

Rationale

The student will find their natural curiosity and imagination engaged in creative problem solving. The Gateway To Technology program is a strong foundation for further STEM learning in high school and beyond, challenging the student to solve real-world problems. Using the same advanced software and tools as the world's leading companies, the student applies principles of math, science, technology, and engineering to their everyday lives.

Course Description

The student in Design and Modeling applies the design process to solve problems and understand the influence of creativity and innovation on their lives. The student works in teams using the design process, and capturing research and ideas in their engineering notebooks. Using Autodesk design software, the student creates virtual images of their designs and produce portfolios to showcase their innovative solutions.

Course Objectives

1. The student will apply the steps used in the design process.
2. The student will develop engineering notebook standards and protocols when documenting work.
3. The student will measure accurately to create scaled models and prototypes.
4. The student will utilize sketching and dimensioning techniques to create a variety of designs and to communicate ideas.
5. The student will design and create CAD modeled parts and assemble a product using the CAD modeling program.
6. The student will work cooperatively and effectively with a team.

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