OCTOBER 28 - OCTOBER 29

HOSTED BY WENTZVILLE PUBLIC SCHOOLS
TIMBERLAND HIGH SCHOOL, WENTZVILLE, MISSOURI

FALL STATE CONFERENCE
The Journey Begins Here
2016

Mark your calendars:
State Conference 2017: Nov. 5-6, Blue Springs, MO
State Conference 2018: Nov. 4-5, Blue Springs, MO
Welcome to the 2016 Project Lead The Way Missouri State Conference.

It is an honor to be here with you over the next few days to collaborate, share best practices, and learn new strategies for engaging and empowering students to thrive in our evolving world. Thank you for your continued commitment to the students of Missouri and our nation.

The work you do is among the most important in the world. Great curriculum alone cannot inspire students to solve our world’s most pressing issues – you do. Thank you for believing in our students.

Missouri is a national model for what happens when passionate community members such as parents, educators, administrators, corporations, and nonprofit organizations work together to address a mutual concern. We are proud of our partnership with Missouri S&T and you – all of the dedicated teachers, government leaders, and others throughout the state who are empowering students to develop the in-demand knowledge and transportable skills for a thriving future. Together, we are nurturing intellectual curiosity and inspiring the innovators, creators, and designers of today and tomorrow.

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.
I welcome you to the Missouri PLTW State Conference for the last time. It has been a privilege to serve our Missouri PLTW network for the past ten years. Our network has the best teachers, administrators, counselors, students, parents and corporate partners in the state. I leave knowing that together we have built the best PLTW alliance in the country.

I would be remiss to not thank Commissioner Margie Vandeven of the Missouri Department of Elementary and Secondary Education, and the great staff in the College and Career Readiness Division for their strong support of PLTW. Additionally, and most importantly, I recognize Dr. Ralph Flori for the trust and confidence he placed in me when he hired me to lead this organization. Chancellor Cheryl Schrader, Vice Provost and Dean for Enrollment Management, Laura Stoll, and the staff and faculty of Missouri S&T have always been robust PLTW allies. Completing my third retirement, I can honestly say it is the people I will miss.

I cannot think of anyone more qualified to assume leadership than Dave Hosick. His experience and skills will serve our network well. Dave retired from Blue Springs School District with a total of 28 years of experience as both a PLTW Engineering teacher and master teacher. He served the last four years as the PLTW Senior Director for School Engagement for MO and KS where he distinguished himself helping Missouri become one of the top PLTW states in the nation. Please give your support to Dave as you have to me.

Enjoy the 5th Annual Missouri PLTW State Conference!

Sincerely,

Ben K. Yates
Affiliate Program Director
Missouri S&T

Welcome! I echo Ben’s remarks and want to acknowledge the passion he has had for all of us throughout his time here in Missouri. We want to wish him well in his new chapter and thank him for his impact throughout the state. Thank you for your love, support, and dedication for teachers, administrators, and our children.

Over the years, PLTW has grown to 9,000 schools offering 10,500 programs. There are more than 35,000 PLTW-trained teachers that impact 2.4 million students in transformational experiences. In Missouri, nearly 2,000 trained teachers offer 617 programs that impact over 600,000 students. Presently, 55 counties are served by PLTW and Missouri ranks 4th in the nation in programs.

We focus all of our efforts to provide the highest quality STEM educational opportunity for our students in Missouri. Let’s continue to work together for our next generation of great problem solvers!

Sincerely,

David Hosick
PLTW Senior Affiliate Director,
Missouri S&T

Welcome to the 2016 Missouri State Conference! I am excited to take on the role of Director of School Engagement for Kansas and Missouri and I am honored to be one of your PLTW support outlets in Missouri. Missouri PLTW has a strong partnership and engagement with Missouri S&T, KC STEM Alliance, St. Louis Community College and the Missouri Department of Elementary and Secondary Education. Together with these partners, I know we can continue to grow the reach of this rigorous and innovative curriculum. Our network is continuing to nurture and inspire the next generation of critical thinkers, problem solvers, collaborators and leaders. I am available to assist and support you in this critical work.

