


## VTEA 2010 Summer Conference Workshops Descriptions Revised June 25, 2010


<b>Monday – Tuesday 2 Full Days August 2-3, 2010</b>		
<i>Presenter(s)</i>	<i>Title</i>	<i>Description</i>
<p><b>Mike Johnson</b></p>  <p><b>Ronald A. Williams, Ltd</b> <i>Technology for Teaching</i></p> <p>Teacher provides own transportation and lodging</p>	<p style="text-align: center;"><b><i>AutoCad 2010 Certification Training</i></b></p> <p style="text-align: center;"><i>Virginia Western Community College</i></p> <p style="text-align: center;"><b>8:30 – 4:30</b> <i>Monday – Tuesday</i></p>	<p>This 2 day session covers Autodesk AutoCAD 2010 topics in preparation for the Associates Certification exam. The exam will be given on the second day. Requires independent study prior to the session.</p> <p style="text-align: center;"><b><i>Limited to 22 participants</i></b></p>

## VTEA 2010 Summer Conference Workshops

<b>Wednesday August 4, 2010 Holiday Inn Tanglewood</b>		
<b>Conference Check-in and registration</b>	<p style="text-align: center;"><b>8:00a.m. – 6:00 p.m.</b></p> <p style="text-align: center;"><i>Holiday Inn Tanglewood</i></p>	<b>VTEA</b> Pre-registration check-in, on-site registration
<b>Dr. Robert Lindberg</b> President and Executive Director, National Institute of Aerospace	<p style="text-align: center;"><b>10:00-11:30</b></p> <p style="text-align: center;"><b>and</b></p> <p style="text-align: center;"><b>1:30-3:00</b></p>	<b>The Engineering Design Process</b> Dr. Lindberg focuses on the distinctions between science and engineering, and how teachers can introduce the designed world in the context of "STEM" education. An appreciation of engineering is fundamental for all students.
<b>EXHIBITS</b>	<p style="text-align: center;"><b>10:00 – 6:00</b></p> <p style="text-align: center;"><i>Holiday Inn Tanglewood</i></p>	See the latest and greatest technology and find out how you can use it in your classroom!
<b>LUNCH WITH EXHIBITORS</b>	<p style="text-align: center;"><b>12:00 -1:00</b></p> <p style="text-align: center;"><i>Holiday Inn Tanglewood</i></p>	Join your colleagues for lunch and network ideas, meet old friends, and get ready for a great conference!


<b>AWARDS DINNER</b>	<b>7:00-9:00</b> <i>Holiday Inn Tanglewood</i>	<b>Keynote Speaker</b> <b>William E. Dugger, Jr., Ph.D., DTE</b> Join your professional colleagues for the banquet and awards session, followed by a reception.
<b>AWARDS RECEPTION</b>	<b>9:00</b> <i>Holiday Inn Tanglewood</i>	Honor Awardees, network ideas, meet old friends, and get ready for a great conference!



## VTEA 2010 Summer Conference Workshops


<b>Thursday All-Day Workshops August 5, 2010</b>		
<i>Presenter(s)</i>	<i>Title</i>	<i>Description</i>
<p><b>Mike Johnson</b></p>  <p><b>Ronald A. Williams, Ltd</b> <i>Technology for Teaching</i></p>	<p style="text-align: center;"><b>Revit</b></p> <p style="text-align: center;"><i>Virginia Western Community College Webber 106</i></p> <p style="text-align: center;"><i>8:30 – 4:15</i></p> <p style="text-align: center;"><i>BUS LEAVES Holiday Inn at 8:15 and returns at 4:15. Lunch on site.</i></p>	<p><b>High School</b></p> <p>This session will cover software basics. Topics include the user interface, walls, doors and windows, stairs, roofs, dimensioning and printing plans, and installing floors and ceilings.</p> <p style="text-align: center;"><b>Limited to 24 participants</b></p>
<p><b>Susan Short</b></p> <p><i>Virginia Tech</i></p>	<p style="text-align: center;"><b>Virginia Tech Tour</b></p> <p style="text-align: center;"><i>Limited to 30 participants</i></p> <p style="text-align: center;"><i>BUS LEAVES Holiday Inn at 8:30 and returns at 4:30. Lunch will be provided.</i></p>	<p><b>Middle and High School</b></p> <p>Participants will tour the Virginia Tech Transportation Institute, SmartRoad, and Ware Engineering Lab.</p> <p style="text-align: center;"><b>Advance Registration Required</b></p>


