What is STEM?

STEM stands for science, technology, engineering, and math. STEM curriculum combines those subjects in order to teach “21st-century skills”, or tools to prepare students for the workplace of the future. Students will learn how to solve problems, find and use evidence, collaborate on projects, and think critically.

The Curriculum

Hickory Creek uses the STEM curriculum of IMSA (Illinois Math and Science Academy). Their Fusion program is designed for intermediate and middle school students. The learning experiences focus on helping students “learn how to learn” and emphasize logic, mathematical thinking and experimental scientific thinking.

Take Flight!

Studying the basic principles of flight has long been a staple of middle school physical science curricula. Take Flight! steps beyond those basics to examine the Science, Technology, Engineering, and Mathematics involved in every aspect of the modern aviation industry. At the conclusion of this curriculum, students will have a greater appreciation for how air travel works and what is going on behind the scenes.

Engineering & Design

The second half of the semester will focus more heavily on technology, engineering and design. Students will complete inquiry-based challenges utilizing various technologies. They will explore computer-aided design software, 3-D printing, computer coding, robotics, circuitry, and much more. By the end of the curriculum, students will have a deeper understanding of the design process and the technologies used for modern innovations.
Student Expectations
This class relies heavily upon student participation and collaboration. Students are expected to be engaged, share ideas, and collaborate in teams. At the end of each inquiry based activity, students will complete “debrief questions” that will require elaboration upon observations and communication of ideas. (Students will have to explain what they see and think.)

Grades will be calculated as follows:
1. Participation in activities: 50%
   ***Students will begin each unit with a set number of participation points (dependent upon the length of the unit) and will lose points for non-participation.
2. Debrief questions: 50%

Steps for Success in my Classroom
1. Be on time. Enter through room 1304 (not the library), take out what you need and put the rest of your belongings in the cubby or on the shelf at your table.
2. Be prepared. Bring a pencil and 3-ring binder to class everyday.
3. Work hard. This class is supposed to be difficult so that you learn how to work with others and think critically and creatively. You have to be engaged in the activities in order for that to happen.
4. Be respectful. Respect your classmates, yourself, and me. No rude comments or behavior will be tolerated.
5. Have fun! This is not a traditional class. You get to do hands on activities for the majority of the semester. Think outside of the box and have fun with it!

I’m looking forward to a fantastic semester of STEM!
Mrs. Allison

Please detach and return this portion of the syllabus to Mrs. Allison.
I have reviewed the Student Expectations section of the STEM syllabus with my parent/guardian.

Student: ____________________________________________
Parent/Guardian Date: _____________________________ Date: ________