

# Math 7/8 Syllabus 2011-12

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**COURSE OVERVIEW:** Math 7/8 includes all pre-algebra skills. It sets high expectations for all students, making provisions for enrichment and acceleration for advanced students and remediation for students who need more assistance. The curriculum provides a complete correlation of the South Carolina Mathematics Curriculum Standards and the Glencoe: *South Carolina Math Pre-Algebra* textbook. It will give students a broad range of information covering the five strands of mathematics: Number and Operations, Algebra, Geometry, Measurement, Data Analysis and Probability.

**TEXTBOOK:** Glencoe: *South Carolina Pre-Algebra*  
**Students must bring their math book to class every day.**

**MATERIALS:** Students should bring these items to class with them every day, unless specifically instructed otherwise:

1. **Book cover:** A book cover will help protect your book from damage, and help you avoid having to pay to repair or replace it. You will be charged to replace a lost or damaged book.
2. **Binder:** A binder with lined paper, graph paper, and dividers. Suggested divider headings: Warm-ups, Homework, Notes, Quizzes.
3. **Pencils and erasers:** Work must be done in pencil.
4. **Scientific Calculator** – This is optional. There will be some units in which students will not be allowed to use calculators, and others in which students will be strongly encouraged to use one.

## **RESOURCES:**

<http://www.glencoe.com/>

This is the website for our math textbook company.

Links within the page can direct you to all the math textbooks used here at RMS.

Practice: Most websites below include math games that review skills.

<http://www.mathplayground.com/>

<http://www.math-play.com/7th-grade-math-games.html>

<http://www.math-play.com/8th-grade-math-games.html>

<http://www.funbrain.com/brain/MathBrain/MathBrain.html>

<http://www.coolmath4kids.com/>

## **COMMUNICATION:**

- Assignments and dates of assessments will be posted on my school website and updated on a regular basis.
- Contact will be made through phone calls and e-mail, as needed.
- Parents are encouraged to access students' grades online and contact me as needed, using the information provided at the top of this page.

**ABSENTEEISM:** If a student is absent, it is the student's responsibility to check with another student, the teacher, or the website for missed work. It is the student's responsibility to schedule make up tests and complete other assignments within 5 days of the absence. Students should also check with a fellow classmate for missed notes, and other important information.

## **GRADING:**

As per district policy:

50% Major Assessments (Tests and/or large projects)

50% Minor Assessments:

- 20% homework and classwork
- 30% quizzes

## **Greenville County Grading Scale**

A 93-100

B 85-92

C 77-84

D 70-76

F 69 or below

Three to four major tests each quarter (one per chapter.)

- Homework will be assigned most days of the week. (See below.)
- All notes must be kept in your binder.
- All warm-ups, homework, handouts, and returned papers should be kept in your binder. After each test, students can take papers home to save or discard.
- Students are encouraged to save chapter review assignments, quizzes, etc. to prepare for the cumulative benchmark test at the end of 2<sup>nd</sup> quarter and the final exam/benchmark test at the end of the year.

### **ASSIGNMENTS:**

Homework is assigned most days of the week. Assignments are due the next school day unless specified otherwise. To earn full credit (100 points), work must be:

- complete (all assigned problems have been done)
- in pencil
- turned in on time
- labeled with the student's name, class period, assignment page number and problem numbers
- have all work shown (as demonstrated in class)

Work that is incomplete, but otherwise of good quality, may be graded based on the amount complete. (For example, if a few problems have been skipped but the work is otherwise of good quality, a student might earn an 80 instead of 100 points.)

Any work not completed on time will be subject to the 7<sup>th</sup> Grade Work Recovery Policy.

**CLASSROOM PROCEDURES:** On most days, our classes will follow this progression:

1. Warm-up.
  - Students are expected to enter class quietly, take out their homework for Mrs. Parker to see it, and complete the warm-up activity.
  - Sharpen pencils and throw away trash before class begins.
  - Warm-up Problems should be solved on one page all week, and may be collected on Fridays as a "ticket out the door."
2. Check Homework and discuss correct solution strategies, as needed.
3. Introduce new objective(s) with vocabulary notes and sample problems.
4. Practice individually and with partners.
5. Review the day's objective(s).
6. Assign homework. Assignments are due the next school day unless specified otherwise.

### **CLASSROOM BEHAVIOR EXPECTATIONS:**

- Be on time.
- Bring all required materials.
- Stay in your seat.
- Raise your hand and wait for permission to speak.
- Show respect to everyone.

Any behavior that interferes with the learning of self or others cannot be allowed and will be dealt with accordingly and consistently. The 7<sup>th</sup> grade Quality Point System will be followed.