## VTEA 2010 Summer Conference Workshops

<p><b>Thursday Morning Workshops August 5, 2010</b></p>
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<p><b>Chu Chun Tsai</b></p> <p>Woodson High School, Fairfax County Public Schools</p>	<p><del>Google Sketch Up For Beginners</del>  <b>Canceled</b>  <del>Virginia Western Community College</del>  <del>8:30 – 10:00</del></p>	<p><b>Middle and High School</b></p> <p>This session will be an introduction to Sketch Up covering installation, the user interface, basic tools, and possibilities for classroom use.</p>
<p><b>Chu Chun Tsai</b></p> <p>Woodson High School, Fairfax County Public Schools</p>	<p><del>Google Sketch Up For Projects</del>  <b>Canceled</b>  <del>Virginia Western Community College</del>  <del>10:15 – 11:45</del></p>	<p><b>Middle and High School</b></p> <p>This session will include how to create Realistic Models, use of 3D Warehouse and cover addons to use with the software.</p>
<p><b>Thursday Morning Workshops</b>  <b>August 5, 2010</b></p>		
<p><b>Dr. William Wyatt</b></p> <p>John Tyler Community College</p>	<p><b>AutoCAD Update</b></p> <p>Virginia Western Community College  8:30 – 11:45</p>	<p><b>High School</b></p> <p>This session will consist of lecture and hands-on tutorials regarding new features of Autodesk 2011 products. Teachers will perform tutorials on draw, selection, display and edit tools of AutoCAD as well as techniques of lab maintenance using the CUI.</p>
<p><b>Randy Dotson and Tom Clater</b></p> <p>Diversified Education Systems</p> 	<p><b>Inexpensive Hands-on Wind and Solar Solutions</b></p> <p>Virginia Western Community College  8:30 – 11:45</p>	<p><b>Middle and High School</b></p> <p>DES is pleased to offer the classroom a completely hands-on approach to Wind and Solar Technology. During this informative workshop participants will assume the role of the student and assemble a 12V - 60W solar photovoltaic system. Each student kit comes complete with curriculum resources, a text book and introductory information related to wind and solar technologies.</p>

<p><b>Alex Baddock and Steve Oddy</b></p> <p>Amtek Company</p> 	<p><b><i>F1 in Schools</i></b></p> <p><i>Virginia Western Community College</i></p> <p>8:30 – 11:45</p>	<p><b>Middle and High School</b></p> <p>Participants will design F1 cars using SolidWorks and produce the cars on a Denford CNC router. Best design wins an Apple Ipod nano!</p>
<p><b>Russ Mickelson</b></p> <p>The CAD Academy Amtek Company</p> 	<p><b>Introduction to the STEM Academy</b></p> <p><b><i>Hidden Valley High School</i></b></p> <p>8:30 – 11:45</p> <p><b>MOVED</b></p>	<p><b>Middle and High School</b></p> <p>STEM Academy features discovery based courses K-12 with maps to ITEEA, ABET, NSTA, and NCTM; and student certification and articulation with leading universities. Courses developed by educators for education and include: standards, learning outcomes, sequence and schedule, problems, projects, integrated activities and assessments.</p>
<p><b>John Hammons</b></p> <p>York High School, York County Public Schools</p>	<p><b><i>3D Parametric Modelers in SNAME Boat Design</i></b></p> <p><i>Hidden Valley High School</i></p> <p>8:30 – 10:00</p>	<p><b>High School</b></p> <p>Learn to find area, centers of gravity, half-breadth distances, work planes, work points and create nesting plans of your boat designs easily with modeling software. Come see techniques used at York High School to win the 2009 SNAME Boat competition.</p>
<p><b>Thursday Morning Workshops August 5, 2010</b></p>		
<p><b>Kim Bates</b></p> <p>Heritage High School, Newport News</p>	<p><b><i>Easy GPS and Intro to ArcExplorer</i></b></p> <p><b><i>Hidden Valley High School</i></b></p> <p>8:30 – 10:00</p> <p><b>MOVED</b></p>	<p><b>High School</b></p> <p>Easy GPS: a free downloadable interface for GPS units that allows the user to import their waypoints into Easy GPS and display their waypoints on the image. ArcExplorer is a free downloadable interface to learn the basics of GIS.</p>

