Grade Level	NGSS Performance Expectations	Disciplinary Core Ideas	Cross Cutting Concepts	Common Core	The HEAL Project Programs
5th	5-LS1-1. Support an argument that plants get the materials they need for growth chiefly from air and water.	LS2.A: Interdependent Relationships in Ecosystems	Energy and Matter: Matter is transported into, out of, and within systems. (5-LS1-1)	in groups, and teacher-	Fall Harvest Trip, Spring Explorers, The Full Farm Experience
	5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	LS2.B: Cycles of Matter and Energy Transfer in Ecosystems	Cause and Effect: Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1)		
	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.	ESS3.C: Human Impacts on Earth Systems	Energy and Matter: Energy can be transferred in various ways and between objects. (5-PS3-1)		
	5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.		Systems and System Models: A system can be described in terms of its components and their interactions. (5-ESS3-1)		
4th	4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	LS1.A: Structure and Function	Systems and System Models: A system can be described in terms of its components and their interactions. (4-LS1-1)	<b>-</b>	Sping Explorers,
	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.	ESS3.A: Natural Resources	Patterns: Patterns can be used as evidence to support an explanation. (4-ESS2-2)		
	4-ESS2-2: Analyze and interpret data from maps to describe patterns of Earth's features.	ESS2.A: Earth Materials and Systems			
3rd	3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	LS4.C: Adaptation	Patterns: Patterns of change can be used to make predictions. (3- LS1-1)	3.SL.1b Follow agreed- upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).	Sping Explorers,
	3-LS2-1. Construct an argument that some animals form groups that help members survive.	LS4.D: Biodiversity and Humans	Cause and Effect: Cause and effect relationships are routinely identified and used to explain change. (3-LS2-1)		
	3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.	LS2.D: Social Interactions and Group Behavior	Patterns: Similarities and differences in patterns can be used to sort and classify natural phenomena. (3-LS3-1)		
	3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience			
	3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.	LS2.A: Interdependent Relationships in Ecosystems			
	3-LS4-3. Construct an argument with evidence	LS1.B: Growth and Development			

	that in a particular habitat some organisms can survive well, some survive less well, and some	of Organisms			
2nd	2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.	LS2.A: Interdependent Relationships in Ecosystems	Cause and Effect: Events have causes that generate observable patterns. (2-LS2-1)		Fall Harvest Trip, Spring Explorers, The Full Farm Experience
	2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	LS4.D: Biodiversity and Humans	Structure and Function: The shape and stability of structures of natural and designed objects are related to their function(s). (2-LS2-2)	2.L.5.a Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).	
	2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.	ESS2.A: Earth Materials and Systems	Stability and Change: Things may change slowly or rapidly. (2- ESS2-1)	2.L.5.b Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).	
	2-ESS2-1. Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.			2.L.5.b Distinguish shades of meaning among closely related verbs (e.g.,	
lst	1-LS3-1.Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	LS1.A: Structure and Function	Patterns: Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS3-1)	young plants and animals	Harvest Trip, Spring
		LS1.D: Information Processing LS3.B: Variation of Traits	Structure and Function: The shape and stability of structures of natural and designed objects	1.SL.4 Describe people, places, things, and events with relevant details,	
<b>K</b>	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	LS1.C: Organization for Matter and Energy Flow in Organisms	Patterns: Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)	diverse partners about	Setting Roots, Fall Harvest Trip, Spring Explorers, The Full Farm Experience
	K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.	ESS2.E: Biogeology	Stability and Change: Things may change slowly or rapidly. (2- ESS2-1)	K.SL.6 Speak audibly and express thoughts, feelings, and ideas clearly.	
	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.	ESS3.C: Human Impacts on Earth Systems			