

Animal Kingdom

Grades: 1st – 3rd

The following chart is intended to help teachers understand how the “Animal Kingdom” presentation connects with their curriculum.

Performance Expectations

Following this presentation, students will be able to *categorize* animals into their respective groups based on the animal’s characteristics.

Disciplinary Core Ideas	Crosscutting Concepts	Examples	Evidence Statements in Presentation
<ul style="list-style-type: none"> • 1-LS1.A: Structure and Function • 1-LS1.B: Growth and Development of Organisms • 1-LS1.D: Information Processing • 1-LS3.B: Variation of Traits 	<p style="text-align: center;">Patterns</p> <p>Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.</p>	<p><i>Compare and contrast</i> the different adaptations that animals have in each animal group.</p>	<ul style="list-style-type: none"> • A tarantula is a spider because it has eight legs, while insects have six legs. • Mammals have fur, reptiles have scales, and birds have feathers.
<ul style="list-style-type: none"> • 2-LS2.A: Interdependent Relationships in Ecosystems • 2-LS4.D: Biodiversity and Humans 	<p style="text-align: center;">Structure and Function</p> <p>The shape and ability of structures of natural objects are related to their functions.</p>	<p><i>Identify and describe</i> how an animal’s adaptations help it to survive in its habitat.</p>	<ul style="list-style-type: none"> • A 3-banded armadillo is a mammal because it has hair, gives live birth, and nurses its young. • A ferret has a very flexible spine and can bend it to maneuver in holes underground.
<ul style="list-style-type: none"> • 3-LS2.D: Social Interactions and Group Behavior • 3-LS3.B: Variation of Traits • 3-LS2.B: Ecosystem Dynamics, Functioning, and Resilience • 3-LS4.B: Natural Selection • 3-LS4.C: Adaptation 	<p style="text-align: center;">Cause and Effect</p> <p>Relationships are routinely identified and used to explain changes.</p>	<p><i>Make connections</i> between an animal’s adaptations and its environment.</p>	<ul style="list-style-type: none"> • Desert tortoises can survive in habitats that are hot and dry because of their ability to obtain water from plants, as well as their ability to withstand hot temperatures. • However, they must brumate during the colder months because they are ectothermic.

Desert Oasis

Grades: 1st – 3rd

The following chart is intended to help teachers understand how the “Desert Dwellers” presentation connects the NGSS with their curriculum.

Performance Expectations

Following this presentation, students will be able to *identify* animal adaptations that help animals survive in desert habitats.

Disciplinary Core Ideas	Crosscutting Concepts	Examples	Evidence Statements in Presentation
<ul style="list-style-type: none"> • 1-LS1.A: Structure and Function • 1-LS1.B: Growth and Development of Organisms • 1-LS1.D: Information Processing • 1-LS3.B: Variation of Traits 	<p style="text-align: center;">Patterns</p> <p>Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.</p>	<p style="text-align: center;"><i>Compare and contrast</i> the different adaptations of animals that live in desert habitats.</p>	<ul style="list-style-type: none"> • Chinchillas have thick, soft fur to help them survive in cold deserts and must take dust baths to keep their fur clean.
<ul style="list-style-type: none"> • 2-LS2.A: Interdependent Relationships in Ecosystems • 2-LS4.D: Biodiversity and Humans 	<p style="text-align: center;">Structure and Function</p> <p>The shape and ability of structures of natural objects are related to their functions.</p>	<p style="text-align: center;"><i>Identify and describe</i> how an animal’s adaptations help it to survive in its habitat.</p>	<ul style="list-style-type: none"> • A desert tortoise can survive in desert habitats that are hot and dry but must brumate during colder months because it is ectothermic.
<ul style="list-style-type: none"> • 3-LS2.D: Social Interactions and Group Behavior • 3-LS3.B: Variation of Traits • 3-LS2.B: Ecosystem Dynamics, Functioning, and Resilience • 3-LS4.B: Natural Selection • 3-LS4.C: Adaptation 	<p style="text-align: center;">Cause and Effect</p> <p>Relationships are routinely identified and used to explain changes.</p>	<p style="text-align: center;"><i>Make connections</i> between an animals’ habitat and its adaptations. <i>Draw conclusions</i> of what might happen if humans caused sudden, drastic changes to those habitats.</p>	<ul style="list-style-type: none"> • A uromastyx stores fat in its tail to use when food or water is scarce in desert regions.

