

Hillsboro Charter Academy STEAM “212” Module Focus 2023-2024

**E<sup>3</sup> Big Idea: Cultivating Community**

		Aug/Sept	October	November	December	January	February	March	April	May/June
<b>Unit Theme</b>		Overview of Engineering Design Process	Physical Science	Physical Science	Biome/Life Science	Life Science	Life Science	Earth Science	Earth Science	Review
<b>Key Concepts</b>		Procedures, Myself as an Engineer, Design Process	Matter	Force, Motion and Energy	Life Processes, Living Systems	Life Processes, Cycles	Life Processes, Plants	Earth Resources, Conservation, Weather	Patterns, Cycles, Change Earth/Space Systems	Extra Practice/Inquiry Experiments
<b>K</b>	Unit:	PLTW K.1 Structure and Function (Marshmallow Challenge)	PLTW K.1 Structure and Function	PLTW K.1 Structure and Function (NASA Turkey)	PLTW K.1 Structure and Function (Hour of Code)	PLTW K.1 Structure and Function	PLTW K.1 Structure and Function (Nanobots)	PLTW K.1 Structure and Function	PLTW K.2 Pushes and Pulls (Save Gus)	PLTW K.2 Pushes and Pulls (Intro to Coding)
<b>1</b>	Unit:	PLTW 1.2 Light: Observing the Sun, Moon and Stars (Marshmallow Challenge)	PLTW 1.2 Light: Observing the Sun, Moon and Stars	PLTW 1.2 Light: Observing the Sun, Moon and Stars (NASA Turkey)	PLTW 1.2 Light: Observing the Sun, Moon and Stars (Hour of Code)	PLTW 1.2 Light: Observing the Sun, Moon and Stars	PLTW 1.2 Light: Observing the Sun, Moon and Stars (Nanobots)	PLTW 1.2 Light: Observing the Sun, Moon and Stars	PLTW 1.4 Animated Storytelling (Save Gus)	PLTW 1.4 Animated Storytelling
<b>2</b>	Unit:	PLTW 2.2 Form and Function (Marshmallow Challenge)	PLTW 2.2 Form and Function	PLTW 2.2 Form and Function (NASA Turkey)	PLTW 2.2 Form and Function (Hour of Code)	PLTW 2.2 Form and Function	PLTW 2.2 Form and Function (Nanobots)	PLTW 2.2 Form and Function	PLTW 2.4 Grids and Games (Save Gus)	PLTW 2.4 Grids and Games Lego WeDo Robotics
<b>3</b>	Unit:	PLTW 3.2 Stability and Motion (Marshmallow Challenge)	PLTW 3.2 Stability and Motion	PLTW 3.2 Stability and Motion (NASA Turkey)	PLTW 3.2 Stability and Motion (Hour of Code)	PLTW 3.2 Stability and Motion	PLTW 3.2 Stability and Motion (Nanobots)	PLTW 3.2 Stability and Motion	PLTW 3.4 Programming Patterns (Save Gus)	PLTW 3.4 Programming Patterns NASA BEST Engineering
<b>4</b>	Unit:	PLTW 4.9 Energy Exploration (Marshmallow Challenge)	PLTW 4.9 Energy Exploration	PLTW 4.9 Energy Exploration (NASA Turkey)	PLTW 4.9 Energy Exploration (Hour of Code)	PLTW 4.9 Energy Exploration	PLTW 4.9 Energy Exploration (Nanobots)	PLTW 4.9 Energy Exploration Lego Spike Robotics	PLTW 4.3 Input/Output Computer Systems Lego Spike Robotics (Save Gus)	PLTW 4.3 Input/Output Computer Systems Lego Spike Robotics
<b>5</b>	Unit:	PLTW 5.1 Robotics and Automation (Marshmallow Challenge)	PLTW 5.1 Robotics and Automation	PLTW 5.1 Robotics and Automation (NASA Turkey)	PLTW 5.1 Robotics and Automation (Hour of Code)	PLTW 5.1 Robotics and Automation	PLTW 5.1 Robotics and Automation (Nanobots)	PLTW 5.2 Drones Edison Robotics	PLTW 5.2 Drones Edison Robotics (Save Gus)	NASA Rocketry

