

Dear 3rd Grade Science Teacher:

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

Third 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.

Third Graders Learn Science Best When...

- ✓ Involved in first-hand exploration and 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 explanation 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 T

Halifax County Schools: Essential Standards Pacing Guide
2018)

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3rd Grade At-a-Glance NC Wiki: http://www.livebinders.com/play/play_or_edit/217643

Forces and Motion					Earth in the Universe				
3.P.1 Understand motion and factors that affect motion.	Quarters (Q)				3.E.1 Recognize the major components and patterns observed in the earth/moon/sun system.	Quarters (Q)			
3.P.1.1 Infer changes in speed or direction resulting from forces acting on an object.	X	2	X	4	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.	X	2	X	X
3.P.1.2 Compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.	X	2	X	4	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.	X	2	X	X
3.P.1.3 Explain the effect of earth's gravity on the motion of any object on or near the earth.	X	2	X	4	Earth Systems, Structures and Processes				
Matter: Properties and Change					3.E.2 Compare the structures of the Earth's surface using models or three-dimensional diagrams.	Quarters (Q)			
3.P.2 Understand the structure and properties of matter before and after they undergo a change.	Quarters (Q)				3.E.2.1 Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).	1	X	X	X
3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.	1	X	X	X	3.E.2.2 Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.	1	X	X	X
3.P.2.2 Compare solids, liquids, and gases based on their basic properties.	1	X	X	X	Structures and Functions of Living Organisms				
3.P.2.3 Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such a smelting ice or ice cream, boiling water or an egg, or freezing water.	1	X	X	X	3.L.1 Understanding human body systems and how they are essential for life: protection, movement and support.	Quarters (Q)			
Energy: Conservation and Transfer					3.L.1.1 Compare the different functions of the skeletal and muscular system.	4	X	X	X
3.P.3 Recognize how energy can be transferred from one object to another.	Quarters (Q)				3.L.1.2 Explain why skin is necessary for protection and for the body to remain healthy.	X	X	X	X
3.P3.1 Recognize that energy can be transferred from one object to another by rubbing them against each other.	X	X	4	P	Ecosystems				
3.P.3.2 Recognize energy can be transferred from a warmer object to a cooler one by contact or at a distance & the cooler object gets warmer.	X	X	4	P	3.L.2 Understand how plants survive in their environments.	Quarters (Q)			
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					3.L.2.1 Remember the function of the following plant structures as it relates to the survival of plants in their environments: <ul style="list-style-type: none"> Roots – absorb nutrients Stems – provide support Leaves – synthesize food Flowers – attract pollinators and produce seeds for reproduction. 	3	X	X	X
					3.L.2.2 Explain how environmental conditions determine how well plants survive and grow.	3	X	X	X
					3.L.2.3 Summarize the distinct stages of the life cycle of seed plants.	3	X	X	X
					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.	3	X	X	X