

Correlation of Common Core Standards for Mathematics with Project Learning Tree's PreK–8 Environmental Education Activity Guide

Common Core Mathematics Standards	PLT PreK–8 Environmental Education Activity Guide <i>(Numbers correspond to the activity numbers in the PLT Guide)</i>
KINDERGARTEN	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Counting and Cardinality K.CC	
1. Know number names and the count sequence.	#25-Birds and Worms, #27-Every Tree for Itself, #46-Schoolyard Safari
2. Count to tell the number of objects.	#25-Birds and Worms, #27-Every Tree for Itself, #46-Schoolyard Safari
3. Compare numbers.	#25-Birds and Worms, #27-Every Tree for Itself, #46-Schoolyard Safari
Operations and Algebraic Thinking K.OA	
1. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	#27-Every Tree for Itself
Numbers and Operations in Base Ten K.NBT	
1. Work with numbers 11–19 to gain foundations for place value.	#25-Birds and Worms
Measurement and Data K.MD	
1. Describe and compare measurable attributes.	#41-How Plants Grow, #67-How Big Is Your Tree?
2. Classify objects and count the number of objects in each category.	#6-Picture This!, #25-Birds and Worms , #27-Every Tree for Itself, #46-Schoolyard Safari
Geometry K.G	
1. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	#1-The Shape of Things
2. Analyze, compare, create, and compose shapes.	#1-The Shape of Things

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GRADE 1	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Operations and Algebraic Thinking 1.OA	
1. Represent and solve problems involving addition and subtraction.	
2. Understand and apply properties of operations and the relationship between addition and subtraction.	
3. Add and subtract within 20.	#25-Birds and Worms
4. Work with addition and subtraction equations.	
Numbers and Operations in Base Ten 1.NBT	
1. Extend the counting sequence.	#25-Birds and Worms
2. Understand place value.	
3. Use place value understanding and properties of operations to add and subtract.	
Measurement and Data 1.MD	
1. Measure lengths indirectly and by iterating length units.	#4-Sounds Around , #41-How Plants Grow, #67-How Big Is Your Tree?
2. Tell and write time.	
3. Represent and interpret data.	#4-Sounds Around , #6-Picture This!, #25-Birds and Worms, #27-Every Tree for Itself, #41-How Plants Grow, #46-Schoolyard Safari
Geometry 1.G	
1. Reason with shapes and their attributes.	#1-The Shape of Things

Common Core Mathematics Standards	PLT PreK–8 Environmental Education Activity Guide <i>(Numbers correspond to the activity numbers in the PLT Guide)</i>
GRADE 2	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Operations and Algebraic Thinking 2.OA	
1. Represent and solve problems involving addition and subtraction.	
2. Add and subtract within 20.	#25-Birds and Worms
3. Work with equal groups of objects to gain foundations for multiplication.	
Numbers and Operations in Base Ten 2.NBT	
1. Understand place value.	
2. Use place value understanding and properties of operations to add and subtract.	
Measurement and Data 2.MD	
1. Measure and estimate lengths in standard units.	#4-Sounds Around, #41-How Plants Grow, #67-How Big Is Your Tree?
2. Relate addition and subtraction to length.	
3. Work with time and money.	
4. Represent and interpret data.	#4-Sounds Around, #25-Birds and Worms, #27-Every Tree for Itself, #36-Pollution Search, #41-How Plants Grow, #46-Schoolyard Safari
Geometry 2.G	
1. Reason with shapes and their attributes.	#1-The Shape of Things

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GRADE 3	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Operations and Algebraic Thinking 3.OA	
1. Represent and solve problems involving multiplication and division.	
2. Understand properties of multiplication and the relationship between multiplication and division.	
3. Multiply and divide within 100.	
4. Solve problems involving the four operations, and identify and explain patterns in arithmetic.	
Numbers and Operations in Base Ten 3.NBT	
1. Use place value understanding and properties of operations to perform multi-digit arithmetic.	
Number and Operations—Fractions 3.NF	
1. Develop understanding of fractions as numbers.	#28-Air Plants: Enrichment
Measurement and Data 3.MD	
1. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	
2. Represent and interpret data.	#4-Sounds Around, #16-Pass the Plants, Please, #22- Trees as Habitats, #25-Birds and Worms, #27-Every Tree for Itself, #36-Pollution Search, #46-Schoolyard Safari
3. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	
4. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	
Geometry 3.G	
1. Reason with shapes and their attributes.	

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GRADE 4	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Operations and Algebraic Thinking 4.OA	
1. Use the four operations with whole numbers to solve problems.	#38-Every Drop Counts, #66-Germinating Giants, #67-How Big Is Your Tree?
2. Gain familiarity with factors and multiples.	
3. Generate and analyze patterns.	
Numbers and Operations in Base Ten 4.NBT	
1. Generalize place value understanding for multi-digit whole numbers.	
2. Use place value understanding and properties of operations to perform multi-digit arithmetic.	#38-Every Drop Counts, #66-Germinating Giants, #67-How Big Is Your Tree?
Number and Operations—Fractions 4.NF	
1. Extend understanding of fraction equivalence and ordering.	
2. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	
3. Understand decimal notation for fractions, and compare decimal fractions.	#28-Air Plants: Enrichment
Measurement and Data 4.MD	
1. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	#38-Every Drop Counts, #53-On the Move: Enrichment, #66-Germinating Giants
2. Represent and interpret data.	#4-Sounds Around, #38-Every Drop Counts, #41-How Plants Grow, #67-How Big Is Your Tree?, #73-Waste Watchers, #77-Trees in Trouble, #80-Nothing Succeeds Like Succession
3. Geometric measurement: understand concepts of angle and measure angles.	
Geometry 4.G	
1. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	

