

Instructor: Jennifer UMBERHOCKER
Academic Year: 2009-2010

Course: Mathematics

Course Philosophy: This course is designed to prepare students for the study of the Algebras and Geometry. We will explore whole numbers, fractions, decimals, mixed numbers, measurement, ratios, proportions and percents. We will also explore geometry. Above all, we want you to have fun and learn everyday, practical uses for math.

Course Requirements:

- Textbook: *McDougal Littell Middle School Math Course 2*
- Loose-leaf paper
- Writing implements (Pencils and erasers)
- Agenda
- Pocket Folder

Homework Expectations:

- All math homework should be done in pencil and kept neatly in your binder.
- It must be labeled with the page number, the problem numbers, and the date.
- You should show your work for each problem.
- Each assignment is due at the beginning of the class period.
- Homework will count for 10% of your grade

Grades will be based on the following:

- Tests
- Quizzes – both announced and unannounced
- Graded assignments
- Homework completion – 10%

Grading scale

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

Class Rules and Expectations:

- **Preparation** – Come to class on time, with necessary materials, prepared to get started, and have assignments and notes organized.
- **Participation** – Pay attention, take notes, ask questions, and share solutions.
- **Positive Attitude** – Complete all homework, get help when needed, take pride in your work, respect yourself and others, and take tests with confidence!
- **Cheating is not acceptable**

Week	Chapter	Topics
Week 1	Chapter 1	Number Sense, Patterns, & Algebraic Thinking
Week 2	Chapter 1	Number Sense, Patterns, & Algebraic Thinking
Week 3	Chapter 2	Decimal Operations
Week 4	Chapter 2	Decimal Operations
Week 5	Chapter 4	Number Patterns & Fractions
Week 6	Chapter 4	Number Patterns & Fractions
Week 7	Chapter 4	Number Patterns & Fractions
Week 8	Chapter 5	Fraction Operations
Week 9	Chapter 5	Fraction Operations
Week 10	Chapter 5	Fraction Operations
Week 11	Chapter 9	Percents
Week 12	Chapter 9	Percents
Week 13	Chapter 8	Ratios & Proportions
Week 14	Thanksgiving Break	
Week 15	Chapter 8	Ratios & Proportions
Week 16	Chapter 8	Ratios & Proportions
Week 17	Winter Break	
Week 19	Winter Break	
Week 20	Chapter 6	Integers
Week 21	Chapter 6	Integers
Week 22	Chapter 6	Integers
Week 23	Review	
Week 24	Mid Term Exams	
Week 25	Chapter 7	Equations, Inequalities & Functions
Week 26	Chapter 7	Equations, Inequalities & Functions
Week 27	Chapter 7	Equations, Inequalities & Functions
Week 28	Chapter 10	Geometric Figures
Week 29	Chapter 10	Geometric Figures
Week 30	Spring Break	
Week 31	Chapter 10	Geometric Figures
Week 32	Chapter 11	Measurement & Area
Week 33	Chapter 11	Measurement & Area
Week 34	Chapter 11	Measurement & Area
Week 35	Chapter 11	Measurement & Area
Week 36	Chapter 12	Surface Area & Volume
Week 37	Chapter 12	Surface Area & Volume
Week 38	Chapter 12	Surface Area & Volume
Week 39	Review/Final Exam	

Middle School Mathematics

I. Number Sense, Patterns, and Algebraic Thinking

- A. Describing Patterns
- B. Variables and Expressions
- C. Powers and Exponents
- D. Order of Operations
- E. Equations and Mental Math
- F. Perimeter and Area
- G. Problem Solving Plans

II. Decimal Operations

- A. Comparing, Ordering, and Rounding Decimals
- B. Adding and Subtracting Decimals
- C. Multiplying Decimals
- D. Dividing Decimals
- E. Scientific Notation
- F. Measuring in Metric Units
- G. Converting Metric Units

III. Number Patterns and Fractions

- A. Prime Factorization
- B. Greatest Common Factor
- C. Equivalent Fractions
- D. Least Common Multiple
- E. Comparing and Ordering Fractions
- F. Mixed Numbers and Improper Fractions
- G. Fractions and Decimals

IV. Fraction Operations

- A. Adding and Subtracting Fractions
- B. Adding and Subtracting Mixed Numbers
- C. Multiplying Fractions and Mixed Numbers
- D. Dividing Fractions and Mixed Numbers
- E. Measuring in Customary Units
- F. Converting Customary Units

V. Integers

- A. Comparing and Ordering Integers
- B. Adding Integers
- C. Subtracting Integers
- D. Multiplying Integers
- E. Dividing Integers
- F. Rational Numbers
- G. The Distributive Property

H. The Coordinate Plane

VI. Equations, Inequalities, and Functions

- A. Writing Expressions and Equations
- B. Simplifying Expressions
- C. Solving Addition and Subtraction Equations
- D. Solving Multiplication and Division Equations
- E. Solving Two-Step Equations
- F. Solving Inequalities
- G. Functions and Equations
- H. Graphing Functions

VII. Ratios and Proportions

- A. Ratios
- B. Rates
- C. Slope
- D. Writing and Solving Proportions
- E. Solving Proportions Using Cross Products
- F. Scale Drawings and Models

VIII. Percents

- A. Percents and Fractions
- B. Percents and Proportions
- C. Percents and Decimals
- D. The Percent Equation
- E. Circle Graphs
- F. Percent of Increase and Decrease
- G. Discounts, Markups, Sales Tax, and Tips
- H. Simple Interest

IX. Geometric Figures

- A. Angles
- B. Special Pairs of Angles
- C. Triangles
- D. Polygons
- E. Similar and Congruent Polygons
- F. Using Proportions with Similar Polygons
- G. Transformations and Symmetry
- H. Transformations in the Coordinate Plane

X. Measurement and Area

- A. Square Roots
- B. Approximating Square Roots
- C. The Pythagorean Theorem
- D. Area of a Parallelogram
- E. Areas of Triangles and Trapezoids

- F. Circumference of a Circle
- G. Area of a Circle

XI. Surface Area and Volume

- A. Classifying Solids
- B. Sketching Solids
- C. Surface Area of Rectangular Prisms
- D. Surface Area of Cylinders
- E. Volume of Rectangular Prisms
- F. Volume of Cylinders