Sincerely,

Andrea Holzwarth
Director of School Engagement
West-Central Region
Project Lead The Way, Inc.
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>
<th>School/District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam Arnold</td>
<td>Engineering Teacher</td>
<td>Belton High School</td>
</tr>
<tr>
<td>Angie Schnakenberg</td>
<td>Teacher</td>
<td>Blue Springs High School</td>
</tr>
<tr>
<td>Ashley Gregory</td>
<td>Holt High School ENG Teacher</td>
<td>Wentzville School District</td>
</tr>
<tr>
<td>Becki Shrum</td>
<td>College and Career Consultant</td>
<td>Poplar Bluff Technical Career Center</td>
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<tr>
<td>Ben Yates</td>
<td>Conference Planning Committee Chair</td>
<td>Missouri S&amp;T</td>
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<tr>
<td>Bragg Stanley</td>
<td>Program Quality Consultant</td>
<td>Missouri S&amp;T</td>
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<tr>
<td>Brandon Martin</td>
<td>Principal</td>
<td>Blue Springs Freshman Center</td>
</tr>
<tr>
<td>Brett Richardson</td>
<td>Manager of CTE Partnerships and Processes</td>
<td>St. Louis Community College</td>
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<tr>
<td>Brian Thompson</td>
<td>Assistant Principal</td>
<td>Francis Howell High School</td>
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<tr>
<td>Christina Hughes</td>
<td>Science Curriculum Coordinator</td>
<td>Hazelwood School District</td>
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<tr>
<td>Colleen Jones</td>
<td>College/Career/Community Partnerships</td>
<td>Liberty Public Schools</td>
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<tr>
<td>David Hosick</td>
<td>PLTW Senior Affiliate Director</td>
<td>Missouri S&amp;T</td>
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<td>Debbie Singer</td>
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<td>Missouri S&amp;T</td>
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<tr>
<td>Jadee Lauer</td>
<td>Program Quality Consultant</td>
<td>Missouri S&amp;T</td>
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<tr>
<td>Dr. Janet Bagby</td>
<td>Global Career Development Facilitator, GCDF</td>
<td>Columbia Area Career Center</td>
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<tr>
<td>Jay Boleach</td>
<td>CTE Coordinator</td>
<td>Ferguson-Florissant School District</td>
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<tr>
<td>Jean Hammer</td>
<td>PLTW Biomedical Sciences</td>
<td>Hazelwood West High School</td>
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<tr>
<td>Jeff Curley</td>
<td>Principal</td>
<td>Marshfield High School</td>
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<tr>
<td>Jim Hogan</td>
<td>Teacher</td>
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<tr>
<td>Dr. Jim Kreyling</td>
<td>ENG Teacher</td>
<td>Mehlville School District</td>
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<td>Jim Weber</td>
<td>Math Department Chair, PLTW Engineering</td>
<td>Timberland High School</td>
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<tr>
<td>Justin Woods</td>
<td>Associate Principal</td>
<td>Van Horn High School</td>
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<tr>
<td>Dr. Karen Hill</td>
<td>Director of Professional &amp; Program Development</td>
<td>Wentzville School District</td>
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<tr>
<td>Keith White</td>
<td>Assistant Principal, Vocational and At-Risk Coordinator</td>
<td>Marshfield High School</td>
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<tr>
<td>Kevin Cleenger</td>
<td>PLTW CSE Master Teacher</td>
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<td>Kyle Lindquist</td>
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<td>Lewis McKenzie</td>
<td>PLTW CSP Master Teacher</td>
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<tr>
<td>Linda Bright</td>
<td>Conference Planning Committee Chair</td>
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<td>Dr. Lori Mann</td>
<td>College &amp; Career Consultant</td>
<td>Northland Career Center</td>
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<tr>
<td>Marilyn Allen</td>
<td>A+/Career and Technical Education/Perkins Coordinator, Practical Arts Curriculum Chair (6-9)</td>
<td>Affton High School</td>
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<tr>
<td>Matt McClellan</td>
<td>Special Areas Curriculum Coordinator</td>
<td>Hazelwood School District</td>
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<tr>
<td>Meghan Aydelott</td>
<td>Science Content Leader</td>
<td>Wentzville School District</td>
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<tr>
<td>Michele Charlebois-Didereckson</td>
<td>College &amp; Career Consultant</td>
<td>Ozark Technical College, Region VI</td>
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<tr>
<td>Michelene Moeller</td>
<td>College and Career Consultant, Region IX – Greater St. Louis North</td>
<td>Lewis and Clark Career Center</td>
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<tr>
<td>Olga Hunt</td>
<td>Affiliate Program Director - PLTW</td>
<td>Normandy School District</td>
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<td>Pattie Balano</td>
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<tr>
<td>Dr. Rhonda Jones</td>
<td>PLTW Gateway Master Teacher</td>
<td>Paul Kinder Middle School</td>
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<tr>
<td>Ronda Altis</td>
<td>Senior Communication Coordinator</td>
<td>Missouri S&amp;T</td>
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<tr>
<td>Shannon Stites</td>
<td>Administrative Assistant</td>
<td>Marketing &amp; Enrollment Development</td>
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<tr>
<td>Shelley Brown</td>
<td>Director of Secondary Education</td>
<td>Blue Springs R-IV School District</td>
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<tr>
<td>Stephanie Valli</td>
<td>Curriculum Coordinator</td>
<td>Parkway School District</td>
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<tr>
<td>Tammy Blaylock</td>
<td>College and Career Consultant</td>
<td>Scott Regional Technology Center</td>
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<tr>
<td>Tanya DeGonia</td>
<td>College and Career Consultant</td>
<td>Mineral Area College</td>
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<tr>
<td>Tim Albers</td>
<td>Interim Vice Provost and Dean</td>
<td>Missouri S&amp;T</td>
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</tbody>
</table>

