# **Course: Saxon Algebra 1**

### Teacher: Mr. Jim Lawson

#### **Contact Information:**

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## Materials/Supplies Needed for This Course:

Students MUST have the following:

- Textbook and Solutions Manual (Saxon Algebra 1, <u>Third Edition</u>)
- Scientific Calculator (We will do a small amount of graphing on the TI-83/TI-84 to demonstrate the process for future classes, but any scientific calculator is acceptable for this course.)
- 3-ring Binder (1.5" or 2")
- 3 Tab Dividers (minimum) Labeled: 1) Notes/Handouts 2) Homework 3) Tests/Quizzes
- Graph Paper, Notebook Paper, Pencils
- Straight Edge (ruler or protractor)
- Compass, Protractor

### My Goals are that each student would:

- become a critical thinker and a competent problem solver,
- hone their math skills and build confidence,
- see the beauty and precision of our Designer in the complexities of the math.

### What you can expect of the Teacher:

- I will be professional, prepared, and on time.
- I will be available to you, the parent, so that our partnership will be successful.
- I will be attentive to each student and seek to develop their unique perspective as it pertains to problem solving as well as challenge them to achieve beyond what they have ever thought possible.

### What I expect of Parents:

## I need Parents to:

- assist students in keeping up with the syllabus so that the work is turned in on time every week,
- grade the daily homework and mark the numbers wrong across the top of the page,
- provide the necessary assistance when a student struggle, (Grade homework to identify gaps in concept comprehension.
  Provide oversite to ensure the student is reviewing the online videos for missed concepts. Communicate with the teacher with any continuing concerns so they can be addressed.),
- occasionally proctor tests, online tests, and quizzes. (This means making sure that they take these assessments with integrity and NO outside assistance.)

## What I expect of Students:

# Students will:

- complete the weekly lessons and turn them in on time,
- ask questions and participate actively in class—(PLEASE contact me if you need help!),
- watch the online videos when extra assistance is necessary
- not associate their worth with a letter grade. Self-esteem should NOT be tied to letter grades. Studying math can be a great experience in tackling a challenge, learning perseverance, and maintaining a great attitude. All of these are terrific benefits regardless of individual letter grades on assignments and assessments. As a strong work ethic is applied, skill level WILL go up.

## Grading:

Grades are given to a variety of assessments, tasks, and projects. ONE low grade will NOT sink your academic ship—so don't lose heart if you get a poor grade on an assessment. It is important that students do well on tests and those students independently master the concepts.

Grades are weighted as follows:

- 75% Tests and Quizzes
- 20% Homework (5 points per assignment)
- 5% Notebook

## How to Get an 'A' in this Class:

- Turn your completed and graded homework in ON TIME!
- Keep a great notebook.
- Show your work (where applicable) and work toward developing the processes necessary to do upper math.
- Work consistently every day. Do not make it a habit to let your homework pile up or do it all in one day.
- Get help when you need it.

## Absences:

The FOFCAI Policy is to give students one extra class period to turn in work due to an EXCUSED absence. If you should need more time to get caught up, it is up to the parent to contact the teacher and work out additional due dates.

### Assignments that are 2 weeks past the original due date are given zeros.

Unexcused absences include, but are not limited to: sleeping in, and not contacting the school in advance in writing for a planned absence. (There is a Planned Absence Form that MUST be filled out in advance.) You can lose your seat in the class if you miss more than 4 classes.

## TESTS

Some tests are proctored at home and some are given online or in class.

Students in Guided Study or Study Hall MAY be able to test if there is a suitable environment and a proctor available.

The lowest test of each semester **MAY be dropped**, but tests that were given a zero because they were not turned in **will NOT be dropped**.

Cheating is grounds for dismissal from the class and/or school. Students are not to receive any outside assistance during a test.

