Accelerated Math 6

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

Supplemental Materials:	

Course Description:	Accelerated Math 6 is a course designed to challenge students through instruction and design based on upper-level mathematics concepts and skills. Students will be introduced and master the basic operations of fractions, mixed numbers, decimals, and signed numbers while working with fractional parts of a number, percent, proportion, and ratio word problems, powers, roots, and exponents. Students will use critical thinking skills to write and solve algebraic problems, algebraic equations and solve perimeter, area, volume, and surface area problems. Students will be introduced to higher level math components including probability and statistics skills, scientific notation and graphing. Students will be challenged to use their critical thinking skills while working with higher education materials.

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. Competency in basic operations of whole numbers, fractions, decimals, and signed numbers 2. Problem solving techniques and Properties of numbers 3. Decimal system 4. Rational numbers 5. Equations and inequalities 6. Geometry and measurement 7. Ratio, proportion, and percent 8. Coordinate plane and graphs 9. Area, volume, and surface area 10. Exponents and roots 11. Probability and statistics 12. To perform operations with whole numbers, fractions, decimals, and signed numbers 13. To solve word problems using problem solving techniques 14. To use properties of numbers to solve problems 1. To identify place value through trillions

	2. To solve equations 3. To graph inequalities 4. To work with exponents, powers, and roots 5. To use geometric formulas 6. To demonstrate the equivalencies between fractions, decimals, and percents 7. To use ratios and proportions to solve word problems 8. To work with scientific notation 9. To use probability and statistics to solve problems 10. Use problem solving techniques 11. Add, subtract, multiply, and divide whole numbers 12. Use divisibility rules 2,3,4,5,6,8,9,10, and 12 13. Determine place value through trillions 14. Work with prime and composite numbers 15. Add, subtract, multiply, and divide fractions 16. Read and construct graphs 17. Find GCF 18. Find LCM 19. Solve 2-step problems 20. Round and estimate 21. Add/subtract fractions with unlike denominators 22. Work with decimals – read/write/place value 23. Add, subtract, multiply, and divide decimals 24. Use ratios and proportions to solve problems 25. Know decimal/fraction/percent equivalencies 26. Find area of a rectangle 27. Work with powers and roots 28. Find perimeter of complex shapes 29. Find complex average 30. Use order of operations 31. Work with scientific notation (large numbers) 32. Add and subtract mixed numbers 33. Know measurement equivalencies 34. Work with scientific notation (small numbers) 35. Add, subtract, multiply, and divide signed numbers 36. Find area of a triangle 37. Classify triangles 38. Solve percent equations 39. Use ratio boxes for problem solving 40. Find volume of rectangular prism 41. Identify solids/using vocabulary 42. Graph on a coordinate plane 43. Find circumference of a circle 44. Find area of a complex figure 45. Simplify complex fractions 46. Solve percent equations

	47. Graph inequalities 48. Find area of a circle 49. Use protractor and compass 50. Find mean, median, mode, and range of sets of numbers 51. Use Pythagorean Theorem 52. Find surface area of rectangular prism 53. Find volume of right solids 54. Use probability