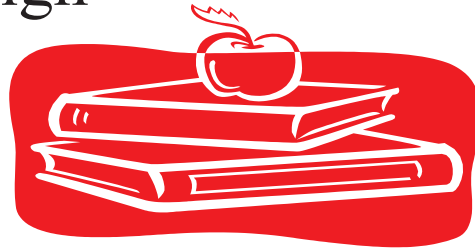


Mackay Junior/Senior High School



COURSE: 8th Grade Pre-Algebra--Math Connections

Date: 08/17/11

Teacher with contact information: Sharleece Lambson

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COURSE DESCRIPTION

This course covers basic skills and Pre-algebra concepts in preparation for Algebra I. The Glencoe McGraw-Hill Math Connections book will be used in class. In this course, the material is presented in a variety of ways including real-world applications and connections to other subjects.

Throughout this course we will be focusing on three critical areas; (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate (two variables) data with a linear equation, and solving linear equations and systems of linear equations; (2) understanding the concept of a function and using functions to describe how aspects of the function are reflected in the different representations; (3) analyzing two-and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

The course will begin with a quick assessment and review of basic prerequisite skills. Unit One will cover topics on numbers and operations: Rational and real numbers and Pythagoreans theorem. Unit Two will cover topics of Patterns, relationships, and algebraic thinking using Proportions, Percents and Similarity. Unit Three introduces spatial reasoning using geometry and measurement (area and volume). Unit Four cover the understanding the concept of functions. Unit Five covers data sets and an introduction to statistics and probability.

COMMON CORE / STATE CONTENT STANDARDS/VOCABULARY OBJECTIVES

Please note that revisions will be made throughout the year.

- Use algebraic terminology, expressions, equations, inequalities, and graphs to express quantitative relationships.
- Use equations with rational numbers to solve problems.
- Use scientific notation to express equivalent forms of rational numbers.
- Apply the Pythagorean Theorem to find distances in the coordinate plane and to solve problems.
- Identify proportional and non-proportional linear relationships.

- Understand that a proportion is a linear equation.
- Use proportional reasoning to solve a wide variety of percent problems, including discounts, interest, taxes, tips, and percent of change.
- Use relationships among lines and angles and apply transformational geometry.
- Determine the area, surface area, and volume of geometric figures.
- Use linear equations to represent, analyze, and solve problems.
- Solve simple linear equations and inequalities over the rational numbers.
- Use linear functions, systems of linear equations, and understanding of slope to represent, analyze, and solve problems.
- Analyze and represent nonlinear functions.
- Use exponents, powers, and roots.
- Use statistical measures, including mean, median, and range, to summarize data, compare data sets, and organize and display data.

INSTRUCTIONAL MATERIALS

- 2 Note Books—One for Chapter Notes and one for assignments
- Calculator—Exponential capabilities-such as square exponent and square root functions
- Pencils—**Absolutely No Ink Pens Allowed**

UNITS WITH INSTRUCTIONAL DATES

Semester 1

- Week 1-4 Approx. 8/25/11 – 9/22/11 Changing unit of Measure, Algebra: Integers
- Week 5-9 Approx. 9/27/11 – 10/18/11 Algebra: Rational numbers
- Week 10-14 Approx. 10/26/11 – 11/9/11 Real numbers and Pythagoreans Theorem,
- Week 15-19 Approx. 11/10/11 – 12/15/11 Proportions and Similarity, Percent

Semester 2

- Week 1-4 Approx. 1/2/12 – 1/23/12 Percent, Geometry and Spatial Reasoning
- Week 5-9 Approx. 1/24/12 – 3/1/12 Measurement: Area and Volume
- Week 10-14 Approx. 3/5/12 – 4/5/ 12 Algebra: Linear Functions
- Week 15-19 Approx. 4/9/12 – 5/7/12 Algebra: Nonlinear Functions and Polynomials, Statistics

ASSESSMENTS / TESTS

- Notes must be taken from each chapter and turned in before each chapter test. **Notes will be**

allowed on the semester test.

- There will be daily assignments from each section of the chapter. Assignment will be corrected at the beginning of class the following school day. **If the assignment does not completed in class, then student must complete at home.**
- Quick five minute quizzes will be given at the beginning of class. They are designed to assess what they remember from the previous assignments. Quizzes must be taken in class and will **not** be daily.
- In class tests will be given at the end of each chapter.

Projects (extra credit assignments) will be available at my discretion.

GRADING PROCEDURES

Grades are subject to change upon teacher's discretion.

- Chapter Notes 5 extra points
- Daily assignments 10 points
- Class quizzes 10 points
- Chapter Tests 100 points
- Semester Test 200 points

Projects (extra credit) points will be available at my discretion.

CLASS RULES

- All daily assignments must be handed in to be graded on **due date**.
- If student is involved with extra-curricular activities, he or she must get their daily assignment before they leave.
- If absent because of doctor appointment or sick, student make call and get what missed assignment or he or she may get the assignment the following school day. Student will be given **2 days** to make up missed assignment.
- If student needs to be removed from class for disruptive behaviors, he or she will get a **zero grade** on that day's assignment.
- **Absolutely no music players or cell phones of any kind are allowed in class.** No exceptions!!

All quizzes and test must be taken in class. Exceptions are at teacher's discretion.

MISCELLANEOUS

- Please visit your child's account on **Power School**. All assignment descriptions, due dates, assignment scores, quiz scores, and tests scores are available for you to review your child's

progress.

- **Glencoe.com has a website** that has helpful, example problems, notes, practice quizzes tests.

Step-1 Connect to glencoe.com. Step 2- go to quick pass code and type in code (MC0503c1) for chapter one. Note that c1 means chapter 1 so for other chapters type “c” then the chapter number you desire. Code is printed on the first page of the students issued book.

Please contact me if you have any questions or concerns. Contact information is on first page.

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