



North Carolina Extended Essential Standards
 Science K-2

The *Alternate Achievement Standards for Students With the Most Significant Cognitive Disabilities Non-Regulatory Guidance* states, “...Materials should show a clear link to the content standards for the grade in which the student is enrolled, although the grade-level content may be reduced in complexity or modified to reflect pre-requisite skills.” Throughout the Standards descriptors such as, describe, classify, identify, compare, etc, should be interpreted to mean that the students will be taught and tested according to their mode of communication.

Kindergarten Physical Science Forces and Motion		
Essential Standard	Essence	Extended Essential Standard
K.P.1 Understand the positions and motions of objects and organisms observed in the environment.	Position and motion of objects	EX.K.P.1 Identify positions and motions of familiar objects in the environment.
Clarifying Objectives 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, beside. K.P.1.2 Give examples of different ways objects and organisms move (to include falling to the ground when dropped): <ul style="list-style-type: none"> ▪ Straight ▪ Zigzag ▪ Round and round ▪ Back and forth ▪ Fast and slow 		Clarifying Objectives EX.K.P.1.1 Locate familiar objects in the environment. EX.K.P.1.2 Indicate the movement of objects in the environment to demonstrate motion (to include falling to the ground when dropped). <ul style="list-style-type: none"> • Straight • Back and forth • Fast and slow EX.K.P.1.3 Use positional and directional words (e.g., in, on, out, under, off, beside, behind) to locate objects.



Kindergarten Physical Science Matter, Properties and Change		
Essential Standard	Essence	Extended Essential Standard
K.P.2 Understand how objects are described based on their physical properties and how they are used.	Identify physical properties of objects	EX.K.P.2 Identify objects by their physical properties.
Clarifying Objectives K.P.2.1 Classify objects by observable physical properties (including size, color, shape, texture, weight and flexibility). 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.		Clarifying Objectives EX.K.P.2.1 Identify objects by their physical properties as “same” or “different.” EX.K.P.2.2 Sort objects by observable physical properties (including size, color, shape and texture).

Kindergarten Earth and Environmental Science Earth Systems, Structures and Processes		
Essential Standard	Essence	Extended Essential Standard
K.E.1 Understand change and observable patterns of weather that occur from day to day and throughout the year.	Recognize changes that occur to objects	EX.K.E.1 Explore changes when manipulating objects.
Clarifying Objectives 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. K.E.1.2 Summarize daily weather conditions noting changes that occur from day to day and throughout the year. K.E.1.3 Compare weather patterns that occur from season to season.		Clarifying Objectives EX.K.E.1.1 Use objects to make things happen (cause/effect). EX.K.E.1.2 Compare characteristics of objects through observation and action. EX.K.E.1.3 Combine objects to create different effects.



Kindergarten Life Science Structures and Functions of Living Organisms		
Essential Standard	Essence	Extended Essential Standard
K.L.1 Compare characteristics of animals that make them alike and different from other animals and nonliving things.	Understanding the difference between living and nonliving things.	EX.K.L.1 Understand basic categories such as plants, animals, people, and objects.
Clarifying Objectives 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.L.1.2 Compare characteristics of living and nonliving things in terms of their: Structure; Growth; Changes.		Clarifying Objectives EX.K.L.1.1 Identify animate (moving) and inanimate objects. EX.K.L.1.2 Identify plant vs animal. EX.K.L.1.3 Categorize things as plant, animal, person, or object.

Kindergarten Life Science Ecosystem		
Essential Standard	Essence	Extended Essential Standard
No Grade Level Expectations	*Observation skills to build background knowledge for future Standards	EX.K.L.2 Use observation skills to attend to the environment.
Clarifying Objectives		Clarifying Objectives EX.K.L.1.1 Use one or more of the senses to shift attention between a person and objects or events. EX.K.L.1.2 Describe shared objects and events using attributes (big/small, circle/square, red, green, blue), and location (in, on, out, under, off, beside, behind).



1 st Grade Physical Science Forces and Motion				
Essential Standard		Essence	Extended Essential Standard	
1.P.1 Understand how forces (pushes or pulls) affect the motion of an object.		Understand push and pull can cause motion	EX.1.P.1 Understand how pushes or pulls change the motion of an object.	
Clarifying Objectives	1.P.1.1 Explain the importance of a push or pull to changing the motion of an object. 1.P.1.2 Explain how some forces (pushes and pulls) can be used to make things move without touching them, such as magnets. 1.P.1.3 Predict the effect of a given force on the motion of an object, including balanced forces.		Clarifying Objectives	EX.1.P.1.1 Identify what is causing a stationary object to move: a push or pull. EX.1.P.1.2 Observe that objects initially at rest will move in the direction of the push or pull.



1 st Grade Physical Science Matter, Properties and Change				
Essential Standard		Essence	Extended Essential Standard	
No Grade Level Expectations		* <i>Understand physical properties of objects</i>	EX.1.P.2 Understand physical properties of objects.	
Clarifying Objectives			EX.1.P.2.1 Classify objects by observable properties (size, shape, color, and texture).	EX.1.P.2.2 Classify objects by the Material they are made from (e.g., clay, wood, cloth, paper).
			EX.1.P.3.1 Recognize objects as same serving the same function even when one property has changed (e.g., size, color).	

