



# Southmoreland School District Intro to STEM Curriculum Overview

## **Intro to STEM Overview**

Introduction to STEM is designed as a basic overview for careers associated with Science, Technology, Engineering and Math. Students who complete this course will gain exposure to areas necessary to design and develop the concepts needed to be successful in today's technological society. Exciting hands-on learning activities build skills for success through research, experiments and challenges that incorporate STEM concepts. Activities are designed around problem solving with an emphasis on engineering systems thinking that help solve practical problems for society.

## **Module Titles:**

**Module 1: Evolution of Manufacturing and Design**

**Module 2: Technical Drawing and 3D Printing**

**Module 3: Physics in Motion**

**Module 4: Sustainability**

**Module 5: Wind and Flight**

## **Module Overviews:**

### **Module 1:**

Students develop an understanding of the history of the Industrial Revolution, the evolution of the assembly line, and the engineering design process.

### **Module 2:**

Students apply science and math concepts through Orthographic, Projection, Isometric, and Perspective Sketching SketchUp (CAD)

### **Module 3:**

Students develop an understanding of the evolution of automobile safety, subsequently Defining Crashes

### **Module 4:**

This module provides an overview of the concepts of energy, ecology, and recycling

### **Module 5:**

Students analyze and explain wind, wind energy, and flight.