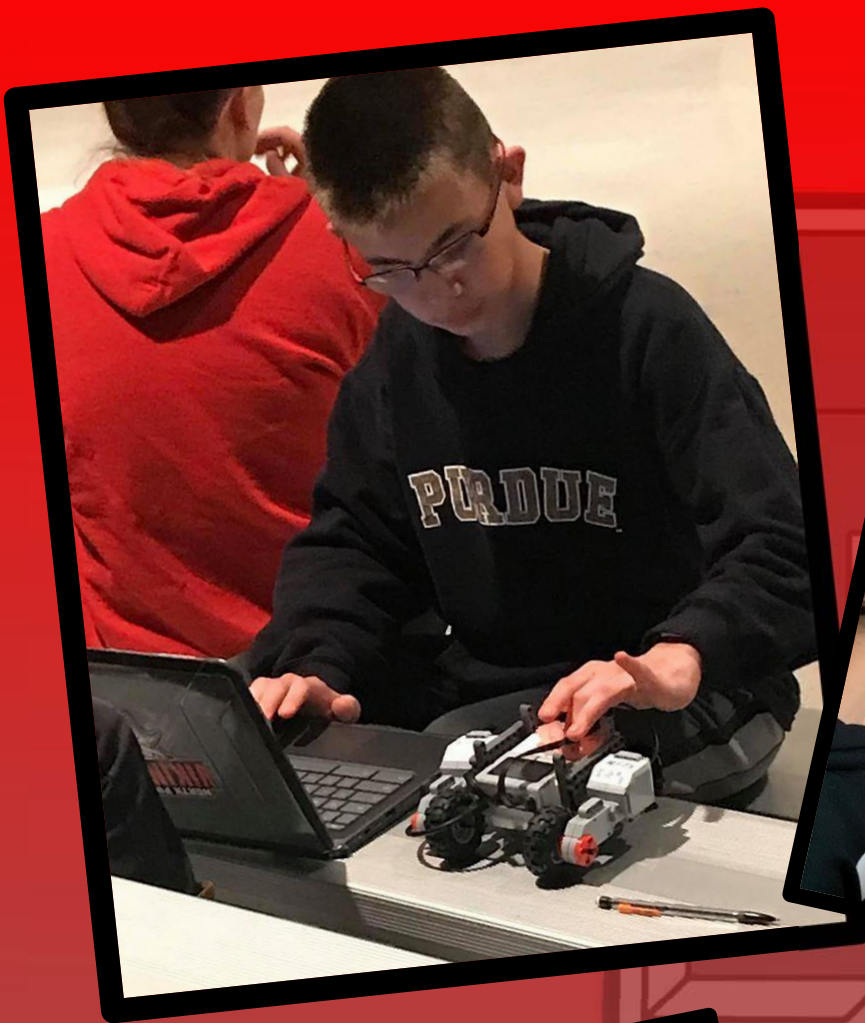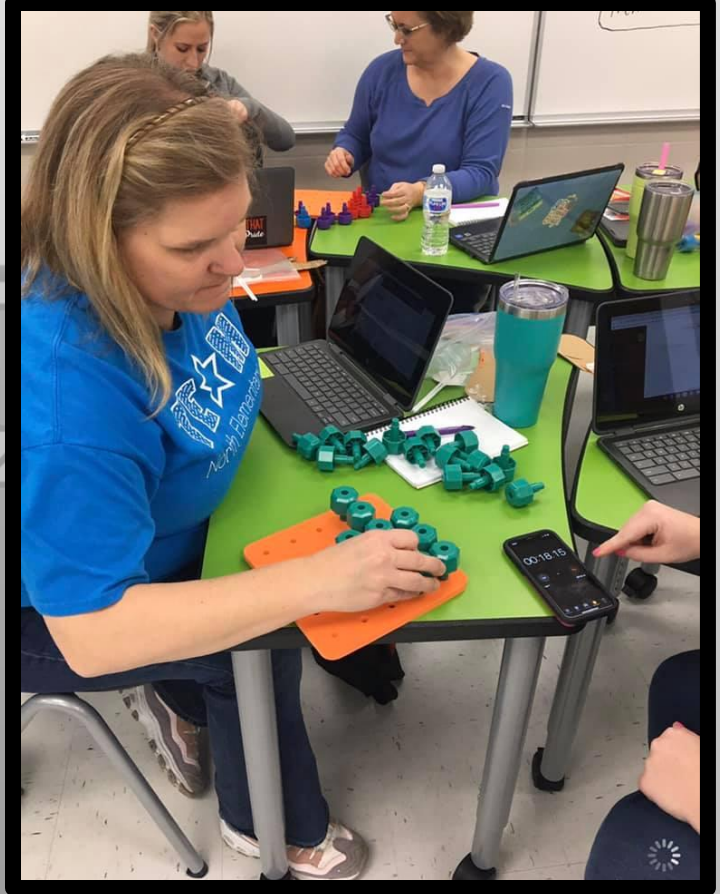# MSD OF NORTH POSEY COUNTY ENGINEERING
K-12 PROGRAMS

CREATE THE THINGS YOU WISHED EXISTED!

