Lake Crabtree County Park - NC DPI Essential Standards

Program	Grade Level	Standard ID	Standard Description
Animal Trackers	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
Animals of Lake Crabtree	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
Birds (Multiple Options)	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
Funky Frogs	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.

	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Reptiles & Amphibians	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Turtle Talk	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Build A Beaver	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.

Using Your Senses	K	K.P.1.1	Compare the relative position of various objects observed in the classroom and outside using position words such as: in front of, behind, between, on top of, under, above, below, and beside.

	K	K.P.1.2	Give examples of different ways objects and organisms move (to include falling to the ground when dropped): straight, zigzag, round and round, back and forth, and fast and slow.
	K	K.P.2.1	Classify objects by observable physical properties (including size, color, shape, texture, weight and flexibility).
	K	K.P.2.2	Compare the observable physical properties of different kinds of materials (clay, wood, cloth, paper, etc) from which objects are made and how they are used.
	K	K.E.1.1	Infer that change is something that happens to many things in the environment based on observations made using one or more of their senses.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.P.1.1	Illustrate how sound is produced by vibrating objects and columns of air.
	2	2.P.1.2	Summarize the relationship between sound and objects of the body that vibrate –eardrum and vocal cords.

Junior Birder Patch Program	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.

Snakes Alive	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Owl Pellets	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Raptors	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Plants & Animals To Look Out For	3	3.L.2.1	Remember the function of the following structures as it relates to the survival of plants in their environments: roots (absorb nutrients), stems (provide support), leaves (synthesize food), flowers (attract pollinators and produce seeds for reproduction).
	3	3.L.2.2	Explain how environmental conditions determine how well plants survive and grow.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.1.1	Summarize the basic structures and functions of flowering plants required for survival, reproduction, and defense.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Butterflies & Moths	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
	8	8.L.3.3	Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Insect Investigation	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.1.1	Summarize the life cycle of animals: birth, developing into an adult, reproducing, aging, and death.
	2	2.L.1.2	Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
	8	8.L.3.3	Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Flower Power	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	3	3.L.2.1	Remember the function of the following structures as it relates to the survival of plants in their environments: roots (absorb nutrients), stems (provide support), leaves (synthesize food), flowers (attract pollinators and produce seeds for reproduction).
	3	3.L.2.2	Explain how environmental conditions determine how well plants survive and grow.
	3	3.L.2.3	Summarize the distinct stages of the life cycle of seed plants.
	3	3.L.2.4	Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.1.1	Summarize the basic structures and functions of flowering plants required for survival, reproduction and defense.
	6	6.L.1.2	Explain the significance of the processes of photosynthesis, respiration, and transpiration to the survival of green plants and other organisms.
	6	6.L.2.1	Summarize how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within food chains and food webs (terrestrial and aquatic) from producers to consumers to decomposers.
	6	6.L.2.2	Explain how plants respond to external stimuli (including dormancy and forms of tropism) to enhance survival in an environment.
	6	6.L.2.3	Summarize how the abiotic factors (such as temperature, water, sunlight, and soil quality) of biomes (freshwater, marine, forest, grasslands, desert, Tundra) affect the ability of organisms to grow, survive and/or create their own food through photosynthesis.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
	8	8.L.3.3	Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Trees (Multiple Options)	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	3	3.L.2.1	Remember the function of the following structures as it relates to the survival of plants in their environments: roots (absorb nutrients), stems (provide support), leaves (synthesize food), flowers (attract pollinators and produce seeds for reproduction).
	3	3.L.2.2	Explain how environmental conditions determine how well plants survive and grow.
	3	3.L.2.3	Summarize the distinct stages of the life cycle of seed plants.
	3	3.L.2.4	Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.1.1	Summarize the basic structures and functions of flowering plants required for survival, reproduction and defense.
	6	6.L.1.2	Explain the significance of the processes of photosynthesis, respiration, and transpiration to the survival of green plants and other organisms.

	6	6.L.2.1	Summarize how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within food chains and food webs (terrestrial and aquatic) from producers to consumers to decomposers.
	6	6.L.2.2	Explain how plants respond to external stimuli (including dormancy and forms of tropism) to enhance survival in an environment.
	6	6.L.2.3	Summarize how the abiotic factors (such as temperature, water, sunlight, and soil quality) of biomes (freshwater, marine, forest, grasslands, desert, Tundra) affect the ability of organisms to grow, survive and/or create their own food through photosynthesis.
	8	8.P.2.1	Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
	8	8.L.3.3	Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Winter Tree ID	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.1.1	Summarize the basic structures and functions of flowering plants required for survival, reproduction and defense.

