**Invention and Innovation**

7th grade (Semester) Syllabus

**Mr. Richard White**

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**COURSE DESCRIPTION:** Using project based instruction, technology and engineering students will experience unique opportunities through multiple hands-on activities. We will be focusing on the terms Invention and Innovation in this class. The prime focus as a S.T.E.M. teacher is to align academic knowledge, such as physics, algebra, and geometry, with professional engineering and robotics programs. Your S.P.L.O.S.T. dollars have purchased the professional SOLID WORKS C.A.D. software (utilized by GA Tech, Southern Poly, and UGA and over 160K corporation’s world-wide) for 2D, 3D, and architectural drawing and classroom computers. At the end of our semester together students will be able to define what innovation and invention are, and explain how technology and engineering can help improve products we have while leading to the creation of new products. Students will be developing enhancements to existing products and/or using their ideas to create new inventions that will be sketched in an engineering notebook, and designed using Solid Works CAD software. Completion of tutorials will help make them proficient at using this software.

**SAFETY IS OUR PRIORITY.** Please encourage your child to be active listeners and to participate in the school and classroom behavior plan. Following all classroom rules will ensure that everyone is safe and that there is adequate equipment for everyone to work with.

**COBB COUNTY INTERNET POLICY:** We will be using BYOD in class and encourage the students that have technology to us it within the structure and guidelines set down by Cobb County School District. Please consult your student handbook for specifics. Phones will only be utilized under teacher’s direct instruction for very specific activities.

**MATERIALS NEEDED:** Students will need a pen and pencil daily, ¼” graph paper, Isometric graph paper, metric ruler, notebook paper, and the school issued Agenda. Please send a box of tissue to help with cold and flu season. I have many students each nine-week period and they use a lot of tissue! Please check my Blog on the Daniell web page, it will be active very soon and contain updates and other information.

**TEXTBOOK USED:** *Technology, Engineering Our World*

**VIDEOS:** Videos will be utilized to into standards and will have no more than a G Rating. If a video has a PG or higher rating a permission slip will be sent home. Videos are used regularly to supplement the curriculum.

**MAKE-UP POLICY:** Please refer to the Student Handbook for guidelines on this policy. You are always encouraged to get in touch with me about particular issues, however; we are working to make sure your student stays on task and uses their time wisely.

**TARDY POLICY:** Being on time is essential, respecting Instructional time is crucial to assuring that we get through the curriculum within the time allotted. Consequences are out lined in the Student Handbook.

**Students are here to learn**, and the environment in the classroom must be illustrative of this. Students are encouraged to ask questions, but please instill in your child to listen carefully and raise their hand to ask questions. Students are to be seated, engage in the warm-up activity, and wait to be dismissed. Most work is done in groups or pairs. Please reinforce with your child how important patience and cooperation is. **Food, gum, and drinks are prohibited in my classroom**. Consequences for violations of disciplinary policies are outlined in the Student Handbook.

**HALL PASSES:** Students who have an emergency to leave the classroom will need to sign in and out using their agenda, passes will not be issued if the student does not have their agenda. This policy applies to nurse visits too.

**GRADING:**

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| ***Formatives (Classwork, Bellringers, Etc)*** | ***40%*** |
| ***Summatives (Projects, Quizzes, Tests)*** | ***60%*** |

**Standards:** we will be utilizing the Georgia Performance Standards for Engineering in grades 6-8 for this course. They are available at [www.georgiastandards.org](http://www.georgiastandards.org) .