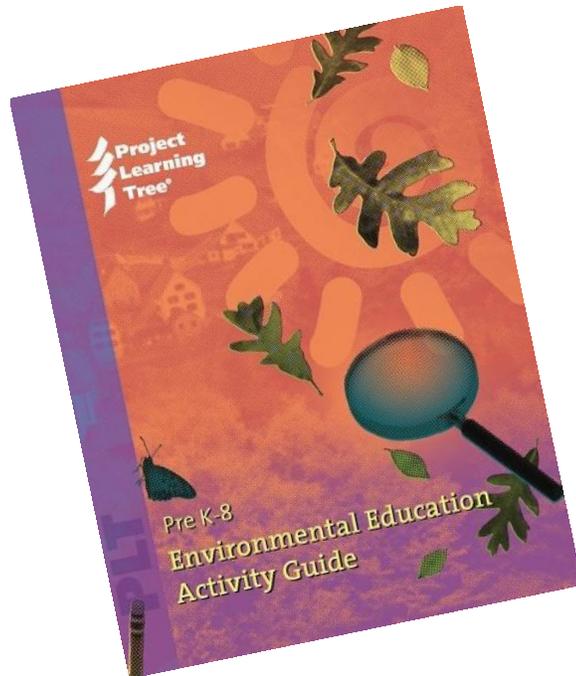


# ***Project Learning Tree*** **PreK-8 Environmental Education** **Activity Guide**



## **Virginia Standards of Learning Correlation**

Correlation document available online at  
<https://sites.google.com/site/pltvwebsite/>

More information about Project Learning Tree can be found at  
<https://www.plt.org>



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### Abbreviations:

CE = Civics and Economics

ECOL = Ecology

ENVS = Environmental Science

ES = Earth Science

HSS = History and Social Science

LS = Life Science

PS = Physical Science

USI = United States History to 1865

USII = United States History: 1865 to the Present

VS = Virginia Studies

### Symbols Key:

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

The SOLs referred to in this document are the 2016 SOLs for Math, 2018 SOLs for Science, 2017 SOLs for English, and the 2015 SOLs for History/Social Science. More information on Virginia Standards can be found at <http://www.doe.virginia.gov>

# MATHEMATICS STANDARDS OF LEARNING

## GRADE K MATH

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math K.8** The student will investigate the passage of time by reading and interpreting a calendar.

●	◎	○
	#21 Adopt a Tree	

**Math K.9** The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder), volume (more, less), and time (longer, shorter).

●	◎	○
	#21 Adopt a Tree #41 How Plants Grow #43 Have Seeds Will Travel	

**Math K.10** The student will identify and describe plane figures (circle, triangle, square, and rectangle); compare the size (smaller, larger) and shape of plane figures (circle, triangle, square, and rectangle); and describe the location of one object relative to another (above, below, next to) and identify representations of plane figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space.

●	◎	○
#1 The Shape of Things		

**Math K.11** The student will collect, organize, and represent data; and read and interpret data in object graphs, picture graphs, and tables.

●	◎	○
	#4 Sounds Around #22 Trees as Habitats #25 Birds and Worms #27 Every Tree for Itself #41 How Plants Grow #43 Have Seeds Will Travel #67 How Big Is Your Tree?	#6 Picture This #13 We All Need Trees

**Math K.12** The student will sort and classify objects according to one attribute.

●	◎	○
#6 Picture This #13 We All Need Trees #36 Pollution Search #43 Have Seeds Will Travel	#1 The Shape of Things #2 Get in Touch with Trees	

**GRADE 1 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 1.1** The student will count forward orally by ones to 110, starting at any number between 0 and 110; write the numerals 0 to 110 in sequence and out-of-sequence; count backward orally by ones when given any number between 1 and count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110.

●	⊙	○
	#22 Trees as Habitats #76 Tree Cookies	

**Math 1.10** The student will use nonstandard units to measure and compare length, weight, and volume.

●	⊙	○
#67 How Big Is Your Tree?	#21 Adopt a Tree #41 How Plants Grow #77 Trees in Trouble	

**Math 1.11** The student will identify, trace, describe, and sort plane figures (triangles, squares, rectangles, and circles) according to number of sides, vertices; and identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation, and explain reasoning.

●	⊙	○
#1 The Shape of Things		

**Math 1.12** The student will collect, organize, and represent various forms of data using tables, picture graphs, and object graphs; and read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary *more*, *less*, *fewer*, *greater than*, *less than*, and *equal to*.

●	⊙	○
	#27 Every Tree for Itself #41 How Plants Grow #67 How Big Is Your Tree?	#22 Trees as Habitats #25 Birds and Worms

**Math 1.13** The student will sort and classify concrete objects according to one or two attributes.

●	⊙	○
#6 Picture This #13 We All Need Trees #36 Pollution Search #43 Have Seeds Will Travel	#1 The Shape of Things #2 Get in Touch with Trees	

**Math 1.14** The student will identify, describe, extend, create, and transfer growing and repeating patterns.

●	⊙	○
#1 The Shape of Things		

**GRADE 2 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 2.3** The student will count and identify the ordinal positions first through twentieth, using an ordered set of objects; and write the ordinal numbers 1<sup>st</sup> through 20<sup>th</sup>.

●	⊙	○
		#3 Peppermint Beetle #4 Sounds Around

**Math 2.7** The student will count and compare a collection of pennies, nickels, dimes, and quarters whose total value is \$2.00 or less; and use the cent symbol, dollar symbol, and decimal point to write a value of money.

●	⊙	○
		#31 Plant a Tree

**Math 2.8** The student will estimate and measure length to the nearest inch; and weight to the nearest pound.

●	⊙	○
#67 How Big Is Your Tree?	#21 Adopt a Tree #41 How Plants Grow #77 Trees in Trouble	#51 Make Your Own Paper

**Math 2.13** The student will identify, describe, compare, and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms).

●	⊙	○
		#1 The Shape of Things #2 Get In Touch With Trees

**Math 2.15** The student will collect, organize, and represent data in pictographs and bar graphs; and read and interpret data represented in pictographs and bar graphs.

●	⊙	○
	#22 Trees as Habitats #25 Birds and Worms #36 Pollution Search #41 How Plants Grow #77 Trees In Trouble	

**GRADE 3 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 3.1** The student will compare and order whole numbers, each 9,999 or less.

●	⊙	○
		#67 How Big Is Your Tree?

**Math 3.3** The student will estimate and determine the sum or difference of two whole numbers; and create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less.

●	⊙	○
#67 How Big Is Your Tree?		

**Math 3.4** The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.

●	⊙	○
#67 How Big Is Your Tree?		

**Math 3.7** The student will estimate and use U.S. Customary and metric units to measure length to the nearest ½ -inch, inch, foot, yard, centimeter, and meter

●	⊙	○
	#21 Adopt a Tree #41 How Plants Grow #67 How Big Is Your Tree? #70 Soil Stories #76 Tree Cookies #77 Trees In Trouble	#80 Nothing Succeeds Like Succession

**Math 3.8** The student will estimate and measure the distance around a polygon in order to determine its perimeter using U.S. Customary and metric units; and count the number of square units needed to cover a given surface in order to determine its area.

●	⊙	○
	#21 Adopt a Tree #41 How Plants Grow #67 How Big Is Your Tree? #70 Soil Stories #76 Tree Cookies #77 Trees in Trouble	#80 Nothing Succeeds Like Succession

**Math 3.15** The student will collect, organize, and represent data in pictographs or bar graphs; and read and interpret data represented in pictographs and bar graphs.

●	⊙	○
#9 Planet Diversity #67 How Big Is Your Tree?	#22 Trees As Habitats #25 Birds and Worms #36 Pollution Search #41 How Plants Grow #77 Trees In Trouble	#1 The Shape of Things #6 Picture This #13 We All Need Trees #14 Renewable or Not? #88 Life on the Edge

**Math 3.16.** The student will identify, describe, create, and extend patterns found in objects, pictures, numbers and tables.

●	⊙	○
		#80 Nothing Succeeds Like Succession

**GRADE 4 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 4.1** The student will read, write, and identify the place and value of each digit in a nine-digit whole number; compare and order whole numbers expressed through millions; and round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.

●	⊙	○
	#67 How Big Is Your Tree?	#66 Germinating Giants

**Math 4.3** The student will read, write, represent, and identify decimals expressed through thousandths; round decimals to the nearest whole number, compare and order decimals; and d) given a model, write the decimal and fraction equivalents.

●	⊙	○
	#70 Soil Stories	#28 Air Plants #38 Every Drop Counts #67 How Big Is Your Tree?

**Math 4.4** The student will estimate and determine sums, differences, and products of whole numbers; create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers.

●	⊙	○
	#38 Every Drop Counts #66 Germinating Giants #67 How Big Is Your Tree?	#28 Air Plants #53 On the Move #73 Waste Watchers

**Math 4.6** The student will add and subtract with decimals; and solve single-step and multistep practical problems involving addition and subtraction with decimals.

●	⊙	○
#66 Germinating Giants #67 How Big Is Your Tree?		

**Math 4.7** The student will solve practical problems that involve determining perimeter and area in U.S. Customary and metric units.

●	⊙	○
	#67 How Big Is Your Tree?	

**Math 4.8** The student will estimate and measure length and describe the result in U.S. Customary and metric units; estimate and measure weight/mass and describe the result in

U.S. Customary and metric units; solve practical problems that involve length, weight/mass, and liquid volume in U.S. Customary units.

●	⊙	○
#66 Germinating Giants #67 How Big Is Your Tree?	#16 Pass the Plants, Please #21 Adopt a Tree #38 Every Drop Counts #41 How Plants Grow #47 Are Vacant Lots Vacant? #76 Tree Cookies #77 Trees in Trouble #80 Nothing Succeeds Like Succession	#9 Planet Diversity #51 Make Your Own Paper

**Math 4.10** The student will a) identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices; and b) identify representations of lines that illustrate intersection, parallelism, and perpendicularity.

●	⊙	○
		#67 How Big Is Your Tree?

**Math 4.14** The student will collect, organize, and represent data in bar graphs and line graphs; interpret data represented in bar graphs and line graphs; and compare two different representations of the same data (e.g., a set of data displayed on a chart and a bar graph, a chart and a line graph, or a pictograph and a bar graph).

●	⊙	○
#16 Pass the Plants, Please #25 Birds and Worms #67 How Big Is Your Tree?	#9 Planet Diversity #37 Reduce, Reuse, Recycle #41 How Plants Grow #45 Web of Life #66 Germinating Giants #77 Trees in Trouble #80 Nothing Succeeds Like Succession	#13 We All Need Trees #14 Renewable or Not? #22 Trees as Habitats #88 Life on the Edge

## GRADE 5 MATH

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 5.4** The student will create and solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of whole numbers.

●	⊙	○
#66 Germinating Giants #67 How Big Is Your Tree? #70 Soil Stories	#38 Every Drop Counts #85 In the Driver's Seat	#12 Invasive Species #28 Air Plants #31 Plant a Tree #52 A Look at Aluminum

		#53 On the Move #73 Waste Watchers
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**Math 5.8** The student will solve practical problems that involve perimeter, area, and volume in standard units of measure; and differentiate among perimeter, area, and volume and identify whether the application of the concept of perimeter, area, or volume is appropriate for a given situation

●	⊙	○
	#38 Every Drop Counts #41 How Plants Grow #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #67 How Big Is Your Tree? #70 Soil Stories #77 Trees in Trouble #80 Nothing Succeeds Like Succession #85 In the Driver's Seat	#21 Adopt a Tree #66 Germinating Giants

**Math 5.10** The student will identify and describe the diameter, radius, chord, and circumference of a circle.

●	⊙	○
#66 Germinating Giants #67 How Big Is Your Tree?	#21 Adopt a Tree #76 Tree Cookies	

**Math 5.16** The student, given a practical problem, will represent data in line plots and stem-and-leaf plots; interpret data represented in line plots and stem-and-leaf plots; and compare data represented in a line plot with the same data represented in a stem-and-leaf plot.

