WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Algebra IA
Course Number: 00225
Course Prerequisites: This course is designed for the student who has completed Pre-Algebra 8, but did not earn higher than a 75%.

Course Description: Algebra IA is the first of the two-year Algebra course; in the sequence Algebra IA, Algebra IB, and Geometry. In order to take this course, a student must have completed Pre-Algebra 8 **but did not earn greater than 75%.** This course includes a study of numbers and operations, algebraic concepts, equations, inequalities, and linear functions.

Suggested Grade Level: Grade 9
Length of Course: Two Semesters
Units of Credit: 1
PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:
CSPG #50 Mathematics
To find the CSPG information, go to CSPG
Certification verified by the WCSD Human Resources Department: ☒Yes ☐No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic
Mark Types: Check all that apply.
☒F – Final Average ☒MP – Marking Period ☒EXM – Final Exam

GPA Type: ☐ GPAEL-GPA Elementary ☐ GPAML-GPA for Middle Level ☒ NHS-National Honor Society
☒ UGPA-Non-Weighted Grade Point Average ☒ GPA-Weighted Grade Point Average

State Course Code: 02053
To find the State Course Code, go to State Course Code, download the Excel file for *SCED*, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title:	enVision Algebra 1
Publisher:	Pearson
ISBN #:	#10: 0-328-93154-3
Copyright Date:	2018
WCSD Board Approval Date:	6/29/2020

Supplemental Materials: kutasoftware.com

Curriculum Document

WCSD Board Approval:

Date Finalized:	6/5/2020
Date Approved:	6/29/2020
Implementation Year:	2020-2021

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS

Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Compare and order real numbers	A1.1.1.1.1	September
Classify real numbers	A1.1.1.1.1	September
Find and estimate square roots	A1.1.1.1	September
Find sums and differences of real numbers	A1.1.1.1	September
Find products and quotients of real numbers	A1.1.1.1	September
Write algebraic expressions to model word phrases	A1.1.1.2	September
Evaluate expressions by using the order of operations	A1.1.1.2, A-SSE.2, A-SSE.3	September
Simplify expressions by combining like terms	A1.1.1.2, A-SSE.2, A-SSE.3	September
Simplify expressions by using the distributive property	A1.1.1.2, A-SSE.2, A-SSE.3	September
Verify solutions to equations and inequalities	A1.1.1.2, A-SSE.2, A-SSE.3	September
Solve one-step equations in one variable	A1.1.2.1.1, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Solve two-step equations in one variable	A1.1.2.1.1, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Solve multi-step equations in one variable	A1.1.2.1.1, A-CED.1, A-REI.1, A-REI.3, A-SSE.2, A-SSE.1a	October November
Solve equations with the variable on both sides	A1.1.2.1.1, A-CED.1, A-REI.1, A-REI.3, A-SSE.2, A-SSE.1a	October November
Understand equations with infinitely many or no solutions	A1.1.2.1.1, A1.1.2.1.3, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Write and solve equations to model real-world problems	A1.1.2.1.1, A1.1.2.1.3, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Rewrite literal equations and formulas to highlight a variable of interest	A1.1.2.1.1, A-CED.4, A-REI.3, A-SSE.2	October November
Use literal equations and formulas to solve problems	A1.1.2.1.1, A-CED.4, A-REI.3, A-SSE.2	October November
Solve proportions	A1.1.2.1.1, A-CED.1, A-REI.1, A-REI.3, A-SSE.2, A-SSE.1a	October November
Use proportions to solve real-world problems, including finding missing lengths in similar figures and measuring indirectly	A1.1.2.1.1, A1.1.2.1.3, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Solve percent problems using a proportion	A1.1.2.1.1, A1.1.2.1.3, A-CED.1, A-REI.1, A-REI.3, A-SSE.1a	October November
Write and graph inequalities	A1.1.3.1, A1.1.3.1.2, A-CED.1	November December
Identify solutions of inequalities	A1.1.3.1.2	November December

