FALL STATE CONFERENCE
Leaders in STEM Education 2015

HOSTED BY WENTZVILLE PUBLIC SCHOOLS
TIMBERLAND HIGH SCHOOL, WENTZVILLE, MISSOURI
Welcome to the 2015 Project Lead The Way Missouri State Conference. It is an honor to be with you in celebration of your extraordinary achievements in making Missouri schools places that promote curiosity, inspire a love of learning, and create long-lasting prosperity. The growth of PLTW in Missouri is inspiring. The state serves as a national model for what happens when passionate and committed individuals collaborate to address a mutual concern. It is especially heartening to see parents, educators, administrators, corporations, nonprofit organizations, and government leaders embrace PLTW as a K-12 education and workforce solution. The evidence is compelling—PLTW works. It works because of you.

We are proud of our partnership with Missouri S&T and all of the dedicated teachers, administrators, government leaders, and others throughout the state who are helping students prepare to compete in the global economy. Together, we are nurturing intellectual curiosity and inspiring the next generation of critical thinkers, problem solvers, collaborators, and leaders.

Thank you for all you do on behalf of Missouri’s students, and thank you for the crucial role you play on the Project Lead The Way team.

Sincerely,

Vince M. Bertram, Ed.D.
President and Chief Executive Officer
Project Lead The Way, Inc.
Welcome to Missouri’s 4th annual statewide Project Lead the Way conference! Our sincere thanks to the organizing team and to all of our presenters for their commitment to prepare and deliver such a high quality program. Thank you to all of our attendees, exhibitors and sponsors – your enthusiasm for our Missouri students and for PLTW is evident. A very special thank you goes to the Wentzville School District Board of Education, Administration and faculty and staff for graciously hosting this year’s conference at Timberland High School.

The PLTW curriculum was first introduced to 12 New York State high schools in the 1997-98 school year. It is now taught in more than 8,000 schools in all 50 states, including the District of Columbia. In Missouri, the program has grown to include 372 schools, 475 programs and more than 50,000 students in 2015-2016. There are 35 PLTW Master Teachers in Missouri with a combined 200+ years of PLTW service. We now have 1,560 trained PLTW teachers in Missouri. Missouri S&T hosted PLTW Core Training since 2006.

All our efforts are for one reason, to provide the highest quality STEM educational opportunity for the students of Missouri. Let’s continue to work together to make Missouri THE model PLTW state.

