

# Introduction to Engineering Design (IED)

## **Power Standards**

Students will be able to:

1. Demonstrate the ability to use three-dimensional modeling software.
2. Demonstrate the use of problem-solving model to improve existing products and invent new ones in and outside the classroom.
3. Experience the creative thinking process through the use of vertical and lateral thinking; identifying, categorizing, and selecting a solution to a problem; and communicating that solution in written and verbal formats.

## **Power Benchmarks**

Students will be able to:

1. Discuss the history of engineering and engineering technology design.
2. Utilize sketching and visualization techniques.
3. Communicate conceptual ideas through written and verbal formats.
4. Practice effective oral communication techniques.
5. Apply the steps of the design process to solve a variety of design problems.
6. Translate a three-dimensional drawing or model into corresponding orthographic drawing views.
7. Construct various geometric forms and shapes.
8. Explore and demonstrate assembly modeling skills to solve a variety of design problems.
9. Demonstrate a working knowledge of products cost analysis.
10. Develop a portfolio to organize and display evidence of work.

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