Solve one-step inequalities	A1.1.3.1, A1.1.3.1.2, A-CED.1, A-REI.3, A-SSE.1a	November December
Solve two-step inequalities	A1.1.3.1, A1.1.3.1.2, A-CED.1, A-REI.3, A-SSE.1a	November December
Solve multi-step inequalities	A1.1.3.1, A1.1.3.1.2, A-CED.1, A-REI.3, A-SSE.1a	November December
Solve inequalities with the variable on both sides	A1.1.3.1, A1.1.3.1.2, A-CED.1, A-REI.3, A-SSE.1a	November December
Understand inequalities with infinitely many or no solutions	A1.1.3.1, A1.1.3.1.2, A-CED.1, A-REI.3, A-SSE.1a	November December
Write and solve inequalities to model real-world problems	A1.1.3.1, A1.1.3.1.2, A1.1.3.1.3, A-CED.1, A-REI.3, A-SSE.1a	November December
Understand compound inequalities	A1.1.3.1.1, A-CED.1, A-REI.1	November December
Solve a compound inequality involving “OR”	A1.1.3.1.1, A-CED.1, A-REI.1	November December
Solve a compound inequality involving “AND”	A1.1.3.1.1, A-CED.1, A-REI.1	November December
Understand and solve absolute value equations	A1.1.1.3, A1.1.3.1.1, A-CED.1, A-REI.1, A-SSE.1a	November December
Understand and solve absolute value inequalities	A1.1.1.3, A1.1.3.1.1, A-CED.1, A-REI.1, A-SSE.1a	November December
Identify patterns and equations that represent linear functions	A1.1.2.1.3, A1.2.1.1, A1.2.1.1.1, A1.2.1.2.1, A1.2.2.1.3	January February
Identify patterns and equations that represent nonlinear functions	A1.1.2.1.3, A1.2.1.1, A1.2.1.1.1, A1.2.1.2.1,	January February
Use tables to graph equations of linear and nonlinear functions	A1.1.2.1, A1.1.2.1.3, A1.2.1.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.3	January February
Compute the slope of a linear relationship	A1.2.2.1, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.4,	January February
Graph linear equations in slope-intercept form	A1.1.2.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.4, A-CED.2, A-REI.10	January February
Write a linear equation from a graph	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	January February
Write linear equations in slope-intercept form	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	January February
Write linear equations in slope-intercept form to model real-world problems	A1.1.2.1.1, A1.1.2.1.3, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2, A-CED.3	January February
Interpret the slope and y-intercept of a linear equation that models a real-world problem	A1.1.2.1.3, A1.2.1.2, A-CED.3	January February

Write linear equations in point-slope form	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	January February
Graph linear equations in point-slope form	A1.1.2.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.4, A-CED.2, A-REI.10	January February
Write linear equations in point-slope form to model real-world problems	A1.1.2.1.1, A1.1.2.1.3, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2, A-CED.3	January February
Transform equations from point-slope to slope-intercept form	A1.1.2.1.1, A1.2.1.2.2, A-CED.4	January February
Graph an equation in standard form by using intercepts	A1.1.2.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.4, A-CED.2, A-REI.10	January February
Relate standard form to horizontal and vertical lines	A1.1.2.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.4, A-CED.2, A-REI.10	January February
Write linear equations in standard form to model real-world problems	A1.1.2.1.1, A1.1.2.1.3, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2, A-CED.3	January February
Transform equations from standard form to slope-intercept form	A1.1.2.1.1, A1.2.1.2.2, A-CED.4	January February
Determine whether lines are parallel, perpendicular, or neither	A1.2.1.1, A1.2.1.2, A1.2.2.1.1, A-CED.4	January February
Write an equation of a parallel line	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	January February
Write an equation of a perpendicular line	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	January February
Identify the domain and range of a relation	A1.2.1.1, A1.2.1.1.3	March April
Find a reasonable domain and range for a real-world problem	A1.2.1.1, A1.1.2.1.3, A1.2.1.1.3	March April
Identify functions	A1.2.1.1, A1.2.1.1.2, A1.2.1.1.3	March April
Evaluate functions in function notation	A1.1.2.1.1, A1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.3	March April
Write a linear function rule	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	March April
Write linear functions to model and solve real-world problems	A1.1.2.1.1, A1.1.2.1.3, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2, A-CED.3	March April
Identify patterns within a sequence	A1.2.1.1, A1.2.2.1.1	March April

Identify arithmetic sequences	A1.2.1.1, A1.2.2.1.1	March April
Write a formula to model arithmetic sequences (explicit formula only!)	A1.1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.3, A1.2.2.1.4, A-CED.2	March April
Graph arithmetic sequences	A1.1.2.1, A1.2.1.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1, A1.2.2.1.4, A-CED.2, A-REI.10	March April
Solve problems involving arithmetic sequences	A1.1.2.1.1, A1.1.2.1.3, A1.2.1.1, A1.2.1.2, A1.2.1.2.1, A1.2.1.2.3, A1.2.2.1.2	March April
Identify the association shown in a scatter plot	A1.2.1.1.1, A1.2.2.2, A1.2.3.2.2	March April
Write the equation of a trend line for a scatter plot	A1.2.2.2, A1.2.2.2.1, A1.2.3.2, A1.2.3.2.2, A-CED.2, A-CED.3	March April
Use the graph and/or equation of a trend line to make predictions	A1.2.2.2, A1.2.2.2.1, A1.2.3.2, A1.2.3.2.2, A1.2.3.2.3, A-CED.2, A-CED.3	March April
Final Exam Review—all above content	Click or tap here to enter text.	May

ASSESSMENTS

PSSA Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: Suggested but not limited to: Observations, Evaluate written work, Evaluate oral response, student self-evaluation, Cooperative Learning, Homework, Classroom Diagnostic Tool, Exit ticket, quizzes, and projects

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: Suggested but not limited to: Performance Assessment, Quizzes, and Chapter/Units Tests