

Appendix – Resource

San Diego County Office of Education (February 2005): *CAHSEE Prep*.

Textbooks: McDougal Littell, *Pre-Algebra and Algebra I*

Computer Software: *Chariot Test Preparation website, Larson’s Algebra I & Pre-Algebra Software*

Time Schedule	Module	Standard Strand	Standard and concepts
Weeks 1 2 3 4	1	Number Sense	1.2 Adding and subtracting integers 1.2 Multiplying and dividing integers; order of operations 1.1 Scientific notation; introduction to fractions 1.2 Adding and subtracting fractions (like and unlike denominators) 2.2 Adding and subtracting fractions with prime factorization 1.2 Multiplying and dividing fractions 1.2 Adding and subtracting decimals 1.2 Multiplying decimals and whole number powers 1.2 Dividing decimals 1.3 Converting between fractions, decimals, and powers 1.7 Percents- discounts, interest, commission, markups 1.6 Percent increase and decrease 1.3, 1.6, 1.7 Review of all percents 2.1 Multiplying and dividing numbers with exponents (same base) 2.3 Exponent rules 2.4 Square roots 2.5 Absolute value
Weeks 5 6 7 8	2	Algebra and Functions	1.1 Use symbols to write expressions, equations, and inequalities from verbal descriptions. 1.1 Use symbols to write systems of equations from verbal expressions. 1.2 Use correct order of operations to evaluate expressions. 1.5 Interpret different values from a variety of graphs. 1.5 Students will represent data using a variety of different graphs. 2.1 Simplify and evaluate expressions with positive exponents. 2.1 Simplify and evaluate expressions with negative exponents and zero. 2.2 Multiplying and dividing monomials. 2.2 Taking powers and extracting roots. 3.1 Identify quadratic and cubic graphs. 3.3 Identify slope and y-intercept from a graph. 3.3 Write the equation of a line from a graph. 3.4 Plot values and ratios that are the same. Fit a line to a plot. 4.1 Solve two-step linear equations and inequalities 4.2 Solve multi-step problems involving rate; average speed; distance and time; and direct variation.
Weeks 9 10 11 12	3	Measurement and Geometry	1.1 Compare within and between measurements systems 1.2 Construct and read scale drawings 1.3 Use measures expressed as rates and dimensional analysis 2.1, 2.2 Find perimeter and area 2.1 Find surface area 2.1 Find volume 2.2 Find surface area and volume for more complex three-dimensional figures 2.3 Know and apply relationships between units for perimeter, area, and volume 3.2 Plot simple figures and determine lengths and areas 3.2 recognize and perform translations and reflections 3.3 Introduce Pythagorean theorem 3.3 Use Pythagorean theorem to find missing length 3.4 Define congruence of geometric figures
Weeks 13 14 15	4	Statistics, Data Analysis and Probability	1.1 Mean, median, and mode 2.5 Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims. 3.1 Represent all possible outcomes for compound events and express the theoretical probability. 3.3 Represent probabilities. Verify that the probabilities computed are reasonable. 3.5 Understand the difference between independent and dependent events 1.1 Know and use various forms of display for data sets. 1.2 Represent two numerical variables on a scatter plot.
Weeks 16 17 18	5	Algebra I	2.0 Students understand and use such operations as taking the opposite, finding the reciprocal, and taking a root. They understand and use the rules of exponents. 3.0 Students solve equations and inequalities involving absolute values. 4.0 Students simplify expressions before solving linear equations and inequalities in one variable 5.0 Students solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step. 6.0 Students graph a linear equation and compute the x- and y- intercepts. 7.0 Students verify that a point lies on a line, given an equation of the line. 8.0 Students understand the concepts of parallel lines and how those slopes are related. 9.0 Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically. 10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multi-step problems, including word problems, by using these techniques. 15.0 Students apply algebraic techniques to solve rate, work, and percent mixture problems.

The *Chariot Test Preparation website* will be used throughout the courses as an additional resource for each of the strands listed above.