Dear First Grade Science Teacher:

The goal of the North Carolina Science Standard Course of Study (NC SCoS) is to achieve scientific literacy. The First Grade Science Pacing Guide includes **Essential Standards and Clarifying Objectives** from *life, physical and earth sciences*. These standards engage students in developing problem-solving and critical thinking skills that empower them to participate in an increasingly scientific and technological world.

First Graders Value Science Best When...

- Science is taught *daily* (30 to 45 minutes).
- Learning opportunities develop understandings and skills for problem-solving in real-world scientific and technological concepts.
- The collaborative scientific contributions of individuals from all ethnic origins are recognized and valued.
- Math and reading skills are infused into science.
- *Inquiry skills* and positive attitudes are modeled by the teacher and others involved in the education process.
- A *variety of presentation modes* are used to accommodate different learning styles; students are given opportunities to interact and share ideas and collaborate with their peers.

First Graders Learn Science Best When…

- ✓ Involved in first-hand exploration & investigation and inquiry/processing skills are nurtured.
- ✓ Instruction builds directly on student' conceptual background.
- ✓ Science content is organized on the basis of broad conceptual themes common to all science disciplines.
- ✓ Mathematics and communication skills are an integral part of science instruction.
- ✓ Learning environment fosters positive attitudes towards self and society, as well as science.

Suggested Instructional Model: (I Do; We Do; You Do)

- **I Do: Engage** --Introduce science concept and connect to student's' prior knowledge; revealing any misconceptions.
- **We Do: Explore** --Provide an opportunity for observations and questioning prior to teacher's explaining of concepts.
- **I Do: Explain/Elaborate** -- Provide a clear, concise description of new concept; include labels & essential vocabulary; integrate video clip. Demonstrate the concept and/or process using visual models, technology, and text
- **We Do: Evaluate** --Assess Hands-on/Minds-on practice through guided practice
- **You Do: Evaluate—**Determine students' overall understanding of concepts and their progress made towards learning the science objectives.

Charting a New Course!
Halifax County Schools
2018-2019 Curriculum & Instruction Support Team

Halifax County Schools: Science Essential Standards Pacing Guide					Revised June 30, 2018				
1st Grade Science At-a-Glance									
Forces and Motion	**Quarters**				**Science Safety**	**Quarters**			
	1	**2**	**3**	**4**		**1**	**2**	**3**	**4**
. **1. P.1.1** Explain the importance of a push or pull to changing the motion of an object.	X	2	X	X	Students will identify and apply basic science classroom safety rules and procedures	1	2	3	4
1. P.1.2 Explain how some forces (pushes and pulls) can be used to make things move without touching them, such as magnets.	X	2	X	X					
1. P.1.3 Predict the effect of a given force on the motion of an object, including balanced forces.	X	2	X	X					
Earth in the Universe	**Quarters**				**Earth Systems, Structures and Processes**	**Quarters**			
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	X	X	X	**1.E.2.1** Summarize the physical properties of earth materials, including rocks, minerals, soils, and water, that make them useful in different ways.	X	X	3	X
1. E.1.2 Recognize patterns of observable changes in the Moon's appearance from day to day.	1	X	X	X	**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.	X	X	3	X
Ecosystems	**Quarters**				**Molecular Biology**	**Quarters**			
1.L1.1 Recognize that plants and animals need air, water, light (plants only), space, food, and shelter and that these may be found in their environment.	X	X	3	X	**1.L.2.1** Summarize the basic needs of a variety of different plants (including air, water, nutrients and light) for energy and growth.	X	X	X	4
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).	X	X	3	X	**1.L.2.2** Summarize the basic needs of a variety of different animals (including air, water and food) for energy and growth	X	X	X	4

Halifax County Schools: Science Essential Standards Pacing Guide **Revised June 30, 2018**

1st Grade Science At-a-Glance

Note: The science and engineering practices listed below are to be integrated in daily lesson activities as often as possible.

Science and Engineering Practices:

1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. Obtaining, evaluating and communicating information