

# Hickman County Curriculum Map

Seventh Grade

Mathematics

Third Six Weeks

Grade Level Expectations	Checks for Understanding	Student Performance Indicator(s)
GLE 0706.3.1 Recognize and generate equivalent forms for simple algebraic expressions.	0706.3.1 Perform basic operations on linear expressions (including grouping, order of operations, exponents, simplifying and expanding).	SPI 0706.3.1 Evaluate algebraic expressions involving rational values for coefficients and/or variables.
GLE 0706.3.2 Understand and compare various representations of relations and functions.  and  GLE 0706.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.	0706.1.10 Model algebraic equations with manipulatives, technology, and pencil and paper.	SPI 0706.3.7 Translate between verbal and symbolic representations of real-world phenomena involving linear equations.
GLE 0706.3.3 Understand the concept of function as	0706.3.3 Identify a function from a written description, table, graph, rule, set of ordered	SPI 0706.3.2 Determine whether a relation

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a rule that assigns to a given input one and only one number (the output).	pairs, and/or mapping.	(represented in various ways) is a function.
GLE 0706.3.3 Understand the concept of function as a rule that assigns to a given input one and only one number (the output).	0706.3.2 Represent and analyze mathematical situations using algebraic symbols.  0706.3.4 Make tables of inputs $x$ and outputs $f(x)$ for a variety of rules that include rational numbers (including negative numbers) as inputs.	SPI 0706.3.3 Given a table of inputs $x$ and outputs $f(x)$ , identify the function rule and continue the pattern.

### Unit Review and Assessment

GLE 0706.3.5 Understand and graph proportional relationships.	0706.3.5 Plot points to represent tables of linear function values.	SPI 0706.3.5 Represent proportional relationships with equations, tables and graphs.
GLE 0706.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and	0706.1.4 Recognize quantities that are inversely proportional (such as the relationship between the lengths of the base and the side of a rectangle with fixed area)  0706.1.5 Understand that a linear function in which $f(0) = 0$ is called a directly proportional	SPI 0706.1.3 Recognize whether information given in a table, graph, or formula suggests a directly proportional, linear, inversely proportional, or other nonlinear relationship.

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<p>interpret solutions.</p>	<p>relationship.</p> <p>0706.3.5 Plot points to represent tables of linear function values.</p> <p>0706.3.7 Distinguish proportional relationships (<math>y/x = k</math>, or <math>y = kx</math>) from other relationships, including inverse proportionality (<math>xy = k</math>, or <math>y = k/x</math>).</p>	
<p>GLE 0706.3.6 Conceptualize the meanings of slope using various interpretations, representations, and contexts.</p>	<p>0706.3.8 Understand slope as the ratio of vertical change to horizontal change. 0706.3.9 Identify a function exhibiting a constant rate of change as a linear function and identify the slope as a unit rate.</p> <p>0706.3.10 Solve problems involving unit rates (e.g., miles per hour, words per minute).</p> <p>0706.3.5 Plot points to represent tables of linear function values.</p> <p>0706.3.11 Relate the features of a linear equation to a table and/or graph of the equation.</p> <p>0706.3.12 Use linear equations to solve problems and interpret the meaning of slope, <math>m</math>, and the <math>y</math>-intercept, <math>b</math>, in <math>f(x) = mx + b</math> in terms of the context.</p> <p>0706.4.5 Solve problems using ratio quantities: velocity (measured in units such as miles per</p>	<p>SPI 0706.3.4 Interpret the slope of a line as a unit rate given the graph of a proportional relationship.</p>

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	hour), density (measured in units such as kilograms per liter), pressure (measured in units such as pounds per square foot), and population density (measured in units such as persons per square mile).	
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