



Dallas High School
Home of the Dragons



Algebra 1

2013 – 2014

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Office Hours: Tues-Friday 3:00-3:30; Cassim Tue/Thurs 1:30-3; Henrickson Tue-Fri 10:30-12; Hanson Wed/Fri 8:30-10, additional times by arrangement.

Course Description:

ALGEBRA 1

Grade: 9 -12

Length: one year/one credit

Prerequisite: none

This course is devoted to the master of solving linear equations, and also addresses graphing of linear functions, problem solving, and inequalities. The second semester is devoted to mastery of solving quadratic equations, and connecting quadratic functions to tables and graphs in real world contexts. Statistics and Probability will provide a context within which to learn and practice algebra skills.

Texts: Core Connections Algebra – CPM. The website is <http://cpm.org/> which has a parent and student link which can be extremely helpful.

Course Outline

<u>Unit Number</u>	<u>Unit Topic</u>	<u>Summative Assessment</u>
Unit 1	Investigating Growth Patterns Describing a Graph Functions Domain and Range	Chapter 1 Test Standards 1, 3, 7, 12, 13
Unit 2	Linear Representations Rate of Change Equations of Lines	Chapter 2 Test Standards 2, 3, 7, 12, 13
Unit 3	Exponential Expressions Multiplying Binomials Distributive Property Solving Equations	Chapter 2 Test Standards 2, 3, 7, 8, 10
Unit 4	Systems of Equations	Chapter 4 Test Standards 2, 3, 7, 9, 10

Standards to Be Assessed:

Quantities and Numbers –

Use fractions, decimals and irrational numbers to solve problems.

1. Use properties of and operations with rational and irrational numbers. [N-RN 3]
2. Reason quantitatively and use units and descriptive models to solve problems. [N-Q 1, 2 & 3]

Algebra –

Use variables, expressions and equations to model and solve problems.

3. Identify, interpret and model parts of expressions such as factors, terms and coefficients. [A-SSE 1]
4. Rewrite algebraic expressions and solve equations and formulas for specific variable. [A-SSE 2] [A-CED 4]
5. Model quadratic equations and solve quadratics by factoring, completing the square, quadratic formula and algebraically. [A-SSE 3a] [A-REI 3 & 4]
6. Perform arithmetic operation on polynomials (note closure). [A-APR 1]
7. Create, solve and graph equations and inequalities in one and two variables. [A-CED 1 & 2] [A-REI 10]
8. Justify each step in solving an equation. [A-REI 1]

Solve problems using two or more equations or inequalities and check solutions for reasonableness.

9. Use equations and inequalities to represent the constraints on a model and interpret the reasonableness of the solution based on context. [A-CED 3]
10. Solve systems of equations using elimination, substitution, and graphing (linear and quadratic). [A-REI 5, 6 & 7]
11. Create, solve and graph inequalities and systems of inequalities in two variables. [A-REI 12]

Functions

Model and analyze algebraic functions

12. Define function, implement function notation, and identify the domain and range of a function. [F-IF 1 & 2]
13. Model functions and identify key features of the graph such as critical points increasingly and decreasing intervals and symmetry

[F-IF 4 & 7a]

14. Rewrite quadratic and exponential functions to identify key features and properties of the function [F-IF 8a & 8b]
15. Compare properties of two functions each represented in a different way. [F-IF 9]
16. Construct, compare and contrast linear, exponential, and quadratic models (including arithmetic and geometric sequences).
F-LE 1, 2 & 3]

Geometry

Express geometric properties with equations.

17. Use slope properties of parallel and perpendicular lines to solve problems. [G-GPE 5]
18. Use coordinates and the distance formula to compute perimeter and area. [G-GPE 7]

Statistics

Use statistics to make inferences and justify conclusions about a population.