| Course: Algebra I Week-by-Week * |                                                                                            |    |                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------|
| Semester I                       |                                                                                            |    | Semester II                                                                                        |
| 1                                | Lessons 1-4 (Fractions, Lines/Segments,<br>Geom. Shapes, Perim./Circum., Arithmetic)       | 19 | Lessons 61-63 (Subsets, Square & higher order<br>Roots, Prod of Sq. roots, Repeating Dec)          |
| 2                                | <b>Lessons 5-8</b> (Sets, Signed #s, Addition rules,<br>Opposite of a Number, Area         | 20 | <b>Lessons 64-67</b> (Domain, Radical Expressions,<br>Weighted Average, Sq Roots, Elimination)     |
| 3                                | Lessons 9-11 (Mult/Div Signed Numbers,<br>Inverse oper, Reciprocal/Mult inverse)           | 21 | Lessons 68-70 (Complex Fractions, Factoring trinomials, Probability, Designated order)             |
| 4                                | Lessons 12-15 (Symbols of Inclusion, Order of Ops, Algebraic Express, Surface area)        | 22 | <b>Lessons 71-74</b> (Trinomials, Factors, Pyramids,<br>Cones, Diff of 2 Squares, Sci Notation)    |
| 5                                | Lessons 16-18 (Complex evaluations, Factors,<br>Terms, Dist. Property, Like Terms)         | 23 | Lessons 75-77 (Equation of line, Slope/Inter.<br>Method, Cons Integers, Frac/Dec Word Probs)       |
| 6                                | Lessons 19-22 (Exponents, Powers of Neg #,<br>Roots, Volume, Product Rule, Equations)      | 24 | Lessons 78-81 (Rational/Inconsist./Depend./<br>Subscripted var. equations, Sci Not Oper's)         |
| 7                                | Lessons 23-25 (Equiv. equations, Add/Mult<br>property of Equality, Sol. of equations)      | 25 | <b>Lessons 82-84</b> (Evaluating Functions, Domain & Range, Coin probs, Radicals, Functions)       |
| 8                                | Lessons 26-29 (Complex equations, Dist Prop,<br>Functional Notation, Neg/Zero Exponents    | 26 | Lessons 85-88 (Stem-Leaf/Histograms, Div of Polynomials, Tests for Func's, Quadratics)             |
| 9                                | Lessons 30-32 (Algebraic Phrases, Decimal<br>Parts of #, Parentheses, Word Problems)       | 27 | <b>Lessons 89-90</b> (Value Problems, Word Probs with Two Statements of Equality)                  |
| 10                               | <b>Lessons 33-36</b> (Unequal Quantities, GCF,<br>Factoring, Canceling, More on Neg Expon) | 28 | <b>Lessons 91-93</b> (Mult Prop of Inequal, Spheres,<br>Uniform motion, Prod/Quo of Rational Exps) |
| 11                               | Lessons 37-40 (Graphical Solutions, Ratios,<br>Trichotomy Axiom, Exponent Prop./Rules)     | 29 | Lessons 94-97 (Graphs/Shapes of Non-Linear<br>Functions, Diff 2 Squares, Pythag. Theorem)          |
| 12                               | Lessons 41-43 (Like Terms, 2-Step Prob,<br>Multivariable equations, Least Comm Mult)       | 30 | Lessons 98-100 (Distance between two points,<br>Slope, Uniform Motion II, Place Value/Round)       |
| 13                               | Lessons 44-46 (Rational Expressions, Range,<br>Median, Mode, Mean, Conjunction)            | 31 | Lessons 101-104 (Factorable Denominators,<br>Absolute Value, Rational/Abstract Equations)          |
| 14                               | Lessons 47-49 (Percents, Polynomials,<br>Add/Mult of Polynomials)                          | 32 | Lessons 105-108 (Factoring by Grouping,<br>Equation of Lines, Radical Equations)                   |
| 15                               | Lessons 50-53 (Ordered Pairs, Graphs of<br>Lines, Overall Average, Power Rule of Exp)      | 33 | Lessons 109-111 (Adv Trinomial Factoring,<br>Translations & Reflections, Conjunctions)             |
| 16                               | Lessons 54-56 (Substitution axiom, Simult.<br>Equations, Complex Fractions, Sets)          | 34 | Lessons 112-115 (Radical Expressions, Direct/<br>Inverse Variation, Exp Growth, Lin Inequality)    |
| 17                               | Lessons 57-58 (Algebraic Expressions w/ neg.<br>exponents, Percent Word Problems)          | 35 | Lessons 116-118 (Quotient Rule for Roots,<br>Dir/Inv Var Squared, Completing Squares               |
| 18                               | Lesson 59-60 (Rearranging for Substitution, Geometric Solids)                              | 36 | Lessons 119-120 (Quadratic Formula, Box & Whisker Plots)                                           |

\*These plans are a guideline and may be altered throughout the year. Circumstances such as hurricanes or other events may require that this schedule be updated.

• Students are given specific weekly assignment sheets with the details necessary to complete the assignments.

Honors Options: Students may take Algebra I at the Honors Level as follows:

- Being tested at all Assessments with the Honors Tests and complete 2 Semester Projects.
- They will do all of the Uniform Motion Problems and be proficient with Quadratic Formula.
- Doing outstanding, consistent work on all Homework and Assignments—following directions, showing work (*Students who do not show work cannot get an honors credit.*)
- Turning in assignments on time (*Students who are chronically late cannot get an honors credit.*)