Adaptations & Survival

Grade	Nebraska	Iowa
K	SC.K.7.2.a Use observations to describe patterns of what plants and animals (including humans) need to survive. SC.K.7.2.b Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. (NE plants and animals)	K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive. K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
1	SC.1.6.2.a 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. (NE plants and animals)	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.
2	SC.2.7.2.a Plan and conduct an investigation to determine if plants need sunlight and water to grow.	2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.
3	SC.3.7.2.c 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. (NE habitats) SC.3.9.3.c Use evidence to support the explanation that traits can be influenced by the environment. (NE plants, animals, and habitats) SC.3.9.3.d 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. (NE plants, animals, and habitats)	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-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment. 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.
4	SC.4.6.3.b Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. (NE plants and animals)	4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
5	SC.5.8.2.b Support an argument that plants get the materials they need for growth chiefly from air and water.	5-LS1-1 Support an argument that plants get the materials they need for growth chiefly from air and water.
6	SC.6.9.3.a Construct an argument based on evidence for how plant and animal adaptations affect the probability of successful reproduction. (monarchs/milkweed; seed dispersal in prairie grasses)	

8	SC.8.10.5 Gather, analyze, and communicate evidence of natural selection and adaptations. SC.8.10.5.c Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. SC.8.10.5.d Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time. (NE plants and animals)	8-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms. 8-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. 8-LS4-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.

Habitats & Ecosystems

Grade	Nebraska	Iowa
2	SC.2.7.2.c Make observations of plants and animals to compare the diversity of life in different habitats. (NE habitats)	2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.
7	SC.7.7.3.a Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. (NE ecosystems) SC.7.7.3.b Develop and use a model to describe how stable ecosystems maintain biodiversity and ecosystem services. (NE endangered species and reintroduction of species) SC.7.8.4 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems. SC.7.8.4.a 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. (NE food webs)	7-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. 7-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. 7-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Life Cycle

Grade	Nebraska	Iowa
1	SC.1.6.2.d Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. (NE plants and animals)	1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
2	SC.2.7.2.b Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
3	SC.3.9.3.a Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. (NE plants and animals) SC.3.9.3.b 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. (NE plants and animals)	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. 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.

Conservation & Ecology

Grade	Nebraska	Iowa
High School	SC.HS.7.2.c Evaluate the claims, evidence, and reasoning that the interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. (NE river systems and ecosystems) SC.HS.7.2.d Evaluate the evidence for how group behavior has evolved because membership can increase the chances of survival for individuals and their genetic relatives. SC.HS.7.2.e Design, evaluate, and refine a solution for increasing the positive impacts of human activities on the environment and biodiversity. (NE native species, conservation organizations, agriculture practices)	HS-LS2-6 Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce. HS-LS2-7 Design, evaluate, and refine a solution for increasing environmental sustainability and biodiversity.