

Grade 2 Science Pacing Guide

Symbol Key

◆ Split: This Standard of Learning has been <i>split</i> into more than one nine-week block.	□ Incorporate: <i>Incorporate</i> this skill into the daily routine.
© Integrate: This skill should NOT be taught in isolation. <i>Integrate</i> the skill into daily lessons.	® Review: This skill was taught for mastery in a previous nine-week block. Continue to <i>review</i> this mastered skill, with heavy emphasis, in the listed nine-week block.

First Nine Weeks – embed 2.1 throughout the year after the initial introduction

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
2.1 The student will demonstrate an understanding of scientific and engineering practices by a) asking questions and defining problems <ul style="list-style-type: none"> ask questions that can be investigated make predictions based on observations and prior experiences identify a simple problem that can be solved through the development of a new tool or improved object b) planning and carrying out investigations <ul style="list-style-type: none"> with guidance, plan and conduct simple investigations to produce data use appropriate tools to measure length, weight, and temperature of common objects using U.S. Customary units measure time intervals using proper tools c) interpreting, analyzing, and evaluating data <ul style="list-style-type: none"> organize and represent data in pictographs and bar graphs read and interpret data represented in pictographs and bar graphs d) constructing and critiquing conclusions and explanations <ul style="list-style-type: none"> make simple conclusions based on data or observations distinguish between opinion and evidence recognize unusual or unexpected results e) developing and using models <ul style="list-style-type: none"> use models to demonstrate simple phenomena and natural processes f) obtaining, evaluating, and communicating information <ul style="list-style-type: none"> communicate observations and data using simple graphs, drawings, numbers, speech, and/or writing 2.5 Living Systems The student will investigate and understand that living things are part of a system. Key ideas include <ul style="list-style-type: none"> a) plants and animals are interdependent with their living and nonliving surroundings; b) an animal's habitat provides all of its basic needs; and c) habitats change over time due to many influences. 				2.1 a-m ☺ ® Scientific Investigation, Reasoning, and Logic Unit 3 – All About Animals 2.5 Living Systems The student will investigate and understand that living things are part of a system. Key ideas include <ul style="list-style-type: none"> a) plants and animals are interdependent with their living and nonliving surroundings; b) an animal's habitat provides all of its basic needs; and c) habitats change over time due to many influences. 2.4 Life Processes The student will investigate and understand that plants and animals undergo a series of orderly changes as they grow and develop. Key ideas include <ul style="list-style-type: none"> a) animals have life cycles; and b) plants have life cycles. 				

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Second Nine Weeks – embed 2.1 with each unit – students should have at least 1 lab per unit

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
2.1 The student will demonstrate an understanding of scientific and engineering practices Unit 4 All About Plants Finish 2.4 if needed – Animal and Plant Life Cycles. 2.5 Living Systems The student will investigate and understand that living things are part of a system. Key ideas include <ul style="list-style-type: none"> a) plants and animals are interdependent with their living and nonliving surroundings; b) an animal’s habitat provides all of its basic needs; and c) habitats change over time due to many influences. 				2.1 a-m ☺ ® Scientific Investigation, Reasoning, and Logic Unit 5 Environments for Living Things 2.8 Earth Resources The student will investigate and understand that plants are important natural resources. Key ideas include <ul style="list-style-type: none"> a) the availability of plant products affects the development of a geographic area; b) plants provide oxygen, homes, and food for many animals; and c) plants can help reduce the impact of wind and water. 				

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Third Nine Weeks – continue to embed 2.1 with each unit – Students should have at least 1 lab per unit

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
2.1 The student will demonstrate an understanding of scientific and engineering practices Unit 6 Earth and Its Resources 2.7 Earth Patterns, Cycles, and Change The student will investigate and understand that weather patterns and seasonal changes affect plants, animals, and their surroundings. Key ideas include <ul style="list-style-type: none"> a) weather and seasonal changes affect the growth and behavior of living things; b) wind and weather can change the land; and c) changes can happen quickly or slowly over time. 				2.1 a-m ☺ ® Scientific Investigation, Reasoning, and Logic Unit 7 All About Weather 2.6 Interrelationships in Earth/Space Systems The student will investigate and understand that there are different types of weather on Earth. Key ideas include <ul style="list-style-type: none"> a) different types of weather have specific characteristics; b) measuring, recording, and interpreting weather data allows for identification of weather patterns; and c) tracking weather allows us to prepare for the weather and storms 				

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Fourth Nine Weeks - continue to embed 2.1 with each unit – Students should have at least 1 lab per unit

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
2.1 The student will demonstrate an understanding of scientific and engineering practices Unit 9 Changes in Matter 2. 3 The student will investigate and understand that matter can exist in different phases. Key ideas include a) matter has mass and takes up space; b) solids, liquids, and gases have different characteristics; and c) heating and cooling can change the phases of matter.				2.1 The student will demonstrate an understanding of scientific and engineering practices Unit 10 – Force 2.2 The student will investigate and understand that different types of forces may cause an object’s motion to change. Key ideas include a) forces from direct contact can cause an object to move; b) some forces, including gravity and magnetism, can cause objects to move from a distance; and c) forces have applications in our lives.				
<p>Summary of changes specific to Second Grade science:</p> <ul style="list-style-type: none"> The concept of force continues to develop as students learn that forces can be direct (push or a pull) or can occur over a distance (magnetism and gravity). The term force is introduced in second grade. Emphasis is placed on change to include that changes can happen quickly or slowly. This concept applied to both living systems and Earth processes. Fossils was moved to third grade to support adaptations. Plants are recognized explicitly as a natural resource. The concept of matter is explicitly defined in 2.3. 								