Jungle Journey

Grades: 1st – 3rd

The following chart is intended to help teachers understand how the “Jungle Journey” presentation connects NGSS with their curriculum.

Performance Expectations

Following this presentation, students will use their observation skills to *identify* an animal’s adaptations based on its appearance and *describe* how those adaptations help it to survive.

Disciplinary Core Ideas	Crosscutting Concepts	Examples	Evidence Statements in Presentation
<ul style="list-style-type: none"> • 1-LS1.A: Structure and Function • 1-LS1.B: Growth and Development of Organisms • 1-LS1.D: Information Processing • 1-LS3.B: Variation of Traits 	<p style="text-align: center;">Patterns</p> <p>Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.</p>	<p style="text-align: center;"><i>Compare and contrast</i> the different types of body parts animals have.</p>	<ul style="list-style-type: none"> • Snakes, such as a ball python, utilize the muscles in their body to grasp branches, constrict prey, and move along the ground in a “rib-walking” motion.
<ul style="list-style-type: none"> • 2-LS2.A: Interdependent Relationships in Ecosystems • 2-LS4.D: Biodiversity and Humans 	<p style="text-align: center;">Structure and Function</p> <p>The shape and ability of structures of natural objects are related to their functions.</p>	<p style="text-align: center;"><i>Identify and describe</i> how the adaptations of animals that live in the jungle help them survive in their environment.</p>	<ul style="list-style-type: none"> • White’s Tree Frogs are camouflage with their environment and have powerful hind legs for jumping.
<ul style="list-style-type: none"> • 3-LS2.D: Social Interactions and Group Behavior • 3-LS3.B: Variation of Traits • 3-LS2.B: Ecosystem Dynamics, Functioning, and Resilience • 3-LS4.B: Natural Selection • 3-LS4.C: Adaptation 	<p style="text-align: center;">Cause and Effect</p> <p>Relationships are routinely identified and used to explain changes.</p>	<p style="text-align: center;"><i>Make connections</i> between an animal’s adaptations and its habitat.</p>	<ul style="list-style-type: none"> • Hissing cockroaches use camouflage to blend in with leaves on the jungle floor, preventing them from being eaten by predators.

Living the Nightlife

Grades: 1st – 3rd

The following chart is intended to help teachers understand how the “Living the Nightlife” presentation connects NGSS with their curriculum.

Performance Expectations

Following this presentation, students will be able to compare and contrast animal adaptations that allow them to survive being active at night.

Disciplinary Core Ideas	Crosscutting Concepts	Examples	Evidence Statements in Presentation
<ul style="list-style-type: none"> • 1-LS1.A: Structure and Function • 1-LS1.B: Growth and Development of Organisms • 1-LS1.D: Information Processing • 1-LS3.B: Variation of Traits 	<p style="text-align: center;">Patterns</p> <p>Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.</p>	<p><i>Compare and contrast</i> the different adaptations that nocturnal animals have that help them survive.</p>	<ul style="list-style-type: none"> • Skunks are black with white stripes/spots, which helps them stay concealed in the dark of night.
<ul style="list-style-type: none"> • 2-LS2.A: Interdependent Relationships in Ecosystems • 2-LS4.D: Biodiversity and Humans 	<p style="text-align: center;">Structure and Function</p> <p>The shape and ability of structures of natural objects are related to their functions.</p>	<p><i>Identify and describe</i> how the adaptations of animals that are most active at night help them survive in their environment.</p>	<ul style="list-style-type: none"> • A burrowing owl is most active during the day while a screech owl is most active at night.
<ul style="list-style-type: none"> • 3-LS2.D: Social Interactions and Group Behavior • 3-LS3.B: Variation of Traits • 3-LS2.B: Ecosystem Dynamics, Functioning, and Resilience • 3-LS4.B: Natural Selection • 3-LS4.C: Adaptation 	<p style="text-align: center;">Cause and Effect</p> <p>Relationships are routinely identified and used to explain changes.</p>	<p><i>Make connections</i> between an animal’s adaptations and its habitat.</p>	<ul style="list-style-type: none"> • A leopard gecko uses camouflage to blend in with its surroundings and is most active at night to avoid predation.