

Northwestern School District – 13 years of Excellence & Innovation!

Northwestern Schools are very appreciative of our many collaborations for the future of our excellent programs and students. The success of Northwestern programs is well documented. We are emulated by several school districts and followed closely by numerous Ohio businesses. We continue progressing in our PBL (Project-Based Learning) for growth and continued excellence K-16 & in Pre-School - including foundational reading & math throughout STEM areas, core subjects, electives, and fine arts courses.

We are especially proud of our innovative project-based learning environment, required 12th, 8th, 5th Gr. Career Capstone Courses, Agri-Science Programs, STEM programs, Husky Huddle Advisor-Advisee, Pre-Apprenticeship, 7-12 Career Pathways, job-shadowing, 3,000Sq. Ft. Greenhouse & Clean Energy Lab, as well as our STEM Preschool and our ***“Innovation Station” District STEM Lab.***



Summary of Northwestern, Innovation, Initiatives & Student Opportunities:

- 2005 implemented all-day, every-day Kindergarten
- 2005 membership in SREB (Southern Regional Education Board), HSTW (High Schools that Work), and MMGW (Making Middle Grades Work)
- 2005 introduction of High School “Husky Huddle” student-teacher mentor program
- 2006 Strategic Plan and Planning year for incorporating STEM and project-based learning
- 2006 Introduction of Senior Seminar Capstone course requirement
- 2007 4-course Biomedical PLTW STEM program initiated
- 2007 4-course Engineering PLTW STEM program initiated
- 2007 middle school Gateway to Technology PLTW STEM courses added
- Attainment of 50+ credit hours of dual college coursework available on Northwestern campus
- 2008 Membership in Northeast Ohio BioScience Consortium
- 2006 introduction of Middle School “Husky Huddle” student-teacher mentor program
- 2009 Membership in BioOhio
- 2009 Awarded K-8 “Program of Excellence” STEM Grant
- 2010 Goal Benchmark: 1st year of continuous >67% of 8th Gr. students completing Algebra I
- 2010 Competitive after school Robotics Club formed
- 2010 High School 4-year Biomedical program earns initial national PLTW accreditation
- 2010 High School 4-year Engineering program earns initial national PLTW accreditation
- 2011 Pilot and initial year of our Middle School Medical Detectives Biomedical course
- 2012 Introduction of 8th Grade Career Capstone course requirement
- 2013 Inclusion of smart phone “Application Design” within computer networking class
- 2013-2015 Transitioned our Tech I course from high school to middle school
- 2014 (spring) Northwestern Middle School named by OSLN (Ohio STEM Learning Network) “Ohio STEM Designated School” (1 of only 25 schools in Ohio at the time)
- 2014 (spring) Northwestern High School named OSLN (Ohio STEM Learning Network) “Ohio STEM Designated School” (1 of 25 schools in Ohio at the time)
- 2014 Invited to be a sitting member of Wayne County Economic Development WIN (Regional Workforce Innovations Network) Committee. Active with Wooster Area Chamber of Commerce.
- 2014 \$10,000 Martha Holden Jennings Ohio Superintendent Outstanding performance Award
- 2014 “Inspiration Station District/Community STEM Lab” dedication (includes 3 helicopter drones, 4 3-D printers, more than \$20,000 in robotics equipment, laser engraver, 2 ShopBot CNC routers & industrial CNC machine, desktops, laptops, action cameras, etc.).