Nature Hike	K	K.L.1.2	Compare characteristics of living and nonliving things in terms of their structure, growth, changes, movement, and basic needs.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	3	3.L.2.2	Explain how environmental conditions determine how well plants survive and grow.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.2.2	Explain how plants respond to external stimuli (including dormancy and forms of tropism) to enhance survival in an environment.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Habitats & Biomes	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	3	3.E.2.1	Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).
	3	3.E.2.2	Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.
	3	3.L.2.2	Explain how environmental conditions determine how well plants survive and grow.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.L.2.2	Explain how plants respond to external stimuli (including dormancy and forms of tropism) to enhance survival in an environment.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
	8	8.L.3.3	Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Nature at Night	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.1.3	Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there.
	1	1.L.2.1	Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

Weather Wonders	2	2.E.1.1	Summarize how energy from the sun serves as a source of light that warms the land, air and water.
	2	2.E.1.2	Summarize weather conditions using qualitative and quantitative measures to describe temperature, wind direction, wind speed, and precipitation.
	2	2.E.1.3	Compare weather patterns that occur over time and relate observable patterns to time of day and time of year.
	2	2.E.1.4	Recognize the tools that scientists use for observing, recording, and predicting weather changes from day to day and during the seasons.
	3	3.P.2.1	Recognize that air is a substance that surrounds us, takes up space and has mass.
	3	3.P.2.2	Compare solids, liquids, and gases based on their basic properties.
	3	3.P.2.3	Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.
	4	4.P.3.1	Recognize the basic forms of energy (light, sound, heat, electrical, and magnetic) as the ability to cause motion or create change.
	4	4.P.3.2	Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted, and absorbed.
	5	5.E.1.1	Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
	5	5.E.1.2	Predict upcoming weather events from weather data collected through observation and measurements.
	5	5.E.1.3	Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.
	5	5.P.2.1	Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff).
	5	5.P.3.1	Explain the effects of the transfer of heat (either by direct contact or at a distance) that occurs between objects at different temperatures. (conduction, convection or radiation).
	5	5.P.3.2	Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications.
	7	7.E.1.1	Compare the composition, properties and structure of Earth's atmosphere to include: mixtures of gasses and differences in temperature and pressure within layers.
	7	7.E.1.2	Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.
	7	7.E.1.3	Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result.
	7	7.E.1.4	Predict weather conditions and patterns based on information obtained from: weather data collected from direct observations and measurement (wind speed and direction, air temperature, humidity and air pressure), weather maps, satellites and radar, and cloud shapes and types and associated elevation.
	7	7.E.1.5	Explain the influence of convection, global winds and the jet stream on weather and climatic conditions.
	7	7.E.1.6	Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.

Rocks In Your Head	3	3.E.2.1	Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).
	3	3.E.2.2	Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.
	4	4.E.2.1	Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms.
	4	4.E.2.2	Infer ideas about Earth's early environments from fossils of plants and animals that lived long ago.
	4	4.E.2.3	Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.
	4	4.P.2.1	Compare the physical properties of samples of matter (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reactions to water and fire).
	4	4.P.2.2	Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage and streak.
	4	4.P.2.3	Classify rocks as metamorphic, sedimentary or igneous based on their composition, how they are formed and the processes that create them.
	6	6.E.2.1	Summarize the structure of the earth, including the layers, the mantle and core based on the relative position, composition and density.
	6	6.E.2.2	Explain how crustal plates and ocean basins are formed, move and interact using earthquakes, heat flow and volcanoes to reflect forces within the earth.
	6	6.E.2.3	Explain how the formation of soil is related to the parent rock type and the environment in which it develops.

