STEM Exploration

Teacher: Mr. Cutler

Office Hours: By Appointment

E-mail: sp_cutler@springfieldspartans.org **Phone:** 330-798-1008 **Room:** 109 **Course Length:** 18 Weeks (1 semester)



Course Description: STEM (Science, Technology, Engineering, Mathematics) education can help students develop critical thinking, problem-solving, and design skills, and encourage creativity, collaboration, and communication. STEM courses can also help students make evidence-based explanations and design solutions in the real world.

Main Course Projects, Descriptions, and Timeline:

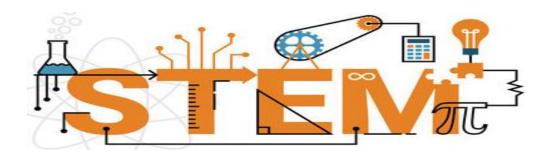
Bridge Building	Ballon Power Car	Recyclable Toy	Marble Paper	Rube Goldberg
Competition	Competition	Competition	Roller Coaster	Project
A real challenge	In this activity,	In this STEM	In this activity,	This final
for students to	students will	project,	students will act	design
consider how	work in groups to	students	as engineers	challenge will
much money they	harness the power	collect and	(hired by a local	take students
have and how to	of a balloon to	build a unique	theme park) to	into the mind
budget it to build	power their car.	toy from	design and build	and science
a sturdy bridge.	Students will	various	a prototype for a	behind his
Students will have	modify the design	recyclables. A	new and more	"outside of the
to test their bridge	of their vehicle to	letter to	exciting ride.	box" thinking
to see who built	produce the best	parents is	Students will	and challenge
the strongest	travel distance	included to	research and plan	them to design
bridge but who	possible.	help facilitate	and will then	a similar
also stayed on		the collection	work in groups to	machine inside
budget.		of recyclables.	design, build,	their heads.
			test, and revise	
			their project.	
2 ½ - 3 weeks	2 ½ - 3 weeks	2 ½ - 3 weeks	2 ½ - 3 weeks	3 – 4 weeks

Methods of Instruction: Students will be engaged in the learning process through:

- Individual exploration and research
- Group lectures and discussions
- Small group and team-oriented activities
- Hands-on activities such as projects and laboratory procedures
- Oral presentations/ lectures

Required Supply List:

- 1. A charged device (Chromebook & Charger)
- 2. 3-ring binder/Folder
- 3. Notebook/Notebook paper
- 4. Pencils/Pens/Highlighter



Grades:

Classwork/Homework- 35% Test/Quizzes- 15% Laboratories/Projects- 50%

Class Grading Scale:

Based on the school grading scale.

98-100= A+	88-89 = B+	78-79 = C+	69-67 = D+
92-97 = A	82-87 = B	75-77 = C	66-62 = D
90-91 = A-	80-81 = B-	70-74 = C-	61-60 = D-
			59 & Below = F

Class participation by actively reading, listening, and speaking is a requirement in this class. You will be expected to bring the required supplies so that you can participate effectively. Your grade will be negatively affected if you are unprepared and/or unwilling to participate in activities.

***To check your student's progress in the class, Progressbook will show the most up-to-date information. Also, don't forget to check Progressbook for any missing or late assignments. ***

Attendance:

Attendance is mandatory, please be on time each morning and prepared to learn.

Homework & Missing Assignment Policy:

Throughout most of the year, there will not be "homework assignments" however, there is a limited amount of class time so some assignments may be given as "homework" to complete. Homework and classwork assignments must be turned in by the due date to receive full credit. If turned in late 50% will automatically be deducted and will be recorded in the grade book. Students who have any missing assignments have until the end of the grading period to turn the assignment in to receive ½ credit.

Absences & Make-up Work:

If you are absent for an excused reason, you can make up any work that you have missed. You will have one day for every day you were absent to complete your make-up assignments. It is YOUR RESPONSIBILITY to find out what you missed and turn it in. You must see me to schedule a time after school or during your study hall to take make-up tests. If you miss a laboratory, you must see me to see if you can make up the lab. Some laboratories might have a make-up lab for you to complete as homework. You might have to work outside the class time to make up the lab.

Cheating:

Cheating will not be tolerated. Cheating includes, but is not limited to sending text messages, using different online search engines, talking, or interacting in any way during a test, copying another's homework or class work, and plagiarism. Any student caught cheating will receive a grade of 0% on the test or assignment and a written referral will be submitted to the assistant principal for disciplinary action and the student's parents will be notified immediately.

Test/Quiz Policy:

All course tests and quizzes are open notes. No quiz or test retakes will be allowed.

Laboratory Safety Quiz Policy:

Although this course may not be quiz/test heavy, this course has a mandatory laboratory safety quiz that students must pass to enable them to work on their projects within the lab setting. **Students must pass the laboratory safety quiz with at least a 70%.** Suppose the student does not pass the laboratory safety quiz with 70%. In that case, that student will not be able to complete the laboratory projects within this course and will be given alternate assignments.

Extra Credit:

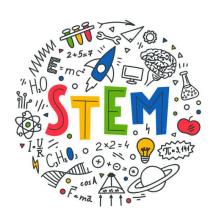
No Extra Credit will be given. However, assignments throughout the year might have extra points up for grabs to help boost your student's grade.

Class Policies and Procedures

- 1. **SHOW RESPECT** for others and the property of others.
- 2. **BE KIND** to others.
- 3. ALWAYS TRY YOUR BEST.
- 4. **ABSOLUTELY NO VULGAR LANGUAGE, GESTURES**, etc.
- 5. Keep Your Hands to Yourself.
- 6. Keep your classroom clean.
- 7. Raise Your Hand to Speak.
- 8. Dress properly and appropriately.
- 9. **NO,** food, candy, pop or coffee is allowed. Only bottled water is allowed.
- 10. **NEW** district cellphone policy. Stays off and is put away at all times.
- 11. **ASK FOR HELP** when needed.
- 12. Have an open mind, we all make mistakes, remember, together virtually, we can do anything.

Failure to adhere to the classroom policies and procedures will result in a warning, dismissal from the classroom, parent contact, and office referral.

Please note this is an individualized syllabus for Mr. Cutler's class only!



Parents must acknowledge the syllabus has been read. Turn this page only, into Mr. Cutler by August 27th.

Greetings! Welcome to Springfield Jr. High School! My name is Sean Cutler, and I will be your child's STEM teacher for the 2024-2025 school year. During the year we will explore many different topics in science and experiments. I hope to have a positive year and provide many opportunities for students to demonstrate critical thinking and problem-solving skills.

As such, I am committed to communicating with you and supporting the individual needs of your child. To do this, I need to be able to keep in touch with parents/guardians regarding their students' progress.

We're also excited to showcase our brand-new course at Springfield Junior High and share photos of our students and your students working with the Springfield community. To ensure we have your permission, please fill out the photo release form indicating whether you would like your child to be photographed. Your cooperation is greatly appreciated!

PLEASE NOTE: Students will receive 10 Lab points after a parent completes the syllabus acknowledgment form.

By signing this document, I have read and know the course policies procedures, and outcomes.

Parents, what is the best way to reach you? (phone, email, text, etc.)

Parents, are we allowed to take pictures of your child and your child's work in this class and post them on the school's social media page? (Yes or no)				
Student Name Print:				
Parent Name Print:				
Parent Signature:				

Thank you, I look forward to working with you and your student this school year.