**INSTRUCTIONAL UNITS AND SEQUENCING:**

<b>1st Quarter</b>	
<u>Chapter</u>	<u>Title</u>
<b>2</b>	<b>Operations with Integers</b>
<b>3</b>	<b>Operations with Rational Numbers</b>
<b>4</b>	<b>Expressions and Equations</b>
<b>2<sup>nd</sup> Quarter</b>	
<u>Chapter</u>	<u>Title</u>
<b>5</b>	<b>Multi-Step Equations and Inequalities</b>
<b>6</b>	<b>Ration, Proportion, and Similar Figures</b>
<b>7</b>	<b>Percent</b>
	<b>Review &amp; Benchmark Test</b>
<b>3rd Quarter</b>	
<u>Chapter</u>	<u>Title</u>
<b>8</b>	<b>Linear Functions and Graphing</b>
<b>9</b>	<b>Powers and Nonlinear Functions</b>
<b>10</b>	<b>Real Numbers and Right Triangles</b>
<b>11</b>	<b>Distance and Angle</b>
	<b>PASS Testing</b>
<b>4<sup>th</sup> Quarter</b>	
<u>Chapter</u>	<u>Title</u>
<b>12</b>	<b>Surface Area and Volume</b>
<b>13</b>	<b>Statistics and Probability</b>
	<b>Review &amp; Final Exam/Benchmark Test</b>

Because my primary goal is to maximize student achievement, material may be added, deleted, and/or substituted at the teacher's discretion based on the individual needs, levels, and learning styles of each class. Creative projects, written assignments, and supplemental materials may be included throughout the year as opportunities arise.

## 7th Grade Mathematics Standards

	<b>Standard</b>	Description
<b>Number and Operations</b>	7-2.1	Understand fractional percents and percents greater than one hundred.
	7-2.2	Represent the location of rational numbers and square roots of perfect squares on a number line.
	7-2.3	Compare rational numbers, percentages, and square roots of perfect squares, by using the symbols $\leq$ , $\geq$ , $<$ , $>$ , and $=$ .
	7-2.4	Understand the meaning of absolute value.
	7-2.5	Apply ratios, rates, and proportions to discounts, taxes, tips, interest, unit costs, and similar shapes.
	7-2.6	Translate between standard form and exponential form.
	7-2.7	Translate between standard form and scientific notation.
<b>Algebra</b>	<del>7-3.8</del>	<del>Generate strategies to add, subtract, multiply, and divide integers.</del>
	<del>7-3.9</del>	<del>Analyze geometric patterns and pattern relationships.</del>
	<del>7-3.9</del>	<del>Apply an algorithm to multiply and divide fractions and decimals.</del>
	<del>7-3.10</del>	<del>Analyze tables and graphs to describe the rate of change between and among quantities.</del>
<b>Algebra</b>	7-3.4	Use inverse operations to solve two-step equations and two-step inequalities.
	7-3.5	Represent on a number line the solution of a two-step inequality.
	7-3.6	Represent proportional relationships with graphs, tables, and equations.
	7-3.7	Classify relationships as either directly proportional, inversely proportional, or nonproportional.
<b>Geometry</b>	7-4.1	Analyze geometric properties and the relationships among the properties of triangles, congruence, similarity, and transformations to make deductive arguments.
	7-4.2	Explain the results of the intersection of two or more geometric shapes in a plane.
	7-4.3	Illustrate the cross section of a solid.
	7-4.4	Translate between two- and three-dimensional representations of compound figures.
	7-4.5	Analyze the congruent and supplementary relationships- specifically, alternate interior, alternate exterior, corresponding, and adjacent- of the angles formed by parallel lines and a transversal.
	7-4.6	Compare the areas of similar shapes and the areas of congruent shapes.
	7-4.7	Explain the proportional relationship among attributes of similar shapes.
	7-4.8	Apply proportional reasoning to find missing attributes of similar shapes.
	7-4.9	Create tessellations with transformations.
	7-4.10	Explain the relationship of the angle measurements among shapes that tessellate.
<b>Measurement</b>	7-5.1	Use ratio and proportion to solve problems involving scale factors and rates.
	7-5.2	Apply strategies and formulas to determine the surface area and volume of the three-dimensional shapes: prism, pyramid, and cylinder.
	7-5.3	Generate strategies to determine the perimeters and areas of trapezoids.
	7-5.4	Recall equivalencies associated with length, mass and weight, and liquid volume: 1 square yard = 9 square feet, 1 cubic meter = 1 million cubic centimeters, 1 kilometer = $\frac{5}{8}$ mile, 1 inch = 2.54 centimeters; 2.2 kilograms = 1 pound; and 1.06 quarts = 1 liter.
	7-5.5	Use one-step unit analysis to convert between and within the U.S. Customary System and the metric system.
<b>Data Analysis and Probability</b>	7-6.1	Predict the characteristics of two populations based on the analysis of sample data.
	7-6.2	Organize data in box plots or circle graphs as appropriate.
	7-6.3	Apply procedures to calculate the inter-quartile range.
	7-6.4	Interpret the inter-quartile range for data.
	7-6.5	Apply procedures to calculate the probability of mutually exclusive simple or compound events.
	7-6.6	Interpret the probability of mutually exclusive simple or compound events.
	7-6.7	Differentiate between experimental and theoretical probability of the same event.
	7-6.8	Use the Fundamental Counting Principle to determine the number of possible outcomes for a multistage vent.