VISION

The STEM vision of MSD of North Posey County is to build a learning culture that nurtures creativity; a culture that actively engages, motivates, and inspires all students in STEM content areas and related career pathways.

MISSION

Our mission is to foster strategic partnerships among grades PK-12, industry, parents and community organizations to promote access, attainment and high achievement for all students to prepare for future STEM Careers. MSD of North Posey County is committed to providing an ambitious and rigorous learning environment through project based learning and real world experiences.
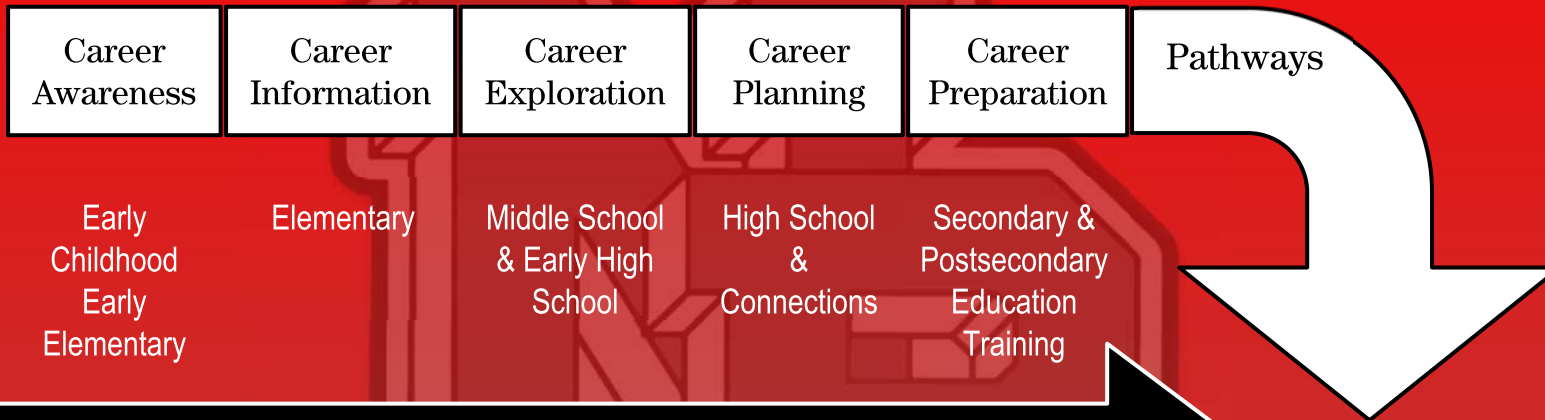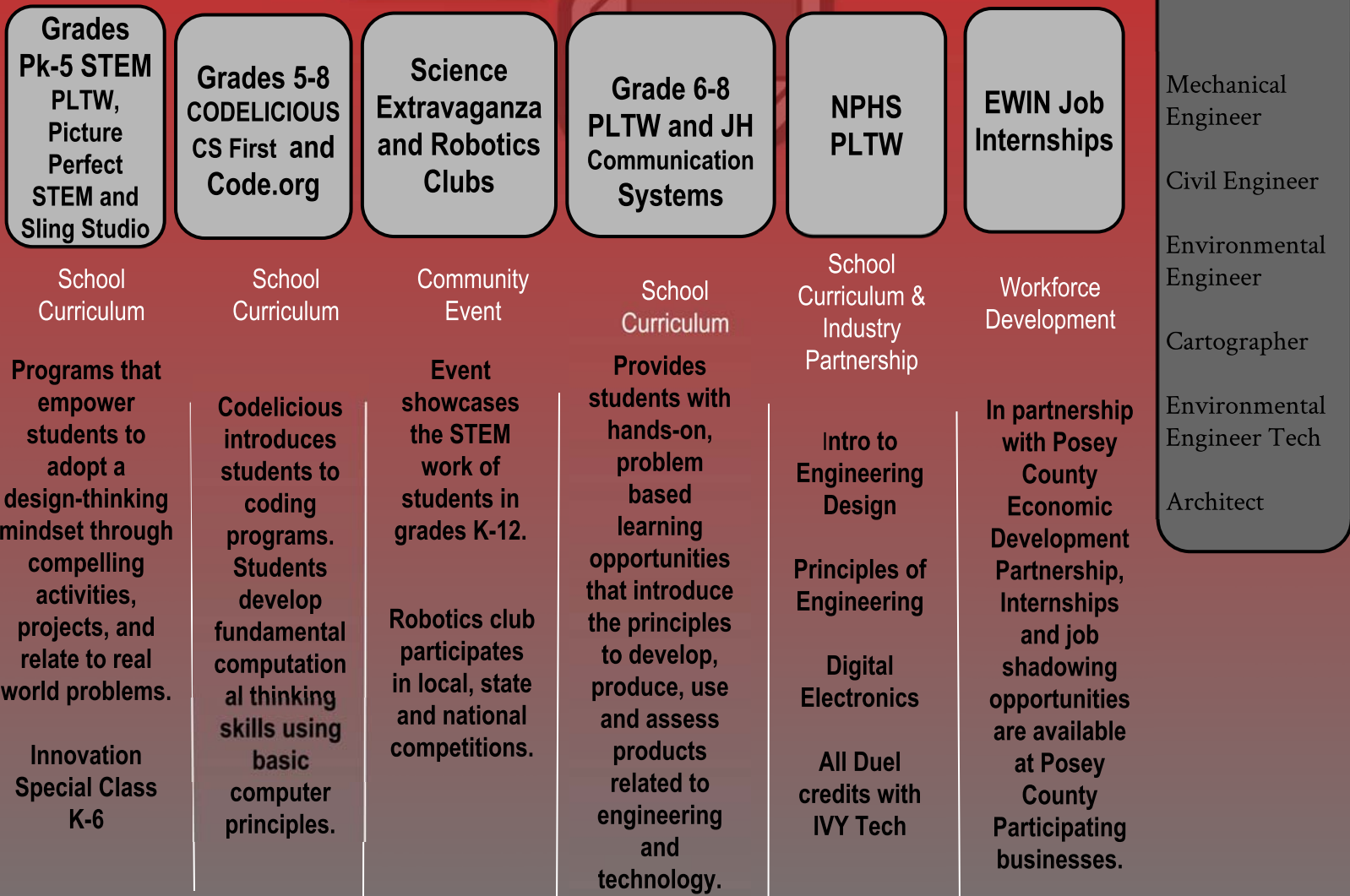
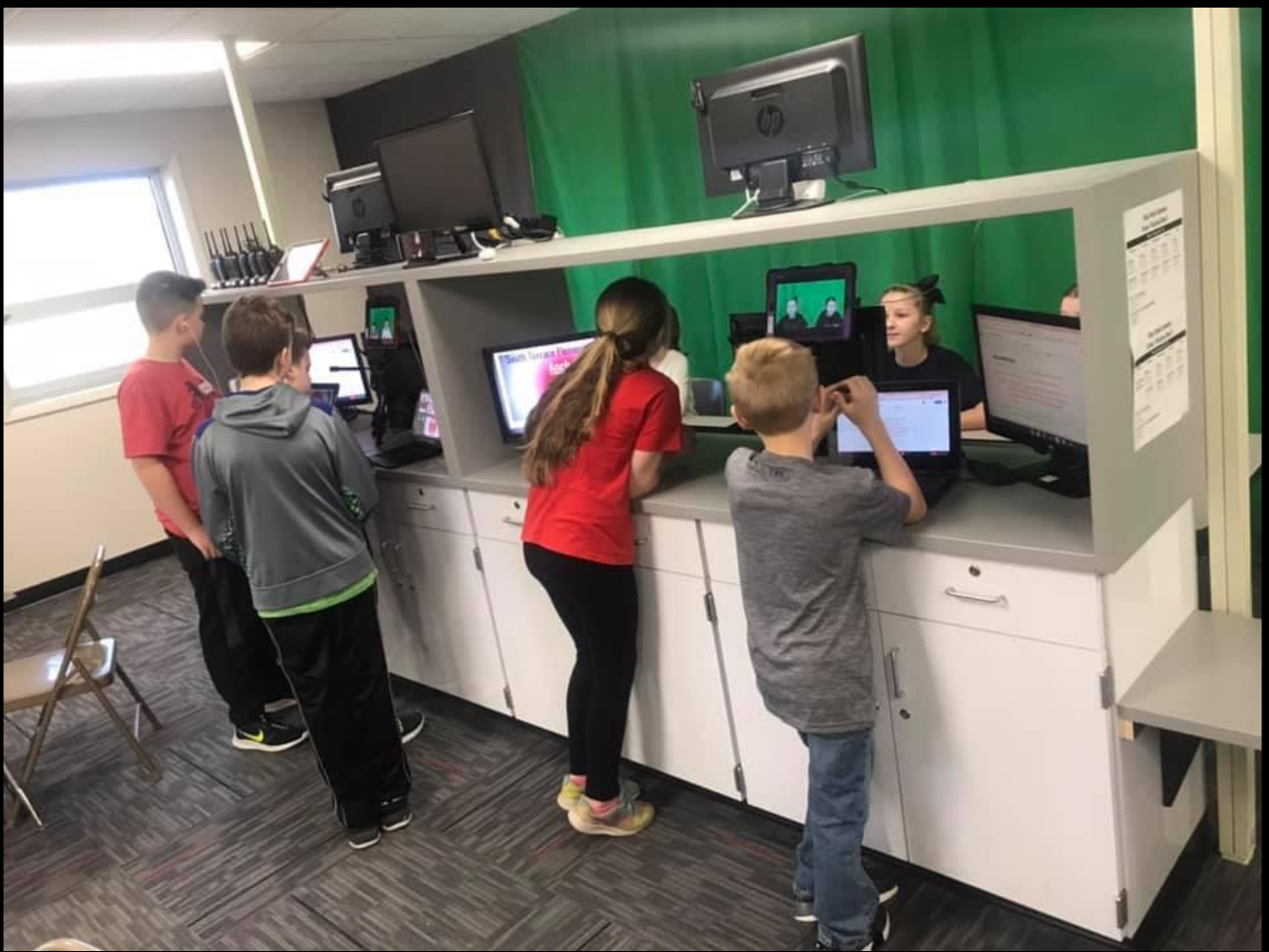MSD OF NORTH POSEY COUNTY STEM LEADERS

