Indiana Science/Computer Science Content Connectors

Grade 3

Motion and Stability: Forces and Interactions	1	Plan and conduct an investigation to provide evidence that when the forces on an object are balanced, the object remains at rest, and when the forces on an object are unbalanced, it results in motion. (E) 3-PS2-1A
	2	Use evidence to show a pattern in an object's motion and predict its future movement. [Clarification Statement: Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a seesaw.] (E) 3-PS2-2A
	3	Ask questions to determine the effect of electric or magnetic forces between objects that are not in contact. 3-PS2-3A
	4	Ask questions to determine how electric or magnetic forces change based on different factors, such as the properties of the objects, the distance between them, and their orientation. (E) 3-PS2-3B
	5	Describe the scientific ideas necessary for solving a simple design problem about magnetic forces based on various changing factors. [Clarification Statement: Examples of problems could include constructing a latch to keep a door shut and creating a device to keep two moving objects from touching each other.] 3-PS2-4A
From Molecules to Organisms: Structures and Processes	1	Use a model to describe common patterns in the life cycles of different plants and animals (e.g., all have in common birth, growth, reproduction, and death). (E) 3-LS1-1A
Ecosystems: Interactions, Energy, and Dynamics	1	Construct an argument to describe how animals benefit from living in groups (e.g., obtaining food, defense, coping with changes). 3-LS2-1A
Heredity: Inheritance and Variation of Traits	1	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. (E) 3-LS3-1A
	2	Use evidence to demonstrate that traits can be influenced by the environment. 3-LS3-2A

Biological Evolution: Unity and Diversity	1	**Interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. [Clarification Statement: Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, and fossils of extinct organisms.]** 3-LS4-1A
	2	**Use evidence to determine if a beneficial difference in a characteristic among individuals of the same species may provide advantages to surviving and reproducing (e.g., plants that have larger thorns than other plants may be less likely to be eaten by predators). (E)** 3-LS4-2A
	3	**Use evidence from a specific environment to demonstrate that some organisms survive well, some survive less well, and some cannot survive at all in a particular habitat.** 3-LS4-3A
	4	**Make a claim about a solution to a problem that is caused when the environment changes.** 3-LS4-4A
	5	**Use evidence to identify how organisms are affected by environmental changes (e.g., some survive and reproduce, some move to new locations, some move into the transformed environment, some die).** 3-LS4-4B
Earth's Systems	1	**Represent data in tables and graphical displays to describe and predict weather conditions. (E)** 3-ESS2-1A
	2	**Use information to describe various climates based on their long-term weather patterns.** 3-ESS2-2A
Earth and Human Activity	1	**Compare and contrast possible solutions and make a claim based on observations of impacts of a weather-related hazard.** 3-ESS3-1A
Engineering Design	1	**Identify a solution to a problem based on a specific set of desired features (criteria) and available materials and resources (constraints).** 3-5-ETS1-1A
	2	**Compare multiple solutions to a problem by investigating how well each solution works under certain conditions.** 3-5-ETS1-2A
	3	**Identify a design improvement to a problem by sharing ideas with peers.** 3-5-ETS1-2B
	4	**Test design solutions to identify aspects of the design that can be modified or improved based on specific limitations.** 3-5-ETS1-3A