<p><b>Patricia Watson</b> Virginia Tech</p>	<p><b><i>CO2: Past, Present, and Future</i></b></p> <p><i>Hidden Valley High School 8:30 – 10:00</i></p>	<p><b>Middle and High School</b></p> <p>Explore how dragsters were taught in the past and what students learn from current practice. Examine how to improve the activity by focusing on STL, math, and science.</p>
<p><b>Olaf Trunzer</b> Knowledge Tree, Inc.</p>	<p><b><i>FabLab ModelMaker and STEM</i></b></p> <p><i>Hidden Valley High School 10:15 – 11:45</i></p>	<p><b>Middle and High School</b></p> <p>FabLab ModelMaker is a powerful 3D Design and modeling program. This leads students from the “abstract” of designing models on the screen to the “concrete” of printing NETS and fabricating live models.</p>
<p><b>Allen Patton</b> Arlington Public Schools</p>	<p><b><i>Your Accurate Dimensioning Formula</i></b></p> <p><i>Hidden Valley High School 10:15 – 11:45</i></p>	<p><b>Middle and High School</b></p> <p>Can you Accurately Dimension any Drawing? <i>What dimensions are needed? Where are they placed?</i> Come learn a <i>Formula</i> to guide successful dimensioning! Sequenced Exercises &amp; Poster included! Tolerancing discussed as well!</p>
<p><b>LaTasha Watson</b> Virginia TSA</p> 	<p><b><i>What is Virginia TSA?</i></b></p> <p><i>Hidden Valley High School 10:15 – 11:45</i></p>	<p><b>Middle and High School</b></p> <p>Come learn how to prepare your students for the challenges of a dynamic world by promoting technological literacy, leadership, and problem solving.</p>
<p><b>Thursday Afternoon Workshops August 5, 2010</b></p>		

<p><b>Alex Baddock</b></p> <p>Amtek Company</p> 	<p><b><i>STEM focus 3D printing using Solid Works</i></b></p> <p><i>Virginia Western Community College</i> 1:00 – 4:15</p>	<p><b>Middle and High School</b></p> <p>Participants will design a STEM based project using SolidWorks and produce that object on a Dimension 3D printer. Best design wins an Apple Ipod nano!</p>
<p><b>Paul Riddell</b></p> <p>Progressive Educational Systems, Inc.</p>	<p><b><i>Alternative Energy Wind and Solar</i></b></p> <p><i>Hidden Valley High School</i> 1:00 – 4:15 <b>MOVED</b></p>	<p><b>High School</b></p> <p>This session will cover wind and solar energy, and how technology is used to convert and transmit them. Learn how these energy sources can be explored in the classroom.</p>
<p><b>Allen Patton</b></p> <p>Arlington Public Schools</p>	<p><b><i>Descriptive Geometry</i></b></p> <p><i>Hidden Valley High School</i> 1:00-4:15</p>	<p><b>High School</b></p> <p>Descriptive Geometry is mathematical graphics theory. Use it to find any True Length, True Size &amp; Shape and more! Integrate this math into your STEM Graphics program. Exercises &amp; Poster included !</p>
<p><b>TOUR</b></p>	<p><b><i>Virginia Museum of Transportation</i></b></p> <p><i>Requires extra fee on registration</i> 1:00-4:15</p>	<p><b>Tour the Virginia Museum of Transportation</b></p> <p>See web site at: <a href="http://www.vmt.org">http://www.vmt.org</a></p>
<p><del><b>Chu Chun Tsai</b></del></p> <p><del>Woodson High School, Fairfax County Public Schools</del></p>	<p><del><b><i>GIS/GPS with Google Maps and Google Earth</i></b></del></p> <p><b>Canceled</b></p> <p><del><i>Virginia Western Community College</i></del> <del>1:00 – 2:30</del></p>	<p><del><b>Middle and High School</b></del></p> <p><del>This session will teach participants how to create maps and layer information.</del></p>