●	⊙	○
#70 Soil Stories	#22 Trees as Habitats #37 Reduce, Reuse, Recycle #41 How Plants Grow #47 Are Vacant Lots Vacant? #66 Germinating Giants #77 Trees in Trouble #80 Nothing Succeeds Like Succession	#67 How Big Is Your Tree? #88 Life on the Edge

**Math 5.17** The student, given a practical context, will describe mean, median, and mode as measures of center; describe mean as fair share; describe the range of a set of data as a measure of spread; and determine the mean, median, mode, and range of a set of data.

●	⊙	○
		#85 In the Driver's Seat

**Math 5.18** The student will identify, describe, create, express, and extend number patterns found in objects, pictures, numbers and tables.

●	⊙	○
		#12 Invasive Species

**GRADE 6 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 6.1** The student will represent relationships between quantities using ratios, and will use appropriate notations, such as ab, a to b, and a:b.

●	⊙	○
		#70 Soil Stories

**Math 6.2** The student will represent and determine equivalencies among fractions, mixed numbers, decimals, and percents; and compare and order positive rational numbers.

●	⊙	○
	#66 Germinating Giants #70 Soil Stories	#28 Air Plants

**Math 6.5** The student will multiply and divide fractions and mixed numbers; solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of fractions and mixed numbers; and solve multistep practical problems involving addition, subtraction, multiplication, and division of decimals.

●	⊙	○
	#21 Adopt a Tree #37 Reduce, Reuse, Recycle #38 Every Drop Counts #66 Germinating Giants #70 Soil Stories #85 In the Driver's Seat	#31 Plant a Tree #52 A Look at Aluminum #53 On the Move #67 How Big Is Your Tree? #73 Waste Watchers #84 The Global Climate

**Math 6.6** The student will evaluate whole number numerical expressions, using the order of operations. The student will add, subtract, multiply, and divide integers; solve practical problems involving operations with integers; and simplify numerical expressions involving integers.

●	⊙	○
	#38 Every Drop Counts #41 How Plants Grow #50 400-Acre Wood #67 How Big Is Your Tree? #76 Tree Cookies #80 Nothing Succeeds Like Succession	#29 Rain Reasons #66 Germinating Giants

**Math 6.7** The student will derive  $\pi$  ( $\pi$ ); solve problems, including practical problems, involving circumference and area of a circle; and solve problems, including practical problems, involving area and perimeter of triangles and rectangles.

●	⊙	○
	#21 Adopt a Tree #27 Every Tree for Itself #47 Are Vacant Lots Vacant? #66 Germinating Giants #67 How Big Is Your Tree?	

**Math 6.10** The student, given a practical situation, will represent data in a circle graph; make observations and inferences about data represented in a circle graph; and compare circle graphs with the same data represented in bar graphs, pictographs, and line plots.

●	⊙	○
	#16 Pass the Plants, Please #25 Birds and Worms #37 Reduce, Reuse, Recycle #50 400-Acre Wood	#85 In the Driver's Seat

**Math 6.11** The student will represent the mean of a data set graphically as the balance point; and determine the effect on measures of center when a single value of a data set is added, removed, or changed.

●	⊙	○
		#85 In the Driver's Seat

### GRADE 7 MATH

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 7.4** The student will solve single-step and multistep practical problems, using proportional reasoning.

●	⊙	○
#67 How Big Is Your Tree? #70 Soil Stories	#50 400-Acre Wood	#37 Reduce, Reuse, Recycle

**Math 7.9** The student, given data in a practical situation, will represent data in a histogram; make observations and inferences about data represented in a histogram; and compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs

●	⊙	○
	#41 How Plants Grow #16 Pass the Plants, Please	#12 Invasive Species #85 In the Driver's Seat

	#25 Birds and Worms #37 Reduce, Reuse, Recycle #50 400-Acre Wood	
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**GRADE 8 MATH**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Math 8.4** The student will solve practical problems involving consumer applications.

●	⊙	○
#66 Germinating Giants #67 How Big Is Your Tree? #70 Soil Stories	#37 Reduce, Reuse, Recycle# 38 Every Drop Counts #50 400-Acre Wood #84 The Global Climate #85 In the Driver’s Seat	#31 Plant a Tree #53 On the Move #69 Forest for the Trees

**Math 8.13** The student will represent data in scatterplots; make observations about data represented in scatterplots; and use a drawing to estimate the line of best fit for data represented in a scatterplot.

●	⊙	○
	#84 The Global Climate	

**Math 8.16** The student will make connections between and among representations of a linear function using verbal descriptions, tables, equations, and graphs.

●	⊙	○
#67 How Big Is Your Tree? #84 The Global Climate	#22 Trees as Habitats #25 Birds and Worms #35 Loving It Too Much #41 How Plants Grow #50 400-Acre Wood	

# SCIENCE STANDARDS OF LEARNING

## GRADE K

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science K.1** The student will demonstrate an understanding of scientific and engineering practices by asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; obtaining, evaluating, and communicating information.

●	⊙	○
#22 Trees as Habitats #24 Nature’s Recyclers #41 How Plants Grow #46 School Yard Safari #47 Are Vacant Lots Vacant? #65 Bursting Buds	#1 The Shape of Things #2 Get in Touch with Trees #3 Peppermint Beetle #21 Adopt a Tree #27 Every Tree for Itself #43 Have Seeds Will Travel #64 Looking at Leaves #78 Signs of Fall	

**Science K.3** The student will investigate and understand that physical properties of an object can be described. Properties include colors; shapes and forms; textures and feel; and relative sizes and weights of objects.

●	⊙	○
#1 The Shape of Things #2 Get in Touch with Trees #48 Field, Forest, and Stream #64 Looking at Leaves #65 Bursting Buds	#51 Make Your Own Paper #78 Signs of Fall	#4 Sounds Around

**Science K.4** The student will investigate and understand that water is important in our daily lives and has properties.

●	⊙	○
		#46 School Yard Safari

**Science K.5** The students will investigate and understand that senses allow humans to seek, find, take in, and react or respond to different information.

●	⊙	○

#21 Adopt a Tree #46 School Yard Safari #47 Are Vacant Lots Vacant?	#1 The Shape of Things #2 Get in Touch with Trees #3 Peppermint Beetle #4 Sounds Around #6 Picture This! #43 Have Seeds Will Travel	#16 Pass the Plants, Please #51 Make Your Own Paper
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**Science K.6** The student will investigate and understand that there are differences between living organisms and nonliving objects.

●	◎	○
	#4 Sounds Around #21 Adopt a Tree #22 Trees as Habitats	#46 Schoolyard Safari #47 Are Vacant Lots Vacant?

**Science K.7** The student will investigate and understand that plants and animals have basic needs and life processes.

●	◎	○
#21 Adopt a Tree #24 Nature's Recyclers #27 Every Tree for Itself #41 How Plants Grow #79 Tree Lifecycle	#16 Pass the Plants, Please #22 Trees as Habitats #62 To Be a Tree #78 Signs of Fall	#8 The Forest of S. T. Shrew #25 Birds and Worms #46 School Yard Safari #47 Are Vacant Lots Vacant? #61 The Closer You Look #95 Did You Notice?

**Science K.9** The student will investigate and understand that there are patterns in nature. Key patterns include daily weather; seasonal changes; and day and night.

●	◎	○
#1 The Shape of Things #61 The Closer You Look #64 Looking At Leaves	#78 Signs of Fall #79 Tree Lifecycle	#41 How Plants Grow #46 School Yard Safari #47 Are Vacant Lots Vacant? #49 Tropical Treehouse

**Science K.10** The student will investigate and understand that change occurs over time.

●	◎	○
#21 Adopt a Tree #65 Bursting Buds #78 Signs of Fall	#18 Tale of the Sun	#41 How Plants Grow #46 School Yard Safari #47 Are Vacant Lots Vacant?

**Science K.11** The student will investigate and understand that humans use resources.

●	◎	○
#13 We All Need Trees #51 Make Your Own Paper	#24 Nature's Recyclers #36 Pollution Search #87 Earth Manners	#20 Environmental Exchange Box

## GRADE 1

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 1.1** The student will demonstrate an understanding of scientific and engineering practices by asking questions and defining problems; planning and carrying out investigations interpreting; analyzing and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information.

●	⊙	○
#22 Trees as Habitats #24 Nature’s Recyclers #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #76 Tree Cookies #77 Trees in Trouble	#1 The Shape of Things #2 Get in Touch with Trees #3 Peppermint Beetle #21 Adopt a Tree #27 Every Tree for Itself #43 Have Seeds Will Travel #46 School Yard Safari #64 Looking at Leaves #65 Bursting Buds #78 Signs of Fall	

**Science 1.4** The student will investigate and understand that plants have basic life needs and functional parts that allow them to survive.

●	⊙	○
#21 Adopt a Tree #31 Plant a Tree #41 How Plants Grow #43 Have Seeds Will Travel #62 To Be a Tree #64 Looking at Leaves #78 Signs of Fall	#2 Get in Touch with Trees #6 Picture This #16 Pass the Plants, Please #27 Every Tree for Itself #61 The Closer You Look #63 Tree Factory #65 Bursting Buds #76 Tree Cookies #77 Trees in Trouble #79 Tree Lifecycle	#22 Trees as Habitats #42 Sunlight and Shades of Green #67 How Big Is Your Tree? #87 Earth Manners

**Science 1.5** The student will investigate and understand that animals, including humans, have basic life needs that allow them to survive.

●	⊙	○
#20 Environmental Exchange Box #24 Nature’s Recyclers #46 School Yard Safari #47 Are Vacant Lots Vacant? #87 Earth Manners	#6 Picture This! #8 The Forest of S. T. Shrew #25 Birds and Worms #74 People, Places, Things	#3 Peppermint Beetle #76 Tree Cookies

**Science 1.6** The student will investigate and understand that there is a relationship between the sun and Earth

●	◎	○
#18 Tale of the Sun		

**Science 1.7** The student will investigate and understand that there are weather and seasonal changes.

●	◎	○
#21 Adopt a Tree #65 Bursting Buds #76 Tree Cookies #78 Signs of Fall	#3 Peppermint Beetle #20 Environmental Exchange Box #77 Trees in Trouble	#6 Picture This! #18 Tale of the Sun #41 How Plants Grow #43 Have Seeds Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #61 The Closer You Look #79 Tree Lifecycle

**Science 1.8** The student will investigate and understand that natural resources can be used responsibly.

●	◎	○
#13 We All Need Trees #89 Trees for Many Reasons	#21 Adopt a Tree #22 Trees as Habitats #30 Three Cheers for Trees #32 A Forest of Many Uses #36 Pollution Search #51 Make Your Own Paper #54 I'd Like to Visit a Place Where... #74 People, Places, Things #87 Earth Manners	#20 Environmental Exchange Box #77 Trees in Trouble

## GRADE 2

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 2.1** The student will demonstrate an understanding of scientific and engineering practices by asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information.

●	◎	○

#22 Trees as Habitats #24 Nature's Recyclers #41 How Plants Grow #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #76 Tree Cookies #77 Trees in Trouble	#27 Every Tree for Itself #43 Have Seeds Will Travel #46 School Yard Safari #65 Bursting Buds #78 Signs of Fall	#3 Peppermint Beetle #42 Sunlight and Shades of Green
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**Science 2.3** The student will investigate and understand that matter can exist in different phases.

●	⊙	○
		#51 Make Your Own Paper

**Science 2.4** The student will investigate and understand that plants and animals undergo a series of orderly changes as they grow and develop

●	⊙	○
#21 Adopt a Tree #24 Nature's Recyclers #43 Have Seeds Will Travel #61 The Closer You Look #79 Tree Lifecycle	#44 Water Wonders #63 Tree Factory #65 Bursting Buds #68 Name That Tree #76 Tree Cookies #77 Trees in Trouble #78 Signs of Fall	#46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream

**Science 2.5** The student will investigate and understand that living things are part of a system.

●	⊙	○
#18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #31 Plant a Tree #41 How Plants Grow #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #89 Trees for Many Reasons	#10 Charting Diversity #27 Every Tree for Itself #30 Three Cheers for Trees #36 Pollution Search #43 Have Seeds Will Travel #74 People, Places, Things #76 Tree Cookies #77 Trees in Trouble	#3 Peppermint Beetle #49 Tropical Treehouse #79 Tree Lifecycle

**Science 2.6** The student will investigate and understand that there are different types of weather on Earth.

●	⊙	○
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		#21 Adopt a Tree #48 Field, Forest, and Stream #49 Tropical Treehouse #76 Tree Cookies #78 Signs of Fall #81 Living with Fire
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**Science 2.7** The student will investigate and understand that weather patterns and seasonal changes affect plants, animals, and their surroundings.

