Math 7

Text:	Hake & Saxon (1991). *Saxon math 87 2nd Edition*, Saxon Publishers: Norman, OK

Supplemental Materials:	Saxon Math 87 Activity Master and Test C. Saxon Math Test Generator Geoboards Overhead fraction pieces Relational GeoSolids Ruler Protractor Compass

Course Description:	Math 7 is a course designed to help students master, for retention, the foundations of mathematics since the very nature of the subject builds upon prior knowledge. Students will use critical thinking skills to develop competency in basic operations of fractions, mixed numbers, decimals and signed numbers. Students will master fractions, percent, proportion, ratio word problems, powers of numbers, roots and exponents. Students will be able to write algebraic problems, solve algebraic equations, problems dealing with perimeter, area, volume and surface area. Students will be challenged to use critical thinking skills to master the upper level concepts of probability, statistics, scientific notation and graphing problems.

Methods of Evaluation:	Students can be evaluated through tests, quizzes, daily practice sets, homework problem sets, lab grades quarterly exams, and/or any other form of evaluation instrument the instructor finds applicable to the course.

Pace of Instruction:	First Semester: Lesson 1 - 80 Second Semester: Lesson 81 - 135

Course Objectives:	At the end of this course students should be able to: 1. Use problem solving techniques 2. Add, subtract, multiply, and divide whole numbers 3. Use divisibility rules for 2,3,4,5,6,7,8,9,10, and 12 4. Determine place value through trillions 5. Classify lines, angles, and polygons 6. Find perimeter of polygons 7. Add, subtract, multiply, and divide fractions 8. Find area of rectangles 9. Work with powers and roots 10. Read and construct graphs

	11. Find GCF
	12. Find LCM
	13. Solve 2-step problems
	14. Round and estimate solutions
	15. Add/subtract fractions with unlike denominators
	16. Work with decimals – read/write/place value
	17. Add, subtract, multiply, and divide decimals
	18. Use ratios and proportions to solve problems
	19. Know decimal/fraction/percent equivalencies
	20. Work with scientific notation (large numbers)
	21. Know measurement equivalencies
	22. Use order of operations
	23. Find complex averages
	24. Add and subtract mixed numbers
	25. Work with scientific notation (small numbers)
	26. Find area of triangles
	27. Classify triangles according to angles or sides
	28. Understand symbols of inclusion
	29. Add, subtract, multiply, and divide signed numbers
	30. Find circumference using pi
	31. Identify solids/using vocabulary
	32. Find volume of rectangular prisms
	33. Solve percent equations
	34. Use a ratio box for problem solving
	35. Graph on a coordinate plane
	36. Find the area of a complex figure
	37. Understand how to correctly use a compass, straight edge, and protractor.
	38. Find area of a circle using the correct formula
	39. Multiply by powers of ten without commutations
	40. Multiply algebraic terms
	41. Graph functions
	42. Solve two-step equations and inequalities
	43. Find volume of a right solid
	44. Use Pythagorean Theorem
	45. Find probability, chance, and odds
	46. Find surface area of a right solid