### Big Ideas/Key Concepts:
- Matter and energy flow through the biosphere.
- All life is interdependent and interacts with the environment.
- A rich variety of complex organisms have developed in response to a continually changing environment.

### Standards | Student Friendly “I Can” Statements
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**Ecology**

**SPI 0507.2.1** Describe the different types of nutritional relationships that exist among organisms.

I can develop and evaluate models of terrestrial and aquatic food chains and webs to describe the nutritional relationships among producers, consumers, herbivores, carnivores, omnivores, scavengers and decomposers.

**SPI 0507.3.2** Compare how plant and animals obtain energy.

I can develop and evaluate models of terrestrial and aquatic energy pyramids to describe the flow of energy among producers, consumers, herbivores, carnivores, omnivores, scavengers and decomposers that begins with the sun.

**5. WCE.SC.7: Research predator-prey relationships.**

I can analyze predator-prey relationships through textual research.

**SPI 0507.2.2** Distinguish among symbiotic, mutualistic, commensal, and parasitic relationships.

I can classify, model and analyze the three symbiotic relationships within an ecosystem: mutualism, commensalism, or parasitism.

**Biodiversity and Adaptations**

**SPI 0507.5.1** Identify physical and behavioral adaptations that enable animals such as amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.

I can identify the structure and function of physical (such as fur, leg length, bills, scales, etc...) and behavioral (such as mimicry, camouflage, migration, bird calls, etc...) adaptations that help animals such as amphibians, reptiles, fish, birds, and mammals, survive in an environment.
5. WCE.SC.8: Use evidence to construct an explanation for how adaptations among individuals within the same species may provide advantages to these individuals in their survival and reproduction.

SPI 0507.5.2 Explain how fossils provide information about the past.

I can design a model to illustrate how an animal’s physical characteristics enable it to survive in a particular environment.

I can use evidence to support the explanation that some kinds of animals survive well, some survive less well, and some cannot survive at all in an environment that has changed.

I can obtain information about what is a fossil, and communicate how organisms now living resemble those fossils in some ways.

I can analyze and interpret data from fossils to describe types of organisms and their environments that existed long ago, compare similarities and differences of those to living organisms and their environments, and recognize that most kinds of animals (and plants) that once lived on Earth are now extinct.