

Wyoming Project Learning Tree

Correlation Key for Grades 5-8

Wyoming Math Content and Performance Standards

Introduction: The purpose of this document is to provide Wyoming educators who use the *Project Learning Tree Pre-K - 8 Environmental Educational Activity Guide* (2006 edition) with a reference guide in how PLT's activities correlate to the Wyoming Math Content and Performance Standards for grades 5-8. Educators may use PLT activities to teach or assess mastery of math skills in number operations and concepts, geometry, measurement, algebra, data analysis and probability, and integration of those areas.

Key to symbols and abbreviations:

- * **Concept is a main focus of the activity or teaches to the standard.**
- o **Concept is part of the focus of the activity and supports the standard.**
- n/c **No correlation**
- MA **Math**

MATH, Grades 5-8

MA 1. NUMBER OPERATIONS AND CONCEPTS:

Students use numbers, number sense, and number relationships in a problem-solving situation.

MA 8.1.1: Students represent and apply numbers in a variety of equivalent forms (such as changing from percent to decimal to fraction, etc.) and in a problem-solving context.

84	The Global Climate	o	6-8
85	In the Drivers Seat	o	5-8

MA 8.1.2: Students extend understanding and use of basic arithmetic operations on rational numbers.

50	400-Acre Wood	*	7-8
66	Germinating Giants	o	4-6
67	How Big is Your Tree	o	K-8
70	Soil Stories	o	5-8
73	Waste Watchers	o	4-8
84	The Global Climate	o	6-8
85	In the Drivers Seat	o	5-8

MA 8.1.3: Students explain their choice of estimation and problem-solving strategies and justify results of solutions in problem-solving situations involving rational numbers.

28	Air Plants	o	3-6
38	Every Drop Counts	o	4-8
66	Germinating Giants	o	4-6
67	How Big is Your Tree	o	K-8
73	Waste Watchers	o	4-8

MA 8.1.4: Students understand properties of operations with rational numbers.

66	Germinating Giants	o	4-6
67	How Big is Your Tree	o	K-8
73	Waste Watchers	o	4-8

MA 2. GEOMETRY:

Students apply geometric concepts, properties, and relationships in a problem-solving situation.

MA 8.2.1: Students classify and describe one-, two-, and three-dimensional geometric objects including: lines, rays, segments, and angles....

MA 8.2.2: Students make conjectures about geometric objects....

MA 8.2.3: Students use geometric formulas including the Pythagorean Theorem.

MA 8.2.4: Students communicate in reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.

MA 8.2.5: Students represent geometric figures using a rectangular coordinate plane.

n/c

MA 3. MEASUREMENT:

Students use a variety of tools and techniques of measurement in a problem-solving situation.

MA 8.3.1: Students apply estimation and measurement of weight/mass to content problems and convert within U.S. customary and within metric units (mg, g, kg).

70	Soil Stories	*	5-8
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MA 8.3.2: Students apply estimation and measurement of capacity/volume to content problems and convert within metric units (ml,l).

38	Every Drop Counts	o	4-8
70	Soil Stories	*	5-8

MA 8.3.3: Students select and use appropriate methods, tools, and units to solve problems involving angle measure, perimeter, circumference, area (including circle), and volume of rectangular solids.

66	Germinating Giants	o	4-6
67	How Big is Your Tree	*	K-8

MA 4. ALGEBRA:

Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation.

MA 8.4.1: Students translate word phrases, which involve the four basic operations, to mathematical expressions.

67	How Big is Your Tree	o	K-8
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MA 8.4.2: Students solve one- and two-step linear equations each with an integer coefficient and integer solutions.

MA 8.4.3: Students evaluate algebraic expressions and formulas given integer values for variables.

MA 8.4.4: Using simple linear equations, students create a table, and graph the solutions on the coordinate system.

n/c

MA 5. DATA ANALYSIS AND PROBABILITY:

Students use data analysis and probability to analyze given situations and the results of experiments.

MA 8.5.1: Students systematically collect, organize, describe, analyze and represent data using tables, charts, diagrams, and graphs.

4	Sounds Around	*	6-8
9	Planet Diversity	*	4-6
12	Invasive Species	o	5-8
16	Pass the Plants	o	K-8
25	Birds and Worms	*	K-6
29	Rain Reasons	*	6-8
37	Reduce, Reuse, Recycle	o	1-6
38	Every Drop Counts	*	4-8
41	How Plants Grow	*	4-8
47	Are Vacant Lots Vacant?	*	K-8
48	Field Forest and Stream	o	1-8

MA 8.5.1: (continued)

66	Germinating Giants	o	4-6
67	How Big is Your Tree	o	K-8
73	Waste Watchers	o	4-8
77	Trees in Trouble	o	1-8
80	Nothing Succeeds Like Succession	o	3-6
81	Living with Fire	o	K-8
84	The Global Climate	*	6-8

MA 8.5.2: Students calculate mean, median, mode and range for data sets and use in real-world setting appropriate to grade level.

25	Birds and Worms	o	K-6
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MA 8.5.3: Students predict, compare and calculate probable outcomes of experiments or simulations.

25	Birds and Worms	o	K-6
29	Rain Reasons	*	6-8
38	Every Drop Counts	*	4-8
41	How Plants Grow	*	4-8
70	Soil Stories	o	5-8
73	Waste Watchers	o	4-8

MA 8.5.4: Students communicate about the likelihood of events using concepts from probability such as impossible, equally likely and certain, appropriate to grade level.

4	Sounds Around	*	6-8
84	The Global Climate	o	6-8

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