Sincerely,

Ben K. Yates
Affiliate Program Director
Missouri S&T
Many thanks to the following individuals who served on this year’s Conference Planning Committee.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam Arnold</td>
<td>Engineering Teacher, Belton High School</td>
</tr>
<tr>
<td>Ashley Gregory</td>
<td>ENG Teacher, Wentzville School District</td>
</tr>
<tr>
<td>Ben Yates</td>
<td>Conference Planning Committee Chair, PLTW Affiliate Program Director</td>
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<tr>
<td>Brett Richardson</td>
<td>Project Lead the Way Coordinator, St. Louis Community College</td>
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<td>Brian Thompson</td>
<td>Assistant Principal, Francis Howell High School</td>
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<td>Christina Hughes</td>
<td>Science Curriculum Coordinator, Hazelwood School District</td>
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<tr>
<td>Colleen Jones</td>
<td>College/Career/Community Partnerships, Liberty Public Schools</td>
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<tr>
<td>David Hosick</td>
<td>Senior Director, PLTW West-Central Region</td>
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<tr>
<td>Debbie Singer</td>
<td>PLTW Affiliate Assistant, Missouri University of Science and Technology</td>
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<tr>
<td>Janet Bagby</td>
<td>Global Career Development Facilitator, GCDF, Columbia Area Career Center</td>
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<td>Jay Boleach</td>
<td>CTE Coordinator, Ferguson-Florissant School District</td>
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<td>Jean Hammer</td>
<td>PLTW Biomedical Sciences/Biology, Hazelwood West High School</td>
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<tr>
<td>Jim Hogan</td>
<td>Technology and Engineering Education Director, DESE</td>
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<td>Jim Kreyling</td>
<td>ENG Teacher, Mehville School District</td>
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<td>Jim Weber</td>
<td>Math Department Chair, PLTW Engineering, Timberland High School</td>
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<td>Justin Woods</td>
<td>ENG Teacher, Independent School District</td>
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<tr>
<td>Karen Hill</td>
<td>Curriculum Coordinator, Wentzville School District</td>
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<tr>
<td>Keith White</td>
<td>Assistant Principal, Vocational and At-Risk Coordinator, Marshfield High School</td>
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<tr>
<td>Kevin Clevenger</td>
<td>PLTW CSE Master Teacher, Business Department Chair, Blue Springs High School</td>
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<td>Lewis McKenzie</td>
<td>PLTW Teacher, NHS Advisor, Ruskin High School</td>
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<tr>
<td>Marilyn Allen</td>
<td>A+/Career and Technical Education/Perkins Coordinator, Practical Arts Curriculum Chair (6-9), Affton High School</td>
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<td>Matt McClellan</td>
<td>Special Areas Curriculum Coordinator, Hazelwood School District</td>
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<tr>
<td>Meghan Aydelott</td>
<td>Biomedical Science Teacher, Liberty High School, Wentzville School District</td>
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<tr>
<td>Michelene Moeller</td>
<td>College and Career Consultant, Region IX – Greater St. Louis North</td>
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<td>Olga Hunt</td>
<td>Affiliate Program Director - PLTW, Normandy School District</td>
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<tr>
<td>Rhonda Jones</td>
<td>Paul Kinder Middle School, Blue Springs School District</td>
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<tr>
<td>Ronda Altis</td>
<td>Senior Communications Coordinator, Marketing &amp; Enrollment Development</td>
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<tr>
<td>Shannon Stites</td>
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<td>Stephani Valli</td>
<td>Instructional Facilitator, Ritenour School District</td>
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<tr>
<td>Tim Albers</td>
<td>Director, Marketing &amp; Enrollment Development, Missouri University of Science and Technology</td>
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</table>
National, Regional, and State PLTW Leaders

**Dr. Vince Bertram**  
President & CEO

**David Dimmett**  
Senior Vice President & Chief Engagement Officer

**Dr. Thomas Luna**  
Senior Vice President and Chief Policy Officer

**Robin Schott**  
Vice President, West-Central Region

**Ross McMullin**  
Director of Policy, Advocacy, and Research, West-Central Region

**Cameron Hassler**  
Communications Coordinator

**Nick Gentry**  
Associate Director Supply Chain, PLTW

**Andrea Black**  
Meeting and Events Specialist, PLTW

**David Hosick**  
Senior Director, West-Central Region

**Mark Schroll**  
Senior Director of Strategic Partnerships

**Vic Drier**  
Senior Director, West-Central Region

**Lauren McConnell**  
Media and Public Relations Specialist

**Jim Hogan**  
Director, Technology & Engineering Education  
Missouri DESE

**Janis Rehak**  
Director, Coordinator  
Missouri DESE

**Ben Yates**  
PLTW Senior Affiliate Director  
Missouri University of Science and Technology

**Dr. Ralph Flori**  
PLTW Faculty Advisor  
Missouri University of Science and Technology

**Terry Wilson**  
PLTW Assistant Director, BMS  
Missouri University of Science and Technology

**Dr. Mandy Welch**  
PLTW Assistant Director, Launch  
Missouri University of Science and Technology

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Fifth Annual Missouri Project Lead The Way State Conference  
pltw.mst.edu/stateconf

See you in 2016!

