

## 7<sup>th</sup> Grade S.T.E.M.

Mrs. Yeager

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### Five Guidelines

1. Do The Right Thing
2. Do The Best You Can
3. Care About Others
4. We Recycle
5. Respect Your Neighbor

### What is STEM?

S.T.E.M. is an acronym for Science, Technology, Engineering and Math. Students in this course will experience discovery based learning as they build and program their own Lego robot. This robotics course will focus on the design and control of robot mechanics, electronics, programming, problem solving and the engineering design process. There will be a two week preview of the engineering vocabulary, sensor use, programming, and movements of the robots. There is to be an open ended question that will be filled with renewable energy problems and solutions. The Green City Challenge will give you ownership of your learning and problem-solving methods. Students will work in partnerships and utilize cooperative learning groups, while working as a city to produce renewable energy. The engineering notebook will be used to concentrate on designs and thought processes while incorporating literacy standards.

### Conduct

Seventh grade students will care about others and their property. Running, speaking out, or inappropriate language will not be tolerated. The word "SUCKS" is inappropriate, not to mention scientifically impossible. Cell phones are not allowed. The robots, laptops, and Lego pieces are to be treated with care. Never should anyone throw or toss pieces. Disciplinary action will take place if there is improper usage.

A few important things to remember:

- Never should you change the background of a laptop.
- When you are finished using a laptop, please be sure to properly shut the computer down before closing it up.
- We must be careful when taking out the laptops and putting them back in.
- No one leaves the room until the classroom floor is checked for Lego pieces.

Class begins promptly. Do the right thing. Be in YOUR seat. Class ends when the teacher dismisses the students. Be respectful at all times to those around you and yourself. Disruptive behaviors such as talking to the point of distraction can lead to consequences such as an office referral.

### Class Participation

Students are expected to participate in all activities and remain on task in class. Due to the hands-on nature of this course, this will be a larger portion of their grade. Participation will be assessed through daily observations, notes in the engineering notebook and by periodic written assessments.

### Tests

Assessments will be formal and informal, including successfully programming robots to perform specific tasks. Students will be expected to use class time wisely to be able to accomplish the assigned tasks leading up to the tests.

### Absences

With the hands-on nature of this course, it is important that students are in class to learn and complete the assignments. Robots will not be allowed to go home with students.

### Inventory

It is extremely important that we pay attention to the number that each student is assigned when working with the robots and laptops. We will also be taking inventory of everything that we use at the end of the six week course.

### Grades:

Final grades will be determined by the use of points.

100.0	A+
99.9-93	A
92.9-90	A-
89.9-88	B+
87.9-83	B
82.9-80	B-
79.9-78	C+
77.9-73	C
72.9-70	C-
69.9-68	D+
67.9-63	D
62.9-60	D-
59.9-0	F

Parents are welcome to contact me, Mrs. Yeager, at the middle school at ext. 231 or by e-mailing me. I do have a 3<sup>rd</sup> hour prep period. I am very excited about this year and looking forward to helping you excel in S.T.E.M., learn new concepts, and gain real life experiences.

Sincerely,

Jennifer Yeager

MS/HS Science Department Chair