MSD NORTH POSEY
K-12 ENGINEERING PATHWAY

Career Awareness	Career Information	Career Exploration	Career Planning	Career Preparation	Pathways

| Early Childhood Early Elementary | Elementary | Middle School & Early High School | High School & Connections | Secondary & Postsecondary Education Training | |

INTENTIONAL BUSINESS ENGAGEMENT WITH WORK & LEARN

Top Jobs in Engineering US NEWS

Grades Pk-5 STEM PLTW, Picture Perfect STEM and Sling Studio	**Grades 5-8 CODELICIOUS** CS First and Code.org	**Science Extravaganza and Robotics Clubs**	**Grade 6-8 PLTW and JH Communication Systems**	**NPHS PLTW**	**EWIN Job Internships**
School Curriculum	School Curriculum	Community Event	School Curriculum	School Curriculum & Industry Partnership	Workforce Development
Programs that empower students to adopt a design-thinking mindset through compelling activities, projects, and relate to real world problems. **Innovation Special Class K-6**	**Codelicious introduces students to coding programs. Students develop fundamental computational thinking skills using basic computer principles.**	**Event showcases the STEM work of students in grades K-12.** **Robotics club participates in local, state and national competitions.**	**Provides students with hands-on, problem based learning opportunities that introduce the principles to develop, produce, use and assess products related to engineering and technology.**	**Intro to Engineering Design** **Principles of Engineering** **Digital Electronics** **All Duel credits with IVY Tech**	**In partnership with Posey County Economic Development Partnership, Internships and job shadowing opportunities are available at Posey County Participating businesses.**

Mechanical Engineer

Civil Engineer

Environmental Engineer

Cartographer

Environmental Engineer Tech

Architect

SEEKING STEM COMMUNITY PARTNERSHIPS

ACTIVITIES INCLUDE

- Mentoring
- Advisory Boards
- Donations (monetary or materials)
- Internships for students or teachers
- Training opportunities at business site or school
- Capstone projects (support and judging)
- Field Trips/Tours
- Experts lead school-based activities
- Service based learning
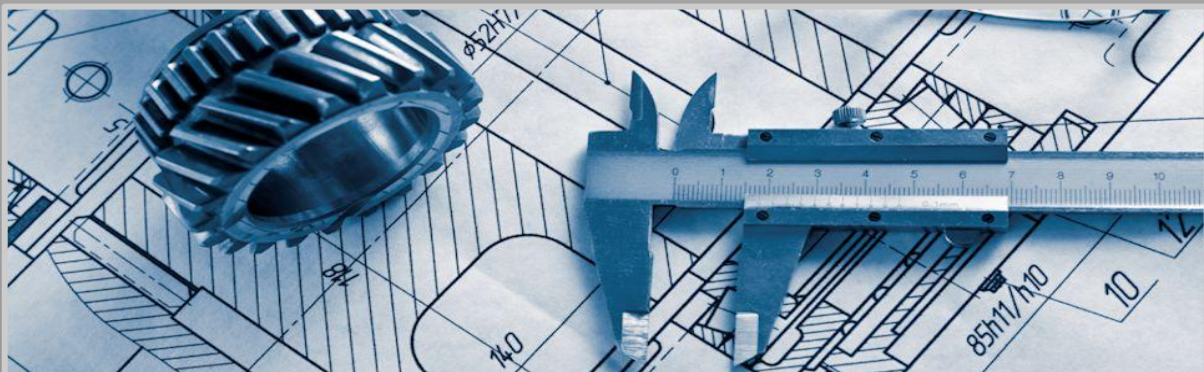
Who we are...

