |
| A1.LQE.A.2<br>Describe, using graphs and tables, that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically. |
| A1.LQE.A.3<br>Construct linear, quadratic and exponential equations given graphs, verbal descriptions or tables. |
| A1.LQE.B.4<br>Write arithmetic and geometric sequences in recursive and explicit forms, and use them to model situations and translate between the two forms. |
| A1.LQE.B.5<br>Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the set of integers. |
| A1.LQE.B.6<br>Find the terms of sequences given an explicit or recursive formula. |
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