The 2016-2017 Conference will be held in Wentzville, MO. Date and location to be determined. The 2017-2018 and the 2018-2019 Conferences will be held in the Kansas City area. Watch for Request for Presentation (RFP) announcements and prepare now to submit your nominations for outstanding PLTW teacher, counselor, and/or administrator. If you are interested in joining the PLTW Conference Planning Committee, please email Ben Yates (yatesbk@mst.edu) or Dave Hosick (dhosick@pltw.org).
Leaders in STEM Education

Wi-Fi - For your convenience Wi-Fi is accessible. Connect to the wireless network called “WSD-P4”. The password will be “11022015”

Opening Session
Reininger Theatre Auditorium

Breakout Sessions
Main Floor & Second Floor Classrooms

PLTW Store
Corner of Commons
(Will only accept cash, PO, or check)
SECOND FLOOR

Breakout Sessions
Main Floor & Second Floor Classrooms
Missouri Project Lead the Way Master Teachers

PLTW teachers who meet or exceed National PLTW standards and complete a rigorous application process are selected to be PLTW Master Teachers. Master teachers are those who instruct teachers to become PLTW course specific qualified. We are proud to have 35 master teachers in Missouri. We thank each and every one of them for their service and dedication to the PLTW Network, both on state and national levels.

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<tr>
<th>NAME</th>
<th>COURSE</th>
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Missouri Project Lead the Way Outstanding Dedication & Service Awards

Each year Missouri Project Lead the Way recognizes the dedication, outstanding service and teaching of Missouri PLTW teachers, administrators, counselors and/or a partnership team member. The following teachers, administrators, counselors and/or partnership team members were recognized last year at our state conference. This year’s recipients will be recognized during the Awards Banquet. Please consider nominating a PLTW teacher, counselor, administrator and/or a partnership team member.

2011-12

**Outstanding School Administrator**
- Dr. Dan Anderson
- Blue Springs School District
- Alicia Collins
- Ritenour School District

**Outstanding Pathways to Engineering Teacher**
- Todd Brockett
- St. Joseph School District

**Outstanding Biomedical Sciences Teacher**
- Jean Hammer
- Hazelwood School District

**Outstanding Pathways to Engineering Teacher**
- Ashley Gregory
- Ritenour School District

**Outstanding Counselor Team**
- Joyce Barker
- Rachel Faulkner
- Ann Herman
- Sharon Nordlof
- Lisa Woodrum
- Francis Howell School District

**Special Recognition**
- David Hosick
- Blue Springs School District

2012-13

**Outstanding School Administrator**
- Craig Adams
- Columbia Public School District

**Outstanding Biomedical Sciences Teacher**
- Meghan Aydelott
- Wentzville School District

**Outstanding Pathways to Engineering Teacher**
- Aaron Dalton
- North Kansas City School District

**Outstanding Partnership Team Member**
- Thelma Gruebbling
- St. Joseph West Hospital
- Wentzville School District

**Outstanding Gateway to Technology Teacher**
- Brian Nikodym
- Ritenour School District

**Outstanding Counselor Team**
- Affton High School
- Counselor Team:
  - Mary Beth Grafe, Alice Hein, Mary Carpenter, Heather Mayfield, Jane Mittler, Erica Van Buren, Andrea Wagner
- Affton School District

2014-15

**Outstanding Engineering Teacher**
- Michael Brown
- Kirkwood High School

**Outstanding Biomedical Science**
- Pattie Balano
- Blue Springs South High School

**Gateway**
- Sandro Medina,
  - Antioch Middle School, North Kansas City

**Computer Science**
- Kevin Clevenger
  - Blue Springs High School

**Administrator**
- Brandon Martin
- Blue Springs Freshman Center

**PLTW Partnership**
- Libbey Yates
  - Pfizer, Inc.
2015-2016 Project Lead The Way
Outstanding Dedication and Service Awards

**Outstanding Administrator**
Jay Boleach  
McCluer South-Berkeley High School  
Fergusson-Florissant School District

**Outstanding Launch Teacher**
Jessika Zink  
Rolla Middle School  
Rolla Public Schools

**Outstanding Engineering Teacher**
Hannah Behr  
Ladue Horton Watkins High School  
Ladue School District

**Outstanding Gateway Teacher**
Eric Brown  
Cross Keys Middle School  
Ferguson-Florissant School District

**Outstanding Biomedical Science Teacher**
Jami Jansen  
Kickapoo High School  
Springfield Public Schools

**Outstanding Counselor**
Joshua Jaworowski  
Kirkwood High School  
Kirkwood School District

**Outstanding Computer Science Teacher**
Jeremiah Simmons  
Pattonville High School  
Pattonville School District

**Outstanding Partnership Team Member**
Jeremy Sutton  
Ranken Technical College - Wentzville  
Wentzville, MO

**Outstanding Dedication & Service**
Dr. Ralph Flori  
Missouri University of Science and Technology  
Rolla, MO
100% Student Access School District

The following school districts are recognized for providing PLTW access to all of their elementary, middle, and high school students.

