Grade 6 PLT Correlations to Minnesota Academic Standards in Mathematics

strand	Sub-strand	Standard	benchmark	Sounds Around (4, gr PreK-8, p.26)	Invasive Species (12, gr 5-8, p.59)	Pass the Plants, Please (16, gr K-8, p.77)	Adopt a Tree (21, PreK-8, p.97)	Trees as Habitats (22, PreK-8, p.102)	Birds and Worms (25, K-6, p.111)	Every Tree for Itself (27, K-8, p.117)	Air Plants (28, gr 3-6, p.120)	Rain Reasons (29, Gr 6-8, p.123)	A Forest of Many Uses (32, Gr 1-8, p.135)	Loving it Too Much (35, Gr 6-8, p.147)	Pollution Search (36, PreK-6, p.153)	Reduce, Reuse, Recycle (37, Gr 5-8, p.159)	Every Drop Counts (38, gr 4-8, p.163)	How Plants Grow (41, gr 4-8, p.179)	Are Vacant Lots Vacant? (47, gr 4-8, p.200)	Field, Forest, and Stream (48, gr 4-8, p.203)	On the Move (53, gr 4-8, p.232)	Bursting Buds (65, K-6, p.277)	Germinating Giants (66, gr 4-6, p.279)	How Big is Your Tree? (67, gr 4-8, p.284)	Forest for the Trees (69, gr 4-8, p.291)	Soil Stories (70, K-8, p.297)	Waste Watchers (73, gr 4-8, p.314)	Trees in Trouble (77, gr 1-8, p.332)	Nothing Succeeds Like Succession (80, gr 3-8, p.345)	The Global Climate (84, gr 6-8, p.363)	In The Driver's Seat (85, gr 5-8, p.370)
I. Mathematical Reasoning		Apply skills of mathematical representation, communication and reasoning throughout the remaining four content strands.	1. Assess the reasonableness of a solution by comparing the solution to appropriate graphical or numerical estimates or by recognizing the feasibility of a solution in a given context.																												
			2. Appropriately use examples and counterexamples to make and test conjectures, justify solutions and explain results.																												
			3. Translate a problem described verbally or by tables, diagrams or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in the original context.		o																									0	
			4. Support mathematical results by explaining why the steps in a solution are valid and why a particular solution method is appropriate.																												
			5. Determine whether or not relevant information is missing from a problem.																												
			6. Use accurately common logical words and phrases such as "and," "or," "if … then …," "unique," "only if."																												
II. Number Sense, Compulation, & Reasoning	A. Number Sense	Use positive and negative rational numbers, represented in a variety of ways, to quantify information and to solve real-world and mathematical problems.	1. Order and compare integers, fractions, decimals and mixed numbers with >, <, and =. Locate and compare positive and negative rational numbers on a number line.																												
			2. Use rounding and estimation with integers, decimals and fractions to solve real-world and mathematical problems.																											0	
	B. Computation and Operation	Compute fluently and make reasonable estimates with positive and negative rational numbers in	1. Determine the prime factorization of positive integers.																												
			2. Determine the least common multiple and the greatest common divisor of whole numbers.																												