The Viking Culture

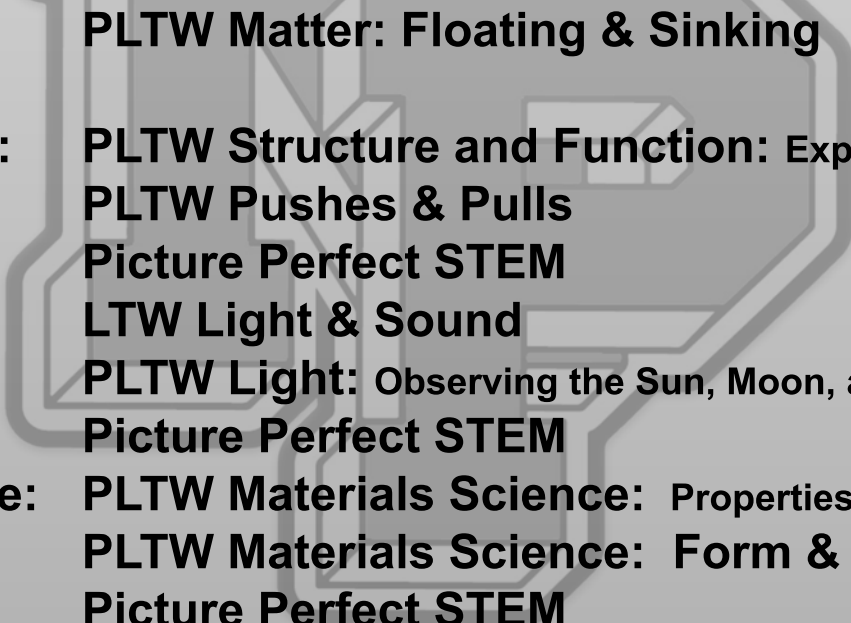**Creativity, determination, loyalty, responsibility and a strong code of honor.**

- **At North Posey, students strive for academic and athletic excellence as well as good citizenship.**
- **North Posey Schools offer a private school experience in a public school setting.**
- **The home of the Lilly Scholars**

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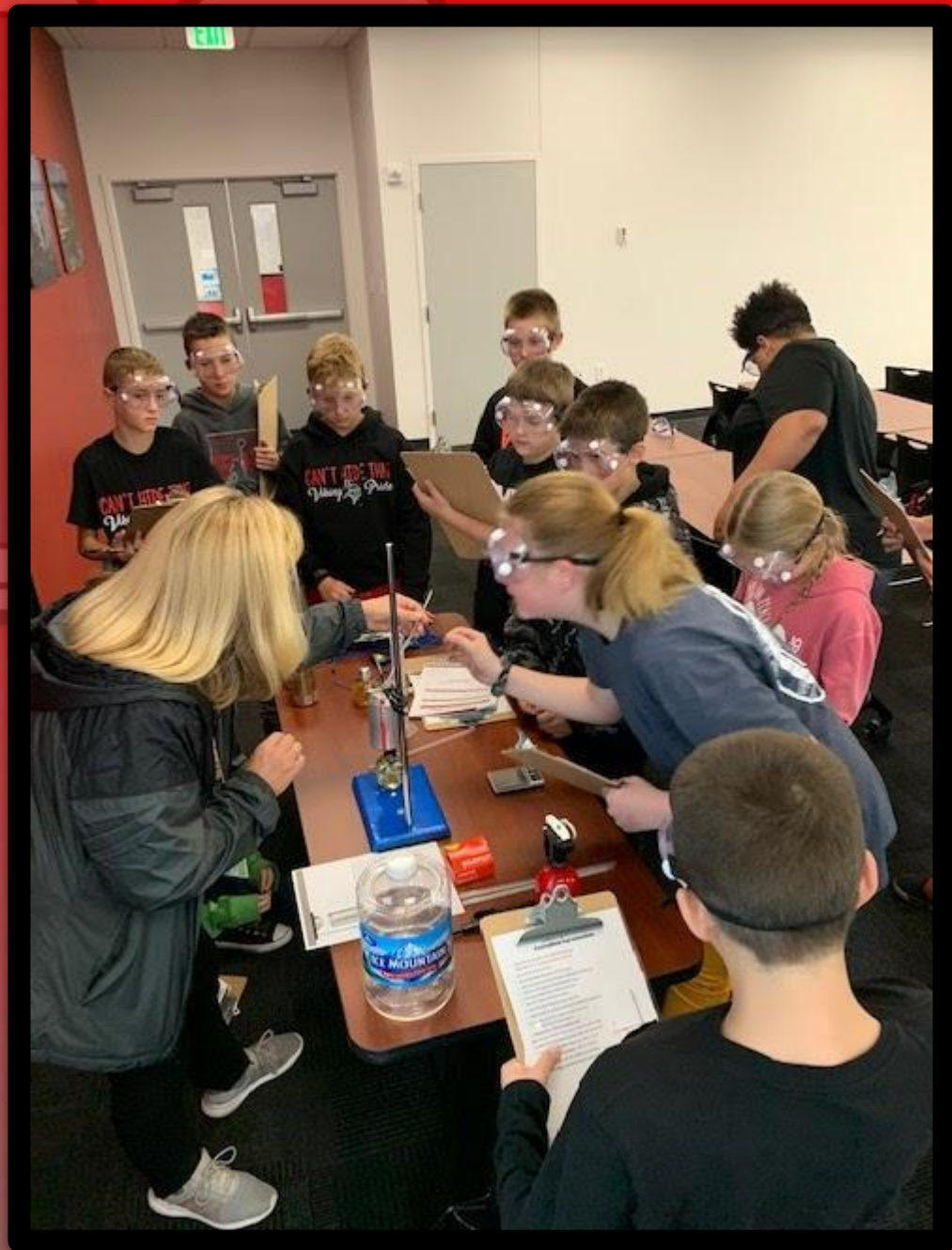
MSD OF NORTH POSEY COUNTY STEM LEADERS

