

## **Middle School Course Syllabus Accelerated 8<sup>th</sup> Grade Algebra 1 Course Number 300820**

School:  
Teacher's Name:  
Room Number:  
Best time to contact:  
Phone number:  
Email address:

**Course Description:** Accelerated 8<sup>th</sup> Grade Algebra I focuses on five critical areas: (1) develop fluency writing, interpreting, and translating between various forms of linear equations and inequalities, and using them to solve problems; (2) understand function notation and interpret functions given graphically, numerically, symbolically, and verbally, translate between representations, understand the limitations of various representations; (3) extend the properties of exponents to rational exponents and compare and contrast linear and exponential functions; (4) apply understanding of data to create linear models for data; (5) extend understanding of functions to quadratic functions and create and solve quadratic equations. This course differs from High School Algebra I in that it contains content from 8th grade.

**Course Standards:** This course is aligned with the Common Core State Standards for Mathematics. They are available at this web site: [www.corestandards.org](http://www.corestandards.org)

**Lifelong Learning Standards:** School Board Policy 6418 outlines the following standards for lifelong learning: Knowledgeable Learner, Complex Thinker, Effective Communicator, Self-Directed Learner, Quality Producer, Contributing Citizen.

### **The Big Ideas and Essential Questions of Accelerated 8<sup>th</sup> Grade Algebra 1:**

- Reason quantitatively and use units to solve problems.
- Interpret the structure of expressions.
- Create equations that describe numbers or relationships.
- Understand solving equations as a process of reasoning and explain the reasoning.
- Solve equations and inequalities in one variable.
- Extend the properties of exponents to rational exponents.
- Analyze and solve linear equations and pairs of simultaneous linear equations.
- Solve systems of equations.
- Represent and solve equations and inequalities graphically
- Define, evaluate, and compare functions.
- Understand the concept of a function and use function notation.
- Use functions to model relationships between quantities.
- Interpret functions that arise in applications in terms of a context.
- Analyze functions using different representations.
- Build a function that models a relationship between two quantities.
- Build new functions from existing functions.
- Construct and compare linear, quadratic, and exponential models and solve problems.
- Interpret expressions for functions in terms of the situation they model.
- Summarize, represent, and interpret data on a single count or measurement variable.
- Investigate patterns of association in bivariate data.
- Summarize, represent, and interpret data on two categorical and quantitative variables.
- Interpret linear models.

### **KUSD School Board-Approved Instructional Materials:**

Larson, Ron, and Laurie Boswell. *Big Ideas Math Algebra 1* Erie, PA: Big Ideas Learning, 2014.

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### **Methods of Assessment:**

Multiple assessments, both formative and summative, will be used in assisting students to achieve mastery and meet standards.

Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.\* Formative assessments are seldom used as an evaluative tool.

Summative assessment is designed to provide information regarding the level of the student's mastery at an end point in time.\*

Examples of formative assessment used in this course:

Examples of summative assessment used in this course:

\*Excerpts taken from "Distinguishing Formative Assessment From Other Educational Assessment Labels" by the Council of Chief State School Officers (CCSSO). The article can be viewed at: <http://www.ccsso.org/Documents/FASTLabels.pdf>

### **KUSD School Board-Approved Grading Scale:**

A+ = 98 – 100%	B+ = 86 – 89%	C+ = 76 - 79 %	D+ = 66 - 69 %
A = 93 – 97%	B = 83 – 85%	C = 73 - 75 %	D = 63 - 65 %
A- = 90 – 92%	B- = 80 – 82%	C- = 70 - 72 %	D- = 60 - 62 %
F = below 60%			

### **KUSD School Board Policy on Make-Up Work:**

Students submitting work up to ten school days late, without prior approval, may receive up to two grades lower on the work than they would have received if the work had been submitted on time (i.e., B+ lowered to a D+). Student work submitted after ten school days, without prior approval, shall not be accepted for credit and shall be recorded with a score of zero (0).

Upon returning to school after an absence, a student has the responsibility, within the number of days equal to the length of the absence or suspension, to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. A truant student has the responsibility, on the first day he or she returns to the course/class, to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. Lower grades may not be given for late work due to excused absences, suspension or truancy, unless the work is submitted later than agreed upon deadlines.

### **Student and Parent Resources:**

Online resources, including an interactive e-book edition of the textbook used for Accelerated 8<sup>th</sup> Grade Algebra 1 is available on-line at [www.bigideasmath.com](http://www.bigideasmath.com). A great deal of content on the site is openly accessible. Students will receive unique passwords from their teachers which allow them to access additional content.

### **Teacher/Parent Communication:**

Every effort will be made by the teacher to respond to inquiries from pupils and from parents or guardians of pupils by the end of the first school day following the day upon which the inquiry is received. (Developed as a parallel to State Statute 118.40(8)(d)3.)

### **Posting of Grades:**

Every effort will be made by the teacher to post grades on the student information system for review by parents and students within five to seven school days. (Long-range, major projects may require additional time for evaluation.) Missing work should be indicated within two school days of the due date.