**Thursday Afternoon  
Workshops  
August 5, 2010**

<p><b>LaTasha Watson</b> Virginia TSA</p> 	<p style="text-align: center;"><b><i>Starting a TSA Chapter</i></b></p> <p style="text-align: center;"><i>Hidden Valley High School 1:00 –2:30</i></p>	<p><b>Middle and High School</b></p> <p>Come and learn everything needed to start a TSA chapter at your school and receive details for the 2011 Fall Rallies, Spring Fairs, and Technosphere.</p>
<p><b>Joseph Franco</b> West Potomac High School, Fairfax County Public Schools</p>	<p style="text-align: center;"><b><i>STEM Rocketry with Payload Delivery</i></b></p> <p style="text-align: center;"><i>Hidden Valley High School 1:00 –2:30</i></p>	<p><b>High School</b></p> <p>Presentation will show teachers a full STEM lesson and project to design a rocket that will deliver a robotic payload to a specific location from a specific launch site.</p>
<p><b>Kathleen Stansbury</b> <b>Mt. Vernon Middle School, Henrico County Schools</b></p>	<p style="text-align: center;"><b><i>Microscopy and Nanotechnology: Teaching Emerging Technologies</i></b></p> <p style="text-align: center;"><i>Virginia Western Community College 1:00 – 2:30</i></p>	<p><b>Middle School</b></p> <p>Nanotechnology is everywhere. Nanomaterials are in our cosmetics to fill in wrinkles, in our socks to keep us smelling good, even in our foods to change their effect on our body. How do you teach about this technology that is only 10 atoms across? Learn practical hands-on lessons to introduce your students to the concept of nanoscale size and nano-microscopy.</p>
<p><b>Mark Weis and Tom Clater</b> Diversified Education Systems</p> 	<p style="text-align: center;"><b><i>STEM Initiative</i></b></p> <p style="text-align: center;"><i>Virginia Western Community College 1:00 -2:30</i></p>	<p><b>Middle and High School</b></p> <p>There is considerable building interest in Science, Technology, Engineering and Math (STEM) programming initiatives. This presentation examines some of the issues and challenges associated with implementing STEM programming at the secondary level. LJ Create has been involved with many schools across the nation and has the expertise and technology-based resources to provide world class STEM education.</p>

<p><b>Dr. Johnny J. Moye</b> Chesapeake Public Schools</p>	<p><b><i>“Stuff” Every Technology Education Teacher Needs to Know</i></b></p> <p><i>Virginia Western Community College</i> 2:45-4:15</p>	<p><b>Middle and High School</b></p> <p>Technology Education continues to change in order to prepare students for future needs. Attend this insightful brief to see how you, as the teacher, will need to address these changes.</p>
<p><b>Thursday Afternoon Workshops</b> <b>August 5, 2010</b></p>		
<p><b>Dr. James Barger</b> Landstown High School, Virginia Beach</p> <p><b>Vanessa Barger</b> Mathews County High School, Mathews</p>	<p><b><i>Implementing “Green Technology” with Hands-on Projects</i></b></p> <p><i>Virginia Western Community College</i> 2:45-4:15</p>	<p><b>Middle and High School</b></p> <p>With the onslaught of “Green” being thrown at the classrooms around the country, Technology Education teachers are looking for projects that they can have their students complete that align with STEM standards and also are environmentally friendly. This session will present teachers with samples of “Green” projects that they can adapt to their various Technology Education curriculums. Teachers should come prepared to share their own hands-on project design briefs for a “show and tell” session as part of this workshop.</p>
<p><del><b>Chu Chun Tsai</b></del> <del>Woodson High School, Fairfax County Public Schools</del></p>	<p><del><b><i>Google and Technology Education</i></b></del> <del><b>Canceled</b></del> <del><i>Virginia Western Community College</i></del>  <del>2:45—4:15</del></p>	<p><del><b>Middle and High School</b></del> <del>Wondering how to apply Google apps and products in your classroom? This session will show you how to apply the information taught in the 3 earlier sessions and tie the information together.</del></p>
<p><b>Darren Morris</b> CTE Resource Center</p> <p><b>Tim Greenway</b> Varina High School, Henrico County</p>	<p><b><i>CTE Resource Center: Great Stuff You Can Use</i></b></p> <p><i>Hidden Valley High School</i></p>	<p><b>Middle and High School</b></p> <p>The newly revised Workplace Readiness Skills are slated for implementation this coming school year (2010-11). This list of skills will be incorporated into each CTE course task list, and new instructional resources will be available. We will demonstrate one of the new U.S.</p>

