Eagles Landing High School ALGEBRA SYLLABUS
Teacher: Ashley Hendrix
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COURSE DESCRIPTION: GSE Algebra is the first required mathematics class under the Georgia Standards of Excellence where students will learn math in context and experience skills interwoven with applications. The goal of the class is to prepare for Geometry, Advanced Algebra, and a fourth year that will be either Pre-Calculus, or Advanced Decision Making. It is essential that each student works hard in order to fully understand and master all of the concepts presented. The tests in this class will be made to assess the student's understanding of the material and will be graded based on mastery of the standards..

TEXTBOOK:.The link will be given out to the students when it becomes available. I will not use book directly.

County website: www.henry.k12.ga.us   School
website:www.schoolwires.henry.k12.ga.us/elh
State Math Frameworks ://www.georgiastandards.org/Georgia-Standards/Pages/Math-9-12.aspx

Content in the Course with General Timeline

TOPIC	TIME
Unit 1: Relationships between Quantities and Expressions	3 weeks

- Appropriateness of units if measures within context
- Properties of rational and irrational numbers
- Simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots
- Visual representation of radicals.
- Dimernsional analaysis
- Compound inequalities

Unit 2: Reasoning with Linear Equations and Inequalities	7 weeks

- Create and solve linear equations and inequalities
- Rearrange formulas
- Graph linear equations and inequalities
- Understand functions
- Interpret linear functions (domain, range, intercepts, increasing or decreasing, slope/rate of change)
- Interpret expressions
- Understand arithmetic sequence
- Explicit and recursive functions of arithmetic sequences

TOPIC   TIME

Unit 4: Modeling and Analyzing Exponential Functions   5 weeks
   ● Identify and graph exponential functions
   ● Create exponential functions and use them in contextual situations
   ● Solve exponential equations
   ● Exponentials in function form
   ● Geometric sequences
   ● Transformations of exponentials

Unit 3: Modeling and Analyzing Quadratic Functions   8 weeks
   ● Similarities between the system of polynomials and the system of integers.
   ● Addition, Subtraction, and Multiplication of polynomials is closed.
   ● Factoring
   ● Completing the square
   ● Using the quadratic formula to factor quadratics
   ● Graphs of quadratic functions

Unit 5: Comparing and Contrasting Function   4 weeks
   ● How to interpret linear and exponential functions that arise in applications in terms of the context.
   ● Understand how to construct and compare linear and exponential models and solve problems.
   ● Similarities and differences between linear, exponential, and quadratic functions

Unit 6: Describing Data   1 week
   ● Collect data and find the appropriate model
   ● Understand and be able to use the context of the data to explain why its distribution takes a certain shape
   ● Statistical measures of central tendencies
   ● Causation vs correlation

GA MILESTONES TEST: GSE Algebra 1 is a course where the state administers an end-of-course test to all students enrolled in the class. It occurs in May (date will come out later) and will count as 20% of the average. Consequently, each student needs to work at retaining all of the material in order to do well on the state given test.

CALCULATORS: The students will be assigned graphing calculators for use in class. These calculators CANNOT leave the classroom. The students will have an online calculator for their MIlestone test. Purchasing a calculator for use outside of the classroom is useful, but it is not required. A TI 83/84 most resembles what we use in class

Free graphing calculator apps for phones: Apple- Free Graphing Calculator Android- wabbitemu

GRADING: Grades are cumulative for the entire year. One credit will be awarded as a year-long unit.

Tests/Assessments: 60%
Quizzes/HW/Classwork 40%
Final Exam or Milestones Test: 20%

You can access grades anytime on Infinite Campus (counseling will have that information)

Supplies: Pencils
          Notebook/Composition book (this will be used for notes/homework)

This class is going to be more digital than the traditional classroom. You will be able to ACCESS everything on my website www.tinyurl.com/hendrixalgebra.
Homework, assignments, quizzes can all be found there.

Although we are moving more digital, it is still super important to have paper and pencil, it is still math after all.

Assessments: Quizzes and other forms of assessments will be given in various forms throughout the year.

Tests will be given in class throughout the school year. Phones or notes will not be allowed. Phones will be placed in calculator spot.

Tutoring: Monday and Tuesday afternoons from 3:20-3:50