

Name of School:

Name of Course: **Algebraic Principles**

Instructor Information

Name:

E-mail address:

School phone number:

Web page address:

Best times to be reached:

Course Description

This course is designed to improve the students' understanding of algebra readiness skills for their future success in Algebra 1. Topics of study will include: Number Theory, Probability and Statistics, Integers, Graphing and Functions, Rational Numbers, Slope and Slope Intercept, Solving Equations, Exponents, Proportions and Ratios, Factoring (& Polynomials).

District Standards and Power Benchmarks

Number & Operations Standard: Understands and applies concepts of numbers and operations.

1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems

2: Understands meanings of operations and how they relate to one another

Algebra Standard: Understands and applies concepts of algebra and functions.

1: Understands patterns, relations, and functions.

2: Represents and analyzes mathematical situations and structures using algebraic symbols

3: Uses mathematical models to represent and understand quantitative relationships

Data Analysis and Probability Standard: Understands and applies concepts of data analysis and probability

1: Collects, organizes, and displays data to answer a question

2: Uses statistical methods to describe data

Problem Solving Standard: Understands and applies problem solving strategies.

1: Uses a variety of strategies to solve problems.

Communication Standard: Communicates and reasons mathematically

1. Expresses ideas using mathematical terms and representations

2. Uses tools (such as technology) to enhance mathematical learning

Course Information

Course length: Two terms

Successful completion of each term counts toward the student's Math requirements for graduation.

Credit: .5 per term Students must earn a passing grade in the first term of the course in order to continue with the second term. (Students will be enrolled in this class on an as "needed" basis.)

Course Outline/Calendar

Term 1:	Unit 2: Integers	Term 2:	Unit 6: Probability and Statistics
	Unit 3: Rational Numbers		Unit 7: Graphing and Functions
	Unit 1: Number Theory		Unit 8: Slope and Slope Intercept
	Unit 4: Solving Equations		Unit 9: Exponents
	Unit 5: Proportions and Ratios		Unit 10: Factoring (& Polynomials)

Text/Other Required Materials/Resources

Adopted resource materials: *Algebra: Concepts and Applications* by Glencoe Publishing Co. (2006) and its supplemental materials.

Other materials needed: Students should bring to class a 3-ring binder (2-inch minimum), a spiral notebook, and a pencil. Students are also encouraged to bring a scientific or graphing calculator with at least the capabilities of the Texas Instruments TI 30 series.

Instructional Procedures & Support

Teaching strategies and methods for delivery of instruction: Cooperative learning groups, hands-on/lab work, whole class discussion, reciprocal teaching, graphic organizers, note-taking, and use of higher order thinking skills.

Academic expectations: Students are expected to participate in all class activities every day for the entire class period.

Major Course Assignments: Journals, homework, quizzes, tests, hands-on projects, computer activities, cooperative group activities.

Homework expectations: Each assignment given will be due on the next class day unless noted by the teacher. Students are responsible for obtaining their missing work. Make-up guidelines will be clarified the first day of class. Enrichment opportunities will be made available throughout the course.

Students may make arrangements to come in for extra help outside of class as the teacher's schedule permits.

Safety guidelines: Students must follow the school policies as outlined in the Student Planner.

Classroom Management Procedures

It is important that all students attend class every day. The school's attendance policy and behavior guidelines will be followed as outlined in the Student Planner.

Assessment Plan

Student grades will be given periodically throughout the term as well as a formal midterm grade. At the end of each term, students will receive a final examination grade and final "overall" term grade. This final grade will determine whether the student has passed the course and is used in calculating his/her high school GPA.

Methods of assessment will include performance assessments, projects, journaling, quizzes, tests, homework, and the final exam.

Grading procedures:	Homework	15%
	Projects/journaling/group work daily practice	20%
	Quizzes	25%
	Tests	30%
	Final Exam	10%

Grading System

Grades will be determined by the DCSD Grading Scale.

100-90	A
89-80	B
79-70	C
69-60	D
59-0	F