●	◎	○
#21 Adopt a Tree #76 Tree Cookies #78 Signs of Fall	#3 Peppermint Beetle #23 The Fallen Log #25 Birds and Worms #77 Trees in Trouble #81 Living with Fire	#24 Nature's Recyclers #27 Every Tree for Itself #41 How Plants Grow #43 Have Seeds Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #49 Tropical Treehouse #61 The Closer You Look #68 Name That Tree

**Science 2.8** The student will investigate and understand that plants are important natural resources.

●	◎	○
#13 We All Need Trees #31 Plant a Tree #32 A Forest of Many Uses #42 Sunlight and Shades of Green	#16 Pass the Plants, Please #20 Environmental Exchange Box #30 Three Cheers for Trees #41 How Plants Grow #51 Make Your Own Paper #87 Earth Manners #89 Trees for Many Reasons	#5 Poet-Tree #18 Tale of the Sun #43 Have Seeds Will Travel #61 The Closer You Look #68 Name That Tree #76 Tree Cookies #77 Trees in Trouble

**GRADE 3**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 3.1** The student will demonstrate an understanding of scientific and engineering practices by asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information

●	◎	○

#22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #25 Birds and Worms #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream	#27 Every Tree for Itself #46 School Yard Safari #65 Bursting Buds #67 How Big Is Your Tree? #78 Signs of Fall	#3 Peppermint Beetle #16 Pass the Plants, Please #42 Sunlight and Shades of Green #44 Water Wonders
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**Science 3.2** The student will investigate and understand how materials interact with water.

●	◎	○
	#70 Soil Stories	#51 Make Your Own Paper

**Science 3.3** The student will investigate and understand that objects are made of materials that can be described by their physical properties.

●	◎	○
#51 Make Your Own Paper	#48 Field, Forest, and Stream	#28 Air Plants

**Science 3.4** The student will investigate and understand that adaptations allow organisms to satisfy life needs and respond to the environment.

●	◎	○
#6 Picture This! #10 Charting Diversity #11 Can It Be Real? #25 Birds and Worms #43 Have Seeds, Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant?	#21 Adopt a Tree #88 Life on the Edge #49 Tropical Treehouse	#3 Peppermint Beetle #4 Sounds Around #7 Habitat Pen Pals #20 Environmental Exchange Box #48 Field, Forest, and Stream

**Science 3.5** The student will investigate and understand that aquatic and terrestrial ecosystems support a diversity of organisms.

●	◎	○
#7 Habitat Pen Pals #9 Planet Diversity #22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #25 Birds and Worms #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #88 Life on the Edge	#8 Forest of S.T. Shrew #27 Every Tree for Itself #31 Plant a Tree #32 A Forest of Many Uses #46 School Yard Safari #63 Tree Factory #49 Tropical Treehouse #65 Bursting Buds #67 How Big Is Your Tree? #79 Tree Lifecycle	#6 Picture This! #36 Pollution Search #62 To Be a Tree #76 Tree Cookies #77 Trees in Trouble #80 Nothing Succeeds Like Succession #87 Earth Manners

**Science 3.6** The student will investigate and understand that soil is important in ecosystems.

●	◎	○
#24 Nature’s Recyclers #48 Field, Forest, and Stream #70 Soil Stories	#23 The Fallen Log #27 Every Tree for Itself #41 How Plants Grow #63 Tree Factory	#20 Environmental Exchange Box #46 School Yard Safari #47 Are Vacant Lots Vacant? #62 To Be a Tree #79 Tree Lifecycle

**Science 3.7** The student will investigate and understand that there is a water cycle and water is important to life on Earth.

●	◎	○
#38 Every Drop Counts #44 Water Wonders	#20 Environmental Exchange Box #27 Every Tree for Itself #41 How Plants Grow #42 Sunlight and Shades of Green #48 Field, Forest, and Stream #62 To Be a Tree #63 Tree Factory	#77 Trees in Trouble

**Science 3.8** The student will investigate and understand that natural events and humans influence ecosystems.

●	◎	○
#74 People, Places, Things #81 Living with Fire #88 Life on the Edge #89 Trees for Many Reasons	#30 Three Cheers for Trees #31 Plant a Tree #32 A Forest of Many Uses #36 Pollution Search #49 Tropical Treehouse #76 Tree Cookies #87 Earth Manners	#34 Who Works in This Forest? #41 How Plants Grow #44 Water Wonders #46 School Yard Safari #47 Are Vacant Lots Vacant? #51 Make Your Own Paper #80 Nothing Succeeds Like Succession #82 Resource-Go-Round #95 Did You Notice?

**GRADE 4**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 4.1** The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations. The student will demonstrate an understanding of scientific and engineering practices by asking questions

and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information

●	⊙	○
#9 Planet Diversity #22 Trees as Habitats #41 How Plants Grow #48 Field, Forest, and Stream #77 Trees in Trouble	#27 Every Tree for Itself #37 Reduce, Reuse, Recycle #38 Every Drop Counts #43 Have Seeds Will Travel #47 Are Vacant Lots Vacant? #65 Bursting Buds #66 Germinating Giants #67 How Big Is Your Tree? #78 Signs of Fall #80 Nothing Succeeds Like Succession #81 Living with Fire	#16 Pass the Plants, Please #28 Air Plants #42 Sunlight and Shades of Green #44 Water Wonders #46 School Yard Safari

**Science 4.2** The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive.

●	⊙	○
#6 Picture This! #10 Charting Diversity #11 Can It Be Real? #12 Invasive Species #21 Adopt a Tree #28 Air Plants #41 How Plants Grow #42 Sunlight and Shades of Green #43 Have Seeds Will Travel #61 The Closer You Look #62 To Be a Tree #63 Tree Factory #68 Name That Tree #76 Tree Cookies #78 Signs of Fall	#13 We All Need Trees #16 Pass the Plants, Please #25 Birds and Worms #27 Every Tree for Itself #64 Looking at Leaves #65 Bursting Buds #66 Germinating Giants #77 Trees in Trouble #79 Tree Lifecycle#42	#3 Peppermint Beetle #18 Tale of the Sun #20 Environmental Exchange Box #22 Trees as Habitats #44 Water Wonders #49 Tropical Treehouse #89 Trees for Many Reasons

**Science 4.3** The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem.

●	⊙	○

●	◎	○
#6 Picture This #7 Habitat Pen Pals #8 The Forest of S. T. Shrew #9 Planet Diversity #11 Can It Be Real? #21 Adopt a Tree #22 Trees as Habitats #23 The Fallen Log #45 Web of Life #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #88 Life on the Edge	#17 People of the Forest #18 Tale of the Sun #20 Environmental Exchange Box #24 Nature's Recyclers #25 Birds and Worms #26 Dynamic Duos #28 Air Plants #36 Pollution Search #38 Every Drop Counts #40 Then and Now #41 How Plants Grow #43 Have Seeds Will Travel #49 Tropical Treehouse #56 We Can Work It Out #62 To Be a Tree #63 Tree Factory #65 Bursting Buds #69 Forest for the Trees #75 Tipi Talk #81 Living with Fire #90 Native Ways	#37 Reduce, Reuse, Recycle #54 I'd Like to Visit a Place Where... #64 Looking at Leaves #67 How Big Is Your Tree? #76 Tree Cookies #77 Trees in Trouble #79 Tree Lifecycle #80 Nothing Succeeds Like Succession #95 Did You Notice?

**Science 4.4** The student will investigate and understand how weather conditions and phenomena occur and can be predicted.

●	◎	○
	#49 Tropical Treehouse #70 Soil Stories #81 Living with Fire	#48 Field, Forest, and Stream

**Science 4.7** The student will investigate and understand that the ocean environment has characteristics.

●	◎	○
		#7 Habitat Pen Pals #20 Environmental Exchange Box #86 Our Changing World

**Science 4.8** The student will investigate and understand that Virginia has important natural resources.

●	◎	○

	#13 We All Need Trees #14 Renewable or Not? #15 A Few of My Favorite Things #21 Adopt a Tree #22 Trees as Habitats #30 Three Cheers for Trees #32 A Forest of Many Uses #38 Every Drop Counts #51 Make Your Own Paper #56 We Can Work It Out #68 Name That Tree #69 Forest for the Trees #73 Waste Watchers #89 Trees for Many Reasons	#5 Poet-Tree #17 People of the Forest #20 Environmental Exchange Box #31 Plant a Tree #34 Who Works in This Forest? #35 Loving It Too Much #37 Reduce, Reuse, Recycle #44 Water Wonders #46 School Yard Safari #54 I'd Like to Visit a Place Where... #77 Trees in Trouble #80 Nothing Succeeds Like Succession #82 Resource-Go-Round #87 Earth Manners #88 Life on the Edge #90 Native Ways #91 In the Good Old Days #93 Paper Civilizations #94 By the Rivers of Babylon #95 Did You Notice?
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## GRADE 5

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 5.1** The student will demonstrate an understanding of scientific and engineering practices by: asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information

●	⊙	○
#24 Nature's Recyclers #28 Air Plants #41 How Plants Grow #42 Sunlight and Shades of Green #43 Have Seeds Will Travel #44 Water Wonders #48 Field, Forest, and Stream #71 Watch on Wetlands	#65 Bursting Buds #70 Soil Stories #77 Trees in Trouble #80 Nothing Succeeds Like Succession	#37 Reduce, Reuse, Recycle #78 Signs of Fall #81 Living with Fire

**Science 5.2** The student will investigate and understand that energy can take many forms.

●	⊙	○
#39 Energy Sleuths		#73 Waste Watchers

**Science 5.4** The student will investigate and understand that electricity is transmitted and used in daily life.

●	⊙	○
		#39 Energy Sleuths

**Science 5.5** The student will investigate and understand that sound can be produced and transmitted.

●	⊙	○
		#4 Sounds Around

**Science 5.8** The student will investigate and understand that Earth constantly changes.

●	⊙	○
	#44 Water Wonders #70 Soil Stories #71 Watch on Wetlands	#37 Reduce, Reuse, Recycle #52 A Look at Aluminum

**Science 5.9** The student will investigate and understand that the conservation of energy resources is important.

●	⊙	○
#14 Renewable or Not? #37 Reduce, Reuse, Recycle #39 Energy Sleuths	#15 A Few of My Favorite Things #38 Every Drop Counts #52 A Look at Aluminum #73 Waste Watchers #84 The Global Climate	#51 Make Your Own Paper #82 Resource-Go-Round #83 A Peek at Packaging

## GRADE 6

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Science 6.1** The student will demonstrate an understanding of scientific and engineering practices by: asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and, obtaining, evaluating, and communicating information

●	⊙	○
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#24 Nature's Recyclers #28 Air Plants #41 How Plants Grow #42 Sunlight and Shades of Green #43 Have Seeds Will Travel #44 Water Wonders #48 Field, Forest, and Stream #70 Soil Stories #71 Watch on Wetlands #72 Air We Breathe	#37 Reduce, Reuse, Recycle #38 Every Drop Counts #73 Waste Watchers #65 Bursting Buds #77 Trees in Trouble #80 Nothing Succeeds Like Succession #84 The Global Climate #85 In the Driver's Seat	#78 Signs of Fall #81 Living with Fire
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**Science 6.4** The student will investigate and understand that there are basic sources of energy and that energy can be transformed.

●	◎	○
#14 Renewable or Not? #73 Waste Watchers #82 Resource-Go-Round #85 In the Driver's Seat	#28 Air Plants #39 Energy Sleuths #53 On the Move	#51 Make Your Own Paper #52 A Look at Aluminum

**Science 6.6** The student will investigate and understand that water has unique physical properties and has a role in the natural and human-made environment.

●	◎	○
#44 Water Wonders	#38 Every Drop Counts #70 Soil Stories #71 Watch on Wetlands	

**Science 6.7** The student will investigate and understand that air has properties and that Earth's atmosphere has structure and is dynamic.