Congratulations to:

1. Butler R-V School District
2. Blue Springs R-IV School District
3. Liberty Public Schools No 53
4. Affton 101 School District
5. Ritenour School District
6. Montgomery County R-2 Schools
7. McDonald Co. R-I School District
8. School District of Jennings
Project Lead The Way State Conference
Scheduling Form for Breakout Sessions

**Sunday, November 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1</th>
<th>Session 2</th>
<th>Session 3</th>
<th>Session 4</th>
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<td>1:00 pm</td>
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<td>Location</td>
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**Monday, November 2, Morning**

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<tr>
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<td>7:30am</td>
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**Monday, November 2, Afternoon**

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<th>Time</th>
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<td>11:40am-12:30pm</td>
<td>Lunch 1</td>
<td>12:45pm-1:35pm</td>
<td>1:50pm-2:40pm</td>
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<td>Location</td>
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NEW to this year’s Missouri PLTW state conference is a live social media wall. We will be live streaming social media activity tagging Missouri PLTW. If you tag #PLTW_MO on twitter or @PLTWMO on Facebook it will be live streamed to the screen in the commons. You can follow Missouri PLTW on twitter at @PLTW_MO and “PLTW Missouri” on Facebook.

Audience indication is just a *suggestion*. Please review all following sessions to determine if you would be interested in attending: A = Administration; C = Counselor; L = Launch; G = Gateway; E = Engineering; B = Biomedical Science; CS = Computer Science; ALL = All Audience; Recommend BYOD indicates presenter encourages you to bring your electronic device (smart phone, iPad, tablet, and laptop). There will be Wi-Fi available. Cell phone reception is spotty at best.
Full Breakout Session descriptions are online at [pltw.mst.edu/conferencebreakoutsessions](http://pltw.mst.edu/conferencebreakoutsessions).

**Sunday, November 1**

**1:00pm - CHECK IN AND REGISTRATION**

**2:00pm - WORKSHOPS AND SESSIONS BEGIN**

**2:00pm - 2:50pm - CONCURRENT SESSION 1**
- PLTW All Access!! (Room 264) All
- Connecting PLTW Launch with Science Frameworks (Room 252) L
- Innovative Assessment: How do we know when they get it? (Room 254) All
- PLTW Engineering and Counseling (Room 258) C, A
- Teaching Your Team to Be Productive Team Players (Room 260) E, B, A
- Understanding what is happening in the PLTW Classrooms: A Guide for Administrators (Room 205) A
- The Mobile Innovation Center: An Elementary Experience (Room 213) L, A
- The Virtual Hub of STEM Premier (Room 217) All
- Mathematical Thinking—The Discourse Model (Room 219) E, G
- Integrating Entrepreneurship into Engineering Curriculum (Room 223) E, G, A

**3:05pm - 3:55pm - CONCURRENT SESSION 2**
- Transitioning from Year 1 to Year 2 in Gateway Design and Modeling and Automation and Robotics: The Struggles (Room 264) G
- Computer Hardware in PLTW: The Good, the Bad, and Why in the World do I Need that? (Room 252) E, B, G
- Creating and Utilizing Assessment Questions and Question Item Banks in PLTW LMS (Room 254) G, E, B, CS
- Competition VEX Robotics Team? Use What You Already Have (Room 258) E, G, CS
- Making Students More College and Career Ready: Project Lead the Way and College Board (Room 260) C, G, E, CS, B, A
- The PLTW Purchasing Manual: Current and Future (Room 205) All
- What are Your Former Students Saying About PLTW: A Look from the University (Room 213) All
- Using the Assessment Tools in LMS to Gauge Student Learning (Room 217) L, G, E, CS, B, A
- The New Generation Teacher: A STEM Preparation Program (Room 219) All
- PLTW Aerospace Engineering: It’s Time for YOU to Fly (Room 223) E, G, A

