

**ALGEBRA 1**  
**Lesson Plan Master**  
**Mr. Chamberlain**  
**2006-07**

Lesson				Objectives	Procedure	Homework
Thu- Fri	9/7	1	Unit 1 Review	<i>What is Algebra? Variables, Expressions, Order of Operations, Open Sentences, Verbal &amp; Algebraic Models, Problem Solving Techniques, Data Tables and Graphs</i>	Day 1 - Welcome Policies, Procedures, Expectations "Biographical Number Line" Partner Interview Project	HW #1 Chap 1 Review: pg. 56: #1-10 All, #12-58 Even
Mon- Tue	9/11	1	Unit 1 Review	<i>What is Algebra? Variables, Expressions, Order of Operations, Open Sentences, Verbal &amp; Algebraic Models, Problem Solving Techniques, Data Tables and Graphs</i>	POD Correct Homework Review Select HW Problems (wc) Lesson: Unit 1 Vocab (lecture/notes) Order of Operations "GEMDAS" Continue work on Bio Number Line	HW #2 Unit 1 Problem Set
Wed- Thu	9/13	1	Unit 1 Review	<i>Introduce PACE problem solving methodology along with GEPA scoring rubric and reference sheets</i>	POD "Algebra Fun" (wc) Correct Homework Rotate Lecture/Computer Quizzes HW Problems (wc) Use PACE for Open-Ended Question (OEQ) #1 - Grade your partner	HW #3 Chap 1 Self-Test: pg. 59: #1-19 All  Bio Number Final Due next class
Fri- Mon	9/15	1	Unit 1 Review	<i>Review Unit 1 and PACE/OEQ</i>	POD "India K3" (wc) Correct Homework (consensus key) Review Select HW Problems (wc) OEQ #2 - Grade your partner Web Activity - "Fraction Game"	HW #4 pg 56: 13-49 odd

Tue- Wed	9/19	2.1	The Real Number Line and Absolute Value	<i>How to graph and compare real numbers using the real number line. How to find the opposite and absolute value of a number</i>	Correct Homework Test Lesson 2.1 Real Numbers/Abs Value (short lecture; early finishers to read purplemath and do quikchek Activity: Velocity vs. Speed (sg) Web Activity - "Product Game"  Toothpick Squares	HW #5 Do & print the Unit 1 web-based self-test  Study for Unit 1 Test (optional web-based test)
Thu- Fri	9/21		Unit 1 Test	<i>Unit 1 Test</i>	POD (wc) Correct Homework Review Select HW Problems (wc) Lesson: Add & Subtract Reals Groups: 1) Lesson 2) web-based Purplemath tutorials and Quik Checks and Purplemath 3) PACE solve & score	HW #6 pg 66-67: #12-18, 35-48
		2.2 2.3	Adding & Subtracting Real Numbers	<i>How to Add &amp; Subtract Real Numbers Using a Number Line, Integer Counters or Addition Rules</i>		
Mon- Tue	9/25	2.2 2.3	Adding & Subtracting Real Numbers	<i>Understand the rules of addition and subtraction; How to convert subtraction problems into addition problems</i>	POD (wc) Correct Homework Review Select HW Problems (wc) Lesson: Converting Subtraction to Addition (lecture/notes) Groups 1) Lecture 2) web-based Purplemath and QuickCheks Complete Problem Set 2A	HW #7 pg 71: #21-32 pg 78: #7-22
Wed- Thu	9/27	2.4	Exploring Data: Matrices	<i>Organize data in a matrix; Add &amp; Subtract Matrices</i>	Lab: Fred's Footwear - Sales Analysis using Spreadsheets/Matrices	HW #8 pg 72-73: #41-52 pg 78: #33-44 pg 84-85: #11-16 #23-24 Complete Matrix Math Lab "Fred's Footwear"

