



**Scientific Research and Design 1 (Rocketry 1)
Year at a Glance (YAG)
2024-2025**



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
SystemsGo	SystemsGo	SystemsGo	SystemsGo