

**Grade 4 PLT Correlations to Minnesota Academic Standards in Mathematics**

			Math correlation grade																											
strand	Sub-strand	Standard	benchmark	Pre K-8	Pre K-5	gr K-8	Pre K-8	PreK-8	K-6	K-8	gr 3-6	Gr 1-8	PreK-6	gr 4-8	gr 4-8	gr 4-8	gr 4-8	K-6	gr 4-6	gr 4-8	gr 4-8	K-8	gr 4-8	gr 1-8	gr 3-8					
				Project Learning Tree Activity Number:	4	6	16	21	22	25	27	28	32	36	38	41	47	48	53	65	66	67	69	70	73	77	80			
page number (2006 edition)				26	34	77	97	102	111	117	120	135	153	163	179	200	203	232	277	279	284	291	297	314	332	345				
				Sounds Around	Picture This	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	A Forest of Many Uses	Pollution Search	Every Drop Counts	How Plants Grow	Are Vacant Lots Vacant?	Field, Forest, and Stream	On the Move	Bursting Buds	Germinating Giants	How Big is Your Tree?	Forest for the Trees	Soil Stories	Waste Watchers	Trees in Trouble	Succeeds Like Succession				
I. Mathematical Reasoning		Apply skills of mathematical representation, communication and reasoning throughout the remaining four content strands.	1. Communicate, reason and represent situations mathematically.																											
			2. Solve problems by distinguishing relevant from irrelevant information, sequencing and prioritizing information and breaking multi-step problems into simpler parts.										0			0														
			3. Evaluate the reasonableness of the solution by considering appropriate estimates and the context of the original problem.																											
			4. Know when it is appropriate to estimate and when an exact answer with whole numbers, fractions or decimals is needed.																											
			5. Express a written problem in suitable mathematical language, solve the problem and interpret the result in the original context.																											
			6. Support mathematical results using pictures, numbers, and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.																											
II. Number Sense, Computation, & Reasoning	A. Number Sense	Represent whole numbers in various ways to quantify information and to solve real-world and mathematical problems. Understand the concept of fractions and decimals.	1. Read and write whole numbers to 100,000 in numerals and words.																											
			2. Compare and order whole numbers.																											
			3. Use fractions and decimals to solve problems representing parts of a whole, parts of a set and division of whole numbers by whole numbers in real-world and mathematical problems.																			0								
			4. Use rounding and estimation with whole numbers to solve real-world and mathematical problems.																				0							
B. Computation and Operation	Compute fluently and make reasonable estimates with whole numbers in real-world and mathematical problems. Understand	1. Use addition and subtraction of multi-digit whole numbers to solve multi-step real-world and mathematical problems.												X				0		0				X						
		2. Add up to three whole numbers containing up to three digits each, without a calculator.																	0											

X = Significant correlation  
0 = some correlation

**Grade 4 PLT Correlations to Minnesota Academic Standards in Mathematics**

			Math correlation grade																							
			Pre K-8	Pre K-5	gr K-8	Pre K-8	PreK-8	K-6	K-8	gr 3-6	Gr 1-8	PreK-6	gr 4-8	gr 4-8	gr 4-8	gr 4-8	K-6	gr 4-6	gr 4-8	gr 4-8	K-8	gr 4-8	gr 1-8	gr 3-8		
			4	6	16	21	22	25	27	28	32	36	38	41	47	48	53	65	66	67	69	70	73	77	80	
			page number (2006 edition)																							
			26	34	77	97	102	111	117	120	135	153	163	179	200	203	232	277	279	284	291	297	314	332	345	
strand	Sub-strand	Standard	benchmark	Sounds Around	Picture This	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	A Forest of Many Uses	Pollution Search	Every Drop Counts	How Plants Grow	Are Vacant Lots Vacant?	Field, Forest, and Stream	On the Move	Bursting Buds	Germinating Giants	How Big is Your Tree?	Forest for the Trees	Soil Stories	Waste Watchers	Trees in Trouble	Succeeds Like Succession
		the meanings of arithmetic operations and how they relate to one another.	3. Subtract whole numbers containing up to three digits each, without a calculator.															0								
			4. Demonstrate mastery of multiplication facts for the numbers 0-10, without a calculator.															0								
			5. Use multiplication and division of whole numbers to solve simple real-world and mathematical problems.															0	0					X		
			6. Use the inverse relationship of multiplication and division to compute and check results.																							
			7. Multiply single digit multiples of powers of ten such as 300 x 60 or 70 x 3, mentally.															0								
III. Patterns, Functions, & Algebra	A. Patterns and Functions	Understand and describe patterns in tables and graphs.	1. Examine and describe patterns in tables and graphs.																							
	B. Algebra (Algebraic Thinking)	Apply arithmetic operations in the correct order to compute with whole numbers in real-world and mathematical problems.	1. Identify a missing number or operation in a simple arithmetic equation such as 3 _ 4 = 12 or 45 / _ = 9.																							
			2. Use the properties of arithmetic that involve ordering, grouping and the numbers 1 and 0, to do simple computations with whole numbers.																							
IV. Data Analysis, Statistics, & Probability	A. Data and Statistics	Represent and interpret data in real-world and mathematical problems.	1. Collect data using observations or surveys and represent the data with tables and graphs with labeling.	X	X		0	0	X			X		X	0	0	X				0			0		0
			2. Use mathematical language to describe a set of data.																							
	B. Probability	Model simple probabilities by displaying the outcomes for real-world and mathematical problems.	1. Express outcomes of random experiments verbally and numerically such as 3 out of 4 or ¾.																							
			2. Use physical models and pictures to represent possible arrangements of two or three objects.														0									
V. Spatial Sense	A. Spatial Sense	Understand spatial relationships and	1. Identify congruent and similar figures.																							

