

# Kershaw County School District

## 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

<p><b>August/September</b>  <b>Math Prerequisites / Rules of Algebra:</b></p> <ul style="list-style-type: none"> <li>• Order of Operations</li> <li>• Variables</li> <li>• Properties – Associative, Commutative, Distributive, Identity, Zero</li> <li>• Solving One Step Equations</li> <li>• Introduce Inequalities</li> </ul> <p><b>Integers</b>            7-2.2 Number line            7-2.3 Comparing numbers            7-2.4 Absolute value            7-2.8 integers            7-2.9 decimals and fractions            7-3.1 patterns</p>	<p><b>October</b>  <b>Solving Equations and Inequalities</b>            7-2.2 number line            7-2.6 exponents            7-2.8 integers            7-2.9 decimals and fractions            7-3.4 two-step equations and inequalities</p>	<p><b>November</b>  <b>Decimals and Fractions</b>            7-2.1 percents            7-2.2 number line            7-2.7 scientific notation            7-2.8 integers            7-2.9 decimals and fraction            7-3.1 patterns            7-3.4 two-step equations and inequalities</p>
<p><b>December</b>  <b>Multi-Step Equations and Inequalities</b>            7-2.2 number line            7-2.8 integers            7-2.9 decimals and fraction            7-3.4 two-step equations and inequalities            7-3.5 graph inequalities            7-5.4 Equivalencies of standard and metric            7-5.5 Conversion of standard and metric</p>	<p><b>January</b>  <b>Graphing Functions, Systems, and Inequalities</b>            7-3.2 Rate of change            7-3.3 Slope            7-3.7 Classify relationships</p>	<p><b>February</b>  <b>Proportions and Percentages</b>            7-2.1 percents            7-2.5 ratios, rates, and proportions            7-2.8 integers            7-2.9 decimals and fractions            7-3.4 two-step equations and inequalities            7-5.1 scale factors            7-6.6 interpret probability of mutually exclusive events</p>

**Kershaw County School District**  
**7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007**

<p><b>March</b> <b>Data and Probability</b> 7-6.1 predicting 7-6.2 box plots and circle graphs 7-6.3 Calculate interquartile range 7-6.4 Interpret interquartile range 7-6.5 Calculate probability of mutually exclusive events 7-6.7 Experimental and theoretical probability 7-6.8 counting principle</p>	<p><b>April</b> <b>Geometry and Review</b> 7-2.8 integers 7-2.9 decimals and fraction 7-4.1 geometric Properties of triangles 7-4.10 Angle measurements of tessellations 7-4.2 Intersection of shapes 7-4.3 cross section of solids 7-4.4 compound figures (Nets) 7-4.5 Transversals 7-4.6 Areas 7-4.7 Proportional relationships of shapes 7-4.8 proportional reasoning 7-4.9 tessellations 7-5.1 Scale factors 7-6.2 box plots and circle graphs</p>	<p><b>May</b> <b>Review All Standards</b></p>
---	--	---

# Kershaw County School District

## 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

### **Text Book Resources**

Textbook: Glencoe Pre-Algebra 2001 ed. Teacher Resource Kit

- Student Practice Workbook
- SC PACT Workbook
- Enrichment Masters

### **Suggested Supplemental Resources**

- Math Support Document
- PACT Student Reference Sheet (introduce in October and review in April with Geometry)
- Fantastic Five
- Hands On Equations
- Accelerated Math
- Scholastic Math magazine
- Middle School Math with Pizzazz
- Buckle Down
- Challenge the PACT
- AGS
- PACT Coach
- Learning Resources: Relational GeoSolids

### **Internet Resources**

- [www.glencoe.com](http://www.glencoe.com)
- <<http://nlvm.us.edu/en/nav/vlibrary.html>> (virtual manipulatives)
- United Streaming
- BrainPop.com

