



TSA Reinforces PLTW



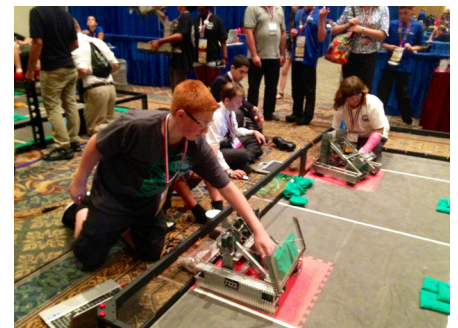
The Technology Student Association (TSA) is a national organization for more than 200,000 middle and high school students interested in science, technology, engineering, and mathematics (STEM). As a Career and Technical Student Organization (CTSO), TSA provides a pathway for students to solve real-world design and engineering problems. Members in over 2000 schools nationwide apply and integrate STEM and leadership concepts through 60 plus competitions and co-curricular activities—many of which correlate to the PLTW curriculum.

Middle School Correlations

| PLTW Curriculum Unit | TSA Competitive Event |
|----------------------------|--|
| Design and Modeling | Go Green Manufacturing Inventions and Innovations Construction Challenge |
| Automation and Robotics | System Control Technology VEX Robotics |
| Energy and the Environment | Energy Sources Junior Solar Sprint |
| Science of Technology | Environmental Focus Water Infrastructure |
| Magic of Electrons | Electrical Applications |
| Flight and Space | Flight |
| Medical Detectives | Medical Technology Issues |

*Based on the 2014-2015 PLTW curriculum and the Total TSA 2014 & 2015 Middle School Competitive Events Guide

To start TSA at your school, visit www.tsaweb.org or contact Suzy Orr at the national TSA office at (888) 860-9010 or sorr@tsaweb.org.





TSA Reinforces PLTW



High School Correlations

| PLTW Curriculum | PLTW Project/Problem Activity | TSA Competitive Event |
|-----------------|--|--|
| IED | Unit 2,3,7,8: utilizing proper hand sketching and drawing techniques | Technical Sketching and Application |
| IED | Unit 4,5, 8: puzzle cube, train, arbor press, button maker, AutoBlox© | Computer-Aided Design (CAD) 3D, Engineering |
| IED, POE, EDD | Unit 4: puzzle cube Unit 3: simple machines, marble sorter Unit 1: problem statement | Technology Problem Solving |
| IED, POE, EDD | Unit 1: product evolution Unit 1: interview a professional Unit 5: Present your findings | Prepared Presentation |
| POE, DE | Unit 2&3 Simple Machines, VEX Robotics | Animatronics VEX Robotics |
| POE | Unit 1: interview a professional | Career Preparation |
| POE | Unit 1: interview a professional | Essays on Technology |
| POE | Unit 1: interview a professional | Extemporaneous Speech |
| POE, CEA | Unit 2: beam deflection, truss analysis Unit 3: beam analysis | Structural Design and Engineering |
| POE, DE, CIM | Unit 3: marble sorter Unit 2&3: copier, tollbooth Unit 8: control systems | System Control Technology |
| CEA | Unit 2: residential design | Architectural Renovation |
| CEA | Unit 2&3: residential design, commercial design | Computer-Aided Design (CAD) 2D, Architecture |
| CEA | Unit 2: universal design | Engineering Design |
| DE, CIM | Unit 4: BOE bots Unit 8: control systems | Computer Numerical Control (CNC) Production |
| AE | Unit 2: basic aerodynamics | Flight Endurance |
| CSSE | Pilot program | Software Development |
| CSSE | Pilot program | Video Game Design |
| CSSE | Pilot Program | Webmaster |
| EDD | Component 3: prototype test | Manufacturing Prototype |
| EDD | Component 3: prototype test | Dragster Design |
| EDD | Component 2, element 3 | SciVis |
| EDD | Component 3: prototype test | Transportation Modeling |

*Based on the 2014 - 2015 PLTW Curriculum and the Total TSA 2015 & 2016 High School Competitive Events Guide