

Fourth Grade Saxon Math

Box 1: Class Description

This year-long course covers the fourth grade math content noted below. Weekly certificated contact will be completed through direct personal contact with an HQ/certificated teacher in an on-site HC class. At least one state standard will be covered in this course.

Box 2: Learning Materials

The curriculum, books, supplies, materials, web-sites, and other sources used for this course are Saxon Math Fourth Grade Program

(Make additions as you see fit.)

Box 3: Learning Goals/Performance Objectives

The schedule of month-by month learning goals below, will likely not be exactly adhered to by the student. The schedule is approximate. Monthly coverage of these goals will vary according to the student's strengths and interests. The clear goal, however, is coverage of all of the goals below, by the end of the school year.

Fourth Grade Saxon Math

SEPTEMBER: Section 1: Lessons 1-10, Concepts A & B, Investigation 1 Sequences, Word Problems, Place Value, Numbers to 999, Missing Addends, expanded Form, Adding 3- Digits, Addition Algorithm, Missing Numbers in Subtraction, Inverse Operations, Order of Operations, Subtracting 3-Digits, Subtraction Algorithm Section 2: Lessons 11-20, Concepts C & D, Investigation 2 Adding Columns of Numbers, Combining, Elapsed Time, Subtraction with Zeroes, Separating, Comparing, Lines, Segments, Rays, and Angles, Triangles, Rectangles, Squares & Circles, Fractions, Fractions as Division, Perimeter, Number Lines

OCTOBER: Section 3: Lessons 21-30, Investigation 3 Rounding, Multiplication Facts, Parentheses, Associative Property, Numbers to Hundred Thousands, Dollars & Cents, Fractions of a Dollar, Area Model, Perimeter Section 4: Lessons 31-40, Concepts E & F, Investigation 4 Perimeter & Area, Fractions & Mixed Numbers, Lines & Line Segments, Relating Multiplication & Division, Divide by Zero, Inverse Operations, order of Operations, Multiples of 10 & 100, Multiply 2-Digits, Rounding, Fractions & Decimals

NOVEMBER: Section 5: Lessons 41-50, Concepts G, Investigation 5 Decimal Place Value, Units of Length, Decimals on a Number Line, Equivalent Decimals, Add & Subtract Decimals, Rounding Decimals, Numbers in Millions, Rounding Large Numbers, Polygons, Displaying Data, Graphs

DECEMBER: Division Unit, Subtopics: Relate multiplication & division, Division of numbers by one-digit numbers, Number theory, Composite & prime numbers, Divisibility rules, Factor

trees, Quantities can be divided into equal groups. Essential Questions: How is repeated subtraction related to equal groups in division? What are the patterns that occur? How can you prove the properties of multiplication and the rules of division? What is another way to solve a division problem using a different algorithm? How is a remainder expressed? Where have you used division to solve a problem in your life?

JANUARY: Fraction/Decimal Equivalence - Subtopics: Relate fractions and decimals, Visual representations of fractions (and decimals), Comparing fractions (and decimals), Equivalent fractions (and decimals), Comparison of different whole. Big Idea = Relationships between portions can be represented in many ways. Essential Questions: How are fractions and decimals related? How can you represent fractions and decimals using an area model? How can you represent fractions and decimals using a number line? What are some equivalent representations for fractions, mixed numbers, and decimals? How can you represent/compare fractions that are related to different wholes?

FEBRUARY: Section 6: Lessons 51-60, Investigation 6 Add & Subtract Large Numbers, Rates, Multiply Large Numbers, Collecting Data, Surveys Section 7: Lessons 61-70, Concept H, Investigation 7 Estimating, Rounding Decimals, Order of Operations, write Expressions, 2-Step Equations, Exponents, Area of a Rectangle, Similar & Congruent Figures, Coordinate Graphs

MARCH: Section 8 & 9: Lessons 71-90, Concept I, Investigation 9 X by multiples of 10, Finding Info, Mass & Weight, Multiply by 10, 100, 1000, Multiply 2- Digits

APRIL: Section 10: Lessons 91-100, Investigation 10 Estimating in Multiplication & Division, Describe & Collect Data, Geometric Solids, Add & Subtract Fractions, Graphing Section 11: Lessons 101-110, Concepts J & K, Investigation 11 Formulas, Distributive Prop., Multiply by 2-Digits, Rounding, Factoring, Multiply 3-Digits, Probability

MAY: Section 12: Lessons 111-114 Multiply 3-Digits, Perimeter & Area Subtopics: Draw geometric components (lines, angles, rays, etc.), Classify 2-dimensional figures, Identify types of angles, Measure angles, Recognize lines of symmetry. Big Idea = Objects can be described, classified, and analyzed based on their attributes. Essential Questions: What geometric components make up figures? How can parallel and perpendicular lines be identified? How can you use only a right angle to classify all angles? How do angles and lines help us to classify shapes? What properties do geometric objects have in common? What does angle measurement mean? How are angles found in real life situations? How can we find a line of symmetry in geometric shapes?

JUNE: Review the following lessons as needed to gear up for fifth grade: lessons 53, 54, 55, 56 and 57; lessons 68 and 69; lessons 72, 73, 74, 75, 77, 78 and 79; lessons 81, 82, 83, 87, 89 and 90; lessons 92, 94, 97, 98, and 99; lessons 103, 106, 108 and 109; and lessons 112 and 113.

Box 4: Learning Activities

Each day the student will complete a math lesson. They will have a new lesson/concept/learning explained, demonstrated/taught. They'll complete practice problems to ensure understanding of

content. They will have independent practice/homework over those concepts. They will re-do and correct any which they missed. When review is needed, we'll not learn a new concept but take the time needed to re-teach or reinforce needed concepts.

(Make additions or deletions as you see fit.)

Box 5: Progress Criteria/ Methods of Evaluation

Student monthly progress evaluation is made on the basis of weekly certificated contact, work samples, communications with students, communications with parents, and performance in on-site classes. It is electronically communicated to parents via WINGS. It is our goal that the student will accomplish approximately 10% of the goals of this course each month, September through June. The level of mastery expected is 70% or higher to progress. Methods of evaluation will include but are not limited to those below, under the direction of an HQ teacher:

- * observation and/or correction of daily and/or weekly work and progress
- * daily or weekly discussion of assignments, readings, writings
- * correction of work done incorrectly
- * portfolio kept of student work, at least weekly

(Make additions or deletions as you see fit, to asterisks.)

Box 6: Weekly Hours

Please estimate the number of hours your student will work on this course.