

PECOS HIGH SCHOOL

Algebra 1

1<sup>st</sup> Six Weeks Syllabus

<p>Student Expectations: Write mathematical expressions for verbal expressions. Write verbal expressions for mathematical expressions. Evaluate numerical expressions by using the order of operations. Evaluate algebraic expressions by using the order of operations.</p> <p>August 24 : <u>Glencoe Mathematics Texas Algebra I</u>, pages 6 – 15, Lessons 1-1 and 1-2</p>
<p>Student Expectations: Use the Distributive Property to evaluate expressions. Use the Distributive Property to simplify algebraic expressions. Identify the hypothesis and conclusion statement. Use a counterexample to show that an assertion is false.</p> <p>August 31: <u>Glencoe Mathematics Texas Algebra I</u>, pages 27 – 32 and 39 – 44 Lessons 1-5 and 1-7</p>
<p>Student Expectations: Addition, Subtraction, Multiplication, and Division of integers. Interpret graphs of functions. Draw graphs of functions.</p> <p>September 7: Other resources to be used for integer practice. <u>Glencoe Mathematics Texas Algebra I</u>, pages 51 – 56, Lesson 1-9</p>
<p>Student Expectations: Classify and graph real numbers. Find square roots and order real numbers..</p> <p>September 14: <u>Glencoe Mathematics Texas Algebra I</u>, pages 45 - 50, Lesson 1-8</p>
<p>Student Expectations: Translate verbal sentences into equations. Translate equations into verbal sentences. Solve equations by using addition. Solve equations by using subtraction. Solve equations by using multiplication. Solve equations by using division</p> <p>September 21: <u>Glencoe Mathematics Texas Algebra I</u>, pages 68 – 74, 76 – 82 and 83 - 88 sections 2-1, 2-2, and 2-3</p>
<p>Student Expectations: Solve equations by using multiplication. Solve equations by using division. Review all materials covered this six weeks – including but not limited to release TAKS test questions</p> <p>September 28: <u>Glencoe Mathematics Texas Algebra I</u>, pages 83 – 88 Lesson 2-3 First Six Weeks Benchmark test (covers everything done in class up to this date)</p>

PECOS HIGH SCHOOL

Algebra 1

2<sup>nd</sup> Six Weeks Syllabus

<p>Student Expectations: Solve equations involving more than one operation. Solve consecutive integer problems. Solve equations with the variable on each side. Solve equations involving grouping symbols.</p> <p>October 5 : <u>Glencoe Mathematics Texas Algebra I</u>, pages 90 -95 and 96 - 101, Lessons 2-4, and 2-5</p>
<p>Student Expectations: Solve equations with the variable on each side. Solve equations involving grouping symbols.</p> <p>October 12: <u>Glencoe Mathematics Texas Algebra I</u>, pages 96-101, Lesson 2-5</p>
<p>Student Expectations: Solve equations with the variable on each side. Solve equations involving grouping symbols</p> <p>October 19: <u>Glencoe Mathematics Texas Algebra I</u>, pages 96-101, Lesson 2-5</p>
<p>Student Expectations: Solve equations with the variable on each side. Solve equations involving grouping symbols Solve equations for given variables. Use formulas to solve real-world problems</p> <p>October 26: <u>Glencoe Mathematics Texas Algebra I</u>, pages 96-101 and 115-119, Lesson 2-5 and 2-8</p>
<p>Student Expectations: Solve equations for given variables. Use formulas to solve real-world problems. Determine whether two ratios form a proportion. Solve proportions.</p> <p>November 2: <u>Glencoe Mathematics Texas Algebra I</u>, pages 115-119 and 103-108, Lessons 2-8 and 2-6</p>
<p>Student Expectations: Solve problems using the Pythagorean Theorem. Determine whether a triangle is a right triangle. Find percents of increase and decrease. Solve problems involving percents of change.</p> <p>November 9: <u>Glencoe Mathematics Texas Algebra I</u>, pages 541-546 and 109-113 Lesson 10-4 and 2-7 Second Six Weeks Benchmark Test (covers everything done in class up to this date)</p>

