

First Grade

Science as Inquiry

Research shows that young students work well in a cooperative learning environment. Students should be actively involved in exploring phenomena in the natural world posing questions and seeking answers as they arise. Students develop simple skills of observation, measurement and number sense as they actively participate in simple investigations. During investigations, students must have opportunity to use tools such as magnifiers, thermometers, rulers, or balances to gather data and extend their senses. They must have ample time to talk about their observations and compare their observations with those of others. They should be encouraged to employ oral language, drawings and models to communicate results and explanations of investigations and experiments. In a cooperative learning environment, students learn that when people give different descriptions of the same thing, it is better to make new observations instead of debating about who is correct. Students must always use appropriate safety procedures, including listening skills, when conducting simple investigations.

Forces and Motion

	Essential Standard	Clarifying Objectives	
1.P.1	Understand how forces (pushes or pulls) affect the motion of an object.	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.

Earth in the Universe

	Essential Standard	Clarifying Objectives	
1.E.1	Recognize the features and patterns of the earth/moon/sun system as observed from Earth.	1.E.1.1	Recognize differences in the features of the day and night sky and apparent movement of objects across the sky as observed from Earth.
		1.E.1.2	Recognize patterns of observable changes in the Moon's appearance from day to day.

Earth Systems, Structures and Processes

	Essential Standard	Clarifying Objectives	
1.E.2	Understand the physical properties of Earth materials that make them useful in different ways.	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.

Ecosystems

	Essential Standard	Clarifying Objectives	
1.L.1	Understand characteristics of various environments and behaviors of humans that enable plants and animals to survive.	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).

Molecular Biology

	Essential Standard	Clarifying Objectives	
1.L.2	Summarize the needs of living organisms for energy and growth.	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.L.2.2	Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.