California State University, Northridge
Summer Academic Enrichment Program

Adventures in Algebra - Road 1

Course Overview
Adventures in Algebra - Road 1 is designed to improve student achievement while integrating the California Content Standards for Public Schools.

Students who have not taken Pre-Algebra will benefit by developing their skills in number theory, operations of arithmetic, evaluating expressions, solving linear equations, operations with integers and rational numbers and graphing on the coordinate plane.

Course Description:
Symbolic reasoning and calculations with symbols are central to Algebra. Through the study of Algebra preparation, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations.

Emphasizing real-world strategies and techniques middle school students will benefit by being better prepared for success in later courses of Algebra I, Geometry, Algebra II, and other mathematical college preparatory classes.

Course Goals and Objectives
Correlates with the Common Core State Math Standards

A. Course Goals and/or Major Student Outcomes

1. Number Sense:
   a. The student will compare and order positive and negative fractions, decimals and mixed numbers. The student will solve problems involving fractions, ratios, proportions, and percentages.
   b. The student will calculate and solve problems involving addition, subtraction, multiplication, and division.

2. Algebra and Functions:
   a. The student will write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results.

3. Statistics, data analysis, and probability:
   a. The student will compute and analyze statistical measurements for data sets.
   b. The student will use data samples of a population and describe the characteristics and limitations of samples.
4. **Mathematical Reasoning:**
   a. The student will make decisions about how to approach problems.
   b. The student will use strategies, skills, and concepts in finding solutions.

**California Learning Standard Objectives:**
The objectives of this course will include, but not limited to, the following.

<table>
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<tr>
<th>Objectives</th>
<th>Standards</th>
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<tr>
<td>1. The student will demonstrate both in class work and homework the ability to compare and order positive and negative fractions, decimals, and mixed numbers. Students will solve problems involving fractions, ratios, proportions, and percentages.</td>
<td>CA. Math Standards N.S. 1.0</td>
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<td>2. Students will demonstrate both in class work and homework the ability to solve problems involving addition, subtractions, multiplication, and division.</td>
<td>CA. Math Standards N.S. 2.0</td>
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<td>3. Students will demonstrate both in class work and homework the ability to write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results.</td>
<td>CA. Math Standards A/F. 1.0</td>
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<td>4. Students will demonstrate both in class work and homework the ability to analyze and use tables, graphs, and rules to solve problems involving rates and proportions.</td>
<td>CA. Math Standards A/F 2.0</td>
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<td>5. Students will demonstrate both in class work and homework the ability to compute and analyze statistical measurements for data sets.</td>
<td>CA. Math Standards S/D/P1.0</td>
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<td>6. Students will demonstrate both in class work and homework the ability to make decisions about how to approach problems.</td>
<td>CA. Math Standards M.R 1.0</td>
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<td>7. Students will demonstrate both in class work and homework the ability to use strategies, skills, and concepts in finding solutions.</td>
<td>CA. Math Standards M.R 2.0</td>
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<td>8. Students will demonstrate both in class work and homework the ability to move beyond a particular problem by generalizing to other situations.</td>
<td>CA. Math Standards M.R. 3.0</td>
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Course Outline

Week One
Greetings, Introduction, and Diagnostic Test.
Order of Operations with Whole Numbers
Integers
Identify Properties
Review for Quiz 1
Quiz 1

Week Two
Fractions & Decimals
  comparing & ordering
  problem solving (addition, subtraction, multiplication & division)
Review for Quiz 2
Quiz 2

Week Three
Percent
  unit cost
  proportional relationships
  problem solving & real world application
Review for Quiz 3
Quiz 3

Week Four
The Coordinate Plane
  graphing
Review for Quiz 4
Quiz 4

Week Five
Data Analysis
  mean, median and mode
  reading & making bar graphs
Review for Quiz 5
Quiz 5
Course Materials:
Texts & Supplemental Instructional Materials
Mathematics: Concepts and Skills
Larson, Boswell, Kanold, and Stiff
McDougal Littell

Cost to Replace $30.00

In addition to the text, students are to bring to class each day the following items:
1. 3-ring notebook binder
2. lined paper
3. graph paper
4. pencils
5. colored pencils
6. two red pens
7. ruler
8. pencil sharpener with a barrel to collect shavings
9. basic calculator (Expensive scientific calculators not needed.)