PECOS HIGH SCHOOL

Algebra 1

3<sup>rd</sup> Six Weeks Syllabus

<p>Student Expectations: Solve mixture problems. Solve uniform motion problems. Represent relations as sets of ordered pairs, tables, mappings, and graphs. Find the inverse of a relation. Determine whether a relation is a function. Find functional values.</p> <p>November 16 : <u>Glencoe Mathematics Texas Algebra I</u>, pages 120 – 126, 141 – 146 and 147 – 152 Lessons 2-9, 3-1 and 3-2</p>
<p>Student Expectations: Represent relations as sets of ordered pairs, tables, mappings, and graphs. Find the inverse of a relation. Determine whether a relation is a function. Find functional values.</p> <p>November 23: <u>Glencoe Mathematics Texas Algebra I</u>, pages 141 – 146 and 147 – 152 Lessons 3-1 and 3-2</p>
<p>Student Expectations: Identify linear equations, intercepts, and zeros. Graph linear equations.</p> <p>November 30: <u>Glencoe Mathematics Texas Algebra I</u>, pages 154 – 169, Lesson 3-3</p>
<p>Student Expectations: Identify linear equations, intercepts, and zeros. Graph linear equations. Use rate of change to solve problems. Find the slope of a line. Write an equation for a proportional relationship. Write an equation for a nonproportional relationship.</p> <p>December 7 : <u>Glencoe Mathematics Texas Algebra I</u>, pages 154 – 169, 185 – 193, 170 - 174 and Lesson 3-3, 4-1 and 3-5</p>
<p>Student Expectations: Use rate of change to solve problems. Find the slope of a line. Write and graph direct variation equations. Solve problems involving direct variation</p> <p>December 14 <u>Glencoe Mathematics Texas Algebra I</u>, pages 185-193 and 194 - 200, Lessons 4-1 and 4-2</p>
<p>Student Expectations: Write and graph linear equations in slope-intercept form. Model real-world data with an equation in slope-intercept form.</p> <p>January 4 <u>Glencoe Mathematics Texas Algebra I</u>, Chapter pages 202 – 207, Lesson 4-3</p>
<p>Student Expectations: Semester exam week – modified class schedules Review for semester exam</p> <p>January :11 Third Six Weeks Benchmark (covers everything done in class up to this date)</p>

PECOS HIGH SCHOOL

Algebra 1

4<sup>th</sup> Six Weeks Syllabus

Student Expectations:

- Write an equation of a line given the slope and one point on a line.
- Write an equation of a line given two points on the line.
- Write the equation of a line in point-slope form.
- Write linear equations in different forms.

January 18:

Glencoe Mathematics Texas Algebra 1, pages 211 – 216 and 218 - 223, Lessons 4-4 and 4-5

Student Expectations:

- Write the equation of a line in point-slope form.
- Write linear equations in different forms.
- Write an equation of the line that passes through a given point parallel to a given line.
- Write an equation of the line that passes through a given point, perpendicular to a given line.
- Interpret points on a scatter plot
- Use lines of fit to make and evaluate predictions.

January 25:

Glencoe Mathematics Texas Algebra 1, pages 218 - 223, 234 – 239 and 225 - 231 Lessons 4-5, 4-7 and 4-6

Student Expectations:

- Determine whether a system of linear equations has no, one or infinitely many solutions.
- Solve systems of equations by graphing.
- Solve systems of equations by using substitution.
- Solve real-world problems involving systems of equations.
- Solve systems of equations by using elimination with addition.
- Solve systems of equations by using elimination with subtraction.
- Solve system of equations by using elimination with multiplication.
- Solve real-world problems involving systems of equations.

February 1:

Glencoe Mathematics Texas Algebra 1, pages 251-256, 258-263, 264-268 Lesson 5-1, 5-2, 5-3, and 5-4

Student Expectations:

- Determine whether a system of linear equations has no, one or infinitely many solutions.
- Solve systems of equations by graphing.
- Solve systems of equations by using substitution.
- Solve real-world problems involving systems of equations.
- Solve systems of equations by using elimination with addition.
- Solve systems of equations by using elimination with subtraction.
- Solve system of equations by using elimination with multiplication.
- Solve real-world problems involving systems of equations.
- Solve linear inequalities by using addition.
- Solve linear inequalities by using subtraction.
- Solve linear inequalities by using multiplication.
- Solve linear inequalities by using division.
- Solve linear inequalities involving more than one operation.
- Solve linear inequalities involving the Distributive Property.

February 8:

Glencoe Mathematics Texas Algebra 1, pages 251-256, 258-263, 264-268, 292 – 297, 299-305, and 306-311 Lesson 5-1, 5-2, 5-3, 5-4, 6-1, 6-2, and 6-3

**Student Expectations:**

- Solve linear inequalities by using addition.
- Solve linear inequalities by using subtraction.
- Solve linear inequalities by using multiplication.
- Solve linear inequalities by using division.
- Solve linear inequalities involving more than one operation.
- Solve linear inequalities involving the Distributive Property.
- Solve compound inequalities containing the word *and* and the graph their solution sets.
- Solve compound inequalities containing the word *or* and the graph their solution sets.
- Graph inequalities on the coordinate plane.
- Solve real-world problems involving linear inequalities.