X = Significant correlation
0 = some correlation

Grade 6 PLT Correlations to Minnesota Academic Standards in Mathematics

strand	Sub-strand	Standard	benchmark	4 Sounds Around	12 Invasive Species	16 Pass the Plants, Please	21 Adopt a Tree	22 Trees as Habitats	25 Birds and Worms	27 Every Tree for Itself	28 Air Plants	29 Rain Reasons	32 A Forest of Many Uses	35 Loving it Too Much	36 Pollution Search	37 Reduce, Reuse, Recycle	38 Every Drop Counts	41 How Plants Grow	47 Are Vacant Lots Vacant?	48 Field, Forest, and Stream	53 On the Move	65 Bursting Buds	66 Germinating Giants	67 How Big is Your Tree?	69 Forest for the Trees	70 Soil Stories	73 Waste Watchers	77 Trees in Trouble	80 Nothing Succeeds Like Succession	84 The Global Climate	85 In The Driver's Seat
			page number (2006 edition): 26		59	77	97	102	111	117	120	123	135	147	153	159	163	179	200	203	232	277	279	284	291	297	314	332	345	363	370
		real-world and mathematical problems. Understand the meanings of arithmetic operations and factorization, and how they relate to one another. Appropriately use calculators and other technologies to solve problems.	3. Use addition, subtraction, multiplication and division of multi-digit whole and decimal numbers to solve multi-step real-world and mathematical problems.		o												X						0	0			X			X	X
			4. Multiply and divide, without a calculator, numbers containing up to three digits by numbers containing up to two digits, such as 347 / 83 or 4.91 x 9.2.																		0		0	0							X
			5. Find quotients with remainders and be able to express the remainder in various ways depending on the context of the problem.																											
			6. Use the relationship between moving the decimal point and the operations of multiplication or division by powers of 10 to simplify calculations.																											
			7. Add, subtract, multiply and divide common fractions and mixed numbers as well as fractions where the common denominator equals one of the denominators.																											
			8. Find, represent and use percentages in real-world and mathematical problems, including percentages greater than 100% and less than 1%.																				0							X	
			9. Apply the correct order of operations and grouping symbols when using calculators and other technologies.																				0								
			10. Know, use and translate calculator notational conventions to mathematical notation.																				0								
			11. Understand that use of a calculator requires appropriate mathematical reasoning and does not replace the need for mental computation.																				0								

X = Significant correlation
0 = some correlation

Grade 6 PLT Correlations to Minnesota Academic Standards in Mathematics

Math correlation grade	PreK-8	gr 5-8	gr K-8	PreK-8	PreK-8	K-6	K-8	gr 3-6	Gr 6-8	Gr 1-8	Gr 6-8	PreK-6	Gr 5-8	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 4-6	gr 4-8	gr 1-8	gr 3-8	gr 6-8	gr 5-8
Project Learning Tree Activity Number:	4	12	16	21	22	25	27	28	29	32	35	36	37	38	41	47	48	53	65	66	67	69	70	73	77	80	84	85
page number (2006 edition)	26	59	77	97	102	111	117	120	123	135	147	153	159	163	179	200	203	232	277	279	284	291	297	314	332	345	363	370
Activity name	Sounds Around	Invasive Species	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	Rain Reasons	A Forest of Many Uses	Loving it Too Much	Pollution Search	Reduce, Reuse, Recycle	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	Nothing Succeeds Like Succession	The Global Climate	In The Driver's Seat

strand	Sub-strand	Standard	benchmark	4	12	16	21	22	25	27	28	29	32	35	36	37	38	41	47	48	53	65	66	67	69	70	73	77	80	84	85
Grade 6 III. Patterns, Functions, & Algebra	A. Patterns and Functions	Demonstrate understanding of the rectangular coordinate system.	1. Demonstrate understanding of the four quadrants in a rectangular coordinate system by writing and plotting ordered pairs.																												
	B. Algebra (Algebraic Thinking)	Apply arithmetic operations in the correct order to simplify and evaluate numeric expressions in real-world and mathematical problems.	1. Apply the correct order of operations including addition, subtraction, multiplication, division and grouping symbols to simplify and evaluate numeric expressions.																												
Grade 6 IV. Data Analysis, Statistics, & Probability	A. Data and Statistics	Represent data and use various measures associated with data to draw conclusions and identify trends.	1. Collect, organize and represent categorical and numerical data with tables and bar graphs.	X	X	X		0	0	0					0			X		0				0		X	0		0	X	0
			2. Understand the differences and appropriate use of mean, median and mode.																												
			3. Find the median and possible outliers.																												
	B. Probability	Calculate and express probabilities numerically, and apply probability concepts to solve real-world and mathematical problems.	1. Generate and display data in graphs and tables to estimate experimental probabilities.																											0	
			2. Represent all possible outcomes for a probability problem with tables, grids and tree diagrams to calculate probabilities and draw conclusions from the results.																												
Grade 6 V. Spatial Sense, Geometry, & Measurement	A. Spatial Sense	Recognize the relationship between different representations of two and three-dimensional shapes. Understand the effect of various transformations.	1. Create models of three-dimensional geometric shapes from two-dimensional representations.																												
			2. Predict the position and orientation of simple geometric shapes under transformations such as reflections, rotations and translations.																												
			3. Identify symmetries in three-dimensional shapes.																												

