

## Kindergarten Science Performance Expectations Correlation to PLT Activities

Performance Expectation	PLT Activity
K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	
K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	
K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.	
K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	
K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive	Backyard Safari Birds and Bugs Here We Grow Again The Closer You Look Trees as Habitats Discover Diversity Tree Factory
K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	
K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	Did You Notice? Trees as Habitats We All Need Trees
K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	Adopt a Tree Backyard Safari Birds and Bugs Here We Grow Again Trees as Habitats Discover Diversity
K-ESS3-2. Ask questions to understand the purpose of weather forecasting to prepare for and respond to severe weather.	
K-ESS3-3. Obtain and communicate information to define problems related to human impact on the local environment.	Make Your Own Paper We All Need Trees

## Kindergarten Reverse Correlations – Science

PLT Activity	Science Performance Expectations
Adopt a Tree	K-ESS3-1
Backyard Safari	K-LS1-1      K-ESS3-1
Birds and Bugs	K-LS1-1      K-ESS3-1
Did You Notice?	K-ESS2-2
Here We Grow Again	K-LS1-1      K-ESS3-1
Make Your Own Paper	K-ESS3-3
The Closer You Look	K-LS1-1
Trees as Habitats	K-LS1-1      K-ESS2-2      K-ESS3-1
We All Need Trees	K-ESS2-2      K-ESS3-3
Discover Diversity	K-LS1-1      K-ESS3-1
Tree Factory	K-LS1-1

## Grade 1 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities	
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.		
1-PS4-2. Make observations to support an evidence-based claim that objects in darkness can be seen only when illuminated by light sources.		
1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.		
1-PS4-4. Use tools and materials to design and build a device that uses light or sound to communicate over a distance		
1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	A Tree's Life Bursting Buds Have Seeds will Travel Here We Grow Again	Make Your Own Paper The Closer You Look We All Need Trees Tree Factory
1-LS1-2. Obtain information from multiple sources to determine patterns in parent and offspring behavior that help offspring survive.		
1-LS3-1. Make observations to support an evidence-based claim that most young are like, but not exactly like, their parents.	A Tree's Life Adopt a Tree Did You Notice?	
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted		
1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.		

## Grade 1 Reverse Correlations – Science

PLT Activity	Science Performance Expectations
A Tree's Life	1-LS1-1 1-LS3-1
Adopt a Tree	1-LS3-1
Bursting Buds	1-LS1-1
Did You Notice?	1-LS3-1
Have Seeds, Will Travel	1-LS1-1
Here We Grow Again	1-LS1-1
Make Your Own Paper	1-LS1-1 (ETS2-B)
The Closer You Look	1-LS1-1
We All Need Trees	1-LS1-1 (ETS2-B)
Tree Factory	1-LS1-1

## Grade 2 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	
2-PS1-2. Analyze data obtained from tests to determine which materials have the best properties for an intended purpose.	
2-PS1-3. Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	
2-PS1-4. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	
2-LS2-1. Plan and conduct an investigation to determine what plants need to grow.	Here We Grow Again*      Tree Factory Tree Cookies              Every Tree for Itself
2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	Have Seeds Will Travel*
2-LS4-1. Make observations of plants and animals to compare patterns of diversity within different habitats.	Backyard Safari*              Discover Diversity Birds and bugs Trees as Habitats
2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur rapidly or slowly.	
2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	
2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area	
2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.	
2-ESS3-1. Design solutions to address human impacts on natural resources in the local environment. (ETS2.B)	Make Your Own Paper We All Need Trees

\* Fully addresses the Performance Expectation

## Grade 2 Reverse Correlations – Science

PLT Activity	Science Performance Expectations
Backyard Safari*	2-LS4-1
Birds and Bugs	2-LS4-1
Have Seeds, Will Travel*	2-LS2-2
Here We Grow Again*	2-LS2-1
Make Your Own Paper	2-ESS3-1 (ETS2.B)
Trees as Habitats	2-LS4-1
We All Need Trees	2-ESS3-1 (ETS2.B)
Discover Diversity	2-LS4-1
Tree Cookies	2-LS2-1
Tree Factory	2-LS2-1
Every Tree for Itself	2-LS2-1