Missouri PLTW State Conference Planning Committee
Mark your calendars: Missouri Project Lead The Way
State Conferences 2017 & 2018

The 2017 & 2018 Conferences will be held in Blue Springs, MO. 2017 dates are: November 5 & 6; 2018 dates are: November 4 & 5. 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 Linda Bright (brightlj@mst.edu) or Dave Hosick (hosickd@mst.edu).
Opening Session
Reininger Theatre Auditorium

Wi-Fi
For your convenience Wi-Fi is accessible. Connect to the wireless network called “WSD-Guest”. Username is “guest”. The password will be “PLTW2016!”.
Wi-Fi
For your convenience Wi-Fi is accessible. Connect to the wireless network called “WSD-Guest”. Username is “guest”. The password will be “PLTW2016!".
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 40 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.

<table>
<thead>
<tr>
<th>NAME</th>
<th>COURSE</th>
<th># of Years</th>
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<tr>
<td>Aydelott, Meghan</td>
<td>Principles of Biomedical Science</td>
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<td>Beauchamp, Steve</td>
<td>Principles of Engineering</td>
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<tr>
<td>Behr, Hannah</td>
<td>Introduction to Engineering Design</td>
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<td>Brockett, Todd</td>
<td>Medical Detectives</td>
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<td>Creen, Ben</td>
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<td>Crosby, Dee</td>
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<td>Eckert, Jean</td>
<td>Medical Detectives</td>
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<td>Fenstemaker, Jason</td>
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<td>Gregory, Ashley</td>
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<td>Hammer, Jeannette</td>
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<td>Hinzman, Peggy</td>
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<td>Hook, Jared</td>
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<td>Lawrence, Michelle</td>
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<td>Nikodym, Brian</td>
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<td>Selle, Steve</td>
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<td>Simmons, Jeremiah</td>
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<td>Stobaugh, Ryan</td>
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<tr>
<td>Valli, Stephanie</td>
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<tr>
<td>Wright, James</td>
<td>Medical Interventions</td>
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</tr>
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</table>
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.

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 Teacher**
- Pattie Balano
  - Blue Springs South High School

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

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

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

**Outstanding Partnership Team Member**
- Libbey Yates
  - Pfizer, Inc.

2015-16

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

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

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

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

**Outstanding Dedication & Service Teacher**
- Dr. Ralph Flori
  - Missouri University of Science and Technology
  - Rolla, MO

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

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

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

**Outstanding Partnership Team Member**
- Jeremy Sutton
  - Ranken Technical College - Wentzville
  - Wentzville, MO
The Journey Begins Here

2016-2017 Project Lead The Way
Outstanding Dedication and Service Awards

Outstanding Launch Teacher
Brandon Lewis
Shoal Creek Elementary
Liberty School District

Outstanding Gateway Teacher
Sandro Medina
Antioch Middle School
North Kansas City School District

Outstanding Counselor
Holly Click
St. Clair High School
St. Clair R-XIII District

Outstanding Business Partner
CoxHealth
Kickapoo High School
Springfield Public Schools

Outstanding Administrator
Matthew McClellan
Hazelwood School District

Outstanding Engineering Teacher
Louis Breinin
North Kansas City High School
North Kansas City School District