February 15:

Glencoe Mathematics Texas Algebra I, pages 292–297, 299-305, 306-311, 313-318, and 328-333 Lesson 6-1, 6-2, 6-3, 6-4 and 6-6

**Student Expectations:**

- Graph inequalities on the coordinate plane.
- Solve real-world problems involving linear inequalities.
- Solve systems of inequalities by graphing.
- Solve real world problems involving systems of inequalities.

February 22:

Glencoe Mathematics Texas Algebra I, pages 328-333 and 335-339, Lessons 6-6 and 6-7  
Fourth Six Weeks Benchmark (covers everything done in class up to this date)

PECOS HIGH SCHOOL

Algebra 1

5<sup>th</sup> Six Weeks Syllabus

Student Expectations:

- Multiply monomials.
- Simplify expressions involving powers of monomials.
- Simplify expressions involving the quotient of monomials.
- Simplify expressions containing negative exponents.

March 1:

Glencoe Mathematics Texas Algebra I, pages 352–358 and 360-367, Lessons 7-1 and 7-2

Student Expectations:

- Simplify expressions involving the quotient of monomials.
- Simplify expressions containing negative exponents.
- Find the degree of a polynomial.
- Arrange the terms of a polynomial in ascending or descending order.
- Add polynomials.
- Subtract polynomials.
- Find the product of a monomial and a polynomial.
- Solve equations involving polynomials.

March 8:

Glencoe Mathematics Texas Algebra I, pages 360-367, 370-375, 378-382 and 384-389 Lessons 7-2, 7-3, 7-4 and 7-5

Student Expectations:

- Find the product of a monomial and a polynomial.
- Solve equations involving polynomials
- Multiply two binomials by using the FOIL method.
- Multiply two polynomials by using the Distributive Property.
- Find prime factorizations of monomials.
- Find the greatest common factors of monomials.
- Factor polynomials by using the Distributive Property.
- Solve quadratic equations of the form  $ax^2 + bx = 0$ .

March 22:

Glencoe Mathematics Texas Algebra I, pages 384-389, 392-397, 414-418 and 420-425 Lessons 7-5, 7-6, 8-1 and 8-2

Student Expectations:

- Find prime factorizations of monomials.
- Find the greatest common factors of monomials.
- Factor polynomials by using the Distributive Property.
- Solve quadratic equations of the form  $ax^2 + bx = 0$ .
- Factor trinomials of the form  $x^2 + bx + c$ .
- Solve equations of the form  $x^2 + bx + c = 0$ .
- Solve quadratic equations by graphing.
- Estimate solutions of quadratic equations by graphing.

March 29:

Glencoe Mathematics Texas Algebra I, pages 428-433, 435-440, and 474-489 Lessons 8-3, 8-4 and 9-2

Student Expectations:

- Measures of central tendency.
- Determine whether two triangles are similar.
- Find the unknown measures of sides of two similar triangles.
- Solve problems by using the Pythagorean Theorem
- Determine whether a triangle is a right triangle.

April 5:

Glencoe Mathematics Texas Algebra I, pages 703-704, 552-557, and 541-546 Lessons

Prerequisite Skill 10, 10-6 and 10-4

**Student Expectations:**

Review for TAKS to be administered on:

April 27, 2010 for 10<sup>th</sup> graders

April 28, 2010 for 11<sup>th</sup> graders

April 29, 2010 for 9<sup>th</sup> graders

**April 12:**

Review materials will be provided by the teacher.

PECOS HIGH SCHOOL

Algebra 1

6<sup>th</sup> Six Weeks Syllabus

<p>Student Expectations: Review for TAKS to be administered on: April 27, 2010 for 10<sup>th</sup> graders April 28, 2010 for 11<sup>th</sup> graders April 29, 2010 for 9<sup>th</sup> graders</p> <p>April 19: Review materials will be provided by the teacher.</p>
<p>Student Expectations: Pass the TAKS</p> <p>April 26: TAKS testing will be taking place the whole week</p>
<p>Student Expectations: Review Algebra topics not on the TAKS in preparation for End of Course Exam for Algebra 1</p> <p>May 3: Review materials will be provided by the teacher.</p>
<p>Student Expectations: Review Algebra topics not on the TAKS in preparation for End of Course Exam for Algebra 1</p> <p>May 10: Review materials will be provided by the teacher.</p>
<p>Student Expectations: Measures of central tendency. Determine whether two triangles are similar. Find the unknown measures of sides of two similar triangles. Solve problems by using the Pythagorean Theorem Determine whether a triangle is a right triangle.</p> <p>May 17: <u>Glencoe Mathematics Texas Algebra I</u>, pages 703-704, 552-557, and 541-546 Lessons Prerequisite Skill 10, 10-6 and 10-4</p>
<p>Student Expectations: Semester exam week – modified class schedules Review for semester exam</p> <p>May 24: Review materials will be provided by the teacher.</p>