

**COMPETITIVE EVENTS INFORMATION**  
**2008 WESTERN REGIONAL TSA – APPALACHIAN STATE UNIVERSITY – MARCH 1, 2008**

**MIDDLE SCHOOL EVENTS**

ADVISORS: REFER TO THE TSA EVENTS GUIDE OR [www.tsaweb.org](http://www.tsaweb.org) FOR FULL EVENT DESCRIPTIONS!

**Agriculture and Biotechnology Challenge:** Research a contemporary agriculture or biotechnology issue and prepare a display of the research. Students will participate in an on-site interview about their research.

**Challenging Technology Issues:** Student teams of two prepare and deliver extemporaneous “debate” of a current technology issue, given on site. Bring non-electronic reference materials to assist with on-site preparation.

**Communication Challenge:** Design and produce a chapter newsletter, a sponsor support request on chapter letterhead, and a business card. *Bring completed materials for on-site judging.* Contestants judged on layout and design, content, effectiveness, and accuracy of spelling and grammar. No materials will be developed on site.

**Digital Photography Challenge:** Participants produce an album and 8x10” collage of six color or B/W digital photographs that document a chapter activity. Judging based on album presentation and interview only; there will be no on-site challenge.

**Dragster Design Challenge:** Cars will be judged on the drawing, dragster's appearance, and final position in the race. No wind-tunnel testing will be conducted on site.

**Electrical Applications:** Show knowledge of basic electrical theory through a one-hour written test. Finalists will assemble a circuit on-site with parts provided.

**Flight Challenge:** Glider will be judged on the drawing and the length of time it stays aloft. Completed gliders should be brought the day of the competition (no on-site construction). Launcher will be provided on site.

**Graphic Design Challenge:** Design a one-color promotional graphic (8” x 10” max) for the 2009 National Contest, with the theme: “Shape the Future.” The 2009 national TSA conference will be held in Denver, CO. Only the year and location should be included in the design for this event.

**Inventions and Innovations:** Student teams of three investigate and determine the need for the invention of a device, system, or process. Team members will present their idea for an invention using a stand-alone multimedia presentation, documentation notebook, and a model or prototype. There is an on-site oral presentation.

**Leadership Challenge:** Participants (one team of three individuals per chapter) work in teams to develop a written plan of action that addresses a specific challenging situation provided on site. Under time constraints, finalists develop a plan for a second situation and then make a team presentation on site.

**Prepared Speech:** Deliver a 3-5 minute oral presentation, using audio/visual support, on this years’ theme – “TSA: Imagine It!”

**Problem Solving:** Two-person teams solve problem on site using materials provided. *Must be pre-registered to participate.* Limit one team per school (additional allowed if space permits).

**Structural Challenge:** Bring an already-constructed tower that adheres to the rules in the 2008 TSA curriculum resource guide. Tower height for the 2008 regional contest is 14”. Testing conducted on site.

**Technical Design Challenge:** Contestant will be given a written test (1/2 hour) and will solve a technical design problem on site (one hour). Contestants must bring their own drawing tools. Paper will be provided.

**Technology Bowl Challenge:** Teams of three students each participate on site in written test and oral “quiz bowl” team competition. One team per school limit, unless conference coordinator has approved additional teams.

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**HIGH SCHOOL EVENTS**

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**Agriculture and Biotechnology Design:** Participants (one team of two or more members per chapter) conduct research on a contemporary agriculture or biotechnology problem of their choosing, document their research, and create a display. If appropriate, a model or prototype of the solution may be included in the display.

**CAD Architectural 2D, CAD Engineering 3D:** Each event involves a one-hour on-site drawing. Maximum of two entries per school unless conference coordinator has approved additional entries. Computers with AutoCAD 2007 and Rhino are provided, or contestants may bring their own laptop computers.

**Cyberspace Pursuit:** Participants (one team of three to five members per chapter) design, create, and launch a web site that features the school's technology education program, the TSA chapter, and research about a cutting edge technological topic. Students participate in an on-site interview. To obtain the design brief, visit the TSA website at [www.tsaweb.org](http://www.tsaweb.org) and click on Competitive Events.

**Desktop Publishing:** Prepare and bring a tri-fold pamphlet, a three-column newsletter, and an 8.5"x 11" poster promoting the Technology Education program at your school (no on-site work).

**Dragster Design:** Cars will be judged on the drawing, dragster's appearance, adherence to specifications, and final position in the race. No on-site wind tunnel testing.

**Extemporaneous Presentation:** Deliver a 3-5 minute speech 15 minutes after drawing a card identifying the topic. You may bring reference materials.

**Film:** Develop and bring a film/video that focuses on a subject of your choice (see list in competitive events guide). Five minute maximum; must be in DVD (digital) format for on-site judging.

**Flight Endurance:** Bring a rubber band powered model aircraft and a drawing of the model.

**Imaging Technology:** Participants create and present a static photographic display of prints they have taken and processed during the current school year and that depict the 2008 theme: "Technically Speaking." Follow competitive events guide for preparation of static display. *No on-site work*; judging of static display only.

**Promotional Graphics:** Develop and bring a desktop publishing design (8 x 10") that can be used as a TSA recruitment tool for the 2009 conference. Theme: "Shape the Future." 2009 conference location: Denver, CO.

**SciViz:** Bring prepared visualization (3 minutes maximum) along with all presentation equipment needed, plus portfolio. 10-minute on-site presentation. See TSA guide for additional details.

**Structural Engineering:** 2008 regional challenge: Create a bridge to cover a maximum span of 14" long by 3" wide. Follow additional specifications in TSA competitive events guide. Include a structure plan with your model. *Structures should be built at home site and will be tested at conference site.*

**Technical Sketching and Application:** Contestant will be given a written test (1/2 hour) and solve an engineering graphic problem on site (one hour). Contestants must bring their own drawing tools. Paper will be provided.

**Technology Bowl:** Teams of three students each participate on site in written test and oral "quiz bowl" team competition. One team per school limit, unless conference coordinator has approved additional teams.

**Technology Problem Solving:** Two-person team event to solve problem on-site. All materials provided. *Must be pre-registered* to enter. Limit one team per school; additional teams may be allowed as space permits

**Transportation Modeling:** Using the materials allowed and following required specifications, the participant designs and produces a CO<sub>2</sub>-powered scale model of a vehicle that fits the 2008 design problem: Design and create a concept motor home/recreational vehicle. No on-site wind-tunnel testing will be conducted.