Outstanding Biomedical Science Teacher
Kyle McFarland
Pattonville High School
Pattonville School District

Outstanding Computer Science Teacher
Kevin Clevenger
Blue Springs High School
Blue Springs School District
100% Student Access School Districts

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

CONGRATULATIONS TO:

Adrian R-3 School District
Affton 101 School District
Bayless School District
Blue Springs R-IV School District
Brentwood School District
Brookside Charter School
Butler R-V School District
Camdenton R-III School District
Cameron R-I School District
Farmington R-7 School District
Jennings School District
Kirkwood School District
Liberty 53 School District
Lonedell R-XIV School District
McDonald Co. R-1 School District
Montgomery County R-2 Schools
Park Hill School District
Pleasant Hill R-III School District
Queen of All Saints Catholic School
Ritenour School District
St. Therese School
Union R-XI School District
West Plains R-VII School District
The Journey Begins Here

Project Lead The Way State Conference
Scheduling Form for Breakout Sessions

Friday, October 28

<table>
<thead>
<tr>
<th>Time</th>
<th>12:00-1:00 pm</th>
<th>1:00pm-1:50pm</th>
<th>2:05pm-2:55pm</th>
<th>3:10pm-4:00pm</th>
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</thead>
<tbody>
<tr>
<td>Location</td>
<td>Check In &amp; Registration</td>
<td>Commons/ Cafeteria</td>
<td>Commons/ Cafeteria</td>
<td>Commons/ Cafeteria</td>
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</table>

Saturday, October 29, Morning

<table>
<thead>
<tr>
<th>Time</th>
<th>7:30am</th>
<th>8:30am-9:45am</th>
<th>10:00am-10:50am</th>
<th>11:05am-11:55am</th>
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<tbody>
<tr>
<td>Location</td>
<td>Check In &amp; Registration</td>
<td>Opening General Session</td>
<td>Commons/ Cafeteria</td>
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Saturday, October 29, Afternoon

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<tr>
<th>Time</th>
<th>12:00pm-1:00pm</th>
<th>1:00pm-1:55pm</th>
<th>2:10pm-3:00pm</th>
<th>3:10pm-4:15pm</th>
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<tr>
<td>Location</td>
<td>Lunch</td>
<td>Commons/ Cafeteria</td>
<td>Commons/ Cafeteria</td>
<td>Commons/ Cafeteria</td>
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</table>

Wi-Fi
For your convenience Wi-Fi is accessible. Connect to the wireless network called “WSD-Guest”. Username is “guest”. The password will be “PLTW2016!”.

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; G = Guidance; L = Launch; GA = Gateway; E = Engineering; B = Biomedical Science; C = 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).

### Friday, October 28

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00pm - 1:00pm</td>
<td><strong>CHECK IN AND REGISTRATION</strong></td>
</tr>
<tr>
<td>1:05pm - 1:50pm</td>
<td><strong>WORKSHOPS AND SESSIONS BEGIN</strong></td>
</tr>
<tr>
<td>1:05pm - 1:50pm</td>
<td><strong>CONCURRENT SESSION 1</strong></td>
</tr>
<tr>
<td>• Collaboration with St. Louis Community College and Implementing a Life Science Laboratory Assistant Certification to Your Biomedical Program (B, G, A) Room 264</td>
<td></td>
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<tr>
<td>• College and Career Preparation--A Journey K-12 (G) Room 244</td>
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<tr>
<td>• Comparing Engineering, Engineering Technology, and Technology including an Alternative Path to a Professional Engineering Degree (G, E, A) Room 238</td>
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<tr>
<td>• Comparing Academic Performance and Career Choices for Missouri S&amp;T Students with and without Project Lead The Way Course Experience (G, A, B, E) Room 252</td>
<td></td>
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<tr>
<td>• Connecting Education and Business: Essential Tools for Establishing Relationships with Industry (L, GA, E, G, A) Room 223</td>
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<tr>
<td>• Connecting Students with Mentors (ALL) Room 228</td>
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<tr>
<td>• Exploring the “Hard to Fill” Careers in Healthcare: A Way to Open up Academic and Employment Opportunities for High School Students (B) Room 240</td>
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<td>• PLTW Computer Science Pathway (C) Room 284</td>
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<td>• PLTW State Conference for Beginners (ALL) Library</td>
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<td>• PLTWitter (Ideally Ice Cream Social Media) (ALL) Room 278</td>
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<td>• Showcase your Launch Program (L) Room 213</td>
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<td>• Starting a VEX Competition Team (E, GA, C) Room 286</td>
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<td>• TechShop St. Louis :“Impacting the Community and Encouraging the Next Generation of Innovation” (ALL) Room 265</td>
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<td>• The Power of Partnership Teams (ALL) Room 254</td>
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<td>• Trusses 101 (E) Room 260</td>
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<td>• What is Computer Science, and What can be Taught in K12? (G, A) Room 275</td>
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**Audience indication key:**

