1st Grade Science Pacing Calendar

SCIENCE PROCESSES AND INQUIRY				
Process Standard 1: Observe and Measure – Observing is the first action taken by the learner to acquire new information about an object, organism, or event. Opportunities for observation are developed through the use of a variety of scientific tools. Measurement allows observations to be quantified. The student will accomplish these objectives to meet this process standard.	**1**	**2**	**3**	**4**
***1.** Observe and measure objects, organisms and/or events using developmentally appropriate nonstandard units of measurement (e.g., hand, paper clip, book); and International System of Units (SI) (i.e., meters, centimeters, and degrees Celsius).		✓		
2. Compare and contrast similar and/or different characteristics in a given set of simple objects, familiar organisms and/or observable events.	✓			
Process Standard 2: Classify – classifying establishes order. Objects, organisms, and events are classified based on similarities, differences, and interrelationships. The student will accomplish these objectives to meet this process standard.	**1**	**2**	**3**	**4**
1. Classify a set of simple objects, familiar organisms, and/or observable events by observable properties				✓
2. Arrange simple objects, familiar organisms, and/or observable events in a serial order (e.g., least to greatest, tallest to shortest).			✓	
Process Standard 3: Experiment and Inquiry - Experimenting is a method of discovering information. It requires making observations and measurements to test ideas. Inquiry can be defined as the skills necessary to carry out the process of scientific or systemic thinking. In order for inquiry to occur, students must have the opportunity to ask a question, formulate a procedure, and observe phenomena. The student will accomplish these objectives to meet this process standard.	**1**	**2**	**3**	**4**
***1.** Ask a question about objects, organisms, or events in the environment.	✓			
***2.** Plan and conduct a simple investigation.		✓		
***3.** Employ simple equipment and tools such as magnifiers, thermometers, and rulers to gather data.			✓	
4. Recognize potential hazards and practice safety procedures in all science activities.	✓			
Process Standard 4: Interpret and Communicate – Interpreting is a process of recognizing patterns in collected data by making inferences, predictions, or conclusions. Communicating is the process of describing, recording, and reporting experimental procedures and results to others. Communication may be oral, written, or mathematical and includes organizing ideas, using appropriate vocabulary, graphs, and other visual representations. The student will accomplish these objectives to meet this process standard.	**1**	**2**	**3**	**4**
1. Interpret pictures, simple bar graphs, and/or tables.		✓		
2. Recognize and describe patterns, then make predictions based on patterns.			✓	
***3.** Communicate the results of a simple investigation using drawings, tables, graphs, and/or written and oral language.				✓

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PHYSICAL SCIENCE				
Standard 1: Properties of Objects and Materials – Characteristics of objects can be described using physical properties such as size, shape, color, or texture. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:	**1**	**2**	**3**	**4**
1. Objects have properties that can be observed, described, and measured.				✓
2. Using the five senses, objects can be grouped or ordered by physical properties.	✓			
3. Water can be a liquid or a solid, and can be made to go back and forth from one form to the other.		✓		
Standard 2: Characteristics and Basic Needs of Organisms – All living things have structures that enable them to function in unique and specific ways to obtain food, reproduce, and survive. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:	**1**	**2**	**3**	**4**
1. Plants and animals need to take in air, water, and food. In addition, plants need light.			✓	
2. Scientists use the five senses and tools (e.g., magnifiers and rulers) to gather information, such as size and shape about living things.				✓
EARTH/SPACE SCIENCE				
Standard 3: Changes of Earth and Sky – Observe natural changes of all kinds such as the movement of the sun and variable changes like the weather. The student will engage in investigations that integrate the process standards and lead to the discovery of the following objectives:	**1**	**2**	**3**	**4**
1. The sun warms the land, air, and water.			✓	
2. Weather changes from day to day and over the seasons. Weather can be observed by measuring temperature and describing cloud formations.		✓		