

Math 7 Syllabus 2017-2018

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COURSE OVERVIEW: Math 7 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 **Holt McDougal: *Mathematics Grade 7* 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.

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

1. **Notebook:** A binder or notebook with lined paper, graph paper, and dividers. Suggested divider headings: Starters, Homework, Notes, Quizzes. You may use a smaller, individual binder or a section in a larger binder for math class.
2. **Pencils and erasers:** Work must be done in pencil.
3. **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. A classroom set will be available to students for the units and sections that require the use of a calculator.
4. **Earbuds** – This is optional. These will be used when doing individual assignments on a computer.
5. **HOMEROOM ONLY:** box of tissue and/or hand sanitizer.

RESOURCES:

<http://my.hrw.com> This is the website for our math book. Soon I will create and distribute user names and passwords for access to this site. It will allow students to gain access to their textbooks online along with other great instructional resources.

Additional Practice: Most websites below include math games that review skills taught in Math 7.

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

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

<http://www.khanacademy.org/>

Students are encouraged to record their usernames and passwords in their agenda.

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 assignment posting in the classroom, 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 ALEKS projects)
- 40% Minor Assessments
- 10% Practice (IXL, homework, classwork, etc.)

Greenville County Grading Scale

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = 50-59

There will be three to four major grades each quarter.

- All classwork, homework, handouts, and returned papers should be kept in the binder. After each test, students can take papers home to save or discard. These are excellent notes to review for unit tests and benchmark tests.
- Students are encouraged to save chapter review assignments, quizzes, etc. to prepare for the cumulative benchmark test at the end of each quarter and the final exam/benchmark test at the end of the year.
- Two to three unit tests each quarter and an ALEKS grade (Weekly grades will be averaged for the quarter and count as a project grade).
- Approximately four quizzes each quarter.
- All assignments started in class will have a due date. If they are not completed in class they must be finished outside of class. All work must have the required work shown.
- All math assignments must be completed in pencil.
- Students will keep workbooks and textbooks at home. We will announce to students when they may need to bring in pages from the workbook.
- IXL assignment handouts, workbook or textbook pages, or other handouts will be counted as classwork/homework (practice). Students will be given an IXL assignment handout every Friday with a list of activities to complete. These will be due on Thursday of the following week. Any additional homework assignments will be written on the board, and should be copied into the student's agenda.

ASSIGNMENTS other than IXL or ALEKS:

Homework will be assigned periodically outside of completing IXL or ALEKS. It is due the next school day unless specified otherwise. To earn full credit (100 points), work must be:

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

Any students who has an NHI (not handed in) or grade below a 70 will be expected to make-up this work during flex time in the afternoon.

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

1. Warm-ups or Enter Ticket. This would also be the time for students to take out any homework or assignments that need to be checked.
2. Introduce new objective(s)
3. Practice (IXL assignment(s))
4. Review the day's objective(s)
5. Remind students of due date for assignments. (Students should finish IXL assignments for homework if not completed in class.)
6. Any students who have completed all IXL assignments assigned should be working on ALEKS. Flex time will also be a valuable time to complete any IXL or ALEKS assignments.

CLASSROOM BEHAVIOR EXPECTATIONS:

- Be on time.
- Bring all 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 RMS discipline policy will be followed.

	1st Semester Units and Concepts	
<u>Unit</u>	<u>Title</u>	Suggested Weeks
1	Operations with Rational Numbers (Chapters 2, 3 and Section 1-1 in the textbook)	5
2	Expressions and Equations (Chapters 1, 11 and Sections 2-5 and 3-8 in the textbook)	5
3	Ratios & Proportional Relationships (Chapters 4, 5 and 6 in the textbook)	5
4	Geometry (Chapter 8 in the textbook)	5
	Total	20 Weeks
	2nd Semester Units and Concepts	
<u>Unit</u>	<u>Title</u>	Suggested Weeks
5	Inferences (Chapters 7 and 9 in the textbook)	7
6	Probability (Chapter 10 in the textbook)	7
7	Show What You Know (This is time to complete an incomplete unit or review)	4
	Total	18 Weeks

	Standard	Description
Number and Operations	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.
	7-2.8	Generate strategies to add, subtract, multiply, and divide integers.
	7-2.9	Apply an algorithm to multiply and divide fractions and decimals.
	7-2.10	Understand the inverse relationship between squaring and finding square roots of perfect squares.

Algebra	7-3.1	Analyze geometric patterns and pattern relationships.
	7-3.2	Analyze tables and graphs to describe the rate of change between and among quantities.
	7-3.3	Understand slope as a constant rate of change.
	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.
Geometry	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.

Measurement	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.
Data Analysis and Probability	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.