

Next Generation Science Standards: Correlations to Rainforest Alliance Curricula

Disciplinary Core Idea	Performance Expectations	Students who demonstrate understanding can:	Grade: Lessons
Life Sciences-1 (LS1) From Molecules to Organisms: Structures and Processes	K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.	K: 1–4
	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.	1: 3–4
	4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	4: 2–3
	MS-LS1-4	Use argument 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.	6: 1
	MS-LS1-5	Construct a scientific explanation based one evidence for how environmental and genetic factors influence the growth of organisms.	7: 1–2
	MS-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.	Climate: 2
Life Sciences-2 (LS2) Ecosystems: Interactions, Energy, and Dynamics	2-LS2-1	Plan and conduct an investigation to determine if plants need sunlight and water to grow.	2: 1
	MS-LS2-1	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.	6: 1–3; 8: 1
	MS-LS2-2	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	6: 1
	MS-LS2-4	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.	6: 1, 3; 7: 1–2; 8: 1–2
	MS-LS2-5	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	6: 2–3; 7: 2; 8: 1–2; Climate: 5

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Life Sciences-3 (LS3) Heredity: Inheritance and Variation of Traits	3-LS3-2	Use evidence to support the explanation that traits can be influenced by the environment.	3: 1–2
Life Sciences-4 (LS4) Biological Evolution: Unity and Diversity	2-LS4-1	Make observations of plants and animals to compare the diversity of life in different habitats.	2: 1
	3-LS4-3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	3: 1–2
	3-LS4-4	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	3: 4
Earth & Space Sciences-2 (ESS2) Earth's Systems	3-ESS2-2	Obtain and combine information to describe climates in different regions of the world.	3: 1
Earth & Space Sciences-3 (ESS3) Earth and Human Activity	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.	K: 1, 3
	K-ESS3-3	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things.	K: 4
	5-ESS3-1	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	5: 1–4
	MS-ESS3-2	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.	Climate: 1–2, 4–5
	MS-ESS3-3	Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	6: 3; 7: 2; 8: 1; Climate: 4–5
	MS-3SS3-4	Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.	7: 2; 8: 1–2; Climate: 1, 3–5

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ESS3 cont'd	MS-ESS3-5	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.	Climate: 1–5
Engineering, Technology and Applications of Science-1 (ETS1) Engineering Design	MS-ETS1-1	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.	6: 2–3; 8: 2; Climate: 5
	MS-ETS1-3	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	6: 2–3