

GOOD SHEPHERD EPISCOPAL SCHOOL

5TH GRADE SCIENCE YEAR AT A GLANCE

Month	Unit/ Content Focus	Skills	NGSS Aligned
August (2 1/2days)	BOY/ Expectations	Science Expectations Lab Safety	N/A
September (4 Weeks)	BOY/ Science Fair/ COE	Lab Safety Scientific Methods Metric Science Fair COE Cool Careers in STEAM Project Plan and conduct an investigation	RI.5.7 Draw on information from multiple print or digital resources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. 3-5-ETS1-1 Define a simple design reflecting a need or a want that includes specified criteria for success and constraints on material, time, or cost. 3-5ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a prototype that can be improved.
October (5 Weeks)	Biomes Food Chains	Use/construct/ develop models Support arguments Plan and conduct an investigation	PS3-1 Use models to describe that the energy in animals' food (used for body repair, growth, motion and warmth) was once energy from the sun. LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.
November (3 Weeks)	Plants and Photosynthesis	Support an argument Plan and conduct an investigation	LS1-1 Support an argument that plants get the materials they need for growth chiefly from air and water.
December (3 Weeks)	Science Fair Presentations Hour of Code	Critical thinking, planning, testing, identifying solutions Evaluate design solutions	ETS1.B Developing possible solutions; tests are often designed to identify failure points or difficulties which suggest the elements of design that need to be improved. ETS1.C Optimizing the design solution; different solutions need to be tested in order to determine which of them solves the problem, given the criteria and constraints.
January (4 Weeks)	Gravity, sun, and shadows	Support an argument Represent data in a graphical display Plan and conduct an investigation	PS2-1 Support an argument that the gravitational force exerted by Earth on objects is directed down. ESS1-1 Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

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			ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.
February (4 Weeks)	Geosphere, Hydrosphere, Atmosphere, Water and Earth's Resources	Plan and conduct an investigation Develop a model Describe and graph information Obtain and Combine Information	ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact ESS2-2 Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
March (2 Weeks) ERBs	States and Properties of Matter	Develop a model Make observations and measurements Plan and conduct an investigation Measure and graph quantities	PS1-1 Develop a model to describe that matter is made of particles too small to be seen. PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. PS1-3 Make observations and measurements to identify materials based on their properties. PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
April (5 Weeks)	STEAM in the News Bridges	Conduct research Draw evidence from multiple sources Define design problems Generate possible solutions Plan and carry out investigation	ETS1-1 Define a simple design reflecting a need or a want that includes specified criteria for success and constraints on material, time, or cost. ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of a problem. ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a prototype that can be improved.
May (3 ½ Weeks)	Bridges	Define design problems Generate possible solutions	ETS1-1 Define a simple design reflecting a need or a want that includes specified criteria for

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		Plan and carry out investigation	success and constraints on material, time, or cost. ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of a problem. ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a prototype that can be improved.
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* This YAG will change. It is meant only to provide a quick look at the topics that will be addressed during the school year. Class progress, ERB testing, school trips, and inclement weather will all merit YAG adjustments.