### **Teacher Contacts**

- [davislo@kcsd.k12.sc.us](mailto:davislo@kcsd.k12.sc.us)
- [dawsonk@kcsd.k12.sc.us](mailto:dawsonk@kcsd.k12.sc.us)
- [hydevolpej@kcsd.k12.sc.us](mailto:hydevolpej@kcsd.k12.sc.us)
- [katsl@kcsd.k12.sc.us](mailto:katsl@kcsd.k12.sc.us)
- [langleyd@kcsd.k12.sc.us](mailto:langleyd@kcsd.k12.sc.us)
- [stewartj@kcsd.k12.sc.us](mailto:stewartj@kcsd.k12.sc.us)
- [stukese@kcsd.k12.sc.us](mailto:stukese@kcsd.k12.sc.us)
- [weeksl@kcsd.k12.sc.us](mailto:weeksl@kcsd.k12.sc.us)
- [wehunti@kcsd.k12.sc.us](mailto:wehunti@kcsd.k12.sc.us)

# Kershaw County School District

## 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

### Vocabulary

absolute value  
adjacent angle  
alternate exterior angle  
alternate interior angle  
area  
complementary angles  
compound events  
congruence  
corresponding angles  
cross section  
deductive reasoning  
directly proportional  
expanded form  
experimental probability  
fractional percent  
fundamental counting principle  
indirectly proportional  
inductive reasoning  
integer  
interquartile range  
inverse operations  
inverse relationship  
multistep events  
mutually exclusive events  
perfect square  
perimeter  
proportion  
proportion relationships  
rate  
ratio

ratio  
scale factor  
scientific notation  
similar shapes  
similarity  
simple events  
slope  
square root  
standard form  
supplementary angles  
tessellation  
theoretical probability  
transformation  
transversals  
trapezoid  
two-step equations  
two-step inequalities

# Kershaw County School District

## 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

### Assessment Options

#### Glencoe Resources per Chapter

- 6 alternative end of chapter tests (Teacher may choose to use some as pre-test, practice, or study guides)
- Free Response Performance Assessment
- Mid-Chapter Test
- 4 quizzes
- Standardized Test Practice
- Cumulative Review
- Chapter Study Guide in Student Text
- Chapter Practice Test in Student Text
- On-line Practice Test Options (See Resource List)

#### Additional Assessments

- Placement Test
- Semester Test
- End of Year Test
- Teacher Made Assessments (Test, Projects, Portfolios)
- PACT practice tests (See Resource List)

# Kershaw County School District

## 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

### 7<sup>th</sup> Grade Standards Checklist Numbers and Operations

Number Structure and Relationships – Rational Numbers				
Indicator	1 <sup>st</sup> nine weeks	2 <sup>nd</sup> nine weeks	3 <sup>rd</sup> nine weeks	4 <sup>th</sup> nine weeks
7-2.1 Understand fractional percentages and percentages greater than one hundred.				
7-2.10 Understand the inverse relationship between squaring and finding the square roots of perfect squares.				
7-2.2 Represent the location of rational numbers and square roots of perfect squares on a number line.				
7-2.3 Compare rational numbers, percentages, and square roots of perfect squares by using the symbols $\leq$ , $\geq$ , $<$ , $>$ , and $=$ .				
7-2.4 Understand the meaning of absolute value.				
7-2.6 Translate between standard form and exponential form.				
7-2.7 Translate between standard form and scientific notation.				
Comments:				
Operations and Proportional Reasoning				
7-2.8 Generate strategies to add, subtract, multiply, and divide integers.				
7-2.9 Apply an algorithm to multiply and divide fractions and decimals.				
7-2.5 Apply ratios, rates, and proportions to discounts, taxes, tips, interest, unit costs, and similar shapes.				
Comments:				

### 7<sup>th</sup> Grade Standards Checklist Algebra

Patterns, Relationships, and Functions				
Indicator	1 <sup>st</sup> nine weeks	2 <sup>nd</sup> nine weeks	3 <sup>rd</sup> nine weeks	4 <sup>th</sup> nine weeks
7-3.1 Analyze geometric patterns and pattern relationships.				
7-3.7 Classify relationships as either directly proportional, inversely proportional, or nonproportional.				
Comments:				

