Next Generation Science Standards DCI Arrangements

Third Grade

Forces and Motion PS2.A	a	**Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. (Boundary: Qualitative and conceptual, but not quantitative addition of forces are used at this level.)** 3-PS2-1
	b	**The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. (Boundary: Technical terms, such as magnitude, velocity, momentum, and vector quantity, are not introduced at this level, but the concept that some quantities need both size and direction to be described is developed.)** 3-PS2-2
Types of Interactions PS2.B	a	**Objects in contact exert forces on each other.** 3-PS2-3
	b	**Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other.** 3-PS2-4
Growth and Development of Organisms LS1.B	a	**Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.** 3-LS1-1
Social Interactions and Group Behavior LS2.D	a	**Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size (Note: Moved from K–2)** 3-LS2-1
Inheritance of Traits LS3.A	a	**Many characteristics of organisms are inherited from their parents.** 3-LS3-1
	b	**Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment.** 3- LS3-2
Variation of Traits LS3.B	a	**Different organisms vary in how they look and function because they have different inherited information.** 3-LS3-3
	b	**The environment also affects the traits that an organism develops.** 3-LS3-4

Ecosystem Dynamics, Functioning, and Resilience LS2.C	a	**When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die.** 3-LS4-4
Evidence of Common Ancestry and Diversity LS4.A	a	**Some kinds of plants and animals that once lived on Earth are no longer found anywhere. (Note: moved from K-2)** 3-LS4-1
	b	**Fossils provide evidence about the types of organisms that lived long ago and also about the nature of their environments.** 3-LS4-2
Natural Selection LS4.B	a	**Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.** 3-LS4-3
Adaptation LS4.C	a	**For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.** 3-LS4-4
Biodiversity and Humans LS4.D	a	**Populations live in a variety of habitats, and change in those habitats affects the organisms living there.** 3-LS4-5
Weather and Climate ESS2.D	a	**Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next.** 3-ESS2-1
	b	**Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years.** 3-ESS2-2
Natural Hazards ESS3.B	a	**A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts.** 3-ESS3-1