3rd 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 International System of Units (SI) (i.e., meters, centimeters, grams, 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 (e.g., graphic organizers, t-charts, tables, and Venn diagrams).	✓			
2. Arrange simple objects, familiar organisms, and/or observable events in a serial order (e.g., least to greatest, order of steps, and smallest to largest).	✓			
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 the 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, other visual representations, and mathematical equations. The student will accomplish these objectives to meet this process standard.	**1**	**2**	**3**	**4**
1. Interpret tables, pictorial, and/or simple bar graphs.		✓		
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 – Describe characteristics of objects based on physical properties such as size, shape, color, or texture. Vibration of materials causes sound. 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 can be described in terms of the materials of which they are made. Mixtures and solutions can be separated (i.e., sand and marbles, salt and water).			✓	
2. Sound is produced by vibrations (i.e., pitch and loudness).				✓
3. Sound travels through air, water, and/or solids.				✓
LIFE SCIENCE				
Standard 2: Characteristics and Basic Needs of Organisms and Environments – 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 have features (i.e., breathing structures, limbs, skin covering, seed dispersal, roots, stems, and leaves) that help them live in different environments such as air, water, or land.		✓		
2. Each plant or animal has different structures that serve different functions in growth and survival (i.e., the way it moves, type of food it needs, and where it lives).	✓			
3. All animals depend on plants. Some animals eat plants for food. Other animals consume animals that eat the plants.		✓		
a. The primary source of energy in a food chain is the sun.				
b. Animals can be classified by the type of food they eat.		✓		
EARTH/SPACE SCIENCE				
Standard 3: Properties of Earth Materials – Earth materials consist of rock, soils, water, and air. 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. Rocks and minerals have similarities and differences (i.e., size of particles, color pattern, and layering).			✓	
2. Soils have properties of color and texture, capacity to retain water, and ability to support the growth of many kinds of plants and animals, including those in our food supply.			✓	
3. Earth exerts a force called gravity which attracts objects, pulling them toward Earth's center.			✓	

Asterisks (*) have been used to identify standards and objectives that must be assessed by the local school district. All other skills may be assessed by the Oklahoma School Testing Program (OSTP).