Public Schools	2:45 –4:15	Department of Transportation lesson plans and use it as springboard to explore supporting resources through Verso, the statewide CTE curriculum management system.
<b>Dr. Glenn Hider</b> California University of Pennsylvania	<b><i>Master's Programs in Technology Ed</i></b>  <i>Hidden Valley High School</i> 2:45 –4:15	<b>Middle and High School</b> A description of the benefits of Master's programs including the enhancement of teaching and learning to improve technology programs. Participants will get to see examples of student work.

**Friday Morning  
Workshops  
August 6, 2010**

<p><b>Martha Graves</b></p>	<p style="text-align: center;"><b>WDBJ 7 Tour</b></p> <p style="text-align: center;"><i>BUS LEAVES Holiday Inn at 9:30 and returns at 11:45</i></p>	<p><b>Middle and High School</b></p> <p>Tour WDBJ 7, Roanoke's Hometown Station.</p> <p style="text-align: center;"><b>Limited to 30 Participants</b></p>
<p><b>Kimberly Biggs</b></p> <p>Old Dominion University</p> <p><b>MOVED</b></p>	<p style="text-align: center;"><b>Using Windows Movie Maker</b></p> <p style="text-align: center;"><b>Hidden Valley High School</b></p>	<p><b>Middle and High School</b></p> <p>Create videos using Movie Maker with pictures, captions and audio. Participants should bring 5-10 digital pictures to use during the workshop.</p>
<p><b>Rick Dyer and Dana Newcomer</b></p> <p>Norfolk Public Schools, Norfolk</p>	<p style="text-align: center;"><b>Differentiated Lessons, Activities, Techniques and Management for the CADD Classroom</b></p> <p style="text-align: center;"><i>Virginia Western Community College 8:30 – 11:45</i></p>	<p><b>High School</b></p> <p>Learn new ways to differentiate your lessons using design activities and administrative techniques. This presentation is directed towards any class that has a CADD component.</p>
<p><b>Mike Johnson</b></p> <p>Northside High School Roanoke County</p>	<p style="text-align: center;"><b>Autodesk Inventor Professional 2012</b></p> <p style="text-align: center;"><i>Virginia Western Community College Webber 106 8:30 – 11:45</i></p> <p style="text-align: center;"><b>MOVED</b></p>	<p><b>High School</b></p> <p>Upon completion of this session, the participant will have the tools needed to implement Inventor 2010 in the classroom</p>
<p><b>Kim Bates</b></p>	<p style="text-align: center;"><b>Easy GPS and Intro to ArcExplorer</b></p>	<p><b>High School</b></p> <p>Easy GPS: a free downloadable interface</p>