**4:05pm - 4:55pm – CONCURRENT SESSION 3**
- Innovative Assessment: How Do We Know When They Get It? (Room 264) All
- Connecting PLTW Launch with Science Frameworks (Room 252) L
- Missouri Department of Elementary and Secondary Education: Enhancement and GAPS Grants Information (Room 254) G, E, B, CS, A
- PLTW Engineering and Counseling (Room 258) C, A
- Teaching Your Team to Be Productive Team Players (Room 260) E, B, A
- Connecting Education and Business: Essential Tools for Establishing Relationships with Industry (Room 185) All
- Applying PLTW Principles in Post-Secondary Manufacturing Program (Room 213) E, C
- Flipping Your PLTW Classroom (Room 217) G, E, B, CS
- Enrichment Lessons for Medical Detectives (Room 219) G, B
- Integrating Entrepreneurship into Engineering Curriculum (Room 223) E, G, A
Leaders in STEM Education

Conference Schedule at a Glance

Monday, November 2

7:30am – CHECK IN AND REGISTRATION
• Light breakfast served in the cafeteria

8:30am - 9:00am - OPENING GENERAL SESSION

9:30am - 10:20am - CONCURRENT SESSION 4
• Aircraft Design Mini Lesson (Room 204) G, E
• Anything Different: A Comparative Study of Instructor View on PLTW (Room 205) C, G, E, B, CS, A
• Help! How can I use Professionals in Biomedical Courses? (Room 109) B, A
• Building PLTW Facilities: Don’t put the Cart before the Horse! (Room 160) A, G, E, B, CS
• Enhancing the Civil Engineering and Architecture (CEA) EA Student Experience (Room 252) E
• LMS and Google Apps for Education (Room 213) L, G, E, B, CS
• Which Engineering Specialization Course Should I Choose? Digital Electronics (DE), of Course!! (Room 113) E, A, C
• What is Launch and how do I Get Started? (Room 172) L, A, C
• What is Computer Science and Software Engineering (CSE)? (Room 254) CS, A, C
• Partnership: Fostering a Dynamic Collaboration between Schools, Community and Business (Room 217) All
• Academic Advising and Career Exploration (Room 136) C
• Building Successful PLTW Program in a Small Rural School District (Room 174) All
• Extending 3D Modeling in the Gateway Classroom (Room 258) G
• Make Your Own High Quality Etched Circuit Boards (Room 219) E
• Building a Successful Partnership Between Industry, Community and Education (Room 132) A
• Enrichment Lessons for Medical Detectives (Room 176) G, B
• Pre and Post Test to Prove Student Growth (Room 260) G, E, B, CS
• Applying PLTW Principles in Post-Secondary Manufacturing Program (Room 223) E, C
• Online Degrees, STEM Certification and Alternative Pathways in Technical Education (Room 187) C, A, E, B, CS

10:35am - 11:25am - CONCURRENT SESSION 5
• LMS is Your Friend! The LMS is Your Friend! Apps and Techniques for Making the Most of the LMS in Your Classroom (Room 253) L, G, E, B, CS
• Developing a Strong STEM Program (Room 255) All
• Getting Started with PLTW Launch Automation and Robotics (Room 263) L
• Taking Design and Modeling (DM) to the Next Level (Room 265) G
• Beyond Shadowing: The Benefits of Career Exploration (Room 223) C, G, E, B, CS
• HOSA and PLTW Biomedical: A Way to Inspire, Innovate, and Ignite Your Students! (Room 228) B
• How to Reward High Achievers: Raspberry Pi-Craft! (Room 238) All
• Saving your Teacher Sanity Using Screencast-O-Matic: Implementation in the PLTW Classroom (Room 240) G, E, B, CS
• Emerging Opportunities Enhance PLTW Capstone Experience (Room 132) E, B, A
• It’s Personal: STEM is for Girls, too! (Room 136) All
• Creating and Utilizing Assessment Questions and Question Item Banks in PLTW LMS (Room 254) G, E, B, CS
• Understanding what is happening in the PLTW Classrooms: A Guide for Administrators (Room 205) A
• Advanced Inventor Techniques (Room 163) G, E
• OneNote as a Digital Notebook (Room 173) G, E
• Start Your Own Successful Business: Build Life Skills, Be an Entrepreneur (Room 183) All
## Conference Schedule at a Glance