	6	6.E.2.4	Conclude that the good health of humans requires: monitoring the lithosphere, maintaining soil quality and stewardship.
	8	8.E.2.1	Infer the age of Earth and relative age of rocks and fossils from index fossils and ordering of rock layers (relative dating and radioactive dating).
	8	8.E.2.2	Explain the use of fossils, ice cores, composition of sedimentary rocks, faults, and igneous rock formations found in rock layers as evidence of the history of the Earth and its changing life forms.
Astronomy	3	3.E.1.1	Recognize that the earth is part of a system called the solar system that includes the sun (a star), planets, and many moons and the earth is the third planet from the sun in our solar system.
	3	3.E.1.2	Recognize that changes in the length and direction of an object's shadow indicate the apparent changing position of the Sun during the day although the patterns of the stars in the sky, to include the Sun, stay the same.
	4	4.E.1.1	Explain the cause of day and night based on the rotation of Earth on its axis.
	4	4.E.1.2	Explain the monthly changes in the appearance of the moon, based on the moon's orbit around the Earth.
	6	6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
	6	6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
	6	6.E.1.3	Summarize space exploration and the understandings gained from them.
Composting & Decomposers	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	6	6.E.2.4	Conclude that the good health of humans requires: monitoring the lithosphere, maintaining soil quality and stewardship.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.
Recycling & Solid Waste	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).
	6	6.E.2.4	Conclude that the good health of humans requires: monitoring the lithosphere, maintaining soil quality and stewardship.
	7	7.E.1.6	Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.
	8	8.E.1.4	Conclude that the good health of humans requires: monitoring of the hydrosphere, water quality standards, methods of water treatment, maintaining safe water quality, and stewardship.
Outdoor Survival Skills	N/A		
Orienteering	1	1.G.1.2	Exemplify how geographic features are represented by symbols on maps or digital representations.
	3	3.E.2.2	Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.
Fishing Fun	K	K.L.1.1	Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.
	1	1.L.1.1	Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.
	1	1.L.1.2	Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.
	1	1.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.
	2	2.L.2.1	Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
	2	2.L.2.2	Recognize that there is variation among individuals that are related.
	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.

	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.

Wonderful Water	2	2.P.2.1	Give examples of matter that change from a solid to a liquid and from a liquid to a solid by heating and cooling.
	2	2.P.2.2	Compare the amount (volume and weight) of water in a container before and after freezing.
	2	2.P.2.3	Compare what happens to water left in an open container over time as to water left in a closed container.
	3	3.E.2.1	Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).
	3	3.P.2.2	Compare solids, liquids, and gases based on their basic properties.
	3	3.P.2.3	Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).
	5	5.P.2.1	Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff).
	5	5.P.3.1	Explain the effects of the transfer of heat (either by direct contact or at a distance) that occurs between objects at different temperatures. (conduction, convection or radiation).
	5	5.P.3.2	Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications.
	5	5.E.1.3	Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	6	6.E.2.4	Conclude that the good health of humans requires: monitoring the lithosphere, maintaining soil quality and stewardship.
	6	6.P.2.2	Explain the effect of heat on the motion of atoms through a description of what happens to particles during a change in phase.
	6	6.P.2.3	Compare the physical properties of pure substances that are independent of the amount of matter present including density, melting point, boiling point, and solubility to properties that are dependent on the amount of matter present to include volume, mass and weight.
	7	7.E.1.2	Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.
	8	8.E.1.1	Explain the structure of the hydrosphere including water distribution on Earth, and local river basins and water availability.
	8	8.E.1.2	Summarize evidence that Earth's oceans are a reservoir of nutrients, minerals, dissolved gases, and life forms: estuaries, marine ecosystems, upwelling, behavior of gases in the marine environment, value and sustainability of marine resources, and deep ocean technology and understandings gained.
	8	8.E.1.3	Predict the safety and potability of water supplies in North Carolina based on physical and biological factors, including: temperature, dissolved oxygen, pH, nitrates and phosphates, turbidity, and bio-indicators.
	8	8.E.1.4	Conclude that the good health of humans requires: monitoring of the hydrosphere, water quality standards, methods of water treatment, maintaining safe water quality, and stewardship.
	8	8.P.1.1	Classify matter as elements, compounds, or mixtures based on how the atoms are packed together in arrangements.
	8	8.P.1.3	Compare physical changes such as size, shape and state to chemical changes that are the result of a chemical reaction to include changes in temperature, color, formation of a gas or precipitate.
	8	8.P.2.1	Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.
	8	8.P.2.2	Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.

Fish Frenzy	4	4.L.1.1	Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.
	4	4.L.1.2	Explain how animals meet their needs by using behaviors in response to information received from the environment.
	4	4.L.1.3	Explain how humans can adapt their behavior to live in changing habitats.
	4	4.L.1.4	Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.
	5	5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
	5	5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.
	8	8.L.3.1	Explain how factors such as food, water, shelter, and space affect populations in an ecosystem.
	8	8.L.3.2	Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including: coexistence and cooperation, competition (predator/prey), parasitism, and mutualism.