

CENTRAL BUCKS SCHOOL DISTRICT

Course of Study Recommendation for Adoption

Course: STEM 8

Date: 08-06-2026

Student Level: Middle School

Grade Level: Grade 8

Characterization of Course of Study:

STEM 8 is a hands-on, project-based course designed to build upon the technology and engineering concepts introduced in STEM 7 while furthering students' technological literacy, creativity, and problem-solving abilities. Expanded opportunities in Technical Design and drawing skills are increased using hand tools and CAD. Open ended design and engineering challenges are included using prototyping tools such as 3D printers, vinyl cutters and laser engravers. Safety, hand tools and larger machines are also expanded using the woodshop. Robotics is utilized once again with more complicated challenges as we teach students to navigate our modern world. Through engaging design challenges and real-world engineering applications, students solidify their understanding of the engineering design process as they identify problems, develop solutions, construct prototypes, test designs, and refine their work.

Reasons for Proposed Adoption:

STEM 8 is an expanded version of our STEM 7 course to ensure vertical integration and continuation of STEM concepts. PA STEELS standards are included and were used to guide the development of STEM 8. This project-based course is designed for students to maintain and expand their technological literacy while preparing them for high school problem-solving, collaboration, and innovation skillsets necessary for success in an increasingly technological world.

Principal Approval Date: _____

Curriculum Committee Approval Date: _____

School Board Approval Date: _____