



The Norwin STEM Innovation Center for Teaching and Learning

Science, Technology, Engineering, and Mathematics

A Case for Support

Norwin School District communities face the same, well-documented economic crisis as the rest of the country. STEM-based job demands due to rapidly changing technology and growing sophistication are dramatically transforming the workplace in all industries and at all levels. Our workforce, both present and emerging, has to either keep up or lose out to other regions and countries that provide the talent pool that employers need for 21st century jobs.

To meet this challenge and help our students and community stay ahead of this trend, Norwin School District has proposed an ambitious, industry-leading, state-of-the-art, **Norwin STEM Innovation Center for Teaching and Learning.** This proposal is the result of a comprehensive study and process and calls for the addition of new space and the repurposing of existing space at Norwin High School. The Norwin STEM Innovation Center will achieve four primary goals:

1. To entice and motivate interest and achievement at *all levels of ability* in STEM curriculum.
2. To create pathways for students, at graduation, to either have or be pursuing industry-endorsed, “stackable” certificates that demonstrate their expertise and/or that may qualify for college credit.
3. To further enrich and validate Norwin’s regional workforce as highly skilled and attractive for new business development.
4. To make Norwin a preferred destination community for families and businesses. This will result in continued and growing economic vitality for every resident, the School District, and the region.

The STEM Innovation Center in conjunction with supporting elementary and middle school programs will be a model for others to emulate. Beginning as early as pre-K, STEM-oriented programs and curriculum will be introduced to motivate student interest and academic achievement that targets career success in tomorrow’s highly skilled workplace.

The proposed *Norwin STEM Innovation Center for Teaching and Learning* will combine and enhance STEM-specific curriculum through engaged public-private partnerships between regional business and the School District. To create the best learning environment, Norwin School District collaborated with a broad spectrum of education experts, industry professionals, and community leaders to guide the design of its STEM Innovation and Learning Center to what it is today.

PRIMARY STEM STRANDS

- Advanced Manufacturing
- Biomedical Sciences
- Computer Science Engineering
- Energy and Engineering
- Aerospace Engineering: United States Air Force JROTC

STEM education is applicable and useful to everything. It centers on inquiry and working with raw information to create new ideas that solve real-world problems. To further enrich creativity, the STEM Center plan includes program area improvements to the creative arts and music programs, as well as other academic areas.

STARTING WITH SEEDS

High-quality early childhood education programs have a significant impact on a child's future successes. The Norwin STEM Innovation Center calls for the creation of expanded Child Development Classrooms and a Preschool Lab at the High School. These will offer STEM-based Early Childhood Learning Programs. The redesigned Child Development program will be called SEEDS: The School for Early Education Development in STEM. It will serve as an anchor of STEM teaching and learning that will act as a catalyst for future interest and learning in STEM areas.

A REGIONAL ASSET FOR EVERYONE

In addition to its core curriculum, the STEM Innovation Center facility will host expanded year-round activities to include Science Alumni Days, Robotic Competitions, Camp Invention, the Annual Arts Festival, the annual K-12 Science Fair and regional conferences and seminars focused on 21st Century Education and Workforce Development.

MAKING THE VISION A REALITY

The estimated total cost to create the Norwin STEM Innovation Center for Teaching and Learning with Arts Improvements is \$10.5 - \$11.8 million. This estimate includes construction, all associated fees, permits, site development, equipment, construction related expenses and contingencies.

Funding for this facility is being sought through a capital fundraising campaign, government grants, and School District funding. The fundraising campaign is being conducted in cooperation with the Norwin School District Community Foundation. This major Capital Campaign is similar to successful public school building campaigns regionally and independent school campaigns around the world.

The Norwin School District invites your participation and support of this ambitious project to further enhance our youth's ability to compete in today's highly sophisticated workplace. Your support will also help to strategically position Norwin School District as a regional leader of expanding learning opportunities for all students, which will be an integral part of attracting new business development to help grow and sustain the local and regional economy.

REGIONAL SOURCES THAT CONTRIBUTED TO OUR VISION AND PLAN

The Steering Committee formed to guide the study included school district administration, school board members, teachers, parents and students. It also included representatives from:

Air Force JROTC
ASSET STEM Education
Carnegie Mellon University
Catalyst Connection
Central Westmoreland Career & Technology Ctr,
DNA Health Systems
Economic Growth Connection of Westmoreland
First Energy/West Penn Power
Harshman Consulting
National Center for Defense Mfg and Machining
North Huntingdon Township

Norwin Chamber of Commerce
Norwin School District Community Foundation
SWPA Office of Governor Tom Corbett
Office of Pennsylvania Senator Kim Ward
Penn State Greater Allegheny
Penn State University Electro-Optics Center
The Norwin Area Arts Council
Universal Well Services, Inc.
University of Pittsburgh
Westmoreland County Community College
Westmoreland County Planning & Development
Westmoreland-Fayette Workforce Investment Board