Sand Springs Public Schools
Algebra I Local Objectives

1st Six Weeks

Local Objective	Lab/Activity/Test/Other
Plan for Problem Solving Real Number Operations with Integers Adding and Subtracting Rational Numbers Multiplying and Dividing Rational Numbers The Percent Proportion Simple Probability and Odds Mean, Median, Mode, Range, and Quartiles Representing Data	**Unit 0 - Preparing for Algebra**
Variables and Expressions • 1.1.a Translate word phrases and sentences into expressions and equations and vice versa.	**Unit 1 - Expressions, Equations, and Functions**
Order of Operations • 1.1.a Translate word phrases and sentences into expressions and equations and vice versa.	
Properties of Numbers • 1.1.c Use the formulas from measurable attributes of geometric models (perimeter, circumference, area and volume), science, and statistics to solve problems within an algebraic context.	
The Distributive Property • 1.1.c Use the formulas from measurable attributes of geometric models (perimeter, circumference, area and volume), science, and statistics to solve problems within an algebraic context.	
Equations • 1.1.a Translate word phrases and sentences into expressions and equations and vice versa. • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Relations • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.1.c Identify dependent and independent variables, domain and range.	
Functions • 2.1.b Distinguish between relations and functions. 2.1.d Evaluate a function using tables, equations or graphs.	

Sand Springs Public Schools
Algebra I Local Objectives

1st Six Weeks (continued)

Local Objective	Lab/Activity/Test/Other
Writing Equations • 1.1.a Translate word phrases and sentences into expressions and equations and vice versa. • 2.2.a Solve linear equations by graphing or using properties of equality.	**Unit 2 - Linear Equations**
Solving One-Step Equations • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.2.a Solve linear equations by graphing or using properties of equality.	
Solving Multi-Step Equations • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.2.a Solve linear equations by graphing or using properties of equality.	
Solving Equations with the Variable on Each Side • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.2.a Solve linear equations by graphing or using properties of equality.	
Solving Equations Involving Absolute Value • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Ratios and Proportions • 1.1.d Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ration and proportion, and percent.	
Percent of Change • 1.1.d Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ration and proportion, and percent.	
Literal Equations and Dimensional Analysis • 1.1.b Solve literal equations involving several variables foe one variable in terms of the others.	
All of the Above	**Benchmark Assessment**

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Sand Springs Public Schools
Algebra I Local Objectives

2nd Six Weeks

Local Objective	Lab/Activity/Test
Graphing Linear Functions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.2.c.III Interpret the slope and intercepts within the context of everyday life (e.g. telephone charges based on base rate [y-intercept] plus rate per minute [slope]).	**Unit 3 - Linear Functions**
Solving Linear Equations by Graphing • 2.2.a Solve linear equations by graphing or using properties of equality. • 2.2.c.III Interpret the slope and intercepts within the context of everyday life (e.g. telephone charges based on base rate [y-intercept] plus rate per minute [slope]).	
Rate of Change and Slope • 2.2.c.I Calculate the slope of a line using a graph, an equation, two points or a set of data points. • 2.2.c.III Interpret the slope and intercepts within the context of everyday life (e.g. telephone charges based on base rate [y-intercept] plus rate per minute [slope]).	
Direct Variation • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.2.c.I Calculate the slope of a line using a graph, an equation, two points or a set of data points.	
Arithmetic Sequences an Linear Functions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Proportional and Nonproportional Relationships • 1.1.d Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ration and proportion, and percent.	
Graphing Equations in Slope-Intercept Form • 2.2.d Develop the equation of a line and graph linear relation-ships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points. • 2.2.e Match equations to a graph, table, or situation and vice versa. • 2.2.b Recognize the parent graph of the functions y=k, y=x, y=|x ,| and predict the effects of transformations on the parent graph.	**Unit 4 - Linear Functions and Relations**

Sand Springs Public Schools
Algebra I Local Objectives

2nd Six Weeks (continued)

Local Objective	Lab/Activity/Test
Writing Equation in Slope-Intercept Form • 2.2.c.III Interpret the slope and intercepts within the context of everyday life (e.g. telephone charges based on base rate [y-intercept] plus rate per minute [slope]). • 2.2.d Develop the equation of a line and graph linear relationships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points.	
Writing Equations in Point-Slope Form • 2.2.c.I Calculate the slope of a line using a graph, an equation, two points or a set of data points. • 2.2.d Develop the equation of a line and graph linear relationships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points.	
Parallel and Perpendicular Lines • 2.2.c.II Use the slope to differentiate between lines that are parallel, perpendicular, horizontal, or vertical. • 2.2.d Develop the equation of a line and graph linear relationships given the following: slope and y-intercept, slope and one point on the line, two points on the line, x-intercept and y-intercept, a set of data points.	
Scatter Plots and Lines of Fit • 3.2 Collect data involving two variables and display on a scatter plot; interpret results using a linear model/equation and identify whether the model/equation is a line best fit for the data.	
Special Functions • 2.2.b Recognize the parent graph of the functions y=k, y=x, y=|x| and predict the effects of transformations on the parent graph.	

