Ambridge Area School District

What is STEAM?

- **STEAM stands for Science, Technology, Engineering, Arts, and Mathematics -- the five core disciplines critical to the development of America's technological innovations today and in the future.**
- **STEAM initiatives are efforts designed to foster the development and expansion of our nation's STEAM workforce -- individuals who receive sufficient academic and career exploration opportunities so that they can become contributors to our economic innovation and competitiveness.**
- **The Ambridge Area School District's STEAM Initiative is part of a state-wide promoted strategy to prepare the commonwealth for a future driven by global competition. A cornerstone of this effort is the formation of a state-wide STEM strategy, to align and enhance existing resources while developing new programs and partnerships that allow us to engage in a science, technology, engineering, arts, and math education redesign.**
- **The Ambridge Area School District's STEAM Initiative develops and deploys statewide strategies and resources designed to enhance the Commonwealth's education and workforce development efforts targeted at the development of a globally competitive science, technology, engineering, arts, and mathematics (STEAM) workforce.**

AMBRIDGE

TSA TECHNOLOGY STUDENT ASSOCIATION

- TSA has nationally been around since 1958 as AIASA (American Industrial Arts Student Association)…but in 1988 it became TSA as it is known today
- Ambridge competed in its first TSA regional competition in **1978** (AIASA) and continued competing every year since
- District TSA courses emphasize: Visual Perception-sketching & measurements, Transportation, Structural/construction, Communications, Robotics, and Bio-Tech

CCBC STEM ACADEMY

- **Students apply to the CCBC STEM Academy using its common application that is used for CCBC's Aviation and Health Care Academies**
- **Students accepted into the program can now earn up to 28 credits in their designated program of study**

AMBRIDGE AREA SCHOOL DISTRICT

STEAM INITIATIVE 2017

"The Ambridge Area School District is dedicated to preparing all students to become knowledgeable and contributing members of a global society through programs emphasizing high academic achievement and technological opportunities, develop a strong sense of self-worth, and appreciate diversity and the importance of service to

Ambridge Area School District Administration

Dr. Joseph C. Dimperio, *Acting Superintendent of Schools*
Barry J. King, *Director of Curriculum*
L. Douglas McCausland, *Director of District Operations*
Travis Mineard, *Director of Special Education*
Ms. Janice Zupsic, *High School Principal*
Mr. John Booher, *High School Assistant Principal*
Mr. Shaun Cooke, *Junior High Principal*
Mrs. Aphrodite Galitsis *Economy Elementary Principal*
Mrs. Jo Ann Hoover, *Highland Elementary Principal*
Mr. Thomas McKelvey, *State Street Elementary Principal*

Ambridge Area High School Course Offerings

Science	Technology	Engineering	Arts	Mathematics
• ADVANCED PLACEMENT BIOLOGY	• INTERNET / WEB DESIGN	• ADVANCED ROBOTICS ENGINEERING – VEX	• ADVANCED GRAPHICS COMMUNICATIONS	• ADVANCED PLACEMENT CALCULUS AB
• ANATOMY AND PHYSIOLOGY	• MUSIC TECHNOLOGY I	• APPLIED TECHNICAL DESIGN w/CADD	• AIRBRUSH TECHNIQUES	• ADVANCED PLACEMENT CALCULUS BC
• ADVANCED CHEMISTRY WITH COLLEGE IN HIGH SCHOOL OPTION	• TECHNOLOGY PRODUCTION LAB	• ARCHITECTURE I , II, & III	• ART I, II, III, & IV	• ALGEBRA III
• ADVANCED PLACEMENT PHYSICS 1	• TV STUDIO (AATV)	• ENGINEERING DESIGN I , II, & III	• CERAMICS & SCULPTURE	• DATA ANALYSIS
• ADVANCED PLACEMENT PHYSICS 2	• VIDEO PRODUCTION I, II, & III	• MANUFACTURING TECHNOLOGY I, II, III, & IV	• DRAWING I & II	• STATISTICS/PROBABILITY
• ADVANCED PLACEMENT PHYSICS C: MECHANICS		• ROBOTICS ENGINEERING – LEGO NXT	• GRAPHICS COMMUNICATIONS	• PRE-CALCULUS
• ENVIRONMENT AND ECOLOGY		• SYSTEMS TECHNOLOGY I, II, & III (TSA)	• JEWELERY MAKING	• CALCULUS
• ORGANIC CHEMISTRY		• WELDING AND FABRICATION TECHNOLOGY		

Overview High School STEAM Program of Studies

- **The Ambridge Area High School STEAM Curriculum is embedded in the school's general education program that offers experiences in exploring, applying, and creating technology. The technology curriculum includes Bio-Related, Communications, Production (Manufacturing and Construction) and Transportation (Power and Energy) learning activities that align with the Science, Technology, Engineering and Math (STEAM) standards. The Science and Mathematics Curriculum offer a wide variety of academic choices that include several Advanced Placement and Dual Enrollment Courses through local colleges and universities**

Elementary and Junior High STEAM

- **8th Grade Technology Education is a Junior High School course designed to introduce you to the technical world. Most of our emphasis will be on the Engineering Design Process and problem solving. This class blends an understanding of basic principles, practical lab activities and projects to allow the student to fully understand the material**
- **In 2016 the Ambridge Area School District creates a unified arts STEAM period in its 3 elementary schools that bolsters a curriculum with authentic, real world learning experiences based on problem-based learning that is measured by student demonstration of higher order thinking skills**
- **On February 22, 2017 a STEAM Walk was held at Highland Elementary School to introduce families of children attending Highland Elementary to STEAM concepts**