



Grade 4 Science Year At-A-Glance

Theme: Our Place in the Solar System

Students will examine how life is supported from the solar system to planet Earth, to the state of Virginia, and their specific ecosystems.

<u>Quarter 1</u>	Unit 1: Solar System (about 20 days)	Unit 2: “Earth-Moon-Sun” Relationships (about 24 days)	Begin Unit 3: Weather (about 6 days)	
<u>Quarter 2</u>	Complete Unit 3: Weather (about 18 days)		Begin Unit 4: Living Systems and Processes (about 21 days)	
<u>Quarter 3</u>	Complete Unit 4: Living Systems and Processes (about 8 days)	Unit 5: Ecosystems (about 20 days)	Begin Unit 6: Ocean Environment (about 17 days)	
<u>Quarter 4</u>	Complete Unit 6: Ocean Environment (about 7 days)	Unit 7: Virginia's Natural Resources (about 20 days)	Cumulative Review and Reteaching (about 14 days)	Family Life Education (about 5 days)

Unit guides will be released prior to the start of each quarter.

 **Note:** Science and Engineering Practices (SEPs), SOL 5.1a-f, should be embedded throughout the year rather than taught in isolation.

Quarter 1: August 19 – October 31 (50 days)

Quarter	Unit	Suggested Time	Standards of Learning
Quarter 1	<u>Unit 1: Solar System</u>	about 20 days Assessment Window Week of 09/16/24	4.5 The student will investigate and understand that the planets have characteristics and a specific place in the solar system. Key ideas include <ul style="list-style-type: none"> a) planets rotate on their axes and revolve around the sun; b) planets have characteristics and a specific order in the solar system; and c) the sizes of the sun and planets can be compared to one another.
	<u>Unit 2: “Earth-Moon-Sun” Relationships</u>	about 24 days Assessment Window Week of 10/21/24	4.6 The student will investigate and understand that there are relationships among Earth, the moon, and the sun. Key relationships include <ul style="list-style-type: none"> a) the motions of Earth, the moon, and the sun; b) the causes for Earth’s seasons; c) the causes for the four major phases of the moon and the relationship to the tide cycles; and d) the relative size, position, age and makeup of Earth, the moon, and the sun.
	Begin <u>Unit 3: Weather</u>	about 6 days	4.4 The student will investigate and understand that weather conditions and phenomena affect ecosystems and can be predicted. Key ideas include <ul style="list-style-type: none"> a) weather measurements create a record that can be used to make weather predictions; b) common and extreme weather events affect ecosystems; and c) long-term seasonal weather trends determine the climate of a region.

Quarter 2: November 6 – January 17 (39 Days)

Quarter 2 Unit Guides will be released on October 16, 2024

Quarter	Unit	Suggested Time	Standards of Learning
Quarter 2	Complete <u>Unit 3: Weather</u>	about 18 days Assessment Window Week of 12/02/24	4.4 The student will investigate and understand that weather conditions and phenomena affect ecosystems and can be predicted. Key ideas include d) weather measurements create a record that can be used to make weather predictions; e) common and extreme weather events affect ecosystems; and f) long-term seasonal weather trends determine the climate of a region.
	Begin <u>Unit 4: Living Systems and Processes</u>	about 21 days	4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.

Quarter	Unit	Suggested Time	Standards of Learning
Quarter 3	Complete <u>Unit 4: Living Systems and Processes</u>	about 8 days Assessment Window Week of 02/03/25	<p>4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include</p> <ul style="list-style-type: none"> a) the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.
	<u>Unit 5: Ecosystems</u>	about 20 days Assessment Window Week of 03/03/25	<p>4.3 The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem. Key ideas include</p> <ul style="list-style-type: none"> a) interrelationships exist in populations, communities, and ecosystems; b) food webs show the flow of energy within an ecosystem; c) changes in an organism’s niche and habitat may occur at various stages in its life cycle; and d) classification can be used to identify organisms.
	Begin <u>Unit 6: Ocean Environment</u>	about 17 days	<p>4.7 The student will investigate and understand that the ocean environment has characteristics. Key characteristics include</p> <ul style="list-style-type: none"> a) geology of the ocean floor; b) physical properties and movement of ocean water; and c) interaction of organisms in the ocean.

Quarter 4: April 1 – June 12 (46 Days)

Quarter 4 Unit Guides will be released on March 11, 2025

Quarter	Unit	Suggested Time	Standards of Learning
Quarter 4	Complete <u>Unit 6: Ocean Environment</u>	about 7 days Assessment Window Week of 04/07/25	4.7 The student will investigate and understand that the ocean environment has characteristics. Key characteristics include a) geology of the ocean floor; b) physical properties and movement of ocean water; and c) interaction of organisms in the ocean.
	<u>Unit 7: Virginia's Natural Resources</u>	about 20 days Assessment Window Week of 05/12/25	4.8 The student will investigate and understand that Virginia has important natural resources. Key resources include a) watersheds and water; b) plants and animals; c) minerals, rocks, and ores; and d) forests, soil, and land.
	<u>Cumulative Review and Reteaching</u>	about 14 days	
	Family Life Education	about 5 days	