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Sand Springs Public Schools
Algebra I Local Objectives

3rd Six Weeks

Local Objective	Lab/Activity/Test
Solving Inequalities by Addition and Subtraction • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.3.a Solve linear inequalities by graphing or using properties of inequalities.	**Unit 5 - Linear Inequalities**
Solving Inequalities by Multiplication and Division • 2.3.a Solve linear inequalities by graphing or using properties of inequalities. • 2.3.b Match inequalities (with 1 or 2 variables) to a graph, table, or situation and vice versa.	
Solving Multi-Step Inequalities • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.3.a Solve linear inequalities by graphing or using properties of inequalities.	
Solving Compound Inequalities • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions. • 2.3.a Solve linear inequalities by graphing or using properties of inequalities.	
Inequalities Involving Absolute Value • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Graphing Inequalities in Two Variables • 2.3.a Solve linear inequalities by graphing or using properties of inequalities.	
Graphing Systems of Equations • 2.4 Solve a system of linear equations by graphing, substitution or elimination.	**Unit 6 - Systems of Linear Equations and Inequalities**
Substitution • 2.4 Solve a system of linear equations by graphing, substitution or elimination.	

Sand Springs Public Schools
Algebra I Local Objectives

3rd Six Weeks (continued)

Local Objective	Lab/Activity/Test
Elimination Using Addition and Subtraction • 2.4 Solve a system of linear equations by graphing, substitution or elimination.	
Elimination Using Multiplication • 2.4 Solve a system of linear equations by graphing, substitution or elimination.	
Applying Systems of Linear Equations • 2.4 Solve a system of linear equations by graphing, substitution or elimination.	
Systems of Inequalities • Preparation for Algebra II	
All of the Above	**Benchmark Assessment/Final Exam**

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Sand Springs Public Schools
Algebra I Local Objectives

4th Six Weeks

Local Objective	Lab/Activity/Test
Multiplying Monomials • 1.1.d Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ration and proportion, and percent.	**Unit 7 - Polynomials**
Dividing Monomials • 1.1.d Solve two-step and three-step problems using concepts such as rules of exponents, rate, distance, ration and proportion, and percent.	
Scientific Notation	
Polynomials	
Adding and Subtracting Polynomials • 1.2.b Simplify polynomials by adding, subtracting or multiplying.	
Multiplying a Polynomials by a Monomial • 1.2.b Simplify polynomials by adding, subtracting or multiplying.	
Multiplying Polynomials • 1.2.b Simplify polynomials by adding, subtracting or multiplying.	
Special Products • 1.2.b Simplify polynomials by adding, subtracting or multiplying.	
Monomials and Factoring • 1.2.c Factor polynomial expressions.	**Unit 8 - Factoring and Quadratic Equations**
Using the Distributive Property • 1.2.c Factor polynomial expressions.	
Quadratic Equations: $x^2 + bx + c = 0$ • 1.2.c Factor polynomial expressions. • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	
Quadratic Equations: $ax^2 + bx + c = 0$ • 1.2.c Factor polynomial expressions. • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	
Quadratic Equations: Differences of Squares • 1.2.c Factor polynomial expressions. • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	
Quadratic Equations: Perfect Squares • 1.2.c Factor polynomial expressions. • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	

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Sand Springs Public Schools
Algebra I Local Objectives

5th Six Weeks

Local Objective	Lab/Activity/Test
Graphing Quadratic Functions • 2.1.a Distinguish between linear and nonlinear data.	**Unit 9.A - Quadratic and Exponential Functions**
Exponential Functions • 2.1.a Distinguish between linear and nonlinear data.	
Analyzing Functions • 2.1.a Distinguish between linear and nonlinear data.	
Square Root Functions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	**Unit 10 - Radical Functions**
Simplifying Radical Expressions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Operations with Radical Expressions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Radical Equations • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	

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Sand Springs Public Schools
Algebra I Local Objectives

6th Six Weeks

Local Objective	Lab/Activity/Test
Simplifying Rational Expressions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	**Unit 11 - Rational Functions and Equations**
Multiplying and Dividing Rational Expressions • 1.2.a Simplify and evaluate linear, absolute value, rational and radical expressions.	
Designing a Survey • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	**Unit 12 - Statistics and Probability**
Analyzing Survey Results • 3.1.b Make valid inferences, predictions, and/r arguments based on data from graphs, tables, and charts. • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	
Statistics and Parameters • 3.1.b Make valid inferences, predictions, and/r arguments based on data from graphs, tables, and charts. • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	
Permutation and Combinations • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	
Probability of Compound Events • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	
Probability Distributions • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	

Sand Springs Public Schools
Algebra I Local Objectives

6th Six Weeks (continued)

Local Objective	Lab/Activity/Test
Probability Simulations • 3.1.c Solve two-step and three-step problems using concepts such as probability and measures of central tendency.	
	Practice EOI Exam/Final Benchmark
The Pythagorean Theorem • Preparation for Geometry	**Unit 13 - Topics to be covered after the EOI**
The Distance Formula • Preparation for Geometry	
The Mid-point Formula • Preparation for Geometry	
Solving Quadratic Equations by Graphing • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	**Unit 9.B - Quadratic and Exponential Functions**
Transformations of Quadratic Functions	
Solving Quadratic Equations by Completing the Square • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	
Solving Quadratic Equations by Using the Quadratic Formula • 2.5.b Solve quadratic equations by graphing, factoring, or using the quadratic formula.	
Exponential Functions • 2.5.a Match exponential and quadratic functions to a table, graph or situation and vise versa.	
Growth and Decay	
Analyzing Functions • 2.2.e Match equations to a graph, table, or situation and vice versa.	

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