# Application for Project Lead the Way Courses at Berrien Springs Middle School

Through topics like robotics, 3D drawings, and crime scene analysis, middle school students engage their natural curiosity and imagination in creative problem solving. PLTW's middle school program is a strong foundation for further STEM learning in high school and beyond, challenging students to solve real-world challenges, such as cleaning oil spills and designing sustainable housing solutions. Using the same advanced software and tools as those used by the world's leading companies, students learn how to apply math, science, technology, and engineering to their everyday lives.

## 6<sup>th</sup> Grade Course – Design and Modeling

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk<sup>®</sup> design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

## 7<sup>th</sup> Grade Course – Medical Detectives

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a "crime scene." They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

# 8<sup>th</sup> Grade Course – Automation and Robotics

Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics<sup>®</sup> platform to design, build, and program real-world objects, such as traffic lights, toll booths, and robotic arms.

PLTW courses are semester-long electives and limited in class size. Because of the popularity of the courses, students must complete the application, with preferences given to those students with high math and science aptitudes. Once students begin the course, they are expected to stay in course through the entire semester. A waiting list will be maintained in case seats become available.



Student's Name \_\_\_\_\_

Grade Level for 2017-2018 school year \_\_\_\_\_

### **Teacher Recommendation**

(to be completed by the student's math or science teacher)

Evaluate the student to indicate his/her possession of the characteristics described below. Circle your answer to each description. (5 is strongly present, 1 is weakly present)

1. Interpersonal Skills - interacts well with others	5	4	3	2	1
2. Persistent - stays with tasks	5	4	3	2	1
3. Self-Starter - is a highly motivated, independent worker	5	4	3	2	1
4. Desire to Achieve - is eager to successfully accomplish goals	5	4	3	2	1
5. Self Confidence - has faith in own abilities	5	4	3	2	1
6. Observant - looks for details and relationships	5	4	3	2	1
7. Inquisitive - questioning attitude with a need to know why	5	4	3	2	1
8. Experimental - in inventive, willing to explore unknowns	5	4	3	2	1
9. Innovative - is creative	5	4	3	2	1
10. Analytical - has ability to reason	5	4	3	2	1
11. Learning Capacity - learns quickly, easily, thoroughly	5	4	3	2	1

Teacher's signature \_\_\_\_\_

#### Student Essay

In your own words, please explain why you would like to take a PLTW course. Please limit your response to 2 paragraphs. Staple your handwritten or typed essay to this application.

The information below is to be filled in	by PLTW staff ONLY!
Date stamp	
MAP Scores: Math	Science
Enroll in course Wait List	#