Applied Technology

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Course Description: An 8th grade, one trimester course in the Industrial Technology Department that uses the Project Lead the Way (PLTW) Gateway to Technology curriculum. PLTW addresses the interest and energy of middle school students while incorporating national standards in math, science and technology. This activity-oriented program shows students how technology is used in the STEM field to solve everyday problems. This program uses a hands-on approach that is exciting and challenging for the all middle school students. **Materials needed: Pen or Pencil, Planner, Folder**

Units covered:
Careers in STEM (Science, Technology, Engineering, Math): Students will be able to research and present possible careers within the areas of STEM. This will give students a glimpse of how these careers use the techniques and software taught during the trimester.

Design and Modeling: In this unit, students begin to recognize the value of an engineering notebook to document and capture their ideas. They are introduced to and use the design process to solve problems and understand the influence that creative and innovative design has on our lives. Students will use industry standard 3D modeling software to create a virtual image of their designs and produce a portfolio to showcase their creative solutions.

Objectives:
- Explain the relationship between the components of STEM
- Describe engineering and explain how engineers participate in or contribute to the invention and innovation of products.
- Describe impacts that technology has had on society.
- Distinguish between invention and innovation.
- Describe the design process and how it is used to aid in problem solving.
- Use the design process to solve a technical problem.
- Recognize design criteria and constraints.
- Apply concepts learned in decision making.
- Measuring by hand and with software.
- Learn about possible careers to be able to pursue in high school.

Grading:

A+ 97-100%	A 91-96%	A- 90%
B+ 89%	B 81-88%	B- 80%
C+ 79%	C 71-78%	C- 70%
D+ 69%	D 61-68%	D- 60% F 59% and Below

Rules:
- Must be in seats when bell rings.
- No cell phones or other technology unless permitted by teacher.
- Keep workstation clean.
- No food, candy or drinks around workstations.
- Respect others, including their time and property.
- Stay in seat unless allowed to be up.
- Follow all school rules.