●	◎	○
#73 Waste Watchers #84 The Global Climate	#31 Plant a Tree #72 Air We Breathe #86 Our Changing World	#28 Air Plants #36 Pollution Search #85 In the Driver's Seat

**Science 6.8** The student will investigate and understand that land and water have roles in watershed systems.

●	◎	○
#38 Every Drop Counts #44 Water Wonders #48 Field, Forest, & Stream #71 Watch on Wetlands	#12 Invasive Species #70 Soil Stories	#36 Pollution Search

**Science 6.9** The student will investigate and understand that humans impact the environment and individuals can influence public policy decisions related to energy and the environment.

●	◎	○
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#19 Viewpoints on the Line #32 A Forest of Many Uses #49 Tropical Treehouse #50 400-Acre Wood #56 We Can Work It Out #69 Forest for the Trees	#12 Invasive Species #14 Renewable or Not? #33 Forest Consequences #35 Loving It Too Much #37 Reduce, Reuse, Recycle #38 Every Drop Counts #39 Energy Sleuths #52 A Look at Aluminum #57 Democracy in Action #59 Power of Print #60 Publicize It! #71 Watch on Wetlands #73 Waste Watchers #84 The Global Climate #88 Life on the Edge #89 Trees for Many Reasons #91 In the Good Old Days #92 A Look at Lifestyles #94 By the Rivers of Babylon #96 Improve Your Place	#5 Poet-Tree #13 We All Need Trees #15 A Few of My Favorite Things #17 People of the Forest #20 Environmental Exchange Box #34 Who Works in This Forest? #36 Pollution Search #40 Then and Now #51 Make Your Own Paper #53 On the Move #58 There Ought to Be a Law #70 Soil Stories #72 Air We Breathe #75 Tipi Talk #77 Trees in Trouble #82 Resource-Go-Round #86 Our Changing World #90 Native Ways #95 Did You Notice?
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**LIFE SCIENCE**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Life Science LS.1** The student will demonstrate an understanding of scientific and engineering practices by: asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and, obtaining, evaluating, and communicating information

●	◎	○
#9 Planet Diversity #22 Trees as Habitats #23 The Fallen Log #24 Nature’s Recyclers #29 Rain Reasons #71 Watch on Wetlands #77 Trees in Trouble	#27 Every Tree for Itself #42 Sunlight and Shades of Green #48 Field, Forest, and Stream #67 How Big Is Your Tree? #78 Signs of Fall #80 Nothing Succeeds Like Succession #81 Living with Fire	#28 Air Plants #37 Reduce, Reuse, Recycle #38 Every Drop Counts #44 Water Wonders #47 Are Vacant Lots Vacant? #65 Bursting Buds #73 Waste Watchers

**Life Science LS.3** The student will investigate and understand that there are levels of structural organization in living things.

●	◎	○
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#63 Tree Factory #68 Name That Tree	#43 Have Seeds Will Travel #64 Looking at Trees	#65 Bursting Buds #66 Germinating Giants #76 Tree Cookies #78 Signs of Fall
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**Life Science LS.4** The student will investigate and understand that there are chemical processes of energy transfer which are important for life.

●	⊙	○
#28 Air Plants #41 How Plants Grow #42 Sunlight and Shades of Green	#21 Adopt a Tree #27 Every Tree for Itself #63 Tree Factory #78 Signs of Fall #84 The Global Climate	#45 Web of Life #49 Tropical Treehouse #70 Soil Stories

**Life Science LS.5** The student will investigate and understand that biotic and abiotic factors affect an ecosystem.

●	⊙	○
#22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #29 Rain Reasons #44 Water Wonders #45 Web of Life #48 Field, Forest, and Stream #84 The Global Climate	#12 Invasive Species #31 Plant a Tree #41 How Plants Grow #43 Have Seeds Will Travel #49 Tropical Treehouse #71 Watch on Wetlands #86 Our Changing World	#70 Soil Stories #80 Nothing Succeeds Like Succession

**Life Science LS.6** The student will investigate and understand that populations in a biological community interact and are interdependent.

●	⊙	○
#12 Invasive Species #22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #26 Dynamic Duos #45 Web of Life #50 400-Acre Wood #88 Life on the Edge	#25 Birds and Worms #27 Every Tree for Itself #33 Forest Consequences #49 Tropical Treehouse #71 Watch on Wetlands #77 Trees in Trouble #86 Our Changing World	#7 Habitat Pen Pals #9 Planet Diversity #47 Are Vacant Lots Vacant? #48 Field, Forest, and Stream #61 The Closer You Look #67 How Big Is Your Tree? #69 Forest for the Trees #76 Tree Cookies #80 Nothing Succeeds Like Succession

**Life Science LS.7** student will investigate and understand that adaptations support an organism's survival in an ecosystem.

●	◎	○
#7 Habitat Pen Pals #10 Charting Diversity #11 Can It Be Real? #71 Watch on Wetlands	#12 Invasive Species #22 Trees as Habitats #25 Birds and Worms #26 Dynamic Duos #43 Have Seeds, Will Travel #48 Field, Forest, and Stream #49 Tropical Treehouse	#9 Planet Diversity #69 Forest for the Trees #70 Soil Stories #86 Our Changing World

**Life Science LS.8** The student will investigate and understand that ecosystems, communities, populations, and organisms are dynamic and change over time.

●	◎	○
#50 400-Acre Wood #71 Watch on Wetlands #84 The Global Climate #86 Our Changing World	#12 Invasive Species #23 The Fallen Log #24 Nature's Recyclers #25 Birds and Worms #49 Tropical Treehouse #69 Forest for the Trees #76 Tree Cookies #80 Nothing Succeeds Like Succession #81 Living with Fire #88 Life on the Edge	#67 How Big Is Your Tree? #77 Trees in Trouble #78 Signs of Fall

**Life Science LS.9** The student will investigate and understand that relationships exist between ecosystem dynamics and human activity.

●	◎	○

●	◎	○
#14 Renewable or Not? #19 Viewpoints on the Line #35 Loving It Too Much #49 Tropical Treehouse #50 400-Acre Wood #69 Forest for the Trees #71 Watch on Wetlands #73 Waste Watchers #84 The Global Climate #86 Our Changing World #88 Life on the Edge	#12 Invasive Species #15 A Few of My Favorite Things #29 Rain Reasons #31 Plant a Tree #32 A Forest of Many Uses #33 Forest Consequences #38 Every Drop Counts #40 Then and Now #52 A Look at Aluminum #54 I'd Like to Visit a Place Where... #80 Nothing Succeeds Like Succession #81 Living with Fire #83 A Peek at Packaging #89 Trees for Many Reasons #90 Native Ways #91 In the Good Old Days #92 A Look at Lifestyles #94 By the Rivers of Babylon	#5 Poet-Tree #21 Adopt a Tree #22 Trees as Habitats #30 Three Cheers for Trees #37 Reduce, Reuse, Recycle #55 Planning the Ideal Community #57 Democracy in Action #58 There Ought to Be a Law #70 Soil Stories #75 Tipi Talk #77 Trees in Trouble #85 In the Driver's Seat #95 Did You Notice? #96 Improve Your Place

**Life Science LS.11** The student will investigate and understand that populations of organisms can change over time.

●	◎	○
	#80 Nothing Succeeds Like Succession #86 Our Changing World #88 Life on the Edge	#50 400-Acre Wood

**PHYSICAL SCIENCE**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Physical Science PS.1** The student will demonstrate an understanding of scientific and engineering practices by: asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; and critiquing conclusions and explanations; developing and using models; and, obtaining, evaluating, and communicating information

●	◎	○
		#84 The Global Climate #85 In the Driver's Seat

**Physical Science PS.5** The student will investigate and understand that energy is conserved.

●	◎	○
	#73 Waste Watchers	#39 Energy Sleuths

		#82 Resource-G0-Round #84 The Global Climate #85 In the Driver's Seat
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**Physical Science PS.8** The student will investigate and understand that work, force, and motion are related.

●	⊙	○
		#53 On the Move #85 In the Driver's Seat

**EARTH SCIENCE**

●		⊙	○
<i>Teaches the concept, and is the focus of the activity</i>		<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects briefly</i>

**Earth Science ES.1** The student will demonstrate an understanding of scientific and engineering practices by: asking questions and defining problems asking questions and defining problems; planning and carrying out investigations; interpreting, analyzing, and evaluating data; constructing and critiquing conclusions and explanations; developing and using models; and obtaining, evaluating, and communicating information.

●	⊙	○
#19 Viewpoints on the Line #35 Loving It Too Much #44 Water Wonders		

**Earth Science ES.3** The student will demonstrate an understanding that there are scientific concepts related to the origin and evolution of the universe.

●	⊙	○
		#48 Field, Forest, and Stream #49 Tropical Treehouse #86 Our Changing World

**Earth Science ES.4** The student will investigate and understand that there are major rock-forming and ore minerals.

●	⊙	○
	#52 A Look at Aluminum	

**Earth Science ES.5** The student will investigate and understand that igneous, metamorphic, and sedimentary rocks can transform.

●	⊙	○
#44 Water Wonders		#48 Field, Forest, and Stream #70 Soil Stories #71 Watch on Wetlands

**Earth Science ES.6** The student will investigate and understand that resource use is complex.

●	◎	○
#14 Renewable or Not? #16 Pass the Plants, Please #19 Viewpoints on the Line #37 Reduce, Reuse, Recycle #39 Energy Sleuths #52 A Look at Aluminum	#50 400-Acre Wood #86 Our Changing World #88 Life on the Edge	#9 Planet Diversity #13 We All Need Trees #15 A Few of My Favorite Things #32 A Forest of Many Uses #33 Forest Consequences #51 Make Your Own Paper #54 I'd Like to Visit a Place Where... #55 Planning the Ideal Community #58 There Ought to Be a Law #69 Forest for the Trees #73 Waste Watchers #82 Resource-Go-Round #85 In the Driver's Seat #89 Trees for Many Reasons #91 In the Good Old Days #92 A Look at Lifestyles #94 By the Rivers of Babylon

**Earth Science ES.7** The student will investigate and understand that plate tectonic theory explains Earth's internal and external geologic processes.

●	◎	○
		#29 Rain Reasons

**Earth Science ES.8** The student will investigate and understand that freshwater resources influence and are influenced by geologic processes and human activity.

●	◎	○
#29 Rain Reasons #38 Every Drop Counts #36 Pollution Search #40 Then and Now 44 Water Wonders #48 Field, Forest, and Stream #71 Watch on Wetlands	#14 Renewable or Not?	#23 The Fallen Log

**Earth Science ES.9** The student will investigate and understand that many aspects of the history and evolution of Earth and life can be inferred by studying rocks and fossils.

●	◎	○
		#27 Every Tree for Itself

**Earth Science ES. 10** The student will investigate and understand that oceans are complex, dynamic systems and are subject to long- and short-term variations.

●	◎	○
#36 Pollution Search #84 The Global Climate		#19 Viewpoints on the Line #28 Air Plants

**Earth Science ES.11** The student will investigate and understand that the atmosphere is a complex, dynamic system and is subject to long-and short-term variations.

●	◎	○
#36 Pollution Search	#29 Rain Reasons #84 The Global Climate	#14 Renewable or Not? #19 Viewpoints on the Line #28 Air Plants #56 We Can Work It Out #57 Democracy in Action #58 There Ought to Be a Law #72 Air We Breathe #91 In the Good Old Days

**Earth Science ES. 12** The student will investigate and understand that Earth’s weather and climate are the result of the interaction of the sun’s energy with the atmosphere, oceans, and the land.

●	◎	○
#36 Pollution Search	#84 The Global Climate	#80 Nothing Succeeds Like Succession #81 Living with Fire

**ECOLOGY CONTENT GUIDELINES**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**Ecology ECOL.I Theme: The Individual** The student will demonstrate that Life History Theory allows for the prediction of organisms development and behaviors. The student will understand that the individual is the basic unit of ecology. The student will investigate and understand that plants evolved a variety of adaptations to survive, grow, and reproduce in the wide range of environmental conditions on Earth, The student will investigate and understand that animals have evolved a variety of adaptations.....