Fri- Tue	9/29	2.1-2. Review 2.1/2.4		<i>Understand addition, subtraction and multiplication using integer counters; Articulate <b>addition</b> as a <b>combining</b> process, <b>subtraction</b> as a <b>removal</b> process and <b>multiplication</b> as a process of <b>combining or removing groups</b></i>	Integer Counters activity using manipulatives and Easiteach-based (smartboard) manipulatives	HW #9 pg 88 #1-22
Wed- Thu	10/4	Quiz 2.1/2.4  2.5 Multiplying & 2.7 Dividing Real Numbers	Quiz  <i>How to Multiply &amp; Divide Real Numbers</i>		POD (wc) Correct Homework Review Select HW Problems (wc) Quiz (ind.) Multiplication & Division (lecture/notes) Multiplication of negatives using integer counters (ind. activity) "Defining Math" Be creative Have Fun and define math terms for an alien visitor	HW #10 pg 92: #31-38 pg 104: #17-28
Fri- Mon	10/6	2.6 Distributive Property	<i>Use the distributive property to simplify expressions</i>		POD Diamond Problems Distributive property worksheets and web-based manipulatives using virtual algebra tiles Problem Set 2B	HW #11 pg 98: #17-24, #37-44, #51-52
Tue- Wed	10/10	2.6 Distributive Property	<i>Use the distributive property to simplify expressions</i>		POD (wc) Correct Homework Review Select HW Problems (wc) Lesson - Simplifying Expressions & the Distributive Property (lecture/notes) Lab: web-based Distributive Property (pairs activity)	HW #12 pg 110: #5-13 #26,28 (express answers in fraction form) pg 98 #29-32, 45,46

Thu- Fri	10/12	2.8	Rates & Ratios	<i>Understand and use rates and ratios in real-life applications</i>	POD (wc) Correct Homework Review Select HW Problems (wc) Lesson - Rates & Ratios Unit 2 Jeopardy Review	HW #13 pg 119: #1-25 (answers provided)
		3.1 3.2	Solving Multi-Step Equations	<i>Understand an equation as a balance of two expressions</i>	Use the "Solving Equations Action Bank" graphic organizer to understand available steps to solving equations	pg 132 #8-16
Mon- Tue	10/16		Unit 2 Test	<i>Unit 2 Test</i>	Take Unit 2 Test	
		3.1 3.2	Solving One and Two-Step Equations	<i>How to solve one- and two-step equations using the four operations</i>	Continue utilization of solving equations graphic organizer	HW #14 pg 126 #25-39 pg 132 #17-22
Wed- Thu	10/18	3.3	Solving Equations with Variables on Both Sides	<i>How to collect variables on one side of an equation</i>	POD (wc) Review Select HW Problems (wc) Lesson: Two-step equations Comp Lab - "Balancing Equations" (pairs activity)	HW #15 pg 138: #13-30
Fri- Mon	10/20	3.5	Solving Equations that Involve Decimals	<i>How to find exact and approximate solutions of equations containing decimal numbers and measurements</i>	POD (wc) Correct HW Review Select HW Problems (wc) AntSet: "Switching Sides" Lesson: Variables on Both Sides Guided Practice: Problems on Board and in groups Close: Is it OK to Switch Sides? Ticket Out	HW #16 pg 151: #26-32 pg 152: #49-59

Tue- Wed	10/24	Quiz		<i>Quiz on 3.1 thru 3.3, 3.5 Solving Equations</i>		
		3.6	Literal Equations and Formulas	<i>How to solve literal equations, especially formulas, for a specified variable</i>  <i>Solving literal equations by using distribution "in reverse"</i>	AntSet: "I didn't mean it literally" (by the letter). SKITS 1) "Let's get moving" 2) Let's get cooking" 3) "Let's keep our eye on the ball" Lesson: Solving Literal Eqns (wc) Guided Practice: Do Now problems on board and in pairs (pairs) Close: What did we learn? & TcktOut	HW #17 SHOW WORK! ... and solve algebraically!! pg 157: #1-8, 13, 16, 19 pg 147: #10-12
Thu- Fri	10/26	3.4	Problem-Solving Strategies	<i>Use P.A.C.E. as a problem- solving strategy</i>  <i>How to use algebraic models to answer questions about real-life situations</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (wc) Quiz AntSet: "Picture is Worth 1000 Words" Lesson: P.A.C.E. (wc) Guided Practice: GEPA OEQ Close: Pictures/Models/Graphs	HW #18 Unit 3 Problem Set
Mon- Tue	10/30	3	Review	<i>Review Unit 3 Problem Set</i>	POD - Rob's Stamps; show how to define a variable IN TERMS OF another  Students work in pairs review the Unit 3 problem set	HW #19 pg 168 #1-25
Wed- Thu	11/1	3	<b>Unit 3 Test</b>	<b>Unit 3 Test</b>	Test  Sudoku puzzles for early finishers!	No Homework!!