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GRADE 5	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Operations and Algebraic Thinking 5.OA	
1. Write and interpret numerical expressions.	#12-Invasive Species: Enrichment, #38-Every Drop Counts
2. Analyze patterns and relationships.	#12-Invasive Species: Enrichment, #38-Every Drop Counts
Numbers and Operations in Base Ten 5.NBT	
1. Understand the place value system.	#28-Air Plants: Enrichment, #38-Every Drop Counts, #66-Germinating Giants
2. Perform operations with multi-digit whole numbers and with decimals to hundredths.	#38-Every Drop Counts, #53-On the Move: Enrichment, #66-Germinating Giants, #67-How Big Is Your Tree?, #85-In the Driver's Seat
Number and Operations—Fractions 5.NF	
1. Use equivalent fractions as a strategy to add and subtract fractions.	
2. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	#66-Germinating Giants
Measurement and Data 5.MD	
1. Convert like measurement units within a given measurement system.	
2. Represent and interpret data.	#4-Sounds Around, #38-Every Drop Counts, #41-How Plants Grow, #73-Waste Watchers, #77-Trees in Trouble, #80-Nothing Succeeds Like Succession
3. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	#37-Reduce, Reuse, Recycle, #38-Every Drop Counts
Geometry 5.G	
1. Graph points on the coordinate plane to solve real-world and mathematical problems.	#77-Trees in Trouble, #80-Nothing Succeeds Like Succession
2. Classify two-dimensional figures into categories based on their properties.	

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GRADE 6	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Ratios and Proportional Relationships 6.RP	
1. Understand ratio concepts and use ratio reasoning to solve problems.	#38-Every Drop Counts, #53-On the Move: Enrichment, #67-How Big Is Your Tree?, #73-Waste Watchers, #84-The Global Climate
The Number System 6.NS	
1. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	
2. Compute fluently with multi-digit numbers and find common factors and multiples.	#66-Germinating Giants, #67-How Big Is Your Tree?, #84-The Global Climate
3. Apply and extend previous understandings of numbers to the system of rational numbers.	
Expressions and Equations 6.EE	
1. Apply and extend previous understandings of arithmetic to algebraic expressions.	#12-Invasive Species, #85-In the Driver's Seat
2. Reason about and solve one-variable equations and inequalities.	#12-Invasive Species, #84-The Global Climate, #85-In the Driver's Seat
3. Represent and analyze quantitative relationships between dependent and independent variables.	#84-The Global Climate
Geometry 6.G	
1. Solve real-world and mathematical problems involving area, surface area, and volume.	#37-Reduce, Reuse, Recycle
Statistics and Probability 6.SP	
1. Develop understanding of statistical variability.	#35-Loving It Too Much, #38-Every Drop Counts , #77-Trees in Trouble, #80-Nothing Succeeds Like Succession, #81-Living with Fire: Enrichment, #84-The Global Climate, #85-In the Driver's Seat
2. Summarize and describe distributions.	#4-Sounds Around, #16-Pass the Plants, Please, #22-Trees as Habitats, #25-Birds and Worms, #27-Every Tree for Itself, #35-Loving It Too Much, #36-Pollution Search, #37-Reduce, Reuse, Recycle, #38-Every Drop Counts , #41-How Plants Grow, #77-Trees in Trouble, #80-Nothing Succeeds Like Succession, #81-Living with Fire: Enrichment, #84-The Global Climate, #85-In the Driver's Seat

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GRADE 7	<i>(Bold PLT activities have a strong correlation to the standard)</i>
Ratios and Proportional Relationships 7.RP	
1. Analyze proportional relationships and use them to solve real-world and mathematical problems.	#38-Every Drop Counts, #53-On the Move: Enrichment, #67-How Big Is Your Tree?, #85-In the Driver's Seat
The Number System 7.NS	
1. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	#50- 400-Acre Wood , #53-On the Move: Enrichment, #67-How Big Is Your Tree?
Expressions and Equations 7.EE	
1. Use properties of operations to generate equivalent expressions.	
2. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	#12-Invasive Species, #50- 400-Acre Wood, #53-On the Move: Enrichment, #85-In the Driver's Seat
Geometry 7.G	
1. Draw, construct, and describe geometrical figures and describe the relationships between them.	#67-How Big Is Your Tree?
2. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	#37-Reduce, Reuse, Recycle
Statistics and Probability 7.SP	
1. Use random sampling to draw inferences about a population.	
2. Draw informal comparative inferences about two populations.	#38-Every Drop Counts, #41-How Plants Grow, #77-Trees in Trouble, #80-Nothing Succeeds Like Succession
3. Investigate chance processes and develop, use, and evaluate probability models.	

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GRADE 8	<i>(Bold PLT activities have a strong correlation to the standard)</i>	
The Number System	8.NS	
1. Know that there are numbers that are not rational, and approximate them by rational numbers.		
Expressions and Equations	8.EE	
1. Work with radicals and integer exponents.		
2. Understand the connections between proportional relationships, lines, and linear equations.		#38-Every Drop Counts
3. Analyze and solve linear equations and pairs of simultaneous linear equations.		#12-Invasive Species
Functions	8.F	
1. Define, evaluate, and compare functions.		
2. Use functions to model relationships between quantities.		
Geometry	8.G	
1. Understand congruence and similarity using physical models, transparencies, or geometry software.		
2. Understand and apply the Pythagorean Theorem.		
3. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.		#37-Reduce, Reuse, Recycle
Statistics and Probability	8.SP	
1. Investigate patterns of association in bivariate data.		#22-Trees as Habitats, #41-How Plants Grow, #77-Trees in Trouble, #80-Nothing Succeeds Like Succession, #84-The Global Climate