

Kennedy Junior High School

Course Descriptor for Project Lead the Way

Project Lead the Way (PLTW) - Gateway to Technology (GTT)

Starting with the 2013-2014 school year, Naperville Community Unit School District 203 implemented a new middle school **S.T.E.M.** (Science, Technology, Engineering, Math) curricular program from **Project Lead the Way** (PLTW). The new program is called **“Gateway To Technology”** or **GTT**.

- ⚙️ **Project Lead The Way** is the leading provider of innovative STEM education curricular programs used in middle and high schools across the U.S.
- ⚙️ **STEM education is at the heart of today’s high-tech, high-skill global economy.** Students will develop critical-reasoning and problem-solving skills while learning in the GTT classroom. STEM education programs like GTT engage students in **hands-on classroom activities, projects, and problem-based learning experiences.**
- ⚙️ Throughout GTT, students acquire knowledge and skills in problem solving, teamwork and innovation while they explore STEM careers. The GTT program features a project-based curriculum designed to challenge and engage the natural curiosity and imagination of middle school students. The knowledge that students gain and the skills they build from GTT create a strong foundation for further STEM learning in high school and beyond.

PLTW GTT Course Offerings for the 2021-2022 Academic Year

Automation and Robotics (Grade 8)

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

Energy and the Environment (Grade 7)

Students investigate the impact of energy on our lives and the environment. They design and build alternative energy sources, like wind turbines, and participate in an energy expo to demonstrate energy concepts and innovative ideas. They design and build a model of a vacation home that is operated entirely by alternative energies. They work on solving the melting ice sheets problem in Antarctica by designing and building an insulated shelter to help save the Emperor Penguins.

Design and Modeling (Grade 6)

In this unit, students are introduced to and use the engineering design process to solve problems and understand the influence that creative and innovative design has on our lives. Students use industry standard 3-D digital modeling software to create virtual images of their designs and produce a portfolio to showcase their creative solutions.