- 2014 (fall) Full-Time Middle School STEM Teacher employed (quadrupled STEM courses – we now offer more than 15 MS STEM courses including: Design & Modeling, Environmental Design, Smart Historians & Architecture, Science in Technology, Electricity, Scientific Inventions, Agricultural Science, Green architecture, Agri-STEM, Automation & Robotics). We offer 30+ electives for students to explore and pursue potential careers!
- 2014 (fall) Robotics transforms from a club to a high school course.
- 2014 (winter) Ohio ILN Membership (Innovation Lab Network) 1 of only 16 member districts.
- 2014-2015 SY Project-Based Learning teacher professional development throughout year.
- 2015 (winter) K-5 elementary PLTW Launch STEM programs pilot – one teacher per grade.
- 2015 (fall) Full implementation of K-5 PLTW Launch (Engineering, Robotics, Biology/Science).
- 2015 (fall) Established high school Clean/Renewable Energy SREB (Southern Regional Education Board) 4-course STEM program/career pathway.
- 2015 (fall) Our 1st Associates Degree articulation. HS BiScience Diploma - NC State College.
- 2015-2016 SY Intensive Project-Based Learning teacher professional development.
- 2016-2017 SY Initiating high school Computer Sciences PLTW STEM program (4-year phase-in of 6 program 8-12 grade course).
- 2016 1-1 ratio of student-device (Chrome Books, Ipads, laptops, desktops) Gr. 5-12. 90% K-12.
- 2016-2017 SY Collaborator in 5-district Battelle-led \$1,000,000 “Straight ‘A’ Grant” for professional development & STEM Problem-Based Learning/Blended Learning Lesson creation.
- 2016 (fall) Purchase of Lincoln Electric “Virtual Welder” to enhance student welding skills.
- 2016 (fall) Begin Construction of 30 X 100 Ft. Greenhouse with Botanic & Hydroponics areas.
- 2016-2017 SY Northwestern is Lead of 5-district \$680,000 PBL/LDC “Straight ‘A’ Grant” for professional development Northwestern and 4 adjacent low wealth rural districts reaching 6 counties. Includes conversion of 30X100Ft Greenhouse to include Clean Energy Lab infrastructure: Geothermal, Solar array, Biodiesel plant, wind turbine, monitoring equipment.
- March, 2017 Earned Northwestern Elementary STEM School Designation!
- March, 2017 Northwestern is first in Ohio with K-12 District-wide OSLN STEM Designation!
- April 27th, 2017 3,000 Sq. Ft. Greenhouse-Clean Energy Lab dedication!
- 2017 (summer) Northwestern ES approved as HSTW NE member (Helping Elementary Schools Work). Now ES (HESW-1yr), MS (MMGW-12yrs), HS (HSTW-12yrs) K-12 SREB sites.
- 2017 (summer) 1-1 ratio of student-mobile device Gr. 3-12 and 1-2 current ratio Gr. K-2.
- 2017 (summer) Began 3-year Library “Multi-Media Makerspace Innovation Centers” conversion
- 2017 (summer) Became a “Future Ready” School District
- 2017 (fall) began our first STEM Preschool!
- 2017-2018 SY began 6th Gr. Career Exploration Capstone Projects



Current Initiatives:

- Conversion of Libraries to Multi-Media Makerspace Innovation Centers.
- Pursue matching funds for adding sorely needed lab additions for high school STEM programs.
- Attaining 1-1 student to device Pre-K-12.
- Pre-Apprenticeship Program approval & student internships program expansion.
- Expansion of student earned industry credentials.
- Expansion of student professional organizations from 4 pathways to all 8 pathways.
- Expansion of Agri. Business & Production to additional Agri. Science pathways.
- Pursue construction of a barn and adjacent farm for Agri. Science programs and experimentation.

Awards/Accomplishments:

- ✓ 2015 Southern Regional Education Board National “Outstanding School District Award”!
- ✓ Northwestern MS, Northwestern HS, Northwestern ES each approved as “OSLN Ohio STEM Schools”. We are the first OSLN K-12 STEM School in Ohio!
We are in our 4th year with MS and HS OSLN STEM School Designation!
- ✓ Over 6.5 million in scholarships over the past five graduating classes (doubling prior five years)
- ✓ Consistent “Excellent” Ohio Dept. of Education Academic rating.
- ✓ HS – State Superintendent “School of Honor” (2014).
- ✓ HS – National SREB “Gold High School Award” (2014).
- ✓ HS – State Superintendent “School of Promise” (2010, 2011, 2012, 2013, 2014).
- ✓ MS – SREB National Math Rigor and Improvement Award (2014).
- ✓ SREB National Depth of Implementation Award (2013).
- ✓ Lighthouse District: innovative administrators & teachers present regionally, state-wide, nationally on a continuous basis.
- ✓ Prestigious Thomas Edison Science Award (2013).
- ✓ Incoming Open enrollment has surpassed 220 students each of the past 4 consecutive years – increasing each year over past 13 years to the **current 238 incoming open enrolled students** at the start of this 17-18 SY. This represents more than 17% of our 1402 students enrolled.
- ✓ Northwestern was the first Public School District to become a Special Needs Peterson. Scholarship Provider for incoming students with special needs beginning in 2012-2013.
- ✓ Northwestern received over \$1,000,000 in grants & contributions for various programs last year.
- ✓ Northwestern Teachers & Administrators welcome visitors – school representatives, community members, public officials, legislators, business representatives, and post-secondary institutions.
- ✓ NWHS and NWMS have been repeatedly been recognized as High Schools that Work (HSTW) and Making Middle Grades Work (MMGW) sites that met or exceeded all sites nationally based on HSTW/MMGW Teacher and Student Surveys. Below is the 2016 summary:
 - ❖ NWHS student responses met or exceeded all sites nationally in 6 of 12 categories, and teacher responses in Continuous Improvement.
 - ❖ NWMS student responses met or exceeded all sites nationally in 5 of 14 categories, and teacher responses in Continuous Improvement.
 - ❖ This data indicates that students are having experiences that align with research-based proven best practices that often result in higher student achievement that prepare students for high school/college and careers.