<table>
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<th>Time</th>
<th>Concurrent Session 6</th>
<th>Concurrent Session 7</th>
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<tr>
<td>11:40am - 12:30pm</td>
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<tr>
<td>12:45pm - 1:35pm</td>
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### 11:40am - 12:30pm - CONCURRENT SESSION 6
- **Light lunch #1 served in the cafeteria**
  - Competition VEX Robotics Team? Use what you Already Have! (Room 204) G, E
  - Enhancing Instruction and Student Learning through 3D Printers and Laser Engravers (Room 205) G, E
  - Help! How can I use Professionals in Biomedical Courses? (Room 109) B, A
  - Making Students More College and Career Ready: Project Lead the Way and College Board (Room 160) C, G, E, CS, B, A
  - Building PLTW Facilities: Don’t put the Cart before the Horse! (Room 252) A, G, E, B, CS
  - LMS and Google Apps for Education (Room 213) L, G, E, B, CS
  - What are Your Former Students Saying About PLTW: A Look from the University (Room 113) All
  - PLTW’s Innovation Portal—Connecting Student Design Projects to Opportunities (Room 172) G, E, B, CS
  - PLTW Aerospace Engineering: It’s Time for YOU to Fly (Room 254) E, G, A
  - Mathematical Thinking—The Discourse Model (Room 217) G, E, CS
  - What is Launch and how do I Get Started? (Room 136) L, A, C
  - Building Successful PLTW Program in a Small Rural School District (Room 174) All
  - Computer Integrated Manufacturing (CIM): What is it and why is it Important? (Room 258) E
  - Engineering Design and Development (EDD): Why Every PLTW School Should Have this Course (Room 219) E, A
  - Take your Future Seriously and Know that you have Potential! (Room 132) All
  - Using the Assessment Tools in LMS to Gauge Student Learning (Room 176) L, G, E, CS, B, A
  - Pre and Post Test to Prove Student Growth (Room 260) G, E, B, CS
  - The Mobile Innovation Center: An Elementary Experience (Room 223) L, A
  - Flipping Your PLTW Classroom (Room 187) G, E, B, CS

### 12:45pm - 1:35pm - CONCURRENT SESSION 7
- **Light lunch #2 served in the cafeteria**
  - Review of Introduction to Computer Science (ICS) (Room 205) G, E, CS, A
  - JA Job Shadow – Window to Careers (Room 253) All
  - PLTW Pathways to Prosperity, Individual Student Planning and Personal Plans of Studies (Room 255) C
  - Getting Started with PLTW Launch Automation and Robotics (Room 263) L
  - Not Only did we Drink the PLTW Water; we Jumped into the Lake! (Room 265) All
  - Engineering Design and Development (EDD): Why Every PLTW School Should Have this Course (Room 223) E, A
  - Connecting Education and Business: Essential Tools for Establishing Relationships with Industry (Room 228) All
  - LMS Quizzes 101: How to Make Summative and Formative Assessments Easier (Room 238) G, E, B, CS
  - Toyota Computer Integrated Manufacturing (CIM) Grant Opportunity (Room 240) E, A
  - STEM and the Navy (Room 132) C, G, E, B, CS
  - It’s Personal: STEM is for Girls, too! (Room 136) All
  - Academic Advising and Career Exploration (Room 113) C
  - Developing a Strong STEM Program (Room 109) All
  - Launch and Computer Science (Room 163) L
Leaders in STEM Education