\* Fully addresses the Performance Expectation

## Grade 3 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities	
3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.		
3-PS2-2. Make observations and measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.		
3-PS2-3. Ask questions to determine cause-and-effect relationships of electric interactions and magnetic interactions between two objects not in contact with each other.		
3-PS2-4. Develop possible solutions to a simple design problem by applying scientific ideas about magnets.		
3-LS1-1. Develop and use models to describe how organisms change in predictable patterns during their unique and diverse life cycles	A Tree's Life Bursting Buds (3-5 Variation #2) Did You Notice?	
3-LS2-1. Construct an argument that some animals form groups that help members survive.		
3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have inherited traits that vary within a group of similar organisms.	A Tree's Life Tree ID	
3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.	Here We Grow Again Charting biodiversity *Every Tree for Itself	Tree Cookies Trees in Trouble Field, Forest, & Stream
3-LS4-1. Analyze and interpret data from fossils to provide evidence of organisms and the environments in which they lived long ago.		
3-LS4-2. Use evidence to construct an explanation for how the variations in traits among individuals of the same species may provide advantages in surviving and producing offspring	Birds and Bugs	
3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can thrive, struggle to survive, or fail to survive.	Backyard Safari Trees as Habitats Charting Biodiversity Nothing Succeeds Like Succession	Discover Diversity Field, Forest, & Stream Life on the Edge
3-LS4-4. Make a claim about the effectiveness of a solution to a problem caused when the environment changes and affects organisms living there.	Discover Diversity Trees in Trouble Water Wonders Decisions, Decisions *Field, Forest, & Stream Nothing Succeeds Like Succession	Improve Your Place Life on the Edge Our Federal Forests Plant a Tree Reduce, Reuse, Recycle
3-ESS2-1. Represent data in tables and graphical displays of typical weather conditions during a particular season to identify patterns and make predictions.		
3-ESS2-2. Obtain and combine information to describe climate patterns in different regions of the world.		
3-ESS3-1. Make a claim about the effectiveness of a design solution that reduces the impacts of a weather related hazard.		

\* Fully addresses the Performance Expectation

## Grade 3 Reverse Correlations – Science

PLT Activity	Science Performance Expectation		
A Tree's Life	3-LS1-1	3-LS3-1	
Backyard Safari	3-LS4-3		
Birds and Bugs	3-LS4-2		
Bursting Buds (3-5 Variation #2)	3-LS1-1		
Did You Notice?	3-LS1-1		
Here We Grow Again	3-LS3-2		
Trees as Habitats	3-LS4-3		
Charting Biodiversity	3-LS3-2	3-LS4-3	
Discover Diversity	3-LS4-3	3-LS4-4	
*Every Tree for Itself	3-LS3-2		
Tree Cookies	3-LS3-2		
Tree ID	3-LS3-1		
Trees in Trouble	3-LS4-4	3-LS3-2	
Water Wonders	3-LS4-4		
Decisions, Decisions	3-LS4-4		
*Field, Forest, and Stream	3-LS3-2	3-LS4-4	3-LS4-3*
Improve your Place	3-LS4-4		
Life on the Edge	3-LS4-3	3-LS4-4	
Nothing Succeeds Like Succession	3-LS4-3	3-LS4-4	
Our Federal Forests	3-LS4-4		
Plant a Tree	3-LS4-4		
Reduce, Reuse, Recycle	3-LS4-4		

\* Fully addresses the Performance Expectation

## Grade 4 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.	
4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.	
4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide.	
4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	
4-PS4-1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.	
4-PS4-2. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.	
4-PS4-3. Generate and compare multiple solutions that use patterns to transmit information.	
4-LS1-1. Construct an argument that plants and animals have internal and external structures that function together in a system to support survival, growth, behavior, and reproduction.	Bursting Buds Have Seeds Will Travel Tree Factory Tree ID
4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.	Peppermint Beetle Get Outside
4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.	
4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	
4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features	
4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and how their uses affect the environment.	Trees for Many Reasons Exploration Energy Renewable or Not
4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.	Did You Notice? Tree Cookies Water Wonders Decisions, Decisions Exploration Energy

## Grade 4 Reverse Correlations – Science

PLT Activity	Science Performance Expectations
Bursting Buds	4-LS1-1
Did You Notice?	4-ESS3-2
Have Seeds Will Travel	4-LS1-1
Peppermint Beetle	4-LS1-2
Get Outside	4-LS1-2
Tree Cookies	4-ESS3-2
Tree Factory	4-LS1-1
Tree ID	4-LS1-1
Trees for Many Reasons	4-ESS3-1
Water Wonders	4-ESS3-2
Decisions, Decisions	4-ESS3-2
Exploration Energy	4-ESS3-1                      4-ESS3-2
Renewable or Not?	4-ESS3-1

