



Scientific Research and Design 1 (Rocketry 1)
Year at a Glance (YAG)
2023-2024



First Semester		Second Semester	
1 st Nine Weeks – 40 days		3 rd Nine Weeks – 45 days	
<u>TEKS</u> 1A, 1B, 2A-2G, 2J, 2K, 3B, 3D, 3D, 4B, 4D, 4E, 5A-5I, 6A-6F, 6I,	Advanced Tech Energy Force Vectors Impulse Momentum Theory Torque and Mechanical Stress Newton's Physics Safety Gen 1 Rocket Development Flight Stability Gen 2 Rocket Development Thrust to Weight Ratio	<u>TEKS</u> A, 1B, 2A-2G, 2J, 2K, 3B, 3D, 3D, 4B, 4D, 4E, 5A-5I, 6A-6F, 6I,	Dimensional Analysis Fluids: Archimedes, Bernoulli Dimensional Analysis Fluids: Archimedes, Bernoulli Intro to Modeling RockSim Gen 3 Design Electricity in a System Thermal Energy Systems Work Power
2 nd Nine Weeks – 43 days		4 th Nine Weeks – 45 days	
<u>TEKS</u> 1A, 1B, 2A-2G, 2I, 2J, 2K, 3B-3F, 4B, 5A-5I, 6A-6C, 6E, 6F, 6H, 6I,	Problem Analysis/Design Theory All-up Vehicle Design All-up Vehicle Design/flight profile with thrust curve Component team design/research Material Research Critical Design Review Material Acquisition	<u>TEKS</u> 1A, 1B, 2A-2G, 2I, 2J, 2K, 3B-3F, 4B, 5A-5I, 6A-6C, 6E, 6F, 6H, 6I,	Component Fabrication All-up Configuration of Vehicle Flight Readiness Review Standard Operating Procedures/Safety Analysis Test Preparation and Test Post Mission Analysis Post Mission Analysis Final Report Final Report

Resources

1st Nine Weeks	2nd Nine Weeks	3rd Nine Weeks	4th Nine Weeks
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SystemsGo	SystemsGo	SystemsGo	SystemsGo
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