Fri- Mon	11/3	4	Functional Relationships; Graphing in the Coordinate Plane	<i>To understand functional relationships between two variables; Practice/review graphing functions in the coordinate plane</i>	Fostering Algebraic Thinking "Tiling Garden Beds" Lab and Lab 4.1 Graphing in the x-y coordinate plane	HW #20 Complete Lab 4.1  Read Coolmath (section 4.1 on mathchamber)
Wed- Mon	11/8		Unit 3 Booster	<i>Unit 3 Booster Review</i>	Due in part to "some" poor performances on the Unit 3 Test and the RM software training; this is a giveback review day to prepare for a grade "booster" quiz	HW #21 pg 168 #1-23 pg 165 #33-35
Tue- Wed	11/14		Unit 3 Booster Quiz	<i>Unit 3 Booster Quiz</i>		
		4.1	Graphing Linear Equations in One Variable	<i>How to graph horizontal and vertical lines in the coordinate plane and use their equations</i>	POD (wc) Correct HW (pairs) Review Unit 3 Test AntSet: Simplest way to define "In a nutshell"	HW #22 pg 163-65 #8,12, 23-26
		3.7	Scatterplots	<i>How to use a coordinate plane to match points with ordered pairs of numbers</i>  <i>How to use a scatter plot</i>	Lesson: Lab 4.2 Graphs to Stories Close: Ticket Out	pg 180 #11,12,15,16, 19,20,23,24
Thu- Fri	11/16	4.2	Graphing Linear Equations in Two Variables	<i>How to graph a linear equation from a table of values</i>  <i>How to interpret graphs of linear equations</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: Rates of Change Tortoise and the Hare Lesson: Linear Equations in Two Variables (wc) Guided Practice: Do Now problems on board and in pairs (pairs) Close: Ticket Out	HW #23 pg 186 #5,6,9,10,13,14,21- 24,27-28 pg 188 #33,34

Mon- Tue	11/20	4.3	Quick Graphs Using Intercepts	<i>How to find the intercepts of the graph of a linear equation and use intercepts to sketch a quick graph of a line</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: How many points do you need to make a line? Lesson: Linear Equations in Two Variables (wc) Guided Practice: Do Now problems on board and in pairs (pairs) Close: Ticket Out	HW #24 pg 193-94 #7-10,15,16, 25,26,31-34, 40,41,53-56  pg 188 #37,38, 41,42
Wed- Mon	11/22	4	RCCP - Win Win Situations	<i>GAME - WIN AS MUCH AS YOU CAN</i>	Teamwork means that everyone can win!	No HW! Happy T'giving!
Tue- Wed	11/28	4.4	The Slope of a Line	<i>How to find the slope of a line using two of its points</i>  <i>How to interpret slope as a constant rate of change or an average rate of change</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: Ski Slopes; Hit the Slopes Lesson: Finding Slope Graphically and with the Formula; Vertical Change over Horizontal; Rise over Run; Rate of Change	HW #25 pg 201-02 #13,14,22,23,24, 33-36,44,46  READ ALL 3 Lessons (Purplemath, Coolmath and my link) prior to next class

Thu- Fri	11/30	4.5	Quick Graphs Using Slope- Intercept Form	<i>How to find the slope and y- intercept from a linear equation</i>  <i>How to use the slope-intercept form to sketch a line and solve real-life problems</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: Lesson: Standard Form; Substitute zero for x and y	HW #26 pg 208 #17-24, 28- 34; (you may sketch two lines per x-y coordinate plane) pg 210 #45-48, 53- 56 (you may sketch all 4 lines on one x-y coordinate plane)
Mon- Tue	12/4	4.5a	Rate of Change and "Possibilities" Word Problems	<i>How to convert real life problems using linear equations and graphs</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: Lesson: Start Unit 4 Problem Set B in class and complete for HW	HW #27 Unit 4 Problem Set B
Wed- Thu	12/6	4.5	Review Slope- Intercept Form	<i>Extra review of slope and slope- intercept form. Re-work several of the tougher problem set examples in class.</i>	POD (wc) Correct HW (pairs) Review Select HW Problems (ob,wc) AntSet: Lesson: Focus on steps; Solve for zero; replace zero with y	HW #28 pg 230 #1-24,41- 42
Fri- Tue	12/8	4.7	Graphing Absolute Value Equations	<i>How to graph an absolute value equation</i>  <i>How to model a real-life situation using graphs of absolute value equations</i>	POD (wc) Correct HW (pairs) Review Select HW Problems Ant Set: It's BA-AACK, solve for the "Blob" in Absolute Value Problems Lesson: Graphing and solving absolute value equations... there are TWO	HW #29 pg 220-21 #9-12, 29-30, 33-40
Wed- Thu	12/13		Unit 4 Review	<i>Unit 4 Review</i>	POD (wc) Correct HW Unit Review Workshop	HW #30 pg 230 #29-32; pg 233 #1-14,17-21

