May 2024

WHAT'S NEW

Improvements for the new high school Math courses will ensure that learners have a Common Core State Standards (CCSS) aligned, media-rich, and interactive experience to provide an engaging learning environment to bolster understanding of course content and improve outcomes. Our current math courses will remain available for customers whose alignment needs are better met by them.

TIMELINE OF DELIVERY AND COMMUNICATIONS

These newly designed and 100% CCSS-aligned courses will be customer-ready in June 2024. Your Customer Success Manager will coordinate delivery to your learning management system.

NEW COURSE INFORMATION

Algebra 1 (1 of 2)	**SCED ID:** 02 052 G 0912 0102	**Grades:** 9 - 12	**Availability:** June 2024

Course Description: Algebra 1 (1 of 2) explores how to solve, represent, and analyze linear equations and inequalities and systems of linear equations and inequalities. It also explores how to create equations in one variable and use them to take on more complex challenges, graph equations on coordinate axes, understand the relationship between quantities, and interpret solutions in practical contexts. Other concepts, like function notation, rate of change, and graphing techniques are also covered.

Materials Required: pencil, graph paper, GeoGebra graphing calculator

Improvements:	**Related Course Information / Delivery Date:**
• 100% Alignment to CCSS Standards • Our curriculum includes videos and graphics to boost student engagement and comprehension. The videos are geared toward helping students to understand the total concept with enticing visuals and step-by-step instructions to increase student comprehension as well as build confidence in their math skills. • Each lesson now includes a new instructional design element, the Warm-Up activity which is designed to help students recall essential prior knowledge before tackling new content. This ensures a smooth transition and reinforces key concepts, setting the stage for successful learning.	Algebra 1 (2 of 2) Available Winter 2024

Course Scope and Sequence Algebra 1 (1 of 2)*

Unit 1: Equations & Inequalities
- Lesson 1: *Solve Equations & Inequalities*
- Lesson 2: *Justify Solutions*
- Lesson 3: *Solve Problems*
- Lesson 4: *Literal Equations and Formulas*
- Lesson 5: *More than One Variable*

Unit 2: Linear Relationships & Graphs
- Lesson 6: *Units and Measures*
- Lesson 7: *Linear Relationships*
- Lesson 8: *Interpret Graphs*
- Lesson 9: *Graph Linear Equations*
- Lesson 10: *Graph Linear Inequalities*

Unit 3: Functions & Sequences
- Lesson 11: *Define Functions*
- Lesson 12: *Use Function Notation*
- Lesson 13: *Domains of Functions*
- Lesson 14: *Average Rate of Change*
- Lesson 15: *Sequences*

Unit 4: Linear Functions
- Lesson 16: *Constant Rates of Change*
- Lesson 17: *Interpret Linear Functions*
- Lesson 18: *Graph Linear Functions*
- Lesson 19: *Create Linear Function Rules*
- Lesson 20: *Constant Factors*

Unit 5: Exponential Functions
- Lesson 21: *Interpret Exponential Functions*
- Lesson 22: *Exponential Function Rules*
- Lesson 23: *Compare Two Functions*
- Lesson 24: *Solve Equations By Graphing*
- Lesson 25: *Solve Equations Using Approximations*

Unit 6: Systems of Equation and Inequalities
- Lesson 26: *Systems of Equations*
- Lesson 27: *Problem Solve with Systems of Equations*
- Lesson 28: *Problem Solve with Systems of Inequalities*
- Lesson 29: *Rational and Irrational Numbers*
- Lesson 30: *Final Review and Final Exam*

Algebra 2 (1 of 2)	**SCED ID:** 02 056 G 0912 0102	**Grades:** 9 - 12	**Availability:** June 2024

Course Description: Algebra 2 (1 of 2) explores how to interpret, graph, and analyze various functions such as linear, quadratic, polynomial, exponential, logarithmic, and trigonometric functions. It also covers graphing techniques to identify key features like zeros and extremes, using polynomial identities and rational expressions. Additionally, it includes solving equations, understanding function parameters, and applying sequences to model real-world situations.

Materials Required: graphing paper, graphing software (GeoGebra Graphing Calculator), paper, pencil or pen, ruler, scientific calculator, stylus

Improvements:	**Related Course Information / Delivery Date:**
• 100% Alignment to CCSS Standards • Our curriculum includes videos and graphics to boost student engagement and comprehension. The videos are geared toward helping	Algebra 2 (2 of 2) Available Winter 2024

students to understand the total concept with enticing visuals and step-by-step instructions to increase student comprehension as well as build confidence in their math skills.

- Each lesson now includes a new instructional design element, the Warm-Up activity which is designed to help students recall essential prior knowledge before tackling new content. This ensures a smooth transition and reinforces key concepts, setting the stage for successful learning.