1 st Grade Earth and Environmental Science Earth Systems, Structures and Processes				
Essential Standard		Essence	Extended Essential Standard	
1.E.2 Understand the physical properties of Earth Materials that make them useful in different ways.		Recognize physical properties of Earth Materials	EX.1.E.2 Identify differences in Earth Materials.	
Clarifying Objectives	1.E.2.1 Summarize the physical properties of Earth Materials, including rocks, minerals, soils and water that make them useful in different ways. 1.E.2.2 Compare the properties of soil samples from different places relating their capacity to retain water, nourish and support the growth of certain plants.		EX.1.E.2.1 Identify change in an object (color, size, shape) using one or more of the senses.	EX.1.E.2.2 Identify earth Materials (rocks, soils and water).



1 st Grade Life Science			
Structures and Functions of Living Organisms			
Essential Standard		Essence	Extended Essential Standard
No Grade Level Expectations		* <i>Understand characteristics of living and non-living things</i>	EX.1.L.1 Understand characteristics of living and nonliving things.
Clarifying Objectives	Clarifying Objectives		EX.1.L.1.1 Classify objects, people and animals as living or nonliving. EX.1.L.1.2 Identify major external human body parts (head, eyes, ears, nose, mouth, hands, feet, legs and arms).



1 st Grade Life Science Ecosystem		
Essential Standard	Essence	Extended Essential Standard
1.L.1 Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.	Understand characteristics of environments	EX.1.L.2 Understand characteristics of various environments.
Clarifying Objectives 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.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.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. (e.g., reuse or recycle products to avoid littering.)		Clarifying Objectives EX.1.L.2.1 Identify ones own environment when transitioning from place to place (e.g., school, home, outside). EX.1.L.2.2 Identify living and nonliving things in indoor and outdoor environments. EX.1.L.2.3 Describe Materials found in various environments (e.g. rocks, soil, water, clay, wood, cloth, paper). EX.1.L.2.4 Use one or more of the senses to make observations about the environment (e.g. weather conditions).



2nd Grade Physical Science Forces and Motion			
Essential Standard		Essence	Extended Essential Standard
2.P.1 Understand the relationship between sound and vibrating objects.		Vibrations are caused by constant pushing and pulling	EX.2.P.1 Understand that vibrations create motion.
Clarifying Objectives	2.P.1.1 Illustrate how sound is produced by vibrating objects and columns of air. 2.P.1.2 Summarize the relationship between sound and objects of the body that vibrate – eardrum and vocal cords.		Clarifying Objectives
			EX.2.P.1.1 Demonstrate how constant pushing and pulling produce vibrations.

2nd Grade Physical Science Matter, Properties and Change			
Essential Standard		Essence	Extended Essential Standard
2.P.2 Understand properties of solids and liquids and the changes they undergo.		Understand properties of solids and liquids	EX.2.P.2 Understand properties of solids and liquids.
Clarifying Objectives	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.P.2.2 Compare the amount (volume and weight) of water in a container before and after freezing. 2.P.2.3 Compare what happens to water left in an open container over time as to water left in a closed container.		Clarifying Objectives
			EX.2.P.2.1 Identify objects and Materials as solid or liquid (e.g. dry vs. wet). EX.2.P.2.2 Compare water in solid and liquid states. EX.2.P.2.3 Understand that heating and cooling water changes its state.



2nd Grade Earth and Environmental Science Earth Systems, Structures and Processes		
Essential Standard	Essence	Extended Essential Standard
2.E.1 Understand patterns of weather and factors that affect weather.	Understand changes in weather conditions	EX.2.E.1 Understand change and note patterns of weather that occur from day to day.
Clarifying Objectives 2.E.1.1 Summarize how energy from the sun serves as a source of light that warms the land, air and water. 2.E.1.2 Summarize weather conditions using qualitative and quantitative measures to describe: temperature, wind direction, wind speed, precipitation 2.E.1.3 Compare weather patterns that occur over time and relate observable patterns to time of day and time of year. 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.		Clarifying Objectives EX.2.E.1.1 Compare daily weather conditions (same, different). EX.2.E.1.2 Recognize cold and hot temperatures.



2nd Grade Life Science Structures and Functions of Living Organisms				
Essential Standard		Essence	Extended Essential Standard	
2.L.1 Understand animal life cycles.		Understand characteristics of animals	EX.2.L.1 Compare characteristics of animals	
Clarifying Objectives	2.L.1.1 Summarize the life cycle of animals: Birth; Developing into an adult; Reproducing; Aging and death. 2.L.1.2 Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.		Clarifying Objectives	EX.2.L.1.1 Identify physical characteristics (head, tail, eyes, ears, nose, mouth, legs, paws, beak, feathers, fur) in a variety of animals. EX.2.L.1.2 Compare a variety of animals to determine how they are alike and different (i.e., dog—bark, four legs, tail; cat—meow, four legs, tail; soft/hard, big/little).



2nd Grade Life Science Ecosystem		
Essential Standard	Essence	Extended Essential Standard
No grade level expectation	<i>*Identify characteristics of environments</i>	EX.2.L.2 Identify characteristics of various environments and the resources they provide to help people survive.
Clarifying Objectives		Clarifying Objectives
		EX.2.L.2.1 Identify different environments (mountains, beach, ocean/lakes/ponds, forests). EX.2.L.2.2 Identify living organisms (animals, people, plants) found in various environments. EX.2.L.2.3 Identify that people need water, food and shelter and that these may be found in their environment.