- **A** = Administration
- **G** = Guidance
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The Journey Begins Here

Conference Schedule at a Glance

2:05pm - 2:55pm - CONCURRENT SESSION 2

• 35 Minutes and Counting: How to Take Off with Launch (L) Room 238
• An Overview of Computer Engineering and Civil, Architectural, and Environmental Engineering Programs in Missouri (ALL) Room 252
• Bio-Med Lab Books and Engineering Notebooks – Helping Teacher to help Students to record properly (E, B, GA) Room 205
• Building Tomorrow's Leaders: How to Start and Sustain a TSA Chapter (GA, E, A) Room 226
• Career Pathways: Education and Training with Relevance (G) Library
• Connecting Education and Business: Essential Tools for Establishing Relationships with Industry (L, GA, E, G, A) Room 223
• Flipping Your Classroom using Canvas LMS (ALL) Room 284
• How to Improve Your PLTW Program(s) (ALL) Room 204
• Integration of New ELA Missouri Learning Standards Expectations with PLTW (ALL) Room 286
• KC HealthTracks – Diversity in Healthcare project (B, G, A) Room 254
• LAUNCH into Middle School Learning (L, GA, G, A) Room 278
• Out with the Old; In with the New DM (GA) Room 260
• PLTW Launch and the New MO Learning Standards, what's the connection? (L) Room 213
• Saving Your Teacher Sanity Using Screencast-O-Matic: Implementation in the PLTW Classroom (ALL) Room 217
• SeaPerch / Aquatic Robotic (E) Room 240
• STEAM on a Budget (L, GA, E, B) Room 264
• TechShop St. Louis: “Impacting the Community and Encouraging the Next Generation of Innovation” (ALL) Room 265
• The Forgotten Hero of Society - Computer Integrated Manufacturing (E, G, A) Room 228
• Using Brain Science, Discourse, and Pedagogy to Build Student Capacity for Understanding and Perseverance (G, A) Room 209
• What is Engineering Design and Development? (E) Room 219
• What to Expect as a Rookie HOSA Sponsor (B) Room 258
• You have a HOSA, now what do you do? (B) Room 244

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3:10pm – 4:00pm – CONCURRENT SESSION 3

- Aerospace Belongs in Every Space: Why Your School Needs an Aerospace Program (E) Room 254
- Affordable Virtual Reality in the PLTW Classroom (ALL) Room 244
- An Assessment of PLTW Instructor Backgrounds and PLTW Courses Taught (ALL) Room 252
- Can Elementary Students Really Code? (L) Room 213
- Creating and Utilizing Assessment Questions and Question Item Banks (E, B, C) Room 219
- Enhancing CEA using Models (E) Room 240
- From a Program of Study to a Career (G) Room 284
- Getting Started with Launch in the Elementary Classroom (L, A) Room 260
- HOSA—Future Health Professionals: The Journey Begins Here! (B) Room 228
- How to Become a Master Teacher (ALL) Room 238
- How to Teach Programming When You’ve Never Been a Programmer (C, A) Room 205
- Integration of New ELA Missouri Learning Standards Expectations with PLTW (ALL) Room 286
- LAUNCH into Middle School Learning (L, GA, G, A) Room 278
- Laura’s Story (B, E, C, A, G) Room 217
- Maker Mondays Make Mondays More Meaningful (GA) Room 209
- Making Launch HAPPEN in Small Rural Schools (L) Room 223
- New PBS Teachers--Help Is Here (B) Room 258
- Professional Based Learning in PLTW Classrooms (ALL) Room 226
- STEAM on a Budget (L, GA, E, B) Room 265
- The Biomedical Science Pathway from a Student’s Perspective (L, GA, B, G, A) Room 264
- The Signal and Noise of College Credit (ALL) Room 275
- Utilizing Spreadsheets in the PLTW Classroom (GA, E) Room 204