Elementary Schools Engineering/Stem Curriculum

PreK: PLTW Matter: Floating & Sinking

Kindergarten: PLTW Structure and Function: Exploring Design
PLTW Pushes & Pulls
Picture Perfect STEM

First Grade: LTW Light & Sound
PLTW Light: Observing the Sun, Moon, and STARS
Picture Perfect STEM

Second Grade: PLTW Materials Science: Properties of Matter
PLTW Materials Science: Form & Function
Picture Perfect STEM

Third Grade: PLTW Stability & Motion: Science of Flight
PLTW Stability & Motion: Forces & Interactions
Code.org

Fourth Grade: PLTW Energy: Collisions
PLTW Energy: Conversions
Code.org/CS First

Fifth Grade: PLTW Robotics & Automation
Code.org/CS First

Sixth Grade: PLTW Energy and the Environment
Code.org/CS First

Flying / Coding Drone Coming Soon!

NPJHS
Engineering Curriculum

Grade 7:

Tech I -- Design & Modeling Projects:
- **Students will design and fabricate a foot orthosis**
- **Create parametric models using SketchUp**
- **Create 3-D puzzles**
- **Design and fabricate a golf tee peg game**

PLTW Flight & Space- *Coming soon!*
PLTW Green Architecture- *Coming soon!*
CODELICIOUS/CS First

Grade 8:

PLTW Tech II -- Design & Modeling
                    Automation & Robotics
Projects:
- **Construct floor skimmers**
- **Use 3-D software to create puzzels**
- **Fabricate a mini marshmallow launcher**
- **Program code Robot C**
- **Fabricate devices using Vex Robotics System (mechanical toys, windmills, conveyors, and rovers)**
- **Design programs integrating sensors in machines**

CODELICIOUS/CS First

Flying / Coding Drone Coming Soon!

NPHS
ENGINEERING COURSE WORK

Engineering

PLTW Intro to Engineering Design*

Duel Credit- IVY Tech DESN 101 (3), 113 (3)

PLTW Principles of Engineering

Duel Credit Ivy Tech DESN 104 (3)

PLTW Digital Electronics

Duel Credit Ivy Tech EECT 112 (3)

　　　* Possible *Autodesk Inventor* certification

Computer Science (A)

Computer Illustration & Graphics

Duel Credit Ivy Tech VISC 115 (3)

Computer Science I (Programming)

Computer Science II (Programming)

