

# PLT Correlations: MATH GRADE 3 (revised 5/2010)

## Content Standard 1: Mathematical Processes

Learning Expectations	PLT Correlations
<p>GLE 0306.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</p> <p>GLE 0306.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</p> <p>GLE 0306.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</p> <p>GLE 0306.1.4 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 0306.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</p>	<p><b>12. Invasive Species (p. 59)</b> - As an <b>Enrichment</b>, students solve a math problem involving projected population growth in a nutria population.</p> <p><b>25. Birds and Worms (p. 111)</b> - Students create bar graphs for their results.</p> <p><b>27. Every Tree For Itself (p.117)</b> - Students record and compare results of the simulation for rounds conducted according to different scenarios.</p> <p><b>32. A Forest of Many Uses (p.135)</b> - Students categorize forest uses into three types: wildlife, recreation, or products.</p> <p><b>37. Reduce, Reuse, Recycle (p.159)</b> - Students create tables, charts, and graphs of volumes, weights, quantities, and types of solid waste collected.</p> <p><b>48. Field, Forest and Stream (p.203)</b> - Students measure and compare light, moisture, temperature, and wind at various locations.</p> <p><b>73. Waste Watchers (p.314)</b> - 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><b>77. Trees, in Trouble (p.332)</b> Students measure and graph the effects of crowding, acid, and fertilizer on seedling height and radish diameter.</p>

	<p><b>80. Nothing Succeeds Like Succession (p.345)</b> - Students collect data over time regarding types of plants, growth rate, changes in plant density, species composition, etc.</p>
<p>GLE 0306.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</p>	
<p>GLE 0306.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</p>	<p><b>12. Invasive Species (p. 59)</b> - As an <b>Enrichment</b>, students solve a math problem involving projected population growth in a nutria population.</p> <p><b>22. Trees as Habitats (p.102)</b> - Students organize their data into tables and graphs to summarize their findings.</p> <p><b>25. Birds and Worms (p. 111)</b> - Students create bar graphs for their results.</p> <p><b>27. Every Tree For Itself (p.117)</b> - Students record and compare results of the simulation for rounds conducted according to different scenarios.</p> <p><b>32. A Forest of Many Uses (p.135)</b> - Students categorize forest uses into three types: wildlife, recreation, or products.</p> <p><b>37. Reduce, Reuse, Recycle (p.159)</b> - Students create tables, charts, and graphs of volumes, weights, quantities, and types of solid waste collected.</p> <p><b>48. Field, Forest and Stream (p.203)</b> - Students measure and compare light, moisture, temperature, and wind at various locations.</p> <p><b>73. Waste Watchers (p.314)</b> - 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><b>77. Trees, in Trouble (p.332)</b> Students measure and graph the effects of crowding, acid, and fertilizer on seedling height and radish diameter.</p> <p><b>80. Nothing Succeeds Like Succession (p.345)</b> - Students collect data over time regarding types of plants, growth rate, changes in plant density, species composition, etc.</p>
<p>GLE 0306.1.8 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
GLE 0306.2.1 Understand the place value of whole numbers to ten-thousands place including expanded notation for all arithmetic operations.	
GLE 0306.2.2 Develop understanding of multiplication and related division facts through multiple strategies and representations.	
GLE 0306.2.3 Relate multiplication and division as inverse operations.	
GLE 0306.2.4 Solve multiplication and division problems using various representations.	
GLE 0306.2.5 Understand the meaning and uses of fractions.	
GLE 0306.2.6 Use various strategies and models to compare and order fractions and identify equivalent fractions.	
GLE 0306.2.7 Add and subtract fractions with like denominators using various models.	

## Content Standard 3: Algebra

Learning Expectations	PLT Correlations
GLE 0306.3.1 Develop meaning for and apply the commutative, associative, and distributive properties using various representations.	

GLE 0306.3.2	Develop understanding that a letter or a symbol can represent an unknown quantity in a simple mathematical expression/equation.	
GLE 0306.3.3	Describe and analyze patterns and relationships in contexts.	
GLE 0306.3.4	Create and represent patterns using words, tables, graphs, and symbols.	

Content Standard 4: Geometry and Measurement		
Learning Expectations		PLT Correlations
GLE 0306.4.1	Describe, compare, and analyze properties of polygons.	<b>1. The Shape of Things (p.17)</b> - In Part B, students take a walk and look for their assigned shapes.
GLE 0306.4.2	Understand and apply the concepts of congruence and symmetry.	
GLE 0306.4.3	Understand and use attributes of 2- and 3-dimensional figures to solve problems.	
GLE 0306.4.4	Use appropriate units, strategies and tools to solve problems involving perimeter.	<b>67. How Big Is Your Tree? (p.284)</b> - Students use string or “hand-spans” to measure the distance around a tree trunk or join arms to reach around larger trunks.
GLE 0306.4.5	Solve measurement problems involving fractional parts of linear units and capacity units.	

## Content Standard 5: Data Analysis, Statistics and Probability

Learning Expectations	PLT Correlations
<p>GLE 0306.5.1 Organize, display, and analyze data using various representations to solve problems.</p>	<p><b>4. Sounds Around (p. 26)</b> - In Part B, students create “sound maps”. They estimate and record the distance for each sound, and then measure actual distances.</p> <p><b>13. We All Need Trees (p.65)</b> - In Part B, students classify actual objects as “made from trees” or not.</p> <p><b>22. Trees as Habitats (p.102)</b> - Students organize their data into tables and graphs to summarize their findings.</p> <p><b>25. Birds and Worms (p. 111)</b> - Students create bar graphs for their results.</p> <p><b>27. Every Tree For Itself (p.117)</b> - Students record and compare results of the simulation for rounds conducted according to different scenarios.</p> <p><b>37. Reduce, Reuse, Recycle (p.159)</b> - Students create tables, charts, and graphs of volumes, weights, quantities, and types of solid waste collected.</p> <p><b>47. Are Vacant Lots Vacant? (p.200)</b> - Students sketch and tally the plants and animals they observe.</p> <p><b>73. Waste Watchers (p.314)</b> - 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><b>77. Trees, in Trouble (p.332)</b> Students measure and graph the effects of crowding, acid, and fertilizer on seedling height and radish diameter.</p> <p><b>80. Nothing Succeeds Like Succession (p.345)</b> - Students collect data over time regarding types of plants, growth rate, changes in plant density, species composition, etc.</p>