Course Scope and Sequence Algebra 2 (1 of 2)*

Unit 1: Linear and Exponential Functions

- Lesson 1: *Linear Functions and Inverses*
- Lesson 2: *Interpret Graphs*
- Lesson 3: *Rewrite and Interpret Exponential Expressions*
- Lesson 4: *Exponential Functions in Graphs*
- Lesson 5: *Rewrite Radical and Rational Exponents*

Unit 2: Quadratic Equations with Complex Solutions

- Lesson 6: *Factor and Solve*
- Lesson 7: *Complex Numbers*
- Lesson 8: *Operations with Complex Numbers*
- Lesson 9: *Solve Quadratic Equations*
- Lesson 10: *Explain and Justify Solution Methods*

Unit 3: Polynomials

- Lesson 11: *Quadratic Functions*
- Lesson 12: *Problem Solving*
- Lesson 13: Polynomial Relationships
- Lesson 14: Dividing Polynomials
- Lesson 15: Graph Polynomial Functions

Unit 4: Function Families and Transformations

- Lesson 16: *Radical and Logarithmic Functions*
- Lesson 17: *Piecewise Functions*
- Lesson 18: *Function Translations*
- Lesson 19: *Function Dilations and Reflections*
- Lesson 20: *Properties of Functions*

Unit 5: Sequence and Series

- Lesson 21: *Combine Functions*
- Lesson 22: *Arithmetic Sequences*
- Lesson 23: *Contextual Situations*
- Lesson 24: *Geometric Sequences*
- Lesson 25: *Geometric Series*

Unit 6: Solve Equations, Inequalities, and Systems

- Lesson 26: *Solve Exponential Models*
- Lesson 27: *Inequalities*
- Lesson 28: *Solve Systems of Equations*
- Lesson 29: *Solve Equations Approximately*
- Lesson 30: *Final Review and Final Exam*

Geometry (1 of 2)	**SCED ID:** 02 072 G 0912 0102	**Grades:** 9 - 12	**Availability:** June 2024

Course Description: Geometry (1 of 2) explores writing formal proofs and constructing geometric figures. Topics include transformations to explain the concepts of congruent and similar figures with a focus on the properties of congruent and similar triangles. Properties are proved with postulates, theorems, and formal proofs, as well as trigonometric ratios and their applications to real-world situations.

Materials Required: compass, dynamic geometry software (such as GeoGebra, Desmos Geometry, Geometer's Sketchpad, Cabri Geometry II Plus, etc.), graph paper, paper, pencils, pens, phone camera (for file upload), protractor, ruler, scissors, straightedge (a ruler without any numbers can be used), thin paper (such as patty paper for burgers), transparency sheet, washable marker, yarn or string,
Optional: calculator, colored pens or pencils

Improvements:

- 100% Alignment to CCSS Standards
- Our curriculum includes videos and graphics to boost student engagement and comprehension. The videos are geared toward helping students to understand the total concept with enticing visuals and step-by-step instructions to increase student comprehension as well as build confidence in their math skills.
- Each lesson now includes a new instructional design element, the Warm-Up activity which is designed to help students recall essential prior knowledge before tackling new content. This ensures a smooth transition and reinforces key concepts, setting the stage for successful learning.

Related Course Information / Delivery Date:
Geometry (2 of 2)
Available Winter 2024

Course Scope and Sequence Geometry (1 of 2)*

Unit 1: Basic Constructions and Transformations

- Lesson 1: *Basic Definitions and Constructions*
- Lesson 2: *Rigid Transformations*
- Lesson 3: *Define Translations*
- Lesson 4: *Define Reflections*
- Lesson 5: *Define Rotations*

Unit 2: Transformations, Symmetry, and Congruency

- Lesson 6: *Sequence of Transformations*
- Lesson 7: *Symmetries of Parallelograms and Rectangles*
- Lesson 8: *Symmetries of Trapezoids and Regular Polygons*
- Lesson 9: *Congruent Figures*

Unit 4: Congruency in Geometric Theorems and Dilations

- Lesson 16: *Perpendicular Bisectors*
- Lesson 17: *Angles in Triangles*
- Lesson 18: *Sides and Angles in Parallelograms*
- Lesson 19: *Diagonals in Parallelograms*
- Lesson 20: *Dilate Lines*

Unit 5: Dilations and Similarity

- Lesson 21: *Scale Factor*
- Lesson 22: *Similar Triangles*
- Lesson 23: *Angle-Angle Triangle Similarity*
- Lesson 24: *Use Similarity for Geometric Theorems*

- Lesson 10: *Congruent Triangles*

Unit 3: Using Congruency in Proofs and Real-Life

- Lesson 11: *Side-Angle-Side Triangle Congruence*
- Lesson 12: *Other Triangle Congruences*
- Lesson 13: *Model by Using Congruence Criteria*
- Lesson 14: *Angles and Parallel Lines*
- Lesson 15: *Congruent Angles and Parallel Lines*

- Lesson 25: *Segments in Triangles*

Unit 6: Similarity, Right Triangles, and Ratios

- Lesson 26: *Use Similarity in Real Life*
- Lesson 27: *Pythagorean Theorem*
- Lesson 28: *Trigonometric Ratios*
- Lesson 29: *Relationship between Sine and Cosine Ratios*
- Lesson 30: *Final Review and Final Exam*

***** This is a tentative course outline and may be changed up to the date of release.