●	◎	○
#10 Charting Diversity #11 Can It Be Real? #29 Rain Reasons	# 27 Every Tree for Itself #42 Sunlight & Shades of Green	#62 To Be a Tree #63 Tree Factory #65 Bursting Buds

#41 How Plants Grow	#43 Have Seeds Will Travel #44 Water Wonders #88 Life on the Edge	#66 Germinating Giants
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**Ecology ECOL.II** *Theme: Populations* The student will investigate that different factors influence population density, dispersion, and demographics and use models as predictors of population growth. Students will investigate and understand that intraspecific interactions and natural selection have an impact on a population.

●	⊙	○
#25 Birds & Worms		#9 Planet Diversity #20 Environmental Exchange Box #22 Trees as Habitats #45 Web of Life

**Ecology ECOL.III** *Theme: Communities* Students will explore and analyze community structures and interactions.

●	⊙	○
#26 Dynamic Duos #80 Nothing Succeeds Like Succession	#12 Invasive Species	#9 Planet Diversity #20 Environmental Exchange Box #22 Trees as Habitats #45 Web of Life

**Ecology ECOL.IV** *Theme: Ecosystems* The students will understand the that energy flow through an ecosystem. The students will investigate and understand that dead organic matter is crucial to the internal cycling of nutrients in an ecosystem. The students will investigate and understand the effect of human influence on an ecosystem.

●	⊙	○
#23 The Fallen Log	#28 Air Plants	#24 Nature's Recyclers #76 Tree Cookies #77Trees in Trouble

**Ecology ECOL.V** *Theme: Biomes* Students will analyze how biotic and abiotic factors interact to affect the distribution of species and the diversity of life on Earth

●	⊙	○
	#9 Planet Diversity #12 Invasive Species #49 Tropical Treehouse	#10 Charting Diversity #47 Are Vacant Lots Vacant? #48Field, Forest, and Stream #71 Watch on Wetlands

**Ecology ECOL.VI** *Theme: Global Issues* The student will investigate and understand that plate tectonic theory explains Earth's internal and external geologic processes.

●	⊙	○
#14 Renewable or Not?	#12 Invasive Species	#15 A Few of My Favorite

#36 Pollution Search #39 Three Cheers for Trees #84 The Global Climate #86 Our Changing World	#37 Reduce, Reuse, Recycle #50 400 Acre Wood #52 A Look at Aluminum #57 Democracy in Action #69 Forest for the Trees #72 Air We Breathe	Things #31 Plant a Tree #32 A Forest of Many Uses #34 Who Works in the Forest #40 Then and Now #54 I'd Like to Visit a Place #56 We Can Work It Out #58 There Ought to Be a Law #60 Publicize It! #82 Resource -Go-Round #85 In the Driver's Seat #89 Trees for Many Reasons #90 Native Ways #91 In the Good Old Days #93 Paper Civilizations #96 Improve Your Place
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## ENVIRONMENTAL SCIENCE CONTENT GUIDELINES

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

### Environmental Science ENVS.I Scientific Skills and Processes

Students will identify and investigate problems scientifically and will communicate information clearly in writing, discussions, and debates. The student will demonstrate an understanding of the nature of science and scientific reasoning and logic as it applies to environmental science.

The student will demonstrate an understanding of the use of mathematical reasoning and processes in environmental science. The student will analyze current environmental issues and apply the process of engineering design in order to propose feasible.

●	⊙	○
#19 Viewpoints on the Line #50 400 Acre Wood #57 Democracy in Action #86 Our Changing World #96 Improve Your Place	#32 A Forest of Many Uses #34 Who Works in this Forest? #38 Every Drop Counts #43 Have Seeds Will Travel #49 Tropical Treehouse #54 I'd Like to Visit a Place Where... #60 Publicize It! #71 Watch on Wetlands #95 Did You Notice?	#53 On the Move #85 In the Driver's Seat

### Environmental Science ENVS.II The Physical World

The student will investigate and understand the fundamentals of matter and its interactions. The student will investigate and understand how matter flows in the fundamental processes of Earth systems. The students will investigate and understand the major processes and

systems that form Earth, including how water, living things, and rock act together to shape landforms

●	⊙	○
	#23 The Fallen Log #28 Air Plants #29 Rain Reasons #42 Sunlight & Shades of Green #44 Water Wonders #84 The Global Climate	#24 Nature's Recyclers #71 Watch on Wetlands

**Environmental Science ENVS.III The Living World**

The student will investigate and understand that the Earth is one interconnected system to include the hierarchy and the flow of energy within an ecosystem. The student will describe stability and change as it relates to both populations and ecosystems.

●	⊙	○
#25 Birds & Worms #80 Nothing Succeeds Like Succession	#11 Can It Be Real? #12 Invasive Species #26 Dynamic Duos #27 Every Tree For Itself #41 How Plants Grow #43 Have Seeds Will Travel #45 Web of Life #49 Tropical Treehouse #88 Life on the Edge	#9 Planet Diversity #10 Charting Diversity #20 Environmental Exchange Box #22 Trees as Habitats #47 Are Vacant Lots Vacant? #48 Field, Forest, & Stream #70 Soil Stories

**Environmental Science ENVS.IV Resources**

The student will investigate and understand Earth's resources. The student will investigate and understand conservation of Earth's resources.

●	⊙	○
#14 Renewable or Not? #36 Pollution Search #39 Energy Sleuths #50 400 Acre Wood	#37 Reduce, Reuse, Recycle #52 A Look at Aluminum #69 Forest for the Trees #89 Trees for Many Reasons	#15 A Few of My Favorite #38 Every Drop Counts #73 Waste Watchers #82 Resource-Go-Round #85 In the Driver's Seat #93

**Environmental Science ENVS.V Human impact, global climate change, and civic responsibility**

The student will investigate and understand the human impact on our environment. The student will investigate and understand pollution and waste management.

●	⊙	○

<p>#54 I'd Like to Visit a Place Where...</p> <p>#84 The Global Climate</p> <p>#86 Our Changing World</p>	<p>#36 Pollution Search</p> <p>#37 Reduce, Reuse, Recycle</p> <p>#53 On the Move</p> <p>#57 Democracy in Action</p> <p>#59 Power of Print</p> <p>#60 Publicize It!</p> <p>#71 Watch on Wetlands</p> <p>#72 Air We Breathe</p>	<p>#31 Plant a Tree</p> <p>#32 A Forest of Many Uses</p> <p>#40 Then &amp; Now</p> <p>#56 We Can Work It Out</p> <p>#57 Democracy in Action</p> <p>#58 There Ought to Be a Law</p> <p>#77 Trees in Trouble</p> <p>#90 Native Ways</p> <p>#91 In the Good Old Days</p>
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# ENGLISH STANDARDS OF LEARNING

## ENGLISH K

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English K.1** The student will build oral communication skills.

●	⊙	○
#1 The Shape of Things #4 Sounds Around	#3 Peppermint Beetle #6 Picture This! #51 Make Your Own Paper #87 Earth Manners #95 Did You Notice?	#2 Get in Touch with Trees #18 Tale of the Sun #41 How Plants Grow #43 Have Seeds, Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #54 I'd Like to Visit a Place Where ...

**English K.2** The student will demonstrate growth in oral, early literacy skills.

●	⊙	○
	#4 Sounds Around #8 The Forest of S.T. Shrew #18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #36 Pollution Search #78 Signs of Fall #87 Earth Manners #95 Did You Notice?	#13 We All Need Trees #54 I'd Like to Visit a Place Where ...

**English K.7** The student will expand vocabulary and use of word meanings.

●	⊙	○
#1 The Shape of Things	#4 Sounds Around #18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #41 How Plants Grow #51 Make Your Own Paper #78 Signs of Fall #87 Earth Manners #95 Did You Notice?	#2 Get in Touch with Trees #8 The Forest of S.T. Shrew #21 Adopt a Tree #54 I'd Like to Visit a Place Where ...

**English K.8** The student will demonstrate comprehension of fictional texts.

●	⊙	○

#18 Tale of the Sun	#4 Sounds Around #22 Trees as Habitats #36 Pollution Search #87 Earth Manners	
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**English K.9** The student will demonstrate comprehension of nonfiction texts.

●	◎	○
	#6 Picture This!	

**English K.10** The student will print in manuscript.

●	◎	○
		34 Sounds Around #20 Environmental Exchange Box #22 Trees as Habitats

**English K.12** The student will write in a variety of forms to include narrative and descriptive.

●	◎	○
	#20 Environmental Exchange Box #21 Adopt a Tree #24 Nature's Recyclers #46 School Yard Safari #78 Signs of Fall #95 Did You Notice?	#6 Picture This! #22 Trees as Habitats

**ENGLISH GRADE 1**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 1.1** The student will develop oral communication skills.

●	◎	○
	#3 Peppermint Beetle #6 Picture This! #8 The Forest of S.T. Shrew #18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #31 Plant a Tree #32 A Forest of Many Uses #36 Pollution Search #51 Make Your Own Paper #55 Planning the Ideal Community #78 Signs of Fall #87 Earth Manners	#2 Get in Touch with Trees #41 How Plants Grow #43 Have Seeds, Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #54 I'd Like to Visit a Place Where ...

	#89 Trees for Many Reasons #95 Did You Notice?	
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**English 1.7** The student will expand vocabulary and use of word meanings.

●	⊙	○
	#1 The Shape of Things #4 Sounds Around #18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #31 Plant a Tree #87 Earth Manners #95 Did You Notice?	#2 Get in Touch with Trees #8 The Forest of S.T. Shrew #43 Have Seeds, Will Travel #54 I'd Like to Visit a Place Where ... #77 Trees in Trouble

**English 1.8** The student will use simple reference materials.

●	⊙	○
	#22 Trees as Habitats #54 I'd Like to Visit a Place Where ...	

**English 1.9** The student will read and demonstrate comprehension of a variety of fictional texts.

●	⊙	○
	#18 Tale of the Sun #36 Pollution Search #87 Earth Manners #89 Trees for Many Reasons	

**English 1.10** The student will read and demonstrate comprehension of a variety of nonfiction texts.

●	⊙	○
	#6 Picture This!	

**English 1.11** The student will print legibly in manuscript.

●	⊙	○
		#8 The Forest of S.T. Shrew #22 Trees as Habitats #76 Tree Cookies #78 Signs of Fall

**English 1.12** The student will write in a variety of forms to include narrative, descriptive, and opinion.

●	⊙	○
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	#4 Sounds Around #18 Tale of the Sun #21 Adopt a Tree #24 Nature's Recyclers	#2 Get in Touch with Trees #20 Environmental Exchange Box
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**ENGLISH GRADE 2**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 2.1** The student will use oral communication skills

●	◎	○
	#3 Peppermint Beetle #6 Picture This! #8 The Forest of S.T. Shrew #18 Tale of the Sun #22 Trees as Habitats #24 Nature's Recyclers #31 Plant a Tree #32 A Forest of Many Uses #36 Pollution Search #51 Make Your Own Paper #55 Planning the Ideal Community #78 Signs of Fall #87 Earth Manners #89 Trees for Many Reasons #95 Did You Notice?	#2 Get in Touch with Trees #41 How Plants Grow #43 Have Seeds, Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #54 I'd Like to Visit a Place Where ...

**English 2.2** The student will demonstrate an understanding of oral early literacy skills.

●	◎	○
	#6 Picture This! #22 Trees as Habitats #24 Nature's Recyclers #31 Plant a Tree #32 A Forest of Many Uses #51 Make Your Own Paper #55 Planning the Ideal Community #78 Signs of Fall #87 Earth Manners #89 Trees for Many Reasons #95 Did You Notice?	#2 Get in Touch with Trees #18 Tale of the Sun #41 How Plants Grow #42 Sunlight & Shades of Green #43 Have Seeds, Will Travel #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #54 I'd Like to Visit a Place Where ...

**English 2.6** The student will expand vocabulary and use of word meanings

●	◎	○
		#18 Tale of the Sun

**English 2.7** The student will read and demonstrate comprehension of fictional texts.

●	◎	○
	#8 The Forest of S.T. Shrew #18 Tale of the Sun #36 Pollution Search #87 Earth Manners #89 Trees for Many Reasons	

**English 2.8** The student will read and demonstrate comprehension of nonfiction texts.

●	◎	○
	#13 We All Need Trees #18 Tale of the Sun	#8 The Forest of S.T. Shrew

**English 2.10** The student will write in a variety of forms to include narrative, descriptive, opinion, and expository.