X = Significant correlation
0 = some correlation

Grade 6 PLT Correlations to Minnesota Academic Standards in Mathematics

strand	Sub-strand	Standard	benchmark	Sounds Around	Invasive Species	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	Rain Reasons	A Forest of Many Uses	Loving it Too Much	Pollution Search	Reduce, Reuse, Recycle	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	Nothing Succeeds Like Succession	The Global Climate	In The Driver's Seat
Math correlation grade				PreK-8	gr 5-8	gr K-8	PreK-8	PreK-8	K-6	K-8	gr 3-6	Gr 6-8	Gr 1-8	Gr 6-8	PreK-6	Gr 5-8	gr 4-8	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 4-6	gr 4-8	gr 1-8	gr 3-8	gr 6-8	gr 5-8
Project Learning Tree Activity Number:				4	12	16	21	22	25	27	28	29	32	35	36	37	38	41	47	48	53	65	66	67	69	70	73	77	80	84	85
page number (2006 edition)				26	59	77	97	102	111	117	120	123	135	147	153	159	163	179	200	203	232	277	279	284	291	297	314	332	345	363	370
	B. Geometry	Identify a variety of simple geometric figures by name, calculate various quantities associated with them and use appropriate tools to draw them.	1. Use facts about angles including the relationship between complementary angles, supplementary angles and the angles within triangles to solve real-world and mathematical problems.																												
			2. Classify triangles as equilateral, isosceles or scalene, and right, acute or obtuse.																												
			3. Find the area and circumference of a circle given the radius or diameter using common approximations of pi where appropriate.																												
			4. Measure, identify, and draw perpendicular and parallel lines, angles and rectangles by using appropriate tools such as straightedge, ruler, compass, protractor or software.																					0							
	C. Measurement	Make calculations of time, length, area and volume within standard measuring systems, using good judgment in choice of units.	1. Solve problems requiring conversion of units within the U.S. customary system, and within the metric system.																					X							
			2. Express measures of time and distance as fractions, mixed numbers and decimals to solve real-world and mathematical problems.																					X						0	
			3. Find the area and perimeter of rectangles, squares, triangles and parallelograms by measuring, using a grid or using a formula.																					0							

X = Significant correlation
0 = some correlation

Grade 6 PLT Correlations to Minnesota Academic Standards in Mathematics				PreK-8	gr 5-8	gr K-8	PreK-8	PreK-8	K-6	K-8	gr 3-6	Gr 6-8	Gr 1-8	Gr 6-8	PreK-6	Gr 5-8	gr 4-8	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	gr 6-8	gr 5-8
			Math correlation grade																													
			Project Learning Tree Activity Number:	4	12	16	21	22	25	27	28	29	32	35	36	37	38	41	47	48	53	65	66	67	69	70	73	77	80	84	85
			page number (2006 edition)	26	59	77	97	102	111	117	120	123	135	147	153	159	163	179	200	203	232	277	279	284	291	297	314	332	345	363	370
strand	Sub-strand	Standard	benchmark	Sounds Around	Invasive Species	Pass the Plants, Please	Adopt a Tree	Trees as Habitats	Birds and Worms	Every Tree for Itself	Air Plants	Rain Reasons	A Forest of Many Uses	Loving it Too Much	Pollution Search	Reduce, Reuse, Recycle	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	Nothing Succeeds Like Succession	The Global Climate	In The Driver's Seat

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.