Course Grading

Key Assignments

1. Daily assignments will be given to introduce, reinforce, and review pertinent material.
2. Assignments may include group work, group projects, oral assignments, textbook exercises, and/or drill exercise sheets.
3. All work, whether classwork or homework must be shown.
4. Class attendance, on a prompt and regular basis, is extremely important as much material is covered throughout the five week session. This is particularly true for Thursdays when the weekly review, in preparation for the weekly quiz, will be conducted.

Instructional Methods and/or Strategies

Instructional methods will include (but not be limited to): lecture; guided practice; independent practice; group work; and readings.
**Grading Policy:**
The grading scale for Adventures in Algebra - Road 1 will be:

- 90 – 100% = A
- 80 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- 59% or less = F

There will be five weekly quizzes for the material covered in this class. Points are also given for homework. Therefore, regular attendance and consistent homework effort can greatly enhance a student’s opportunity for success in this class.

**Academic Integrity**

**Plagiarism**

Plagiarism: “1. The unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one’s own original work.”


Access to technology makes it easier to copy the work of others. The students will learn what constitutes plagiarism and how to steer clear of it. **As a rule, if there are three words in a row that someone else can claim, cite it.** Plagiarism is stealing and cheating and will not be tolerated. Plagiarism is against the law.

The first time a student is caught plagiarizing, there will be a teacher/student conference, a phone call home, no credit given for the assignment, and notification given to the SAEP office.

Copying from a fellow classmate is also unacceptable on homework assignments and individual assessments. The consequences are the same as above.

**Cheating**

Cheating is a reprehensible act subject to a **zero tolerance policy**. For those in doubt about what is considered cheating, here are a few examples:

1. Glancing at another’s quiz or test.
2. Talking (in ANY language).
3. Using notes, opening a textbook and/or notebook.
4. Copying (or orally receiving answers) from a fellow classmate (or anyone else) is also unacceptable on homework assignments.
ANY STUDENT SUSPECTED OF CHEATING IN ANY WAY WILL RECEIVE
AN AUTOMATIC “ZERO” ON THAT QUIZ OR TEST. A SECOND TIME
WILL RESULT IN BEING AUTOMATICALLY DROPPED FROM THE COURSE

Teacherease.com:

Parents and students can access grades and attendance through a web-based grade program at teacherease.com. By the end of the first week, parents will be emailed the password to access the program. If you do not receive your password via email, please contact the office staff at saep@csun.edu and request the password to be re-sent. It is beneficial for you to refer often to the website to check your child's progress and attendance in class. If you have any questions, please feel free to email me.

Classroom Behavior:
The student is expected to demonstrate mature, polite behavior and extend courtesy to everyone at all times:

1. Actively participate, and respectful verbal and nonverbal interaction with all opinions must be shown at all times.
2. Since differing views will be expressed, the teacher and the student(s) will mutually maintain a safe environment for courteous dialogue.
3. Respect is to be shown for all CSUN property.
4. No food or beverages will be permitted in the classroom. Snacks must be eaten outside between the designated breaks.
5. Warnings for behavior / discipline problems will be given once. Any further problems will result in a phone call to the parent(s) or guardian(s) and possible dismissal from the program.

SAEP Electronics Policy

Cell phones, music players and headphones are not permitted to be used during class hours.

a. Please put your cell phone on silent (NOT vibrate).
   b. No texting is allowed during class.

You will be given one verbal warning if the above is not followed. Should a second warning be necessary, your cell phone, music player and/or headphones will be confiscated and held by the teacher until after class. If a third time occurs, your cell phone, music player and/or headphones will be confiscated and held in the SAEP office and MUST BE PICKED UP BY A PARENT.
Adventures in Algebra - Road 1

After reading through the syllabus, please sign and date and have your student return it to class. The signature constitutes your commitment to the class as we partner to make the next five weeks a life-long educational experience for your student.

**Student/ Parent Agreement:**
Please bring this signed and dated Adventures in Algebra - Road 1 syllabus agreement to class tomorrow.

If you do not understand any portion of this syllabus, or if you have any questions regarding this class, please do not hesitate to email the teacher.

We have read and understand the contents of this syllabus.

Student name ______________________________________________________

Student signature____________________________________________________

Date________________

Parent/Guardian name ________________________________________________

Parent/Guardian signature_____________________________________________

Date________________

Phone ______________________________________________________________

E-mail ______________________________________________________________