

PLT Correlations: MATH GRADE 8

Content Standard 1: Mathematical Processes

Learning Expectations	PLT Correlations
<p>GLE 0806.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</p> <p>GLE 0806.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</p> <p>GLE 0806.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</p> <p>GLE 0806.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</p>	
<p>GLE 0806.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</p> <p>GLE 0806.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</p>	<p>73. Waste Watchers (p.314) - Students learn how to read an electric meter and apply this skill to measure their energy use over a one-week period. They examine the data for all students in the class in terms of the range and average.</p> <p>50. 400-Acre Wood (p.217) - Students allocate portions of a 400-acre plot to various uses and calculate revenue and costs associated with these.</p> <p>64. Looking at Leaves (p.273) - Students explore leaf attributes such as color, shape, size, and bilateral symmetry.</p> <p>67. How Big Is Your Tree? (p.284) - Students use string or “hand-spans” to measure the distance around a tree trunk or join arms to reach around larger trunks.</p>
<p>GLE 0806.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</p>	<p>12. Invasive Species (p.59) - As an Enrichment, students solve a math problem involving projected population growth in a nutria population.</p> <p>73. Waste Watchers (p.314) - Students learn how to read an electric meter and apply this skill to measure their energy use over a one-week period. They examine the data for all students in the class in terms of the range and average.</p>

	<p>50. 400-Acre Wood (p.217) - Students allocate portions of a 400-acre plot to various uses and calculate revenue and costs associated with these.</p> <p>67. How Big Is Your Tree? (p.284) - Students use string or “hand-spans” to measure the distance around a tree trunk or join arms to reach around larger trunks.</p>
<p>GLE 0806.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.</p>	

Content Standard 2: Number and Operations

Learning Expectations	PLT Correlations
<p>GLE 0806.2.1 Extend understanding of the real number system to include irrational numbers.</p>	
<p>GLE 0806.2.2 Solve problems involving exponents and scientific notation using technology appropriately.</p>	
<p>GLE 0806.2.3 Solve real-world problems using rational and irrational numbers.</p>	
<p>GLE 0806.2.4 Understand and use the laws of exponents.</p>	

Content Standard 3: Algebra

Learning Expectations	PLT Correlations
GLE 0806.3.1 Recognize and generate equivalent forms for algebraic expressions.	
GLE 0806.3.2 Represent, analyze, and solve problems involving linear equations and inequalities in one and two variables.	
GLE 0806.3.3 Solve systems of linear equations in two variables.	
GLE 0806.3.4 Translate among verbal, tabular, graphical and algebraic representations of linear functions.	
GLE 0806.3.5 Use slope to analyze situations and solve problems.	
GLE 0806.3.6 Compare and contrast linear and nonlinear functions.	

Content Standard 4: Geometry and Measurement

Learning Expectations	PLT Correlations
<p>GLE 0806.4.1 Derive the Pythagorean theorem and understand its applications.</p> <p>GLE 0806.4.2 Understand the relationships among the angles formed by parallel lines cut by transversals.</p> <p>GLE 0806.4.3 Understand the necessary levels of accuracy and precision in measurement.</p>	
<p>GLE 0806.4.4 Understand both metric and customary units of measurement.</p> <p>GLE 0806.4.5 Use visualization to describe or identify intersections, cross-sections, and various views of geometric figures.</p>	<p>67. How Big Is Your Tree? (p.284) - Students use string or “hand-spans” to measure the distance around a tree trunk or join arms to reach around larger trunks.</p>

Content Standard 5: Data Analysis, Statistics and Probability

Learning Expectations	PLT Correlations
<p>GLE 0806.5.1 Explore probabilities for compound, independent and/or dependent events.</p>	
<p>GLE 0806.5.2 Select, create, and use appropriate graphical representations of data (including scatterplots with lines of best fit) to make and test conjectures.</p> <p>GLE 0806.5.3 Evaluate the use of statistics in media reports.</p>	<p>50. 400-Acre Wood (p.217) - Students allocate portions of a 400-acre plot to various uses and calculate revenue and costs associated with these.</p>