●	◎	○
	#18 Tale of the Sun #21 Adopt a Tree #24 Nature’s Recyclers #31 Plant a Tree	#20 Environmental Exchange Box #22 Trees as Habitats

**ENGLISH GRADE 3**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 3.1** The student will use effective communication skills in a variety of settings.

●	◎	○
	#4 Sounds Around #6 Picture This! #18 Tale of the Sun #22 Trees as Habitats #23 The Fallen Log #24 Nature’s Recyclers #31 Plant a Tree #32 A Forest of Many Uses #34 Who Works in this Forest? #51 Make Your Own Paper #55 Planning the Ideal Community #87 Earth Manners #89 Trees for Many Reasons #95 Did You Notice?	#2 Get in Touch with Trees #13 We All Need Trees #41 How Plants Grow #42 Sunlight & Shades of Green #43 Have Seeds, Will Travel #44 Water Wonders #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #54 I’d Like to Visit a Place Where ... #58 There Ought to Be a Law #78 Signs of Fall #79 Tree Lifecycle

**English 3.2** The student will give oral presentations.

●	◎	○
	#6 Picture This! #22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers	#87 Earth Matters

**English 3.4** The student will expand vocabulary when reading.

●	◎	○
	#7 Habitat Pen Pals #8 The Forest of S.T. Shrew	#18 Tale of the Sun

**English 3.5** The student will read and demonstrate comprehension of fictional texts, literary nonfiction, and poetry

●	◎	○
#5 Poet-Tree	#8 The Forest of S.T. Shrew #78 Signs of Fall #80 Nothing Succeeds Like Succession #87 Earth Manners #89 Trees for Many Reasons	#4 Sounds Around #18 Tale of the Sun #77 Trees in Trouble

**English 3.6** The student will continue to read and demonstrate comprehension of nonfiction texts.

●	◎	○
	#34 Who Works in this Forest? #49 Tropical Treehouse #54 I'd Like to Visit a Place Where ...	#4 Sounds Around #18 Tale of the Sun #76 Tree Cookies

**English 3.8** The student will write in a variety of forms to include narrative, descriptive, opinion, and expository.

●	◎	○
	#5 Poet-Tree #21 Adopt a Tree #23 The Fallen Log #24 Nature's Recyclers #31 Plant a Tree #44 Water Wonders #49 Tropical Treehouse	#2 Get in Touch with Trees #8 The Forest of S.T. Shrew #20 Environmental Exchange Box #22 Trees as Habitats #46 School Yard Safari #78 Signs of Fall

**English 3.10** The student will demonstrate comprehension of information resources to research a topic and complete a research product.

●	◎	○
#7 Habitat Pen Pals	#16 Pass the Plants, Please #31 Plant a Tree #49 Tropical Treehouse #76 Tree Cookies #95 Did You Notice?	#20 Environmental Exchange Box #22 Trees as Habitats #77 Trees in Trouble

#### ENGLISH GRADE 4

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 4.1** The student will use effective oral communication skills in a variety of settings.

●	◎	○
	#4 Sounds Around #11 Can It Be Real? #13 We All Need Trees #18 Tale of the Sun #22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #31 Plant a Tree #32 A Forest of Many Uses #34 Who Works in this Forest? #45 Web of Life #51 Make Your Own Paper #55 Planning the Ideal Community #87 Earth Manners #89 Trees for Many Reasons #90 Native Ways #92 A Look at Lifestyles #95 Did You Notice?	#41 How Plants Grow #42 Sunlight & Shades of Green #43 Have Seeds, Will Travel #44 Water Wonders #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #53 On the Move #54 I'd Like to Visit a Place Where ... #58 There Ought to Be a Law #78 Signs of Fall #79 Tree Lifecycle

**English 4.2** The student will create and deliver multimodal, interactive presentations.

●	◎	○
	#9 Planet Diversity #11 Can It Be Real? #13 We All Need Trees #39 Energy Sleuths #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #53 On the Move #69 Forest for the Trees	#54 I'd Like to Visit a Place Where ...

**English 4.5** The student will read and demonstrate comprehension of fictional texts, literary nonfiction texts, and poetry

●	◎	○
#5 Poet-Tree	#7 Habitat Pen Pals #8 The Forest of S.T. Shrew #31 Plant a Tree #78 Signs of Fall #87 Earth Manners #89 Trees for Many Reasons #90 Native Ways	#4 Sounds Around #13 We All Need Trees #18 Tale of the Sun

**English 4.6** The student will read and demonstrate comprehension of nonfiction texts.

●	◎	○
#90 Native Ways	#9 Planet Diversity #11 Can It Be Real? #26 Dynamic Duos #39 Energy Sleuths #45 Web of Life #49 Tropical Treehouse #80 Nothing Succeeds Like Succession	#8 The Forest of S.T. Shrew #34 Who Works in this Forest? #69 Forest for the Trees #77 Trees in Trouble

**English 4.7** The student will write in a variety of forms to include narrative, descriptive, opinion, and expository.

●	◎	○
#7 Habitat Pen Pals #90 Native Ways	#5 Poet-Tree #21 Adopt a Tree #23 The Fallen Log #24 Nature's Recyclers #31 Plant a Tree #39 Energy Sleuths #44 Water Wonders	#2 Get in Touch with Trees #4 Sounds Around #8 The Forest of S.T. Shrew #11 Can It Be Real? #18 Tale of the Sun #20 Environmental Exchange Box #22 Trees as Habitats #46 School Yard Safari #54 I'd Like to Visit a Place Where ... #78 Signs of Fall

**English 4.9** The student will demonstrate comprehension of information resources to create a research product.

●	◎	○

	#10 Charting Diversity #31 Plant a Tree #39 Energy Sleuths #40 Then and Now #76 Tree Cookies #91 In the Good Old Days #92 A Look at Lifestyles #95 Did You Notice?	#2 Get in Touch with Trees #16 Pass the Plants, Please #20 Environmental Exchange Box #21 Adopt a Tree #22 Trees as Habitats #45 Web of Life #46 School Yard Safari #49 Tropical Treehouse #58 There Ought to Be a Law #77 Trees in Trouble #81 Living with Fire #82 Resource-Go-Round #88 Life on the Edge
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**ENGLISH GRADE 5**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 5.1** The student will use effective oral communication skills in a variety of settings.

●	⊙	○
#17 People of the Forest	#9 Planet Diversity #12 Invasive Species #39 Energy Sleuths #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #56 We Can Work It Out #96 Improve Your Place	#52 A Look at Aluminum #53 On the Move #70 Soil Stories

**English 5.2** The student will create multimodal presentations that effectively communicate ideas.

●	⊙	○
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#5 Poet-Tree #70 Soil Stories	#4 Sounds Around #9 Planet Diversity #10 Charting Diversity #11 Can It Be Real? #13 We All Need Trees #18 Tale of the Sun #22 Trees as Habitats #23 The Fallen Log #24 Nature's Recyclers #31 Plant a Tree #32 A Forest of Many Uses #34 Who Works in this Forest? #45 Web of Life #51 Make Your Own Paper #55 Planning the Ideal Community #56 We Can Work It Out #89 Trees for Many Reasons #90 Native Ways #92 A Look at Lifestyles #96 Improve Your Place	#2 Get in Touch with Trees #17 People of the Forest #41 How Plants Grow #42 Sunlight & Shades of Green #43 Have Seeds, Will Travel #44 Water Wonders #46 School Yard Safari #47 Are Vacant Lots Vacant? #48 Field, Forest & Stream #52 A Look at Aluminum #53 On the Move #54 I'd Like to Visit a Place Where ... #58 There Ought to Be a Law #78 Signs of Fall #79 Tree Lifecycle
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**English 5.3** The student will learn how media messages are constructed and for what purposes.

●	⊙	○
#59 Power of Print #60 Publicize It!		

**English 5.5** The student will read and demonstrate comprehension of fictional texts, literary nonfiction, and poetry.

●	⊙	○
	#5 Poet-Tree #7 Habitat Pen Pals #26 Dynamic Duos #31 Plant a Tree #92 A Look at Lifestyles #78 Signs of Fall #87 Earth Manners	#4 Sounds Around #8 The Forest of S.T. Shrew #13 We All Need Trees #17 People of the Forest #18 Tale of the Sun #70 Soil Stories

**English 5.6** The student will read and demonstrate comprehension of nonfiction texts.

●	⊙	○
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#17 People of the Forest #90 Native Ways	#5 Poet-Tree #7 Habitat Pen Pals #12 Invasive Species #39 Energy Sleuths #59 Power of Print #60 Publicize It! #80 Nothing Succeeds Like Succession #89 Trees for Many Reasons #93 Paper Civilizations	#4 Sounds Around #8 The Forest of S.T. Shrew #34 Who Works in this Forest? #36 Pollution Search #70 Soil Stories #77 Trees in Trouble
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**English 5.7** The student will write in a variety of forms to include narrative, descriptive, expository, and persuasive.

●	◎	○
#5 Poet-Tree #7 Habitat Pen Pals #17 People of the Forest	#11 Can It Be Real? #21 Adopt a Tree #23 The Fallen Log #24 Nature's Recyclers #31 Plant a Tree #38 Every Drop Counts #44 Water Wonders #49 Tropical Treehouse #57 Democracy in Action #59 Power of Print #60 Publicize It! #96 Improve Your Place	#2 Get in Touch with Trees #8 The Forest of S.T. Shrew #20 Environmental Exchange Box #22 Trees as Habitats #46 School Yard Safari #52 A Look at Aluminum #54 I'd Like to Visit a Place Where ... #70 Soil Stories #78 Signs of Fall

**English 5.9** The student will find, evaluate, and select appropriate resources to create a research product.

●	◎	○
	#7 Habitat Pen Pals #10 Charting Diversity #12 Invasive Species #13 We All Need Trees #31 Plant a Tree #39 Energy Sleuths #40 Then and Now #48 Field, Forest & Stream #49 Tropical Treehouse #57 Democracy in Action #59 Power of Print #60 Publicize It! #76 Tree Cookies #90 Native Ways #91 In the Good Old Days #92 A Look at Lifestyles #95 Did You Notice?	#2 Get in Touch with Trees #16 Pass the Plants, Please #20 Environmental Exchange Box #21 Adopt a Tree #22 Trees as Habitats #45 Web of Life #46 School Yard Safari #58 There Ought to Be a Law #77 Trees in Trouble #81 Living with Fire #82 Resource-Go-Round #88 Life on the Edge

**ENGLISH GRADE 6**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 6.1** The student will use effective oral communication skills in a variety of settings.

●	◎	○
#19 Viewpoints on the Line	#22 Trees as Habitats #23 The Fallen Log #24 Nature’s Recyclers #55 Planning the Ideal Community #56 We Can Work It Out #84 The Global Climate #89 Trees for Many Reasons #92 A Look at Lifestyles	#12 Invasive Species #13 We All Need Trees #18 Tale of the Sun #49 Tropical Treehouse #54 I’d Like to Visit a Place Where ... #57 Democracy in Action #69 Forest for the Trees #70 Soil Stories #94 By the Rivers of Babylon

**English 6.2** The student will create multimodal presentations that effectively communicate ideas.

●	◎	○
	#9 Planet Diversity #11 Can It Be Real? #19 Viewpoints on the Line #39 Energy Sleuths #50 400-Acre Wood #56 We Can Work It Out #70 Soil Stories #84 The Global Climate #89 Trees for Many Reasons #94 By the Rivers of Babylon #96 Improve Your Place	#12 Invasive Species #49 Tropical Treehouse #54 I’d Like to Visit a Place Where ...

**English 6.3** The student will determine the purpose of media messages and examine how they are constructed.

●	◎	○
#59 Power of Print	#60 Publicize It!	

**English 6.5** The student will read and demonstrate comprehension of a variety of fictional texts, narrative nonfiction, and poetry.

●	◎	○

#5 Poet-Tree #17 People of the Forest	#7 Habitat Pen Pals #13 We All Need Trees #18 Tale of the Sun #33 Forest Consequences #59 Power of Print #91 In the Good Old Days	#4 Sounds Around #8 The Forest of S.T. Shrew
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**English 6.6** The student will read and demonstrate comprehension of a variety of nonfiction texts.

