



Name of Intermediate School:

Name of Course: 8<sup>th</sup> Grade Math

### **Instructor Information**

**Name:**

**E-mail address:**

**School phone number:**

**Web page address:**

**Best times to be reached:**

### **Course Description**

The mathematical content in eighth grade includes numbers, algebra, geometry, measurement, statistics, and probability. Our units develop a “big mathematical idea,” that is, an important cluster of related concepts, skills, procedures, and ways of thinking while integrating technology.

We have a standards-based program that engages, challenges, and prepares students for continued study and growth in mathematical skills and understandings, causing them to develop mathematical habits of mind and to understand and appreciate the role of mathematics in real world situations.

This course uses an equation solving approach to problem solving. It moves from concrete numerical concepts to abstract concepts. It becomes the language of advanced mathematics courses.

### **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 the meanings of operations and how they relate to one another
3. Computes fluently and makes reasonable estimates

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
4. Analyzes change in a variety of situations

Geometry Standard:

1. Analyzes characteristics and properties of two-and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships
4. Uses visualization, spatial reasoning, and geometric modeling to solve problems

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

2. Selects and uses appropriate statistical methods to analyze data

Problem Solving Standard: Understands and applies problem solving strategies

1. Uses a variety of strategies to solve problems

### **Course Information**

Course length: One Year

## Course Outline/Calendar

First Quarter	> <i>Thinking with Mathematical Models</i> – Linear & Inverse Variation > <i>Looking for Pythagoras</i> – Pythagorean Theorem
Second Quarter	> <i>Growing, Growing, Growing</i> – Exponential Relationships > <i>Kaleidoscopes, Hubcaps, and Mirrors</i> – Symmetry & Transformations
Third Quarter	> <i>Kaleidoscopes, Hubcaps, and Mirrors</i> continued > <i>Say it With Symbols</i> – Making Sense of Symbols
Fourth Quarter	> <i>Samples and Populations</i> – Data and Statistics >Finance Park > <i>Shapes of Algebra</i> – Linear Systems & Inequalities if time allows

## Text/Other Required Materials/Resources

Textbook: *Connected Mathematics 2*, copyright 2006, Pearson Prentice Hall  
Students are expected to bring all supplies to class every day including notebook, paper, pencil, and calculator.

## Instructional Procedures & Support

Teaching Strategies and Instructional Method(s): Direct instruction, cooperative groups, vocabulary strategies, discovery activities, guided practice, student note taking and journaling.  
Academic Expectations of Students: Good attendance and punctuality are critical for success in this course. Students should expect to spend approximately 30 minutes each night completing assignments, reviewing notes, and reading text.  
Major Course Assignments: Assignments will be given on a regular basis. Quizzes will be given throughout the unit. Tests will be given at the end of each unit. Several units will require a completed project or activity. District Assessments will be given at the end of each quarter  
Homework Expectations: Homework assignments are expected to be turned in the day it is due.  
Make-Up Work: If a student has an absence they should get all assignments, tests and quizzes done within four days of their return to school. Students who are absent more than one day should contact the school or instructor to get their make-up work before or after school.  
Extra Help: Students can get extra. Please let your instructor know the time that you are available to come in if you need extra help

## Classroom Management Procedures

1. School attendance policy will be followed.
2. Students are expected to bring all supplies to class every day.

## Assessment Plan

Homework/openers	15%
Projects/Notebooks/Group activities	20%
Quizzes/Tests	55%
Final	10%

Grades will be communicated to students regularly. Reports will be sent home at midterm and each end of term.

## Grading System

Grades will be determined by the DCSD Grading Scale with the Power of I:	
100-90	A
89-80	B
79-70	C
69-0	I (Incomplete)