

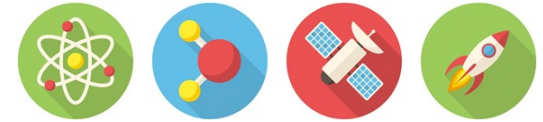


Prince William County Schools

Grade Four Science

Suggested Pacing Guide

2019 – 2020



FIRST QUARTER (47 DAYS)	SECOND QUARTER (43 DAYS)	THIRD QUARTER (43 DAYS)	FOURTH QUARTER (47 DAYS)
August 26-November 1	November 6-January 24	January 28-March 27	March 31-June 12
<p>Unit 1 Virginia Natural Resources (4 weeks) 4.9, 4.1</p> <ul style="list-style-type: none"> ➤ Watersheds and water resources ➤ Animals and plants ➤ Mineral, rocks, ores and energy sources ➤ Forests, soil and land resources ➤ Science process skills (<i>infused</i>) <p>Unit 2 Weather (4 weeks) 4.6, 4.1</p> <ul style="list-style-type: none"> ➤ Weather phenomena ➤ Air Pressure ➤ Air masses ➤ Cloud types ➤ Precipitation types ➤ Meteorological tools ➤ Science process skills (<i>infused</i>) <p>Unit 3 Solar System (2 weeks total) 4.7, 4.1</p> <ul style="list-style-type: none"> ➤ Planets in our solar system ➤ Order of the planets ➤ Relative sizes of the planets ➤ Models of the solar system ➤ <u>Science/Math process skill: estimating and measuring length</u> <p>Aug. 30, Sep. 2 – Labor Day: No School Oct. 14, Nov. 4 and 5 – In-service/Workdays</p>	<p>Unit 3 Solar System (cont.)</p> <p>Unit 4 Earth-Moon-Sun Relationships (4 weeks) 4.8, 4.1</p> <ul style="list-style-type: none"> ➤ Earth, sun and moon motions ➤ Seasons ➤ Phases of the moon ➤ Aristotle, Ptolemy, Copernicus and Galileo ➤ NASA Apollo missions ➤ <u>Science/Math process skill: estimating and measuring elapsed time (seconds, minutes)</u> <p>Unit 5 Force & Motion (4 weeks) 4.2, 4.1</p> <ul style="list-style-type: none"> ➤ An object’s position ➤ Speed and direction of an object ➤ Friction ➤ Kinetic energy ➤ Science/Math process skill: estimating and measuring mass in U.S. Customary and metric units <p>Nov. 11 – Veterans’ Day: No School Nov. 27-29 – Fall Break Dec. 23-Jan 3 – Winter Break Jan 20 – Martin Luther King Birthday: No School Jan. 27 – In-service/Workday</p>	<p>Unit 6 Electricity & Magnetism (4 weeks) 4.3, 4.1</p> <ul style="list-style-type: none"> ➤ Conductors and insulators ➤ Basic circuits ➤ Static electricity ➤ Transformation of energy ➤ Electromagnets ➤ Historical contributions ➤ Science process skills (<i>infused</i>) <p>Unit 7 Ecosystems (3 weeks) 4.5, 4.1</p> <ul style="list-style-type: none"> ➤ Plant and animal adaptations ➤ Organization of populations, communities and ecosystems ➤ Flow of energy through food webs ➤ Habitats and niches ➤ Changes in organism’s niche through its life cycle ➤ Human activity impact on ecosystems ➤ <u>Science/Math process skill: estimating and measuring volume in U.S. Customary and metric units</u> <p>Feb. 17 – Presidents’ Day: No School March 30 – In-service/Workday</p>	<p>Unit 8 Plants (6 weeks) 4.4, 4.1</p> <ul style="list-style-type: none"> ➤ Structure and function of typical plants ➤ Plant reproductive structures and processes ➤ Photosynthesis ➤ Plant adaptations ➤ <u>Science/Math process skill: estimating and measuring elapsed time (minutes, hours within a 12-hour period)</u> <p>Family Life Education (1 week)</p> <ul style="list-style-type: none"> ➤ <u>Physical changes during puberty</u> ➤ <u>Structures and functions of reproductive organs</u> <p><i>Note: FLE instruction must occur in gender-separate classrooms; students will learn only about their own gender-related changes and anatomy. Teachers must use the county-approved lessons; videos alone are not sufficient.</i></p> <p>April 6-10 – Spring Break April 13 – In-service/Workday May 25 – Memorial Day: No School June 15 – Workday</p>

Theme: Our Place in the Solar System

In fourth grade science, students learn where they exist in the solar system. Students examine how life is supported from the solar system, to planet Earth, to the Commonwealth of Virginia and finally their specific ecosystems. Science Process Skills, as well as, *Engineering design practices* (4.1) should be incorporated as a part of inquiry-based instruction and hands-on classroom investigations. Common math and computational thinking skills must be incorporated into content instruction. Students will continue to develop skills in posing questions, and predicting outcomes, planning and conducting simple investigations, collecting evidence and analyzing data, constructing explanations, and communicating information about the natural world. Student research at this grade level should be simple in design and allow students to work collaboratively in groups to identify a science-related question of interest.

Note: To ensure consistency countywide, schools are highly encouraged to adhere to the *sequence* of science content outlined above.