

2nd 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 standard units of measurement (e.g., inches, feet, yard, degrees Fahrenheit) and the 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, 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 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, 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 and Interactions of Objects and Materials – characteristics of objects can be described using physical properties such as size, shape, color, texture, or magnetism. Interactions change the position and motion of objects. 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 materials of which they are made. Physical properties of materials can be changed by tearing, sifting, sanding, or pounding.		✓	✓	
2. Motion and interaction of objects can be observed in toys and playground activities.		✓	✓	
3. Magnets attract and repel each other and certain other materials. Magnetic force passes through materials such as paper, glass, and water.		✓	✓	
LIFE SCIENCE				
Standard 2: Life Cycles and Organisms – Life cycles represent the stages an organism passes through from its own birth to the birth of the next generation. 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 life cycles that include developing into adults, reproducing, and eventually dying. The details of this life cycle are different for different organisms.	✓	✓		
2. Plants and animals often have characteristics similar to their parents.	✓	✓		
EARTH/SPACE SCIENCE				
Standard 3: Properties and Changes of Earth and Sky – Earth materials consist of rocks, soils, water, and air. The sun appears to move across sky in the same way every day. 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. Earth materials have different properties and serve as natural resources that sustain plant and animal life.		✓	✓	
2. The size and shape of shadows change at different times of the day.		✓	✓	

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).