## Grade 5 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen.	
5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	
5-PS1-3. Make observations and measurements to identify materials based on their properties.	
5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	
5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down	
5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	Birds and Bugs Signs of Fall Tree Factory
5-LS1-1. Support an argument with evidence that plants obtain materials they need for growth mainly from air and water.	Here We Grow Again Every Tree for Itself* Tree Cookies
5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	Birds and Bugs Fallen Log Soil Builders
5-ESS1-1. Support an argument with evidence that the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	
5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	
5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	Field, Forest, & Stream Water Wonders*
5-ESS2-2. Describe and graph the amounts of saltwater and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	
5-ESS3-1. Evaluate potential solutions to problems that individual communities face in protecting the Earth's resources and environment.	Every Drop Counts Trees for Many Reasons Exploration Energy Improve Your Place Renewable or Not?
	Decisions, Decisions Trees in Trouble Our Federal Forests Plant a Tree Reduce, Reuse, Recycle

\* Fully addresses the Performance Expectation



## Grade 5 Reverse Correlations – Science

PLT Activity	Science Performance Expectations	
Birds and Bugs	5-LS2-1	5-PS3-1
Here We Grow Again	5-LS1-1	
Every Drop Counts	5-ESS3-1	
Every Tree for Itself*	5-LS1-1	
Fallen Log	5-LS2-1	
Signs of Fall	5-PS3-1	
Soil Builders	5-LS2-1	5-ESS2-1
Tree Cookies	5-LS1-1	
Tree Factory	5-PS3-1	5-LS1-1
Trees for Many Reasons	5-ESS3-1	
Trees in Trouble	5-ESS3-1	
Water Wonders*	5-ESS2-1	
Web of Life	5-PS3-1	5-LS2-1
Decisions, Decisions	5-ESS3-1	
Exploration Energy	5-ESS3-1	
Field, Forest, and Stream	5-ESS2-1	
Improve your Place	5-ESS3-1	
Our Federal Forests	5-ESS3-1	
Plant a Tree	5-ESS3-1	
Reduce, Reuse, Recycle	5-ESS3-1	
Renewable or Not?	5-ESS3-1	

\* Fully addresses the Performance Expectation

## Grade 6 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
6-PS1-4. Develop and use a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.	
6-PS3-3. Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	
6-PS3-4. Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	
6-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials	
6-LS1-1. Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	
6-LS1-2. Develop and use a model to describe the function of a cell as a whole and ways the parts of cells contribute to the function.	Every Tree for Itself Signs of Fall Tree Factory
6-LS1-3. Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.	
6-LS1-8. Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.	Get Outside * Peppermint Beetle*
6-ESS1-4. Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.	
6-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process	
6-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.	
6-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.	
6-ESS2-4. Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.	Water Wonders
6-ESS2-5. Analyze and interpret data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.	Field, Forest, & Stream The Global Climate
6-ESS2-6. Develop and use models to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.	
6-ESS3-2. Analyze and interpret data on natural hazards to identify patterns, which help forecast future catastrophic events and inform the development of technologies to mitigate their effects.	

\* Introduction activity for this performance expectation

## Grade 6 Reverse Correlations – Science

PLT Activity	Science Performance Expectations
Get Outside *	6-LS1-8
Peppermint Beetle *	6-LS1-8
Every Tree for Itself **	6-LS1-2
Signs of Fall	6-LS1-2 (chlorophyll)
Tree Factory	6-LS1-2
Water Wonders	6-ESS2-4
Field, Forest, and Stream	6-ESS2-5
The Global Climate	6-ESS2-5

\*Creates sensory experiences as an introduction to 6-LS1-8

\*\*Role of photosynthesis in tree growth

## Grade 7 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
7-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures	
7-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	
<b>7-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.</b>	Global Goods (Part B)
7-PS1-5. Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.	
7-PS1-6. Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.	
7-PS3-1. Construct and interpret graphical displays of data to describe the proportional relationships of kinetic energy to the mass of an object and to the speed of an object.	
7-PS3-2. Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.	
7-PS3-5. Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.	
<b>7-LS1-6. Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.</b>	Every Tree for Itself Signs of Fall Trees in Trouble Plant a Tree
7-LS1-7. Develop a model to describe how food molecules in plants and animals are rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.	
<b>7-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.</b>	Every Tree for Itself Tree Cookies Field, Forest & Stream
7-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	
<b>7-LS2-3. Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.</b>	Fallen Log Soil Builders Water Wonders Web of Life Field, Forest & Stream The Global Climate
<b>7-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.</b>	Trees for Many Reasons Field, Forest & Stream
<b>7-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.</b>	Water Wonders (Part B) Decisions, Decisions If You Were Boss Improve Your Place Life on the Edge Our Federal Forests Plant a Tree Reduce, Reuse, Recycle Renewable or Not? The Global Climate
7-ESS3-1. Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.	

