

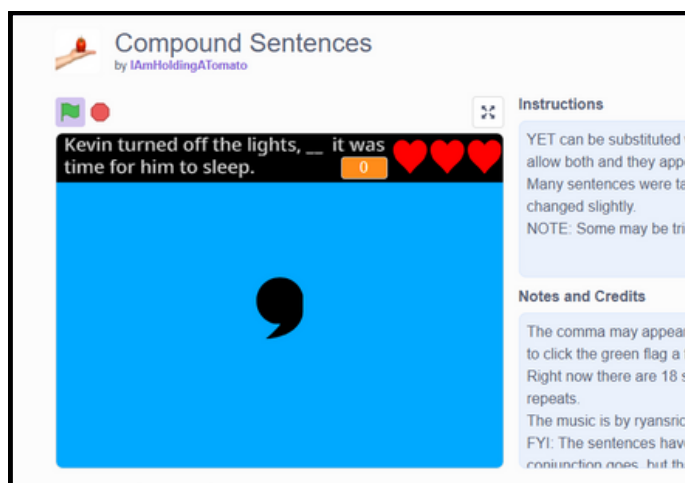


STEM Academy Student Spotlight Alexander Romeo English STEM Cross Curricular Collaboration



This month, we proudly feature Alexander Romeo, a creative and dedicated freshman in our STEM Academy. As part of a cross-curricular project in English 1, students were challenged to teach a specific grammar concept to their classmates using an engaging and interactive presentation format. The project encouraged students to explore innovative ways to explain complex ideas, incorporating technology and creativity.

Alexander's chosen topic was compound sentences, and he designed an interactive learning experience using Scratch, a visual programming platform. His project, available [here](#), guides users through the fundamentals of compound sentences with dynamic visuals, user choices, and creative coding. Alexander's work showcases his ability to merge technical and linguistic skills, making grammar lessons both fun and accessible. His project is a testament to the power of combining STEM with the humanities and serves as an inspiration to his peers. Great job, Alexander!





Rubber Band Powered Dragsters with Mr. Richards Class

In Mr. Richards' Introduction to Engineering Design class, students put their creativity and problem-solving skills to the test by designing and building rubber band-powered dragsters. Using 3D-printed materials and rubber bands, student teams collaborated to construct innovative vehicles capable of racing across the classroom. The project not only challenged students to engineer functional designs but also introduced them to key elements of the design process, including brainstorming, prototyping, testing, and refining their creations.

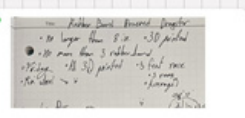
The project culminated in a thrilling drag race competition, where students had the opportunity to see their hard work in action. Each group applied principles of physics and engineering to optimize their designs for speed and efficiency, learning valuable lessons about teamwork, iteration, and real-world problem-solving along the way. Mr. Richards praised his students for their ingenuity and determination, saying, "The kids did great - some of the cars exceeded my expectations going as far as 5 feet!"

Name: _____ Department: _____ Course Number: _____ Section: _____ Time: _____ Location: _____ DATE: _____

Define the Problem

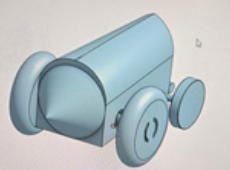


In this project, we were to make up a car out of 4 different pieces (minimum), no longer than 8 inches, no more than 3 rubber bands provided or allowed to use, everything, other than the rubber bands, had to be 3D printed, and it had to travel at least 5 feet.



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Construct and Test Prototype



The OnShape model was pretty close to what I had imagined for the wheels.


After assembling the model with all the other parts, it could be seen that I had successfully taken proportions right.

The actual car did not print as intended, it's measurements changed from inches to centimeters in the machine, making the car significantly smaller.


After a few difficulties with inserting the wheels, it was proven that all 4 wheels worked and rolled as intended.

Name: _____ Department: _____ Course Number: _____ Section: _____ Time: _____ Location: _____ DATE: _____


Develop a Solution



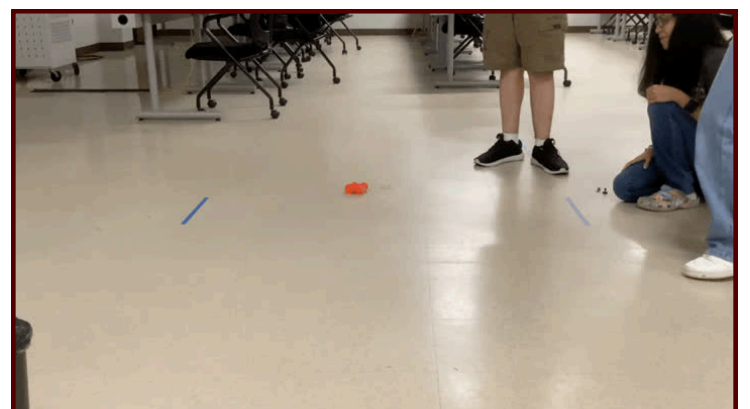
The tires I designed had a radius of 1.65 inches long, 0.8 inches wide.



The axis, able to cross the car comfortably, was 4 inches long and had a small hook for the rubber band to hold onto.



Taking into account the fact we had to insert the pieces, I made it into two parts, the bigger, 4 inch rod was hollow, the second was shorter and smaller in diameter.

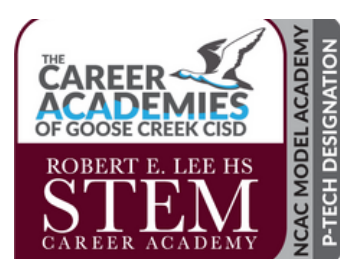
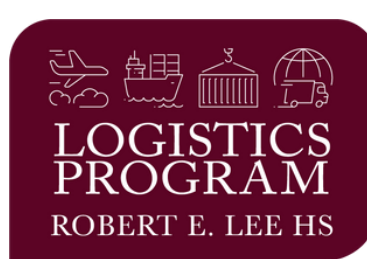
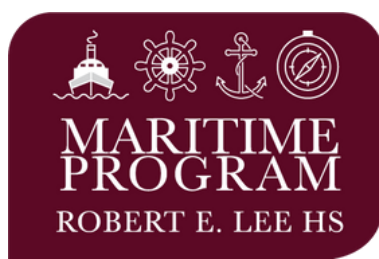


Upcoming Events

December							
Sun	Mon	Tues	Wed	Thur	Fri	Sat	Notes
1	2	3	4	5	6	7	
		ELA1 STAAR Retest	Alg 1 US His STAAR Retest	ELA 2 Bio STAAR Retest	PR 4 Ends STAAR Retest	Cosmetology: Princess Spa Day Fundraiser (Ages 3-11)	Dec 7 - Robotics II VEX Robotics Competition at Pasadena ISD
8	9	10	11	12	13	14	
	STEM Academy, CSME, Maritime, Logistics Class of 2029 Parent Meeting		Cardboard Canoe Races; Lee College	PR 4 Grades in Portal			Dec 12 - Maritime, Sam Houston Boat Tour
15	16	17	18	19	20	21	
				MP 2 Ends	Early Release		Final Exam Week
22	23	24	25	26	27	28	
Christmas Holiday							
29	30	31					
Christmas Holiday							
STEM		Cosmetology				Maritime	

[Academy Handbook](#)

[Academy Administration Team](#)



<https://schools.gccisd.net/page/cte.Academy.STEM>

<https://schools.gccisd.net/page/cte.Academy.Maritime>

<https://schools.gccisd.net/page/cte.CosmetologyProgram>