

St. Croix Lutheran High School

Algebra I

Syllabus

2011-2012

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Text

Algebra I: Concepts and Skills, McDougal Littell, 2004

Course Outcomes

- 1) The student will appreciate math as a blessing from God.
- 2) The student will grow in his or her confidence to learn and perform math.
- 3) The student will set up algebraic equations and inequalities and solve them.
- 4) The student will set up functions to mathematically represent tables and graphs.
- 5) The student will be able to graph linear equations and inequalities.
- 6) The student will be able to identify various polynomials and be able to add, subtract, and multiply them.
- 7) The student will be able to apply skills learned to practical situations.

Course Content

1. Connections to Algebra
2. Properties of Real Numbers
3. Solving Linear Equations
4. Graphing Linear Equations and Functions
5. Writing Linear Equations
6. Solving and Graphing Linear Inequalities
7. Systems of Linear Equations and Inequalities
8. Exponents and Exponential Functions
9. Quadratic Equations and Functions
10. Polynomials and Factoring
11. Rational Expressions and Equations (*with Operations with Radical Expressions*)

Procedures & Policies

- ◆ *Classroom Behavior Rule: "Respect."*
- ◆ *For their own safety, students will not disturb chemistry equipment and supplies.*
- ◆ *Passing period: The passing period will be extended 1 minute for Mr. Strehlow's room. Students may use this extra time to use the restroom or to retrieve an item forgotten in a locker. Once class has begun, students are not allowed to leave the classroom unless it is an emergency.*
- ◆ *Evaluation*
 - ◆ *Letter grades are designed to strictly assess students' levels of mastery.*
 - ◆ *Extra credit work will not be offered.*
 - ◆ *Students will have to show their set-ups and steps in order to get full credit on problems.*
 - ◆ *Weighting for overall grade*

◆ <i>Tests / Performance Assessments</i>	<i>40%</i>
◆ <i>Quizzes</i>	<i>25%</i>
◆ <i>Daily Work</i>	<i>25%</i>
◆ <i>Semester Exam/Project</i>	<i>10%</i>

- ◆ *Grading scale: St. Croix's standard scale as listed in the Student Handbook*
- ◆ **Please note: In order to go on to the next level in math, students need to earn a C- or higher as their final grade for second semester.**
- ◆ *Test retake procedure*
 - ◆ *Complete correctives sheet and attach to original test. Turn in to Mr. Strehlow.*
 - ◆ *Mr. Strehlow will check the correctives sheet for accuracy and completion.*
 - ◆ *If approved, Mr. Strehlow will place a retake test in the study hall test box or the Learning Resource Center. Students may reference the original test and correctives sheet as they do the retake. (See Mr. Strehlow for other arrangements if you do not have a study hall.)*
 - ◆ *Your retake grade will replace your first grade (even if you did worse the second time).*
 - ◆ *You will have approximately one week to complete this retake process.*

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- ◆ *Shows hints, steps, and solutions to all odd-numbered "Practice and Applications" problems in our textbook*
- ◆ *Check Mr. Strehlow's webpage on St. Croix's website for the current password.*

A Typical Class Period

- ◆ *"Parking Lot" (before class)*
 - *On board, students list trouble problems from the previous assignment.*
- ◆ *Preview (10 minutes)*
 - *Students, in teams, read through the next lesson and attempt selected checkpoint problems.*
 - *Meanwhile, the teacher wanders the room, checking for completion of the previous day's homework and answering team questions.*
 - *After some time, teams and teacher share checkpoint problem steps and answers.*
- ◆ *Further instruction and practice (15 minutes)*
 - *Students, individually, are asked to work through problems of varying difficulty and to send their answers to the teacher through their ActivExpressions.*
 - *If a large majority of the class seems to understand a concept, then the teacher moves on to a different problem. If not, he will reteach the concept and ask the class to try a similar problem.*
- ◆ *Assessing previous day's homework (5 minutes)*
 - *Students who did not have their work done will fill out and turn in a "Homework Excuse Sheet." Parents will receive an email about the missing work.*
 - *Homework "Snapshot"*
 - *Students will have only their homework and calculator out.*
 - *The teacher will ask them to copy, step-by-step, a specific assigned homework problem on a separate piece of paper, or the students will work out a new problem similar to those completed in the homework.*
 - *The teacher will collect the snapshots to assess the class's understanding. Periodically, the snapshots will be used for "daily work" grades.*
- ◆ *Wrap-up (15 minutes)*
 - *Closure activity to check understanding of new material*
 - *The teacher addresses high priority items from the "Parking Lot."*
 - *Students begin new assignment as the teacher wanders the room and offers one-on-one assistance.*

Name: _____

Algebra I Syllabus Reflection Questions

1. On a scale of 1 (low) to 5 (high), how would you rate your *ability* in math?
2. On a scale of 1 (low) to 5 (high), how would you rate your *interest* in math?
3. Under the “Procedures & Policies” section, one classroom behavior rule is listed. Please list 3 specific ways that you can follow this rule in this class.
 - a. .
 - b. .
 - c. .
4. You scored a 87% on a test. What letter grade would that be?
5. What is a requirement for going on to geometry next year?
6. Please list 3 situations in which math may be used in the real world.
 - a. .
 - b. .
 - c. .
7. When, exactly, would you be considered tardy in Mr. Strehlow’s class?
8. When may you ask the teacher for an extra credit project?
9. About how long do you have to complete a test retake?
10. Please list three characteristics of a good math teacher.
 - a. .
 - b. .
 - c. .