Saturday, October 29

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

8:30am - 9:45am - OPENING GENERAL SESSION IN AUDITORIUM

10:00am - 10:50am - CONCURRENT SESSION 4

- 35 minutes and counting: How to take off with Launch (L) Room 213
- All Things PLTW Biomedical (B) Room 252
- Beyond EDD: WAY BEYOND (E) Room 278
- Career Pathways: Education and Training with Relevance (G) Room 238
The Journey Begins Here

Conference Schedule at a Glance

10:00am - 10:50am - CONCURRENT SESSION 4 (Continued)

- Comparing Engineering, Engineering Technology, and Technology including an Alternative Path to a Professional Engineering Degree (G, E, A) Room 244
- Connections PLTW and Silver Dollar City (ALL) Room 205
- Enrichment Lessons for Medical Detectives (GA) Room 258
- Exploring the “Hard to Fill” Careers in Healthcare: A Way to Open up Academic and Employment Opportunities for High School Students (B) Room 240
- From Application to Graduation: Preparing Students for STEM majors in College (G, A, E) Room 264
- Hands on Environmental Sustainability (E) Room 284
- How to Teach Programming When You’ve Never Been a Programmer (C, A) Room 226
- Introduction Life Skills Online Learning (ALL) Room 253
- Machine Tool Safety Within PLTW - Safety Practices and Resources (GA, E) Room 219
- PLTW Computer Science Pathway (C) Room 265
- PLTW Launch--Our First Year--So Far (L, A) Room 260
- PLTW State Conference for Beginners (ALL) Library
- Small School with Large Dreams--Adrian’s K-12 PLTW Program (ALL) Room 255
- Starting a VEX Competition Team (E, GA, C) Room 228
- STEM Careers and the Navy (ALL) Room 286
- The Forgotten Hero of Society Computer Integrated Manufacturing (E, G, A) Room 254
- The New BYOD: Bring your Own Duck (ALL) Room 217
- The Power of Partnership Teams (ALL) Room 263
- Understanding what is happening in the PLTW Classroom: A Guide for Administrators (A) Room 275
- What is Computer Science, and What can be Taught in K12? (G, A) Room 209
- You have a HOSA, now what do you do? (B) Room 223

11:05am - 11:55am - CONCURRENT SESSION 5

- Aerospace Belongs in Every Space: Why Your School Needs an Aerospace Program (E) Room 209
- Affordable Virtual Reality in the PLTW Classroom (ALL) Room 240
- A successful start to Biomed 101 (B, A) Room 253
- Bio-Med Lab Books and Engineering Notebooks – Helping Teacher to help Students to record properly (E, B, GA) Room 278
- Biomedical Science White Coat Ceremony (B) Room 252
- Building Tomorrow’s Leaders: How to start and sustain a TSA chapter (GA, E, A) Room 264
- Collaboration with St. Louis Community College and Implementing a Life Science Laboratory Assistant Certification to your Biomedical Program (B, G, A) Room 205
- Enhancing CEA using Models (E) Room 244

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11:05am - 11:55am - CONCURRENT SESSION 5 (Continued)

- Enhancing Launch (L) Room 204
- Enrichment Lessons for Medical Detectives (GA) Room 258
- Foundations for Success Through AVID College Readiness (G, A) Room 228
- Hands on Environmental Sustainability (E) Room 284
- HOSA—Future Health Professionals: The Journey Begins Here! (B) Room 217
- How to Improve your PLTW program(s) (ALL) Room 219
- Introduction Life Skills Online Learning (ALL) Library
- KC HealthTracks – Diversity in Healthcare project (B, G, A) Room 263
- Maker Mondays Make Mondays More Meaningful (GA) Room 226
- PLTW Launch—Our First Year--So Far (L, A) Room 260
- Small School with Large Dreams—Adrian’s K-12 PLTW Program (ALL) Room 255
- STEM Careers and the Navy (ALL) Room 286
- The Forgotten Hero of Society Computer Integrated Manufacturing (E, G, A) Room 254
- The Project Lead The Way Alumni Association: What We're About (ALL) Room 265
- Understanding what is happening in the PLTW Classroom: A Guide for Administrators (A) Room 275
- Utilizing Spreadsheets in the PLTW Classroom (GA, E) Room 213
- What is Engineering Design and Development? (E) Room 223

