



SAINT DOMINIC ACADEMY
Empowering Women for Leadership Since 1878



PROJECT LEAD THE WAY

PLTW

Providing a comprehensive approach to STEM® education

Students

- Apply what they know
- Identify problems
- Find unique solutions
- Lead their own learning



Educators

- Trained at the PLTW Core Training Institute
- Have the tools to empower students
- Transform classrooms into collaboration spaces where content comes to life

Grade 7: Automation & Robotics

Grade 8: Design & Modeling

Grade 9: Physics with Principles of Engineering

Automation & Robotics

Students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation and computer control systems. Students use a robust robotics platform to design, build and program a solution to solve an existing problem.



Design & Modeling

Students begin to recognize the value of an engineering notebook to document and capture their ideas. They are introduced to and use the design process to solve problems and understand the influence that creative and innovative design has on our lives. Students use industry standard 3D modeling software to create a virtual image of their designs and produce a portfolio to showcase their creative solutions.



Physics with Principles of Engineering

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

