

# STEM, CAREER TECH ED & GRADUATION PATHWAYS



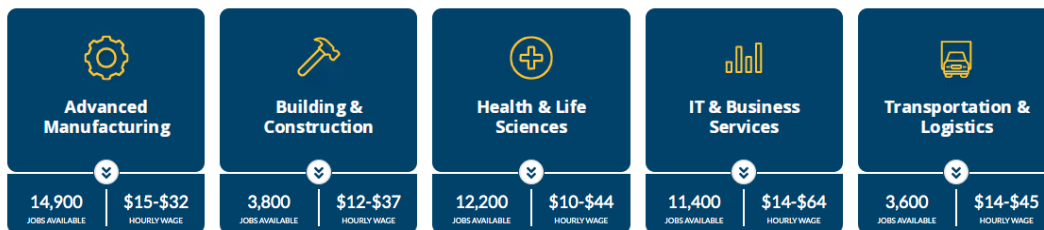
## MARTINSVILLE SCHOOLS MOVE AHEAD

### INDIANA STATE STEM VISION 2025

STEM Vision 2025 "an education that includes solving hundreds of challenges over the course of the 13 years of schooling that lead to high school graduation – challenges that increase in difficulty as children age..."

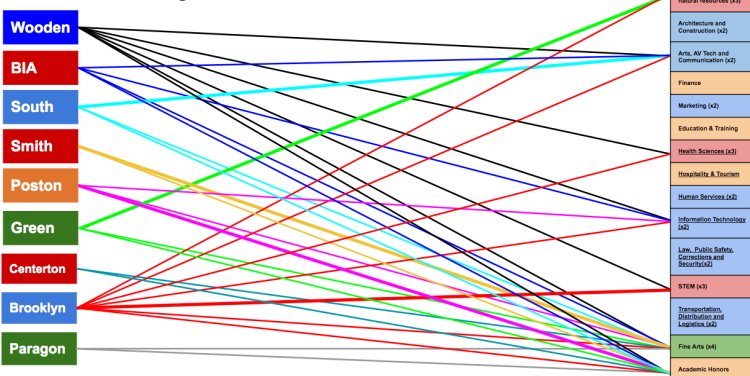
### NEXT LEVEL PROGRAMS OF STUDY

Structured approach to career exploration, preparation, and training in a given pathway where students have increased access to college coursework and industry certification during high school.



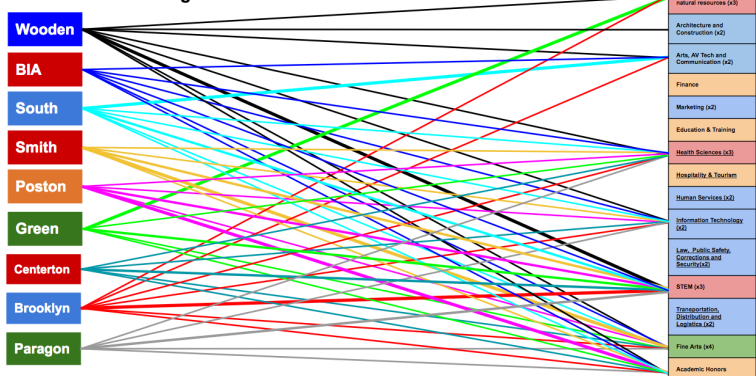
## EDUCATIONAL AGILITY : MEETING NEXT GENERATION NEEDS

MSD of Martinsville 20/21 SY Pathway Vertical Alignment



In 2021, Martinsville Schools offered 34 graduation pathways with 27 programs in grades K-8 supporting graduation pathways.

MSD of Martinsville 23/24 SY Pathway Vertical Alignment



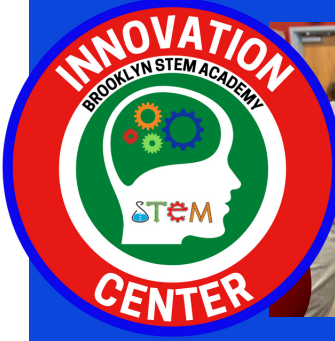
In 2023, Martinsville Schools offer 34 graduation pathways with 45 programs in grades K-8 supporting NLPS requirements.