Fri- Mon	12/15		Unit 4 Review	<i>Extra Practice - Unit 4 Problem Set C</i>	<i>Extra Practice - Unit 4 Problem Set C</i>	HW #31 Complete Problem Set C and (optional) Problem Set D
Tue- Wed	12/19		Unit 4 Test  Equations of Lines Using Slope-Intercept Form	<i>Unit 4 Test</i>	Take Unit 4 Test early finishers work on HW	HW #32 pg 239-40 #9-28
Thu- Fri	12/21		Review Test & HW	<i>Review Unit 4 Test and Unit 5 HW</i>		Winter Break! NO HW!
Tue- Wed	1/2	5.1 5.2	Equations of Lines Given the Slope and a Point			HW #33 pg 241 #31-52
Thu- Fri	1/4	5.4	Equations of Lines Given Two Points	<i>How to use slope-intercept form to write the equation of a line</i>  <i>How to write an equation in slope-intercept form when given incomplete information</i>	WC: POD Pairs: Correct HW AS: How do you solve a puzzle (sometimes one piece at a time, sometimes multiple pieces) SmGrp: Workshop in groups of three; find missing information to generate an equation in slope-intercept form. Graph the results. T/Out: (4, -5) slope of -2	HW #34 pg 245 #17-24, 31-32 pg 252 #19-26 pg 254 #40

Mon- Tue	1/8	5.6	Point-Slope Form of a Linear Equation	<i>Out of School on Mon-Tue Subs had kids do Unit 5 Problem Set A</i>		HW #35 Complete Unit 5 Problem Set A
Wed- Thu	1/10		Review for Unit 5 Quiz	<i>Previous two homework assignments were reviewed</i>		HW #36 pg 252-54 #11-18, 23-28, 39-42
Fri- Tue	1/12	5.4	Unit 5 Quiz	<i>Unit 5 Quiz</i>	After quiz, 1) 7 Bridges of Konigsburg (for fun) 2) Best Fit Analysis - Selling Hot and Cold drinks at the game; what is the effect of temperature on beverage sales?	HW #37 pg 259 #7-13,16 pg 263 #1-10
Wed- Thu	1/16	5.5	Standard Form of a Linear Equation	<i>How to transfer a linear equation into standard form</i>  <i>How to model a real-life situations using the standard form of a linear equation</i>	POD (wc) Review HW (pairs) AS: Wrap it up! Put a Bow on it! Lsn: Standard Form is simply "constant=" form with integer coefficients Continue with Best Fit group work T/Out: Find StdFm for $y = -1/2 x + 3$	pg 266-267 #10-24 Unit 5 Problem Set B

Fri- Mon	1/18	5.7	Problem Solving Using Linear Models	<i>How to create and use linear models to solve models</i>  <i>How to make linear models that are accurate AND simple to use</i>	POD (wc) Review HW (pairs) AS: PACE yourself Lsn: List your facts... if you have two variables maybe you can use a linear model Group work on sample problems GEPA Practice Test	Worksheet - Unit 5 problem Set C
Tue- Wed	1/22		Unit 5 Review	<i>Unit 5 Review</i>	POD (wc) Review HW (pairs) AS: Right Tool for the Job Algebra Toolkit	pg 285-87 #1-15 odd, #27-35 odd, #40-43 all, #47,51,53,55,57 SHOW WORK! Will be collected!
Thu- Fri	1/24		Unit 5 Test	<i>Unit 5 Test</i>	Take Test	