●	⊙	○
#7 Habitat Pen Pals #17 People of the Forest #90 Native Ways	#5 Poet-Tree #9 Planet Diversity #10 Charting Diversity #12 Invasive Species #26 Dynamic Duos #29 Rain Reasons #33 Forest Consequences #37 Reduce, Reuse, Recycle #39 Energy Sleuths #45 Web of Life #57 Democracy in Action #59 Power of Print #60 Publicize It! #72 Air We Breathe #76 Tree Cookies #80 Nothing Succeeds Like Succession #84 The Global Climate #89 Trees for Many Reasons #91 In the Good Old Days #92 A Look at Lifestyles #93 Paper Civilizations #94 By the Rivers of Babylon #95 Did You Notice?	#4 Sounds Around #8 The Forest of S.T. Shrew #11 Can It Be Real? #13 We All Need Trees #21 Adopt a Tree #34 Who Works in this Forest? #35 Loving It Too Much #36 Pollution Search #52 A Look at Aluminum #58 There Ought to Be a Law #77 Trees in Trouble #81 Living with Fire #88 Life on the Edge

**English 6.7** The student will write narration, description, exposition, and persuasion.

●	⊙	○
#7 Habitat Pen Pals #17 People of the Forest	#38 Every Drop Counts #39 Energy Sleuths #44 Water Wonders #54 I'd Like to Visit a Place Where ... #59 Power of Print #60 Publicize It! #91 In the Good Old Days #96 Improve Your Place	#2 Get in Touch with Trees #8 The Forest of S.T. Shrew #20 Environmental Exchange Box #31 Plant a Tree #52 A Look at Aluminum #70 Soil Stories #78 Signs of Fall #82 Resource-Go-Round

**English 6.9** The student will find, evaluate, and select appropriate resources to create a research product.

●	⊙	○
#17 People of the Forest	#7 Habitat Pen Pals #10 Charting Diversity #12 Invasive Species #13 We All Need Trees #31 Plant a Tree #39 Energy Sleuths #40 Then and Now #48 Field, Forest & Stream #49 Tropical Treehouse #57 Democracy in Action #59 Power of Print #60 Publicize It! #76 Tree Cookies #90 Native Ways #91 In the Good Old Days #92 A Look at Lifestyles #95 Did You Notice?	#2 Get in Touch with Trees #20 Environmental Exchange Box #58 There Ought to Be a Law #81 Living with Fire #82 Resource-Go-Round #88 Life on the Edge

**ENGLISH GRADE 7**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 7.1** The student will participate in and contribute to conversations, group discussions, and oral presentations.

●	⊙	○

#19 Viewpoints on the Line #70 Soil Stories #71 Watch on Wetlands #84 The Global Climate	#11 Can It Be Real? #12 Invasive Species #22 Trees as Habitats #23 The Fallen Log #31 Plant a Tree #32 A Forest of Many Uses #33 Forest Consequences #39 Energy Sleuths #45 Web of Life #48 Field, Forest & Stream #50 400-Acre Wood #51 Make Your Own Paper #55 Planning the Idea Community #56 We Can Work It Out #72 Air We Breathe #89 Trees for Many Reasons #90 Native Ways #92 A Look at Lifestyles #94 By the Rivers of Babylon #96 Improve Your Place	#29 Rain Reasons #35 Loving It Too Much #41 How Plants Grow #42 Sunlight & Shades of Green #43 Have Seeds, Will Travel #44 Water Wonders #46 School Yard Safari #47 Are Vacant Lots Vacant? #49 Tropical Treehouse #52 A Look at Aluminum #53 On the Move #54 I'd Like to Visit a Place Where ... #57 Democracy in Action #58 There Ought to Be a Law #69 Forest for the Trees
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**English 7.2** The student will create multimodal presentations both individually and in a group that effectively communicate ideas.

●	⊙	○
	#9 Planet Diversity #11 Can It Be Real? #19 Viewpoints on the Line #39 Energy Sleuths #56 We Can Work It Out #60 Publicize It! #70 Soil Stories #84 The Global Climate #89 Trees for Many Reasons #94 By the Rivers of Babylon #96 Improve Your Place	#12 Invasive Species #49 Tropical Treehouse #50 400-Acre Wood #52 A Look at Aluminum #54 I'd Like to Visit a Place Where ... #57 Democracy in Action

**English 7.3** The student will examine the elements of media literacy.

●	⊙	○
	#59 Power of Print #60 Publicize It! #92 A Look at Lifestyles	#19 Viewpoints on the Line #39 Energy Sleuths #57 Democracy in Action #71 Watch on Wetlands #89 Trees for Many Reasons

**English 7.5** The student will read and demonstrate comprehension of a variety of fictional texts, literary nonfiction, poetry, and drama.

●	⊙	○
	#5 Poet-Tree #59 Power of Print	#60 Publicize It!

**English 7.6** The student will read and demonstrate comprehension of a variety of nonfiction texts.

●	⊙	○
#17 People of the Forest #90 Native Ways	#11 Can It Be Real? #12 Invasive Species #26 Dynamic Duos #33 Forest Consequences #39 Energy Sleuths #49 Tropical Treehouse #50 400-Acre Wood #59 Power of Print #60 Publicize It! #71 Watch on Wetlands #72 Air We Breathe #80 Nothing Succeeds Like Succession #84 The Global Climate #89 Trees for Many Reasons #91 In the Good Old Days #92 A Look at Lifestyles #93 Paper Civilizations #94 By the Rivers of Babylon	#35 Loving It Too Much #45 Web of Life #69 Forest for the Trees #77 Trees in Trouble

**English 7.7** The student will write in a variety of forms with an emphasis on exposition, narration, and persuasion.

●	⊙	○
	#21 Adopt a Tree #23 The Fallen Log #37 Reduce, Reuse, Recycle #38 Every Drop Counts #39 Energy Sleuths #44 Water Wonders #57 Democracy in Action #59 Power of Print #60 Publicize It! #71 Watch on Wetlands #91 In the Good Old Days #96 Improve Your Place	#12 Invasive Species #17 People of the Forest #20 Environmental Exchange Box #22 Trees as Habitats #31 Plant a Tree #45 Web of Life #50 400-Acre Wood #52 A Look at Aluminum #54 I'd Like to Visit a Place Where ... #70 Soil Stories

**English 7.9** The student will find, evaluate, and select appropriate resources to create a research product.

●	◎	○
#17 People of the Forest	#10 Charting Diversity #39 Energy Sleuths #57 Democracy in Action #59 Power of Print #60 Publicize It! #84 The Global Climate #90 Native Ways #91 In the Good Old Days #92 A Look at Lifestyles #95 Did You Notice?	#20 Environmental Exchange Box #31 Plant a Tree #52 A Look at Aluminum #58 There Ought to Be a Law #76 Tree Cookies #82 Resource-Go-Round #88 Life on the Edge

### ENGLISH GRADE 8

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**English 8.1** The student will participate in, collaborate in, and report on small-group learning activities.

●	◎	○
#19 Viewpoints on the Line #40 Then and Now #71 Watch on Wetlands #84 The Global Climate	#56 We Can Work It Out	#51 Make Your Own Paper #52 A Look at Aluminum #54 I'd Like to Visit a Place Where ... #57 Democracy in Action #72 Air We Breathe #95 Did You Notice? #96 Improve Your Place

**English 8.2** The student will develop and deliver multimodal, interactive presentations collaboratively and individually.

●	◎	○
	#9 Planet Diversity #11 Can It Be Real? #12 Invasive Species #19 Viewpoints on the Line #39 Energy Sleuths #50 400-Acre Wood #56 We Can Work It Out #60 Publicize It! #70 Soil Stories #84 The Global Climate #89 Trees for Many Reasons #94 By the Rivers of Babylon #96 Improve Your Place	#54 I'd Like to Visit a Place Where ...

**English 8.3** The student will analyze, develop, and produce creative or informational media messages.

●	◎	○
	#37 Reduce, Reuse, Recycle #57 Democracy in Action #59 Power of Print #60 Publicize It! #84 The Global Climate #90 Native Ways #92 A Look at Lifestyles	#71 Watch on Wetlands #88 Life on the Edge

**English 8.5** The student will read and analyze a variety of fictional texts, literary nonfiction, poetry, and drama.

●	◎	○
	#5 Poet-Tree #59 Power of Print #91 In the Good Old Days	

**English 8.6** The student will read, comprehend, and analyze a variety of nonfiction texts.

●	◎	○
#17 People of the Forest #90 Native Ways	#11 Can It Be Real? #12 Invasive Species #26 Dynamic Duos #33 Forest Consequences #39 Energy Sleuths #50 400-Acre Wood #59 Power of Print #60 Publicize It! #71 Watch on Wetlands #72 Air We Breathe #80 Nothing Succeeds Like Succession #84 The Global Climate #89 Trees for Many Reasons #91 In the Good Old Days #93 Paper Civilizations	#35 Loving It Too Much #70 Soil Stories #77 Trees in Trouble

**English 8.7** The student will write in a variety of forms to include narrative, expository, persuasive, and reflective with an emphasis on expository and persuasive writing.

●	◎	○

	#12 Invasive Species #21 Adopt a Tree #23 The Fallen Log #31 Plant a Tree #38 Every Drop Counts #39 Energy Sleuths #44 Water Wonders #50 400-Acre Wood #57 Democracy in Action #59 Power of Print #60 Publicize It! #71 Watch on Wetlands #91 In the Good Old Days #96 Improve Your Place	#11 Can It Be Real? #17 People of the Forest #20 Environmental Exchange Box #22 Trees as Habitats #52 A Look at Aluminum #54 I'd Like to Visit a Place Where ... #90 Native Ways
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**English 8.9** The student will apply knowledge of appropriate reference materials to produce a research product.

●	⊙	○
	10 Charting Diversity #39 Energy Sleuths #57 Democracy in Action #59 Power of Print #60 Publicize It! #84 The Global Climate #90 Native Ways #91 In the Good Old Days #92 A Look at Lifestyles #95 Did You Notice?	#17 People of the Forest #20 Environmental Exchange Box #31 Plant a Tree #52 A Look at Aluminum #58 There Ought to Be a Law #76 Tree Cookies #82 Resource-Go-Round #88 Life on the Edge

# HISTORY AND SOCIAL SCIENCE STANDARDS OF LEARNING

## HISTORY & SOCIAL SCIENCE K

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**HSS K.3** The student will sequence events in the past and present and begin to recognize that things change over time.

●	⊙	○
#18 Tale of the Sun #95 Did You Notice?		

**HSS K.4** The student will describe the relative location of people, places, and things by using positional words, with emphasis on near/far, above/below, left/right, and behind/in front.

●	⊙	○
#53 On the Move #74 People, Places, Things	#55 Planning the Ideal Community	

**HSS K.5** The student will use simple maps and globes to: develop an awareness that a map is a drawing of a place to show where things are located and that a globe is a round model of Earth; describe places referenced in historical events, stories, and real-life situations; locate land and water features; identify basic map symbols in a map legend; and identify places and objects of a familiar area.

●	⊙	○
#53 On the Move #55 Planning the Ideal Community #74 People, Places, Things	#4 Sounds Around	

**HSS K.6** The student will develop an awareness that maps and globes: show a view from above; show things in smaller size; and show the position of objects.

●	⊙	○
#53 On the Move #55 Planning the Ideal Community #74 People, Places, Things	#4 Sounds Around	

**HSS K.7** The student will describe how the location, climate, and physical surroundings of a community affect the way people live, including their food, clothing, shelter, transportation, and recreation.

●	⊙	○
#74 People, Places, Things	#55 Planning the Ideal Community #54 I'd Like to Visit a Place Where	#18 Tale of the Sun #53 On the Move #87 Earth Matters #95 Did You Notice?

**HSS K.8** The student will match simple descriptions of work that people do with the names of those jobs.

●	◎	○
#74 People, Places, Things		#18 Tale of the Sun #51 Make Your Own Paper

**HSS K.9** The student will: recognize that people make choices because they cannot have everything they want; and explain that people work to earn money to buy the things they want.

●	◎	○
		#31 Plant a Tree #55 Planning the Ideal Community #74 People, Places, Things

**HSS K.10** The student will demonstrate that being a good citizen involves: taking turns and sharing; taking responsibility for certain classroom chores; taking care of personal belongings and respecting what belongs to others; following rules and understanding the consequence of breaking rules; practicing honesty, self-control, and kindness to others; participating in decision making in the classroom; and participating successfully in group settings.