<p>Heritage High School, Newport News</p>	<p><b>MOVED to Thursday</b> <del>Northside High School</del> 8:30—11:45</p>	<p><del>for GPS units that allows the user to import their waypoints into Easy GPS and display their waypoints on the image. ArcExplorer is a free downloadable interface to learn the basics of GIS.</del></p>
<p><b>Friday Morning Workshops August 6, 2010</b></p>		
<p><del>Dr. George Blanks</del> <b>CANCELED</b> <del>Auburn University BEST robotics</del></p> <p><b>Alternatively Consider:</b></p> <p>Dr. Rick Clark</p>	<p><b>VWCC Robotics Competition</b></p> <p><i>Virginia Western Community College</i> 8:30 – 10:00</p> <p><b>NEW</b></p>	<p><b>Middle and High School</b></p> <p>Learn about how VWCC has funded a low cost Robotics contest that levels the playing field between, middle and high school students and engineers from industry, 4 years running.</p>
<p><b>Dan Horine</b></p> <p>Virginia Western Community College</p>	<p><b><i>Mechatronics</i></b></p> <p><i>Virginia Western Community College</i> 8:30 – 10:00</p>	<p><b>High School</b></p> <p>Mechatronics is the synthesis of mechanical, electrical, software, and controls filling the need for multidisciplinary technicians and engineers. This workshop will present a Festo-based Modular Production System and other equipment of similar nature. Get hands-on learning and learn teaching techniques in pneumatics, mechanisms, electrical circuits, controls, and programmable logic controllers. Experience the challenge of rewiring a complex control system or pneumatic system from schematics.</p>
<p><b>David Lorenz</b></p> <p>Grassfield High School, Chesapeake</p>	<p><b><i>TSA and STEM Promoting Your Program</i></b></p> <p><i>Virginia Western Community College</i> 10:15 – 11:45</p>	<p><b>High School</b></p> <p>Come learn about program promotional ideas, benefits of teacher collaboration, and making learning real across a variety of courses.</p>

<p><b>David Hotler</b></p> <p>Hampton City Schools, Hampton</p>	<p><b><i>Classroom Enterprising: Education that Pays</i></b></p> <p><i>Virginia Western Community College 10:15 – 11:45</i></p>	<p><b>Middle and High School</b></p> <p>New ideas that work to turn a profit while teaching. Eliminate class fees, spend profits on equipment, and liberate yourself from budget concerns. Become the most visible and indispensable teacher.</p>
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**Friday Morning  
Workshops  
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<p><b>Georgette Yakman</b>  Pulaski High School, Pulaski County Schools</p>	<p><b><i>Sustainability with STE@M: Viability for Your Program and Our Universe</i></b>  <i>Hidden Valley High School 8:30 – 10:00 REPEAT : 10:15-11:45</i></p>	<p><b>Middle and High School</b>  FREE DISK of substantiated lesson plans, program development templates &amp; program positioning tactics <b>PLUS</b> practice hands-on activities that excite students, get publicity &amp; fundraise to integrate into your CURRENT program.</p>
<p><b>Rachael Domer</b>  Key Middle School, Fairfax County Public Schools</p>	<p><b><i>Problem Solving on a Budget</i></b>  <i>Hidden Valley High School 8:30 – 11:45</i></p>	<p><b>Middle School</b>  Forget pre-fabricated kits! Discover the world of cardboard, newspaper, duct tape, and other resources available to us...before they reach the garbage bins. From medieval machines to modern skate parks.</p>
<p><b>Stuart Rawlings</b>  Cave Spring Middle School, Roanoke County</p>	<p><b><i>Solar Explorations</i></b>  <i>Hidden Valley High School 8:30 – 10:00</i></p>	<p><b>Middle School</b>  This presentation will introduce participants to terms, concepts, activities, and resources relevant to solar power. Participants will construct simple systems using solar power components.</p>
<p><b>Lance Baldwin</b>  Rocky Run Middle School, Fairfax County Public Schools</p>	<p><b><i>Fun with Tedious but IMPORTANT Safety Rules</i></b>  <i>Hidden Valley High School 10:15 – 11:45</i></p>	<p><b>Middle and High School</b>  Participants will see a unique three day safety unit including humorous slides, a safety blog and a Jeopardy review game.</p>
<p><b>TBA</b></p>	<p><b><i>Closing Luncheon and VTEA Business Meeting</i></b></p>	<p><b>Are Your Students Ready for the Workforce?</b>  How your influence on students impacts</p>

	<b>12:00-1:30 Holiday Inn, Tanglewood</b>	their future and that of the workforce. Additional awards and business will also take place at this time.
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