Computer Science A AP

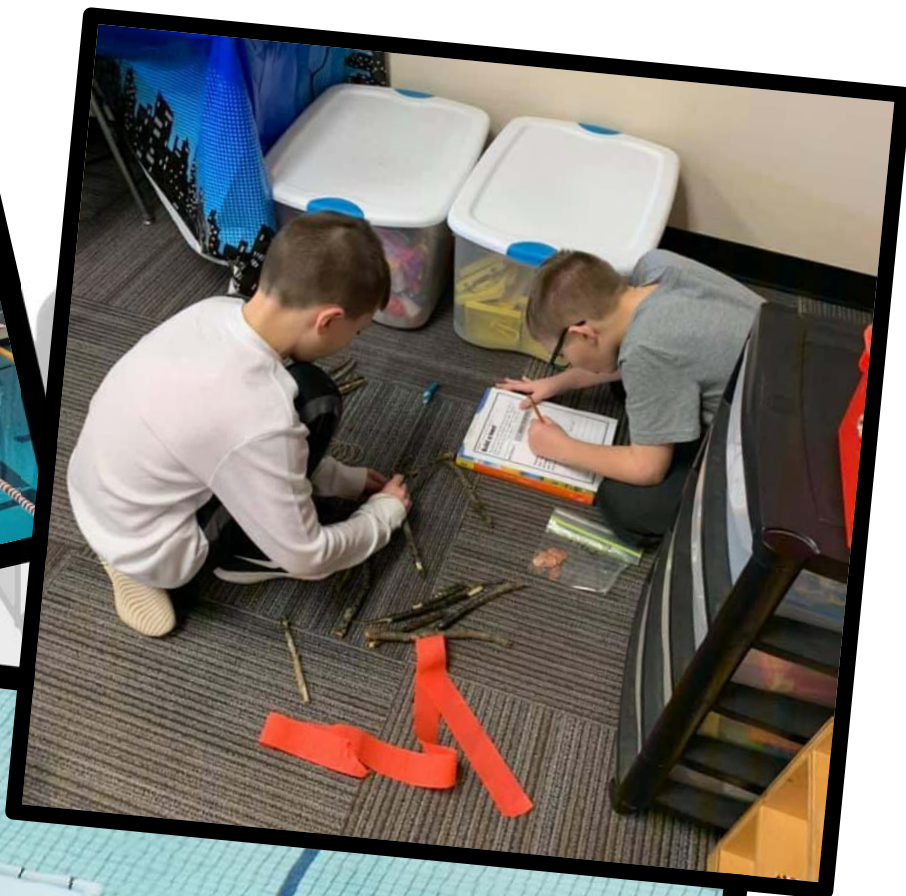**Computer Science (B)**

Interactive Media

Digital Applications & Responsibility
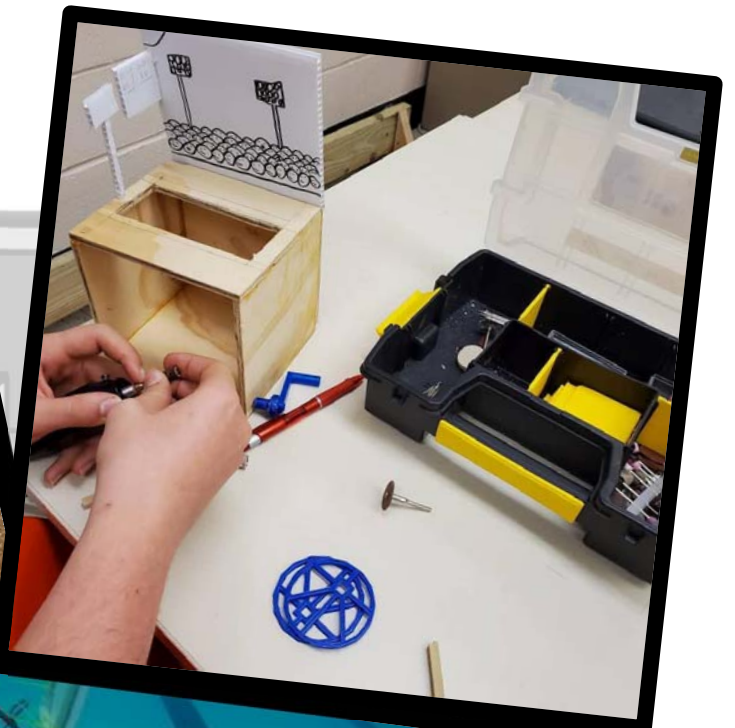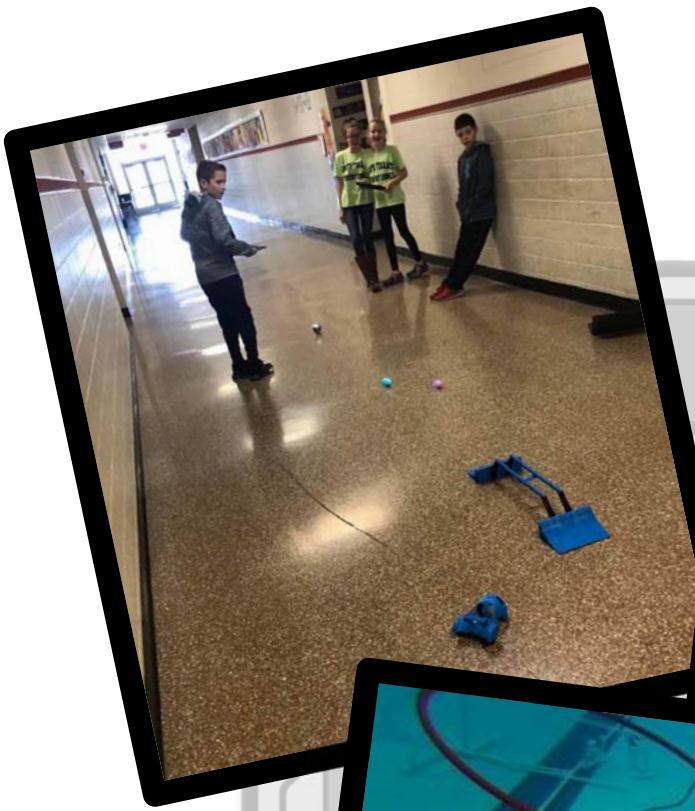
Duel Credit Ivy Tech CINS 101 (3)