12:00pm - 1:00pm - LUNCH

- Boxed lunches available in the cafeteria area

1:00pm - 1:55pm - CONCURRENT SESSION 6

- A successful start to Biomed 101 (B, A) Room 253
- Beyond EDD: WAY BEYOND (E) Room 278
- Biomedical Science White Coat Ceremony (B) Library
- College and Career Preparation—A Journey K-12 (G) Room 223
- Connecting Students with Mentors (ALL) Room 258
- Creating and Utilizing Assessment Questions and Question Item Banks (E, B, C) Room 240
- Creating your own Engineer’s Notebook (E) Room 226
- Developing Strategic Partnerships on the Journey to Launch; the Shawnee Mission Story (L, A) Room 265
- Flipping Your Classroom using Canvas LMS (ALL) Room 204
- From Application to Graduation: Preparing Students for STEM majors in College (G, A, E) Room 264
- Getting Started with Launch in the Elementary Classroom (L, A) Room 238
- How to Become a Master Teacher (ALL) Room 209
- How to Improve your PLTW program(s) (ALL) Room 219
The Journey Begins Here

Conference Schedule at a Glance

1:00pm - 1:55pm - CONCURRENT SESSION 6 (Continued)

- Laura’s Story (B, E, C, A, G) Room 228
- Making Launch HAPPEN in Small Rural Schools (L) Room 244
- New PBS Teachers--Help Is Here (B) Room 284
- Out with the Old; In with the New DM (GA) Room 217
- PLTTwitter (Ideally Ice Cream Social Media) (ALL) Room 286
- Professional Based Learning in PLTW Classrooms (ALL) Room 254
- Saving Your Teacher Sanity Using Screencast-O-Matic: Implementation in the PLTW Classroom (ALL) Room 252
- SeaPerch / Aquatic Robotic (E) Room 260
- The Biomedical Science Pathway from a Student’s Perspective (L, GA, B, G, A) Room 275
- The Signal and Noise of College Credit (ALL) Room 263
- Using Canvas and Google to Streamline Classroom Activities (GA) Room 213

2:10pm - 3:00pm - CONCURRENT SESSION 7

- DESE Update (ALL) Auditorium
- Developing Strategic Partnerships on the Journey to Launch; the Shawnee Mission Story (L, A) Room 254
- Enhancing Launch (L) Room 205
- From a Program of Study to a Career (G) Room 258
- Using Brain Science, Discourse, and Pedagogy to Build Student Capacity for Understanding and Perseverance (G, A) Room 252
- Using Canvas and Google to Streamline Classroom Activities (GA) Room 213

3:10pm - 4:15pm - ROUNDTABLE

- Title: Launch Room 254
  Presenter: Stephanie Valli
- Title: Gateway Room 213
  Presenter: Rhonda Jones
- Title: HS Engineering Room 264
  Presenters: Ashley Gregory, Jim Kreyling
- Title: HS Biomedical Room 260
  Presenter: Jean Hammer
- Title: HS Computer Science Room 219
  Presenter: Kevin Clevinger
- Title: Administrators Room 255
  Presenter: Travis Bracht
- Title: Counselors Room 226
  Presenter: Michellene Moeller

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Certificate of Participation

Missouri Project Lead The Way Conference
Completed by

Nine (9) hours of professional development at

Missouri Project Lead The Way Conference
Timberland High School, Wentzville, Missouri

David K. Hosick, Project Lead The Way Missouri Senior Affiliate Director
Missouri University of Science and Technology

October 29, 2016
Missouri Project Lead The Way Growth
From 2002 to 2016

**2016-17 AY:**
- HS Engineering Programs: 147
- HS Biomedical Programs: 95
- HS Computer Science Programs: 49
- Gateway Middle School Programs: 162
- Launch Elementary Programs: 164

**TOTAL MISSOURI PROGRAMS FOR 2016-17:** 617

Missouri leads the country in PLTW Computer Science Programs and is second in the country in Launch Programs.

Note: These are programs, not unique schools. Some high schools have Engineering, Biomedical and Computer Science offerings.
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.
Undergraduate Majors
- Applied Mathematics
- Bioinformatics
- Computer Science
- Cyber Security
- Engineering (dual degree program w/ WashU or UMKC)
- Management Information Systems
- Mathematics for Secondary Education

Visit: www.fontbonne.edu/mathcs

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- Designed for your students who plan to study cyber security, computer science or bioinformatics.
- $6000 - $10,000 per year (up to four years).
- Six awards for fall ’17; five for fall ’18.

