Prince William County Schools

Grade Five Science

Suggested Pacing Guide

2016 – 2017

FIRST QUARTER (47)	SECOND QUARTER (45)	THIRD QUARTER (47)	FOURTH QUARTER (42)
August 29-November 3	**November 9-January 29**	**January 31-April 6**	**April 18-June 15**
Unit 1 Living Systems (6 weeks) Concepts include: ➢ Basic cell structures and functions ➢ How organisms are classified according to physical characteristics, body structures, and behavior of the organism. ➢ Survival of organisms in their environment ➢ Science process skills (5.1) **Unit 2 Oceanography (6 weeks total)** Concepts include: ➢ The ocean environment to include geological, physical and ecological characteristics. ➢ Science process skills (5.1) (Sept. 5 – Labor Day) (Oct. 11 – Interims) (Nov. 3 – End of Grading Period) (Nov. 7 – Conference Day) (Nov. 8 – Presidential Election: School Closed)	**Unit 2 Oceanography (cont.)** **Unit 3 Rocks & Fossils (2.5 weeks)** Concepts include: ➢ Identification of basic rock types ➢ The rock cycle and rock transformations ➢ Earth's history and fossil evidence ➢ Science process skills (5.1) **Unit 4 Geologic Processes (2.5 weeks)** ➢ Structure of the earth's interior ➢ Plate tectonics ➢ Weathering, erosion, and deposition ➢ Human activity on earth's surface ➢ Science process skills (5.1) (Nov. 11- Veterans' Day) (Nov. 16 - Report Cards) (Nov. 23-25 – Fall Break) (Dec.21 – Interims) Dec. 24-Jan 1 – Winter Break) (Jan 16 – MLK Holiday) (Jan. 27 - End of Quarter & First Semester)	**Unit 5 Matter (4 weeks)** Concepts include: ➢ Properties and phases of each type of matter ➢ How temperature effects phases of matter ➢ Atoms and Elements ➢ Molecules and compounds ➢ Mixtures including solutions ➢ Science process skills (5.1) **Unit 6 Sound (4 weeks)** ➢ Compression waves ➢ Characteristics of waves (wavelength, frequency, and amplitude) ➢ Ability of different media to transmit sound ➢ Application and uses of sound waves ➢ Science process skills (5.1) (Feb. 8 – Report Cards) (Feb. 20 – Presidents' Day) (April 6 – End of Grading Period) (April 10-17 – Spring Break)	**Unit 7 Light (4 weeks)** Concepts include: ➢ Behavior of transverse waves ➢ Visible Spectrum ➢ Opaque, transparent, and translucent ➢ Reflection and refraction of light ➢ Science process skills (5.1) **Review of 4th and 5th grade science concepts for SOL assessment. (Remainder of quarter till the SOL assessment)** **After SOL assessment, enhancement of one of the areas of study or STEM activities.** (April 22 – Earth Day) (April 25 - Report Cards) (May 29 – Memorial Day) (June 15 – End of Quarter; Last Day of School)

Student Independent Research Projects

Grade 5 students are expected to practice using the science process skills they have applied in classroom hands-on inquiry to select a science topic of interest to investigate independently. Student research involves identifying and asking an appropriate question; using the experimental design process to design and conduct an investigation; collecting evidence; drawing conclusions; and communicating and defending results. Students should be provided the opportunity to participate in science exhibitions or competitions at the school level to share their findings. Information and resources for teachers on conducting research and science fair competition is located on the Staff Communities intranet page under the Science Fair Information tab.

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