

Science, Technology, Engineering & Mathematics Cluster

Pre-Occupational Science, Technology, Engineering & Mathematics Pathway

Technology Engineering Exploration – This major is designed for middle school students to explore all cluster areas and the needs in the cluster areas. They will apply activities and basic knowledge gained from various projects to many of the cluster areas. They will learn teamwork, problem solving, and technology literacy. They will also gain hands-on experience in using technology in activity-based courses.

- Engineering Exploration
- Health Science Exploration
- Information Technology Exploration
- Architecture & Construction Exploration
- Arts, A/V Technology & Communication Exploration
- Natural Resources Exploration
- Manufacturing Exploration
- Transportation Exploration

Gateway Exploration – Students in this major will learn measurement, design, and computer modeling. They will learn how to use computer aided drafting software, sketching techniques, and problem-solving techniques. They will also learn about electricity and circuit design and Newton's Laws of Motion, forces, rockets, propulsion, and the forces of flight. In addition, they will learn how science has influenced technology throughout history including the history and development of automation and robotics. Students will also complete hands-on projects.

- Automation and Robotics
- Design and Modeling
- Magic of Electrons
- Medical Detectives
- App Creator
- Computer Science for innovators and Makers
- Science of Technology
- Green Architecture
- Energy and Environment
- Flight and Space