(Next Level Programs of Study)

**Future plans support expansion in engineering, manufacturing, computer sciences and welding with long-term consideration being given to HVAC and Industry 4.0**



## K-4 STEM EXPANSION: PROJECT JUMPSTART



- **High School Pathways:** Biomedical, Engineering, and Computer Science
- **Elementary Schools:**
  - Computer Science in each grade during Technology Class
- **Innovation Center:**
  - Biomedical: Grades K-1 with Structure and Function: Human Body & Designs Inspired by Nature
  - Engineering: Grades 2-4 with The Changing Earth, Stability and Motion: Science of Flight, & Energy: Collisions



## BELL INTERMEDIATE STEM ELECTIVE

- **High School Pathways:** Biomedical, Engineering, and Computer Science
- **5th Grade Students:**
  - Biomedical: Patterns in the Universe: Modeling and Simulation
  - Biomedical: Infection: Modeling and Simulation\*
- **6th Grade Students:**
  - Biomedical: Ecosystems: Flow of Matter and Energy
  - Computer Science & Engineering: Infection: Detection\*
- **Future Goals:**
  - 6th-grade option: Computer Science: Physical Computing (Robotics)

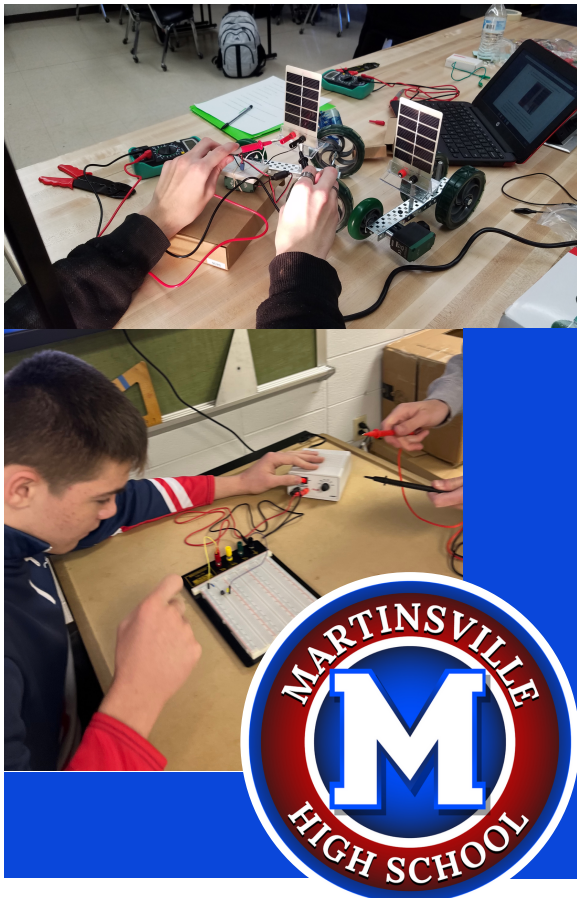
\*phased into the curriculum





## JRW MIDDLE SCHOOL OFFERS EARLY ACCESS TO GRADUATION PATHWAYS

- **STEM** - 7th grade Flight & Space
  - Embedded
- **Biomedical** - Medical Detectives
  - Elective
- **Engineering** - Automation & Robotics, Engineering Essentials
  - HS Elective & Embedded
- **Computer Science** - Comp Sci for Innovators & Makers
  - HS Elective
- **Agriculture**
  - HS Elective
- **Construction Trades**
  - HS Elective



## MHS CLASSES PREPARE ARTESIANS FOR CAREER SUCCESS IN OUR COMMUNITIES

- MHS offers **34 graduation pathways**
- Nearly all pathways are directly associated with high need jobs
- Over 100 students in **internships**
- Updated and Expanded **Engineering Programming**: EES, IED, POE, CEA & CIM
- Updated and Expanding **Computer Science Programming**
- Actively pursuing **Industry 4.0** opportunities