Conference Schedule at a Glance

1:50pm - 2:40pm - CONCURRENT SESSION 8
• LMS is Your Friend! The LMS is Your Friend! Apps and Techniques for Making the Most of the LMS in Your Classroom (Room 204) L, G, E, B, CS
• Partnering with Professionals: PLTW and ASCE/EWRI (Room 205) E, A
• Missouri Department of Elementary and Secondary Education: Enhancement and GAPS Grants Information (Room 109) G, E, B, CS, A
• OneNote as a Digital Notebook (Room 160) G, E
• Maximizing Instruction in the PLTW Classroom Using Technology (Room 252) L, G, E, B, CS, A
• Partnership: Fostering a Dynamic Collaboration between Schools, Community and Business (Room 213) All
• Comparing Engineering, Engineering Technology and Technology & Engineering Education for Your Students’ Career Choice (Room 113) E, C
• Nuts and Bolts of a VEX Robotics Team (Room 172) G, E
• The New Generation Teacher: A STEM Preparation Program (Room 254) All
• What is a CTSO and Why TSA is Your Best Choice (Room 217) G, E
• Digital Electronics: A College Prep Course (Room 136) C, E
• Building Successful PLTW Program in a Small Rural School District (Room 174) All
• AHEC – PLTW – HOSA: Reaching Healthcare Students Together (Room 258) B
• RobotC Virtual Worlds (Room 219) G, E
• Straight from the Students’ Mouth! (132) All
• Not Only did we Drink the PLTW Water, we Jumped into the Lake! (Room 176) All
• The PLTW Purchasing Manual: Current and Future (Room 260) All
• Enhancing Instruction and Student Learning through 3D Printers and Laser Engravers (Room 223) G, E

2:55pm - 3:45pm - CONCURRENT SESSION 9
• Review of Introduction to Computer Science (ICS) (Room 205) G, E, CS, A
• Aircraft Design Mini Lesson (Room 253) G, E
• Gateway Teachers Unite: We are Not Alone (Room 226) G
• LMS Quizzes 101: How to Make Summative and Formative Assessments Easier (Room 263) G, E, B, CS
• Not Only did we Drink the PLTW Water, we Jumped into the Lake! (Room 265) All
• The PLTW Purchasing Manual: Current and Future (Room 223) All
• Preview of the New Computer Science Applications (CSA) Course (Room 228) CS
• National Certification: The Why and How of it! (Room 238) E, B, A, C
• Toyota Computer Integrated Manufacturing (CIM) Grant Opportunity (Room 240) E, A
• The Virtual Hub of STEM Premier (Room 132) All
• Launch and Computer Science (Room 136) L
• Maximizing Instruction in the PLTW Classroom Using Technology (Room 252) L, G, E, B, CS, A
• Emerging Opportunities Enhance PLTW Capstone Experience (Room 109) E, B, A
• Tips and Tricks for Establishing a Biomedical Pathway (Room 163) B
• Extending 3D Modeling in the Gateway Classroom (Room 173) G
• RobotC Virtual Worlds (Room 183) G, E
• Creating your own Engineering Notebook (Room 185) G, E
• STEM and the Navy (Room 187) C, G, E, B, CS
• PLTW Pathways to Prosperity, Individual Student Planning and Personal Plans of Studies (Room 275) C
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Timberland High School, Wentzville, Missouri

Ben K. Yates, Project Lead The Way Missouri Affiliate Program Director
Missouri University of Science and Technology

November 2, 2015
Project Lead The Way
Missouri Growth 2002-15

Total No of PLTW Programs

2002 04 06 08 10 12 13 15
9 20 30 58 71 130 207 259 333 473

2015-16 AY:
- HS Engineering Pgms 139
- HS Biomedical Science Pgms 76
- HS Computer Science Pgms 17
- (GTT) Middle School Pgms 136
- LAUNCH Elementary Pgms 105

Total MO PLTW Programs: 473

Note: These are programs, not unique schools. Some HS’s have both Engrg and Biomed programs.
Introducing Project Lead The Way’s newest program designed for students in kindergarten through fifth grade.