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Evening/Online Master’s Programs to Boost Your Career
- Computer Science (tracks in cyber security & data mining)
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Visit: www.fontbonne.edu/gradprograms

For more information, email cburrus@fontbonne.edu.
Silver Dollar City and Project Lead The Way are proud to present the Engineering Day Design Challenge! This educational event will take place at Silver Dollar City on October 26, 2017. The design challenge will surround a chosen concept and the day will promote the experience of teamwork and presentation skills. Teams can be made up of a minimum of 2 students and no more than 4. Prizes will be given to the highest scoring solutions that emerge from the design challenge.

Plus, in 2017, Bio Medical and Computer Science concepts will be introduced in addition to Engineering.
Six Flags®
ST. LOUIS

MATH, SCIENCE & ENGINEERING DAY
FRIDAY, APRIL 28, 2017

For more information please contact Michelle Westerman at:
636-938-5300 ext. 6291
or mwesterman@sftp.com

Missouri PLTW
PROJECT LEAD THE WAY
Imagine a world where every interested student can delve into engineering and computer science, explore opportunities in biomedical sciences and get hands-on with robotics.

From today’s STEM students come the problem solvers of tomorrow—in Kansas City and beyond. Join KC STEM Alliance’s work to inspire all students to explore the innovative, world-changing possibilities found through STEM.
INVEST IN YOUR FUTURE WITH A DEGREE FROM MISSOURI UNIVERSITY OF SCIENCE & TECHNOLOGY
ROLLA, MISSOURI | FOUNDED 1870 | mst.edu
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 through group projects and presentations.

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
Are you a computing guru? Find out through hands-on activities into coding, robotics and artificial intelligence.

ECOGIRL
Rising high school junior and senior girls
Love the earth? Engage your passion and learn about careers in environmental fields.

EXPLOSIVES CAMP*
Must be at least 16 years
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
You’ll discover how engineers use their knowledge to turn ideas into reality at this interactive camp.

MATERIALS CAMP*
Rising high school juniors and seniors
From advanced composites 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 high school juniors and seniors
Explore future careers in engineering, mathematics and technology, in this intro camp for African American, Hispanic and Native American students.

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
Learn how engineers design and build satellites and experience the thrill of 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 freshman and sophomore girls
It’s a woman’s world. Discover the possibilities of college life and careers in engineering and science.

Programs marked with an* indicate students must apply for acceptance into these camps.
Discover the Influence of Technology on Society

For over 50 years EF has been working toward one global mission: Opening the World Through Education. Together with educators worldwide, we provide 21st century learning experiences that promote critical thinking, problem solving, collaboration and global competence. Teaching these skills is essential—teaching them in Madrid, Paris or Washington D.C. is transformative.

Visit our exhibition booth: Much like Project Lead The Way’s transformative learning experiences, EF’s Global Leadership Summits give students the opportunity to engage in collaborative problem solving and design thinking to solve global challenges. EF and Project Lead The Way believe in empowering students to develop the skills and knowledge to solve present and future global challenges by harnessing technology and creativity. Change begins with our youth. Join us, and learn more about EF’s Global Leadership Summit happening in Berlin, Germany, focusing on the influence of technology on society.

GLOBAL LEADERSHIP SUMMITS
These extraordinary events combine educational tours and a two-day leadership conference, tackling significant global issues in places where they come to life. Students learn from experts such as Sir Ken Robinson and Jane Goodall, and work together to design solutions to a pressing global issue.

EDUCATIONAL TOURS
Take students out of their comfort zones and into an experience that makes them more open-minded and confident. Your Tour Director will be with you every step of the way and expert local guides will explain the significance of the world’s most amazing locations.

LANGUAGE IMMERSION TOURS
To learn a new language, it helps to fall in love with where it’s from. Our Language Immersion Tours combine authentic cultural experiences with lessons taught at EF International Language Schools or out on the road. Each day’s theme connects the day’s lessons to hands-on activities and conversations with locals.

SERVICE LEARNING TOURS
Work side-by-side with locals on community-driven projects in Africa, Asia or the Americas. EF partners with established non-profits and NGOs to make sure your contributions are both meaningful and sustainable.

BUILD YOUR INTERNATIONAL PROGRAM

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