Web Design I

Web Design II

Flying / Coding Drone Coming Soon!
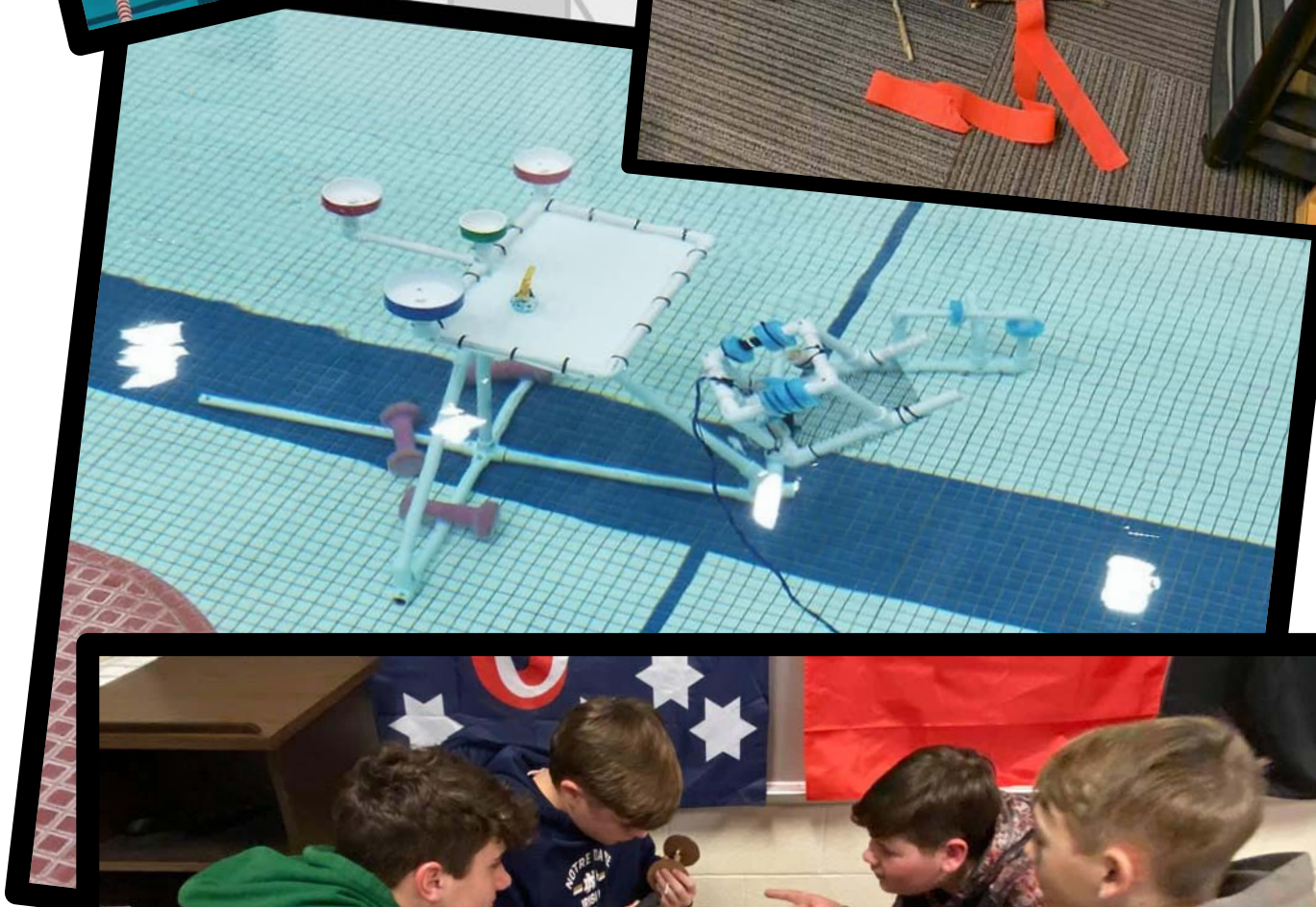
MSD of North Posey County   812-874-2243
North Posey High School   812-673-4242
North Posey Junior High School   812-673-4244
North Elementary School   812-874-2710
South Terrace Elementary School   812-985-3180