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Jennifer Daubendiek teaches at her alma mater, in the high school where she learned to love science. But the way she’s teaching is far from old school. Through Project Lead The Way’s Biomedical Science Program, Jennifer is inspiring the next generation of STEM Innovators. From right where she started, she’s changing the world. You can too.

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2016 Summer Programs

registrations/applications typically open the first week in february. some camps fill quickly, so register/apply early to guarantee your spot.

aerospace camp
ages 10-13
three days of action-packed adventure into the world of space flight and aeronautics.

building leaders for tomorrow
rising high school freshmen, sophomores and juniors
explore the power of communication, hone your leadership skills and make new friends.

camp invention
rising first- through sixth-graders
a day camp where future miners can dig into science with fun, hands-on activities.

cyberminer camp
rising high school juniors and seniors
unleash your inner cyber-self! learn about technologies such as robotics, machine intelligence, and information systems.

eco girl camp
rising high school junior and senior girls
love the earth? engage your passion and learn about careers in environmental fields.

explosives camp
rising high school juniors and seniors (must be 16 yrs.)
fire in the hole! experience our one-of-a-kind explosives camp.

formula sae electric car
rising high school sophomores, juniors and seniors
get in gear! design and model an electric formula sae car.

it's a girl thing
rising 7th and 8th grade girls
explore stem careers through group projects and design competitions.

jackling introduction to engineering
rising high school juniors and seniors
from ipads to interstates, engineers change the world. this intro course will show you how math and science relate to engineering. learn first-hand about different engineering disciplines.

materials camp
rising high school juniors and seniors
from heavy metal to nano-particles, materials are all around us. learn how engineers and scientists turn materials into things we use every day.

minority introduction to technology & engineering
rising minority high school juniors and seniors
this intro course, designed for under-represented minorities, will show you how math and science relate to engineering.

nuclear engineering camp
rising high school juniors and seniors
explore the power of the atom, and great career opportunities, during this weeklong camp.

robotics camp
ages 12-15
robots have moved beyond the realm of science fiction. now you, too, can design your own robot — and learn programming techniques — in this hands-on camp.

space – the final frontier
rising high school sophomores, juniors and seniors
ever wonder what the edge of space looks like? learn hands-on how engineers design and build satellites, while launching a microsatellite 100,000 feet in the air.

summer research academy
rising high school seniors or graduating seniors
work side-by-side with experts while conducting research in your favorite field.

summer solutions for girls
rising high school freshman and sophomore girls
it's a woman's world. discover the possibilities of college life and careers in engineering and science.

registrations/applications typically open the first week in february. some camps fill quickly, so register/apply early to guarantee your spot.

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On behalf of the Missouri Project Lead the Way State Conference Planning Committee, we would like to express our appreciation to this year's sponsors.

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5. Collinsville High School
6. Columbia College
7. Depco Enterprises, LLC
8. Fontbonne University
9. Francis Howell High School
   • B&B Innovation
   • Frigid Fire, Inc.
   • Gooper Tech
   • Jaeger Motors
   • Party Pack
   • RoygNoBiv
   • Safety Suits

10. Holt High School
11. Innovative Education Systems
12. Junior Achievement of Greater St. Louis
14. Missouri AHEC
15. Missouri HOSA
16. Missouri Supermileage Association
17. Missouri TSA
18. Missouri University of Science and Technology
19. Project Lead The Way
20. Ranken Technical College
21. Saint Louis University
22. Six Flags St. Louis
23. St. Louis College of Pharmacy
24. St. Louis Community College
25. St. Louis School Business Partnership
26. State Technical College of Missouri
27. STEM Premier
28. Troy Buchanan High School
29. Truman State University
30. University of Central Missouri
31. University of Missouri - Kansas City
32. University of Missouri - St. Louis
33. University of Missouri College of Engineering
34. Valley City State University

All exhibitors may not be listed due to time constraints.