

# STEM Education in the Norwin School District

*Moving Forward from Great to Extraordinary*

**PK-4 Curriculum**

- K-4 Technology Standards & Instruction
- Science Curriculum Integrated with the Next Generation Science Standards
- iPad/Technology Integration
- Grade 3 and 4 Lego WeDo Robotics
- WASABI
- Little Bits
- Science Olympiad
- STEM Squires
- STEM Day

**5-6 Curriculum**

- Technology Standards & Instruction
- Science Curriculum Integrated with the Next Generation Science Standards
- Accelerated Math in Grade 5
- Pre-algebra Grade 6
- iPad/Technology Integration
- EV3 Lego Robotics
- Science Olympiad
- STEM Day
- Odyssey of the Mind
- Pittsburgh Regional Science and Engineering Fair
- Little Bits (STEM in Arts Education)
- STEM-Based Gifted Education

**7-8 Curriculum**

- Technology Education: Robotics & Design Process
- Algebra & Geometry
- Physical & Life Sciences
- Digital Media Literacy Library
- STEM Day at MS
- Robotics Team & Club
- Zulama: Mobile App Development
- CAD and 3D Prototyping and Printing
- iPad/Technology Integration

**9-12 Curriculum**

- AP Biology, Chemistry, Physics, Environmental Science
- Require the science sequence: Biology, Chemistry and Physics for all students
- Physics in Medicine Class (Collaboration with Excelsa Health and UPMC)
- Robotics
- Nao Robotics - Special Education Autism Classroom
- Computer Programming
- CAD I-IV
- Manufacturing Technology (CNC, 3D Printers and Graphics)

**9-12**

- PLTW Engineering
- JROTC Aerospace Engineering
- iPad/Technology Integration
- College in High School (Pitt & Seton Hill); Dual Enrollment (IUP); Stackable Certificates (WCCC)
- Student STEM Internships
- Music Technology
- iPad/Technology Integration
- STEM College and Career Pathways
- Cybersecurity (FBI)
- United States Navy Sea Perch Program

**PK-4 Extracurricular**

- Science Fair
- Carnegie Science Center Presentations
- Camp Invention
- Get Your STEM On
- Engineering for the Young Knights
- Evening of Engineering
- STEM Summer Camps
- Bricks4Kids Camp
- Reading Robots
- Schoolwide STEM Challenge
- Edison Robots

**5-6 Extracurricular**

- Science Fair
- Camp Invention
- Sci Girls
- STEM Girls
- Engineering for the Young Knights
- STEM Summer Camps

**7-8 Extracurricular**

- Mindstorm Robotic Camps & Competition
- Science Fair
- Science Challenge Squad
- Stemettes' Girl's Camp
- STEM Summer Camp
- Participation in Pitt STEM Efficacy Study
- Fluid Power Challenge

**9-12 Extracurricular**

- Bots IQ Competition
- Science Challenge Squad
- Science Olympiad
- PSU Electro Optics Land, Sea, and Air Challenge
- Programming with ALICE
- Science Fair (Norwin PTA)
- Battle Bots Academies
- STEM Summer Camps
- PJAS Science Fair

**9-12**

- STEM Premier
- Participation in Pitt STEM Efficacy Study
- PRSEF (Pittsburgh Regional Science and Engineering Fair)

**Professional Development/Support**

- K-12 STEM Coordinator Position
- Engineering with 21<sup>st</sup> Century Skills
- Teacher-Developed STEM Academies
- 21<sup>st</sup> Century Learning Facilitators
- Technology Newsletter
- STEM Committee
- Female Alliance for STEM Education
- STEM-Focused Research and Development Hours
- PA Science Curriculum Council