●	◎	○
	#87 Earth Manners	

**HISTORY & SOCIAL SCIENCE GRADE 1**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**HSS 1.4** The student will develop map skills by The student will develop map skills by: recognizing basic map symbols, including references to land, water, cities, and roads; using cardinal directions on maps; identifying the shapes of the United States and Virginia on maps and globes; locating Washington, D.C., the capital of the United States, and Richmond, the capital of Virginia, on a United States map; and constructing simple maps, including a title, map legend, and compass rose.

●	◎	○
	#4 Sounds Around #55 Planning the Ideal Community	#53 On the Move #74 People, Places, Things

**HSS 1.5** The student will construct a simple map of a familiar area, using basic map symbols in the map legend.

●	◎	○
#55 Planning the Ideal Community	#4 Sounds Around #74 People, Places, Things	#47 Are Vacant Lots Vacant?

**HSS 1.7** The student will explain the difference between goods and services and describe how people are consumers and producers of goods and services.

●	⊙	○
#74 People, Places, Things	#55 Planning the Ideal Community	#13 We All Need Trees #51 Make Your Own Paper

**HSS 1.10** The student will apply the traits of a good citizen by: focusing on fair play, exhibiting good sportsmanship, helping others, and treating others with respect; recognizing the purpose of rules and practicing self-control; working hard in school; taking responsibility for one's own actions; valuing honesty and truthfulness in oneself and others; and, participating in classroom decision making through voting.

●	⊙	○
	#87 Earth Manners	

**HISTORY & SOCIAL SCIENCE GRADE 2**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**HSS 2.2** The student will demonstrate knowledge of the United States by describing important developments and innovations in United States history, including developments and innovations related to communication and transportation.

●	⊙	○
	#53 On the Move	#51 Make Your Own Paper #74 People, Places, Things

**HSS 2.3** The student will compare the lives and contributions of three American Indian cultures of the past and present with emphasis on the Powhatan of the Eastern Woodlands, the Lakota of the Plains, and the Pueblo peoples of the Southwest.

●	⊙	○
		#18 Tale of the Sun #20 Environmental Exchange Box

**HSS 2.6** The student will develop map skills by using globes and maps of the world and the United States to locate the seven continents and the five oceans; the equator, the Prime Meridian, and the four hemispheres; and major rivers, mountain ranges, lakes, and other physical features in the United States.

●	⊙	○
		#20 Environmental Exchange Box

**HSS 2.6** The student will demonstrate map skills by constructing simple maps, using title, map, legend, and compass rose.

●	⊙	○
#55 Planning the Ideal Community		

**HSS 2.8** The student will describe natural resources (water, soil, wood, and coal), human resources (people at work), and capital resources (machines, tools, and buildings).

●	◎	○
#30 Three Cheers for Trees #55 Planning the Ideal Community	#13 We All Need Trees #15 A Few of My Favorite Things #21 Adopt a Tree #39 Energy Sleuths #63 Tree Factory #74 People, Places, Things	#16 Pass the Plants, Please #31 Plant a Tree #36 Pollution Search #51 Make Your Own Paper

**HSS 2.10** The student will explain that scarcity (limited resources) requires people to make choices about producing and consuming goods and services.

●	◎	○
#15 A Few of My Favorite Things	#13 We All Need Trees #21 Adopt a Tree #32 A Forest of Many Uses	#31 Plant a Tree

**HISTORY & SOCIAL SCIENCE GRADE 3**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**HSS 3.2** The student will explain how the contributions of ancient China and Egypt have influenced the present world in terms of architecture, inventions, the calendar, and written language.

●	◎	○
		#51 Make Your Own Paper

**HSS 3.6** The student will develop map skills by using globes and maps to locate and describe major rivers, mountain ranges, and other geographic features of: Africa; Asia; Europe; North America; and South America.

●	◎	○
		#20 Environmental Exchange Box #49 Tropical Treehouse #55 Planning the Ideal Community

**HSS 3.7** The student will describe how people in ancient world cultures adapted to their environment.

●	◎	○
		#18 Tale of the Sun #51 Make Your Own Paper

**HSS 3.10** The student will identify examples of making an economic choice and will explain the idea of opportunity cost (what is given up when making a choice).

●	⊙	○
	#15 A Few of My Favorite Things	#89 Trees for Many Reasons

**HSS 3.11** The student will explain the responsibilities of a good citizen, with emphasis on: respecting and protecting the rights and property of others; taking part in the voting process when making classroom decisions; describing actions that can improve the school and community; demonstrating self-discipline and self-reliance; practicing honesty and trustworthiness; and describing the purpose of rules.

●	⊙	○
#87 Earth Manners	#55 Planning the Ideal Community #74 People, Places, Things	#4 Sounds Around #31 Plant a Tree #89 Trees for Many Reasons

**VIRGINIA STUDIES (GRADE4-5)**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**VS.1** The student will demonstrate responsible citizenship and develop skills for historical and geographical analysis including the ability to ...

●	⊙	○
	#92 A Look at Lifestyles	#53 On the Move #95 Did You Notice?

**VS.2** The student will demonstrate an understanding of the relationship between physical geography and the lives of the native peoples, past and present, of Virginia.

●	⊙	○
	#90 Native Ways #92 A Look at Lifestyles	#20 Environmental Exchange Box #32 A Forest of Many Uses #54 I'd Like to Visit a Place Where...

**VS.9** The student will demonstrate an understanding of Virginia during the twentieth century and beyond by describing the economic and social transition from a rural, agricultural society to a more urban, industrialized society.

●	⊙	○
	#92 A Look at Lifestyles #95 Did You Notice?	

**VS.10** The student will demonstrate an understanding of Virginia government, geography, and economics by describing the major products and industries important to Virginia's

economy; and explaining how advances in transportation, communications, and technology have contributed to Virginia’s prosperity and role in the global economy.

●	◎	○
		#13 We All Need Trees #14 Renewable or Not? #15 A Few of My Favorite Things #27 Every Tree for Itself #28 Air Plants #31 Plant a Tree #32 A Forest of Many Uses #53 On the Move

**UNITED STATES HISTORY to 1865 (GRADE 6)**

●	◎	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**USI.1** The student will demonstrate responsible citizenship and develop skills for historical and geographical analysis, including the ability to....

●	◎	○
	#92 A Look at Lifestyles #95 Did You Notice?	

**USI.2** The student will interpret maps, globes, photographs, pictures, or tables to recognize key geographic features on maps, diagrams, and/or photographs.

●	◎	○
	#75 Tipi Talk #92 A Look at Lifestyles #95 Did You Notice?	#93 Paper Civilizations

**USI.3** The student will apply social science skills to understand how early cultures developed in North America by ....

●	◎	○
#75 Tipi Talk #90 Native Ways #92 A Look at Lifestyles	#18 Tale of the Sun	#40 Then and Now

**USI.5** The student will demonstrate knowledge of the factors that shaped colonial America by...

●	◎	○
		#40 Then and Now #95 Did You Notice?

**USI.8** The student will apply social science skills to understand westward expansion and reform in America from 1801 to 1861

●	◎	○
	#92 A Look at Lifestyles	#40 Then and Now #91 In the Good Old Days

**UNITED STATES HISTORY 1865 to PRESENT (GRADE 7)**

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

**USII.1** The student will demonstrate skills for historical and geographical analysis, and responsible citizenship, including the ability to....

●	⊙	○
	#95 Did You Notice?	

**USII.2** student will use maps, globes, photographs, pictures, or tables for .....

●	⊙	○
#82 Resource Go-Round	#92 A Look at Lifestyles #93 Paper Civilizations	#34 Who Works in this Forest? #40 Then and Now #35 Loving It Too Much #53 On the Move #55 Planning the Ideal Community #85 In the Driver's Seat

**USII.6** The student will apply social science skills to understand the social, economic, and technological changes of the early twentieth century by .....

●	⊙	○
	#53 On the Move #92 A Look at Lifestyles #93 Paper Civilizations #95 Did You Notice?	#40 Then and Now #84 The Global Climate #91 In the Good Old Days

**USII.9** The student will demonstrate knowledge of the key domestic and international issues during the second half of the twentieth and early twenty-first centuries by...

●	⊙	○
		#38 Every Drop Counts #39 Energy Sleuths #40 Then and Now #53 On the Move #73 Waste Watchers #83 A Peek at Packaging #84 The Global Climate #85 In the Driver's Seat #86 Our Changing World #91 In the Good Old Days #93 Paper Civilizations #95 Did You Notice?

**CIVICS AND ECONOMICS (GRADE 8)**

**CE.3** The student will apply social science skills to understand citizenship and the rights,

●	⊙	○
<i>Teaches the concept, and is the focus of the activity</i>	<i>Teaches or reinforces some of the concept</i>	<i>Addresses or connects to the concept briefly</i>

duties, and responsibilities of citizens by .....

●	⊙	○
#56 We Can Work It Out #58 There Ought to Be a Law	#33 Forest Consequences #50 400-Acre Wood #54 I'd Like to Visit a Place Where... #57 Democracy in Action #60 Publicize It! #71 Watch on Wetlands #96 Improve Your Place	#4 Sounds Around #19 Viewpoints on the Line #35 Loving It Too Much #52 A Look at Aluminum #55 Planning the Ideal Community #86 Our Changing World

**CE.4** The student will demonstrate personal character traits that facilitate thoughtful and effective participation in civic life by .....

●	⊙	○
#56 We Can Work It Out #57 Democracy in Action	#54 I'd Like to Visit a Place Where... #58 There Ought to be a Law #70 Soil Stories	#52 Look at Aluminum #60 Publicize It! #96 Improve Your Place

**CE.5** The student will apply social science skills to understand the political process at the local, state, and national levels of government by .....

●	⊙	○
#57 Democracy in Action	#58 There Ought to be a Law	#19 Viewpoints on the Line

**CE.6** The student will apply social science skills to understand the American constitutional government at the national level by .....

●	⊙	○
#58 There Ought to be a Law	#57 Democracy in Action	#19 Viewpoints on the Line #35 Loving It Too Much #49 Tropical Treehouse #50 400-Acre Wood

**CE.7** The student will apply social science skills to understand the American constitutional government at the state level by .....

●	⊙	○
#58 There Ought to Be a Law	#49 Tropical Treehouse #57 Democracy in Action #71 Watch on Wetlands	#4 Sounds Around #19 Viewpoints on the Line #33 Forest Consequences #35 Loving It Too Much

		#50 400-Acre Wood #69 Forest for the Trees #71 Watch on Wetlands
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**CE.8** The student will apply social science skills to understand the American constitutional government at the local level by .....

●	⊙	○
#58 There Ought to Be a Law	#49 Tropical Treehouse #56 We Can Work It Out #57 Democracy in Action	#4 Sounds Around #19 Viewpoints on the Line #33 Forest Consequences #35 Loving It Too Much #50 400-Acre Wood #69 Forest for the Trees #71 Watch on Wetlands

**CE.9** The student will apply social science skills to understand how public policy is made at the local, state, and national levels of government by .....

●	⊙	○
#49 Tropical Treehouse #56 We Can Work It Out	#19 Viewpoints on the Line #33 Forest Consequences #57 Democracy in Action	#35 Loving It Too Much #50 400-Acre Wood #58 There Ought to be a Law #60 Publicize It! #69 Forest for the Trees #71 Watch on Wetlands #84 The Global Climate #86 Our Changing World #88 Life on the Edge #89 Trees for Many Reasons

**CE.11** The student will apply social science skills to understand how economic decisions are made in the marketplace by .....

●	⊙	○
#14 Renewable or Not	#38 Every Drop Counts #50 400-Acre Wood #69 Forest for the Trees #73 Waste Watchers #84 The Global Climate #89 Trees for Many Reasons	#39 Energy Sleuths #52 A Look at Aluminum #82 Resource Go-Round #83 Peek at Packaging #88 Life on the Edge

**CE.12** The student will apply social science skills to understand the United States economy by .....

●	⊙	○
	#33 Forest Consequences	#14 Renewable or Not #50 400-Acre Wood #69 Forest for the Trees #82 Resource Go-Round