19. Use frequency tables and scatter plots to interpret and organize bivariate data and use curves of best fit to model the data.
[S-ID 5 & 6]
20. Interpret the slope and the intercept of a linear model in the context of the data and interpret the correlation coefficient.
[S-ID 7, 8 & 9]
21. Use data from a sample survey to describe and draw conclusion about a population. [S-IC 4 & 6]
22. Make inferences and justify conclusion from sample surveys, experiments and observational studies. [S-IC 1, 2, & 3]

Career Related Learning Standards: Career-related learning standards (CRLS) are fundamental skills essential for success in employment, college, family, and community life. We have integrated the Personal Management standard from the CRLS into all courses at DHS. **This standard will be assessed and communicated independent of the academic grade.** It is included below and mainly includes behaviors that will be assessed in this course.

- **Personal Management Standard:** Exhibit appropriate work ethic and behaviors in school, community and workplace.
 - Students will identify tasks that need to be done and initiate action to complete the tasks.
 - Students will plan, organize and complete projects and assigned tasks on time, meeting agreed upon standards of quality.
 - Students will take responsibility for decisions and actions and anticipate consequences of decisions and actions.
 - Students will maintain regular attendance and be on time daily.
 - Students will maintain appropriate interactions with colleagues.

Grading and Assessment: Student's final grade for each course will be broken down into two categories: 1) **Academic:** based on assessments, tests, projects and performances that measure learning. 2) **Personal Management:** based on homework completion, homework checks, and other behaviors measuring the CRLS personal management standard.

The Final grade is calculated as follows: 75% of the course grade will be based on the **Academic** grade and **25%** on the **Personal Management** grade.

- Any items included in the Academic grade (PA) may be retaken and the higher grade recorded. Teachers may extend the retake time period, but as a rule all retakes need to be done within 2 weeks of the initial assessment.
- Students will complete extra preparation before retaking an assessment.
- Personal management work turned in late may be reduced by up to 50% credit.
- Retakes are not allowed on Personal Management assignments.
- Students must schedule performance retakes at their teacher's convenience. (Speech, drama, labs, etc.)

Academic Integrity: We expect students to express academic integrity by doing their own work and properly documenting information gathered from other sources. Students who violate the principles of academic integrity will be subject to disciplinary consequences (see Insubordination section of the on-line student agenda).

Extra Credit: Extra credit is *not* offered, however students may be given additional opportunities to show mastery.

Hall Passes: All students are allowed 5 hall passes per semester. Each unused hall pass is 5 extra credit points towards their Personal Management grade at the end of the semester.

Assignment Records: Each student is to maintain records of the assignments each week and will complete a Homework Check individually using their resources created through notes, completed exercises, and textbook at the beginning of each week. The Homework Check is usually worth an equivalent number of points as the Assignments from the previous week.

Cell Phones and Electronic Devices: Mobile phones are not to be in use or in open view within classrooms, restrooms, locker rooms, or during lockdown situations. Misuse of mobile phone or electronic device will lead to the following consequences:

- ☐ 1st offense - confiscated device is delivered to the main office and returned to the student at the end of the school day.
- ☐ 2nd offense - confiscated device is delivered to the main office where parent/guardian will be contacted to reclaim possession.
- ☐ 3rd offense – discipline referral for “insubordination”, parent contact, and student will no longer be allowed to have the device at school without administrator permission

Personal Communication Devices Board Policy:

<http://policy.osba.org/dallas/j/fceb%20r%20g1.pdf>

Tardies and Unexcused Absences: Points will be given towards the Personal Management grade at the end of each grading period (9 weeks/18 weeks) for daily attendance and punctuality. Points will be deducted for each tardy and each unexcused absence in that 9-week grading period. Overly disruptive behavior may also result in loss of attendance points.

Parents:

Please detach this page and return it to the teacher while keeping the rest of the syllabus.

By signing this form, you acknowledge that you have read and fully understood the expectations, rules, and standards associated with Algebra 1. If you have questions, please call 503-623-8336 extensions 3614, 3613, 3606 or email using the email address provided in this document.

Please return this form to the teacher as soon as possible.

Parent Name: _____

Parent Signature: _____

Parent email Address: _____

Parent Phone: _____

Student Name: _____

Student Signature: _____