X = Significant correlation  
0 = some correlation

**Grade 4 PLT Correlations to Minnesota Academic Standards in Mathematics**

				Math correlation grade																								
				Pre K-8	Pre K-5	gr K-8	Pre K-8	PreK-8	K-6	K-8	gr 3-6	Gr 1-8	PreK-6	gr 4-8	gr 4-8	gr 4-8	gr 4-8	K-6	gr 4-6	gr 4-8	gr 4-8	K-8	gr 4-8	gr 1-8	gr 3-8			
				4	6	16	21	22	25	27	28	32	36	38	41	47	48	53	65	66	67	69	70	73	77	80		
				Project Learning Tree Activity Number:																								
				page number (2006 edition)																								
strand	Sub-strand	Standard	benchmark	Sounds Around	Picture This	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	A Forest of Many Uses	Pollution Search	Every Drop Counts	How Plants Grow	Are Vacant Lots Vacant?	Field, Forest, and Stream	On the Move	Bursting Buds	Germinating Giants	How Big is Your Tree?	Forest for the Trees	Soil Stories	Waste Watchers	Trees in Trouble	Succeeds Like Succession		
Sense, Geometry, & Measurement	Sense	relationships and describe them using language such as congruent, similar, parallel and perpendicular.	2. Identify parallel and perpendicular lines.																									
	B. Geometry	Use attributes of two- and three-dimensional shapes to identify them and distinguish between them.	1. Identify, describe, and classify two- and three-dimensional shapes by their attributes.																									
			2. Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.																									
C. Measurement	Measure and calculate length and area using appropriate tools and units to solve real-world and mathematical problems. Make change with money.	1. Find the area and perimeter of a rectangle by measuring, using a grid, or using a formula, and label the answer with appropriate units. 2. Understand that rectangles with the same area can have different perimeters and that rectangles with the same perimeter can have different areas. 3. Make change using as few coins and bills as possible up to \$20.	1. Find the area and perimeter of a rectangle by measuring, using a grid, or using a formula, and label the answer with appropriate units.				0				0										0	0						
			2. Understand that rectangles with the same area can have different perimeters and that rectangles with the same perimeter can have different areas.				0																0	0				
			3. Make change using as few coins and bills as possible up to \$20.																									

The Project Learning Tree PreK-8 Activity Guide is written from a comprehensive environmental systems-based perspective and is multidisciplinary and cross-curricular in nature. Many lessons cover a wide spectrum of topics.

This correlations system represents PLT's interpretation of the Minnesota Academic Standards and their relation to the PLT PreK-8 Activity Guide (2006 revision). The activities are correlated to the Minnesota Academic Standards to illustrate the level to which the lessons address the learning benchmarks within the standards. No activities are designed to specifically meet the U.S. National Education Standards or the Minnesota Academic Standards. Individual educators are responsible for addressing specific requirements outlined within the Minnesota Academic Standards. Although each PLT activity provides assessment suggestions, individual educators are responsible for assessing student work. We strongly encourage all educators to modify lessons from the PLT Guide as they best see fit.

The grid below suggests correlations between each PLT activity and the MN Academic Benchmarks it addresses. An "x" means that the activity partially or fully addresses the concepts and language used in the Benchmark. An "o" means that the activity introduces the concepts and language used in the Benchmark.

We welcome your comments and suggestions regarding the accuracy and usefulness of this system. We sincerely hope you will find these correlations useful as you integrate PLT activities into your curriculum.