7-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	Trees for Many Reasons Decisions, Decisions Environmental Justice for All If You Were the Boss Life on the Edge Reduce, Reuse, Recycle Renewable or Not? The Global Climate What's in a Label?
7-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	Exploration Energy Global Goods Reduce, Reuse, Recycle Renewable or Not? The Global Climate What's in a Label?
7-ESS3-5. Ask questions to clarify evidence of the factors that have impacted global temperatures over the past century.	The Global Climate

## Grade 7 Reverse Correlations – Science

PLT Activity	Science Performance Expectations		
Every Tree for Itself	7-LS1-6	7-LS2-1	
Fallen Log	7-LS2-3		
Signs of Fall	7-LS1-6		
Soil Builders	7-LS2-3		
Tree Cookies	7-LS2-1		
Trees for Many Reasons	7-LS2-4	7-ESS3-3	
Trees in Trouble	7-LS1-6		
Water Wonders (Part B)	7-LS2-3	7-LS2-5	
Web of Life	7-LS2-3		
Decisions, Decisions	7-ESS3-3	7-LS2-5	
Environmental Justice for All	7-ESS3-3		
Exploration Energy	7-ESS3-4		
Field, Forest, and Stream	7-LS2-1	7-LS2-3	7-LS2-4
Global goods (Part B)	7-PS1-3	7-ESS3-4	
If You Were the Boss	7-ESS3-3	7-LS2-5	
Improve your Place	7-LS2-5 (ETS1.B)		
Life on the Edge	7-LS2-1	7-ESS3-3	7-LS2-5
Our Federal Forests	7-LS2-5		
Plant a Tree	7-LS1-6	7-LS2-5	
Reduce, Reuse, Recycle	7-ESS3-3	7-LS2-5	7-ESS3-4
Renewable or Not?	7-ESS3-3	7-LS2-5	7-ESS3-4
The Global Climate	7-LS2-3	7-ESS3-3	7-LS2-5
	7-ESS3-4	7-ESS3-5	
What's in a Label?	7-ESS3-3	7-ESS3-4	

## Grade 8 Science Performance Expectations Correlation to PLT Activities

Performance Expectations	PLT Activities
8-PS2-1. Apply Newton's third law to design a solution to a problem involving the motion of two colliding objects.	
8-PS2-2. Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.	
8-PS2-3. Analyze and interpret data to determine the factors that affect the strength of electric and magnetic forces.	
8-PS2-4. Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects and the distance between them	
8-PS2-5. Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.	
8-PS4-1. Using mathematical representations, describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.	
8-PS4-3. Communicate information to support the claim that digital devices are used to improve our understanding of how waves transmit information.	
8-LS1-4. Use arguments, based on empirical evidence and scientific reasoning, to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.	Have Seeds, Will Travel
8-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	Here We Grow Again Every Tree for Itself Tree Cookies Trees in Trouble Field, Forest & Stream Life on the Edge
8-LS3-1. Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.	
8-LS3-2. Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	
8-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operated in the past as they do today.	
8-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer their ancestral relationships.	
8-LS4-4. Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individual's probability of surviving and reproducing in a specific environment.	
8-LS4-5. Gather and synthesize information about technologies that have changed the way humans influence the inheritance of desired traits in organisms.	
8-LS4-6. Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	
8-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, tides, and seasons.	
8-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.	
8-ESS1-3. Evaluate information to determine scale properties of objects in the solar system.	

## Grade 8 Reverse Correlations – Science

PLT Activity	Science Performance Expectations
Have Seed, Will Travel	8-LS1-4
Here We Grow Again	8-LS1-5
Every Tree for Itself	8-LS1-5
Tree Cookies	8-LS1-5
Trees in Trouble	8-LS1-5
Field, Forest, and Stream	8-LS1-5
Life on the Edge	8-LS1-5