## Kershaw County School District 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

Representations, Properties, and Proportional Reasoning				
7-3.6 Represent proportional relationships with graphs, tables and equations.				
Comments:				
Solve Mathematical Situations				
7-3.4 Use inverse operations to solve two-step equations and two-step inequalities.				
7-3.5 Represent on a number line the solution of a two-step inequality.				
Comments:				
Change in Various Contexts				
7-3.2 Analyze tables and graphs to describe the rate of change between and among quantities.				
7-3.3 Understand slope as a constant rate of change				
Comments:				

### 7<sup>th</sup> Grade Standards Checklist Geometry

Plane and Transformational -Plane				
Indicator	1 <sup>st</sup> nine weeks	2 <sup>nd</sup> nine weeks	3 <sup>rd</sup> nine weeks	4 <sup>th</sup> nine weeks
7-4.2 Explain the results of the intersection of two or more geometric shapes in a plane.				
7-4.3 Illustrate the cross section of a solid.				
7-4.4 Translate between two- and three-dimensional representations of compound figures.				
7-4.5 Analyze the congruent and supplementary relationships – specially, alternate interior, alternate exterior, corresponding, and adjacent – of the angles formed by parallel lines and a transversal.				
Comments:				
Plane and Transformational - Transformational				
7-4.9 Create tessellations with transformations.				
7-4.10 Explain the relationship of the angle measurements among				

## Kershaw County School District 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

shapes that tessellate.				
7-4.1 Analyze geometric, properties and the relationships among the properties of triangles, congruence, similarity, and transformations to make deductive arguments.				
Comments:				
<b>Proportional Reasoning</b>				
7-4.6 Compare the areas of similar shapes and the areas of congruent shapes.				
7-4.7 Explain the proportional relationship among attributes of similar shapes.				
7-4.8 Apply proportional reasoning to find missing attributes of similar shapes.				
Comments:				

### 7<sup>th</sup> Grade Standards Checklist Measurement

Perimeter, Circumference, Area and Volume				
Indicator	1 <sup>st</sup> nine weeks	2 <sup>nd</sup> nine weeks	3 <sup>rd</sup> nine weeks	4 <sup>th</sup> nine weeks
7-5.2 Apply strategies and formulas to determine the surface area and volume of the three-dimensional shapes prism, pyramid, and cylinder.				
7-5.3 Generate strategies to determine the perimeters and areas of trapezoids.				
Comments:				
Proportional Reasoning				
7-5.2 Use ratio and proportion to solve problems involving scale factors and rates.				
Comments:				
Equivalencies				
7-5.4 Recall equivalencies associated with length, mass and weight, and liquid volume: 1 square yard = 9 square feet, 1 cubic meter = 1				

## Kershaw County School District 7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007

million cubic centimeters, 1 kilometer = $\frac{5}{8}$ mile, 1 inch -2.54 centimeters, 2.2 kilograms $\approx$ 1 pound, and 1.06 quarts $\approx$ 1 liter				
Comments:				
Conversions				
7-5.5 Use one-step unit analysis to convert between and within the U.S. Customary System and the metric system.				
Comments:				

### 7<sup>th</sup> Grade Standards Checklist Data Analysis and Probability

Collection and Representation				
Indicator	1 <sup>st</sup> nine weeks	2 <sup>nd</sup> nine weeks	3 <sup>rd</sup> nine weeks	4 <sup>th</sup> nine weeks
7-6.2 Organize data in the box plots or circle graphs as appropriate.				
Comments:				
Data Analysis				
7-6.1 Predict the characteristics of two populations based on the analysis of sample data.				
7-6.3 Apply procedures to calculate the interquartile range.				
7-6.4 Interpret the interquartile range for data.				
Comments:				
Probability				
7-6.5 Apply procedures to calculate the probability of mutually exclusive simple or compound events.				
7-6.6 Interpret the probability of mutually exclusive simple or compound events.				
7-6.7 Differentiate between experimental and theoretical probability of the same event.				
7-6.8 Use the fundamental counting principle to determine the number of possible outcomes for a multistage event.				
Comments:				

**Kershaw County School District**  
**7<sup>th</sup> Grade – Pre-Algebra Curriculum Map 2007**

