

Thursday	Orange Lab	Blue Lab	Gold Lab
<p>Session 1 11:10 - 12:00</p>	<p>Nathan J. Howard</p> <p>The Fusion of Technology Education and Science, Technology, Engineering, and Mathematics (STEM)</p> <p>Connecting the Dots Between Technology Education and (STEM) Is STEM reconstructing Technology Education? Join us for examples of how you can retain your Industrial Arts roots by applying STEM principles to application-based projects that are currently built into traditional Industrial Arts programs. The presentation will highlight examples of application-based projects with STEM principles, followed by discipline-specific round table discussions, and reflection. Come share the STEM concepts that already exist within your curriculum.</p>	<p>Pamela Wilkins</p> <p>How to do Inlay in wood</p> <p>This will be a hands-on class (limited to the first 25 people). I will have the materials and show you how to do inlay in a piece of wood and talk about where this could be useful/interesting. I can also help you save materials because those pieces that either get broken or come in with huge knots are the favorite ones in my shop now.</p>	<p>Joe Carter</p> <p>Industry 4.0/Smart Factory</p> <p>This is a presentation to discuss the newest technologies regarding Industry 4.0 and how to bring them into your classroom, along with Micro-Credentials.</p>

<p>LUNCH 12:00-130</p>	<p>Chris Juarez CTE UPDATE Main room</p>
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	Orange Lab	Green Lab	Blue Lab
<p>Session 2 1:40 – 2:30 pm</p>	<p>Randy Jordan Using recycling to build sustainability-minded students for tomorrow's classroom!</p> <p>Show your students fun and useful plastic processes that will ignite their creativity and critical thinking to impact the world they live in! With the use of Reducing, Reusing and Recycling they can use trash to create a new medium to work with and paths to new jobs. These simple technologies can open up many opportunities for new curriculum in your classroom for very little investment. These opportunities are only limited to your students' imaginations.</p>	<p>Career and Technical Training</p> <p>Solidworks Certification</p> <p>Learn about the Solidworks Certification process, and how to incorporate 10+ certification into your program.</p>	<p>Jared Merrill</p> <p>Manufacturing projects - With or without CNC</p> <p>This session will cover various manufacturing activities that we do that don't require the use of CNC machines. These activities include a mass production class activity, Pixel art, and catapult challenge.</p>

	Orange Lab	Green Lab	Blue Lab
Session 3 2:40 – 3:30 pm	<p>Dr. Duane A. Renfrow</p> <p>Hydro Dipping 2.0 - Process Evaluation, Reflection, and Modified Techniques</p> <p>This presentation is a follow up to the presentation that I did last year, "Hydrographics &amp; DIY - Hydro Dipping: An Introduction". In this presentation, I will provide an evaluation of the durability of the tumblers that I produced last year based on a survey that I did of the people that I gave the tumblers to, my children, their spouses, and my wife. That last one was is a tough critic! I will also reflect on the spontaneous involvement that the conference attendees had made their own tumblers and get feedback from those who attend my presentation this year. Finally, I will talk about some new techniques that I have developed since my last presentation.</p>	<p>Scott Kenna</p> <p>Introducing MS/HS students to architecture for free</p> <p>In the session, we would be examining several free resources that would allow teachers to introduce students to the world of architecture, using the tools the professionals do. We will be looking at several resources, methods, and projects that will help students go from an interest in architecture to ability to design an entire house. Many resources and project ideas will be given out during this session.</p>	<p>Ashley Acuff TSA-State Officers</p> <p>Colorado TSA Update &amp; Best Practices</p>

**Steve Barbato** Keynote 9:00-10:00

Friday	Orange Lab	Green Lab	Blue Lab
Session 4 10:00 – 10:50 am	<p>Dr. Duane A. Renfrow</p> <p>Hydro Dipping 2.0 - Process Evaluation, Reflection, and Modified Techniques</p> <p>This presentation is a follow up to the presentation that I did last year, “Hydrographics &amp; DIY - Hydro Dipping: An Introduction”. In this presentation, I will provide an evaluation of the durability of the tumblers that I produced last year based on a survey that I did of the people that I gave the tumblers to, my children, their spouses, and my wife. That last one was is a tough critic! I will also reflect on the spontaneous involvement that the conference attendees had make their own tumblers and get feedback from those who attend my presentation this year. Finally, I will talk about some new techniques that I have developed since my last presentation.</p>	<p>Mica Storie</p> <p>Concrete in Engineering</p> <p>Concrete is the most common and versatile building material used in construction. Combined with reinforcing steel it becomes the durable long lasting base of our buildings and roads. Students will learn about the components, mix design and curing process while creating and testing a concrete beam. While the beams are curing students will learn about the concrete design, different mix design and how to make molds using SolidWorks</p>	<p>Steve Barbato ITEEA in Denver.</p> <p>Learn more about the value of ITEEA, and how you can help with the conference in Denver in 2021.</p>

	Orange Lab	Green Lab	Blue Lab
<p>Session 5 11:00 – 11:50</p>	<p>Scott Raedeke</p> <p>Micro:bit as a Platform for Programming, Robotics, and Prototyping</p>	<p>Ben Nuebel and Tony Muscatello</p> <p>Grade like a Solidworks Ninja</p> <p>This session could save hours of time grading student CAD work, and might make you a better teacher. We will cover a variety of nontraditional assessment techniques for SOLIDWORKS files, and as well as some strategies to improve assignment workflow.</p>	<p>Mike Pollock</p> <p>Group project-- STEAM geodome</p> <p>I did a yearlong group project with two woods classes that results in a geodesic dome made from approx 30 triangles. Older students who understand trig functions lead each group to figure out the miter and bevel angles for three different triangles that are then mass-produced by ripping 2x4s into small pieces with a bevel and miter. Jigs are used to assemble the different triangles which are color-coded for later assembly --when all the triangle units are ready. I have the math handouts and drawings to understand which angles need to be determined, and the jigs which make assembly easy, and lots of pics. Fall semester was 1/2, Spring was the other, and they put the halves together to make a sphere on finals day Spring. kids were pretty into it as a large group project. ? Then what do you do with the ball!?</p>