



## TSA Western Regions Conference February 19, 2010

December 1, 2009

Dear TSA Advisor,

Attached are registration forms and informational materials for the Western Regions TSA Conference, to be held on the campus of Appalachian State University on Friday, February 19, 2010. All TSA chapters in the Southwestern, Western, and Northwestern regions of the state are encouraged to attend.

Please note that some of the events will operate differently than described in the TSA Competitive Events Guides. Due to time constraints, some events that normally involve on-site construction of projects will deviate from the event guidelines. For additional information about the events see the attached sheets, or contact the event coordinator, Jerianne Taylor ([taylorjs@appstate.edu](mailto:taylorjs@appstate.edu)), via phone or email.

Also note that we can only *guarantee* spaces in events to those schools/students that have preregistered. See the registration form for details. All other students will be taken on a space available basis.

We look forward to seeing you on February 19th!

Jerianne Taylor, Event Coordinator  
Department of Technology  
Appalachian State University  
828-262-6352 (phone)  
828-265-8696 (fax)  
[taylorjs@appstate.edu](mailto:taylorjs@appstate.edu)

**COMPETITIVE EVENTS INFORMATION**  
**2010 WESTERN REGIONAL TSA – APPALACHIAN STATE UNIVERSITY**  
**February 19, 2010**

**HIGH SCHOOL EVENTS**

*ADVISORS: REFER TO THE TSA EVENTS GUIDE OR <http://www.tsaweb.org/High-School-Competitions>  
FOR FULL EVENT DESCRIPTIONS!*

1. **Computer-Aided Design (CAD), Architecture with Animation:** Participants (two individuals per chapter) create representations, such as foundation and/or floor plans, and/or elevation drawings, and/or details of architectural ornamentation or cabinetry. Students may be expected to animate a presentation of their entry. Each event involves a one-hour on-site drawing. Computers with AutoCAD 2008 and Rhino are provided, or contestants may bring their own laptop computers.
2. **Computer-Aided Design (CAD), Engineering with Animation:** Participants (two individuals per chapter) create 3D computer model(s) of an engineering or machine object, such as a machine part, tool, device, or manufactured product. Students may be expected to animate a portion of their model. Each event involves a one-hour on-site drawing. Computers with AutoCAD 2007 and Rhino are provided, or contestants may bring their own laptop computers.
3. **Debating Technological Issues:** Team members prepare to debate a topic (both pro and con views) against a team from another chapter. Topic: 2010: Technology is the cause of the world's current climate change situation..
4. **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).
5. **Dragster Design:** Cars will be judged on the drawing, dragster's appearance, adherence to specifications, and final position in the race.
6. **Extemporaneous Presentation:** Deliver a 3-5 minute speech 15 minutes after drawing a card identifying the topic. You may bring reference materials.
7. **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.
8. **Flight Endurance:** Bring a rubber band powered model aircraft and a drawing of the model.
9. **Future Technology Teacher** Participants (three individuals per chapter) research and select three accredited colleges or universities that offer technology education/engineering technology teacher preparation as a major. Each participant must write a one page simulated college essay about the wish to become a teacher in either major. Participants also develop and present a lesson plan.

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10. **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 2010 theme: **“What Family Means to Me”**. Follow competitive events guide for preparation of static display. *No on-site work*; judging of static display only.
11. **Promotional Graphics:** Develop and bring a desktop publishing design (8 x 10”) that can be used as a TSA recruitment tool for the 2010 conference. Theme: Snapshot of Innovation.
12. **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.
13. **Structural Engineering:** 2010 regional challenge: Create a roof truss with a span of 12 inches. 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.*
14. **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.
15. **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.
16. **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
17. **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 2010 design problem: Design and produce a famous television or movie vehicles.

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**MIDDLE SCHOOL EVENTS**

*ADVISORS: REFER TO THE TSA EVENTS GUIDE OR <http://www.tsaweb.org/Middle-School-Competitions> FOR FULL EVENT DESCRIPTIONS!*

1. **Challenging Technology Issues** - Participants (three teams of two members per state) prepare and deliver an extemporaneous debate style presentation, with team members explaining opposing views of a current technology issue that has been selected on site from a choice of three options.
2. **Communication Challenge** - Participants (two individual per chapter, one entry per individual) write, design and produce 1) a newsletter that promotes the chapter's activities, 2) an effective sponsor support request on chapter letterhead, and 3) 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.
3. **Digital Photography** - Participants (two individuals per chapter) produce and submit an album of digital photographs consisting of color or black and white digital photographs that present a theme in journalistic style. Judging based on album presentation and interview only; there will be no on-site challenge.
4. **Dragster** - Participants (four individuals per chapter, one entry per individual) design, produce working drawings for, and build a CO<sub>2</sub>-powered dragster according to stated specifications and using only certain specified materials.
5. **Engineering Structure** - Participants (two teams of two members per chapter) work to determine superior engineering as they conduct research and then model and test a structure that is designed to hold the greatest load. Bring an already-constructed bridge that adheres to the rules in the 2010 TSA curriculum resource guide. The BRIDGE SPAN for the 2010 regional contest is 12". Testing conducted on site.
6. **Flight** - Participants (two individuals per chapter, one entry each) study the principles of flight and design in order to fabricate and test-fly gliders. Gliders must be designed to be launched from a catapult that is provided on site. Flight duration of the gliders and documentation of the design process are the primary elements of the evaluation. Completed gliders should be brought the day of the competition (no on-site construction).
7. **Graphic Design** - Participants (two individuals per chapter, one entry per individual) create and produce a graphic design that is appropriate for national TSA conference

publications and other small promotional items. In 2010, participants must include the theme of the 2011 conference , which is **Snapshot of Innovation**.

8. **Go Green Manufacturing** - Participants (one team of at least three individuals per chapter, one entry per team) design and manufacture a product using recycled material that has been donated from business or industry. The chapter submits documentation of chapter activities and two product samples made during the manufacturing experience.
9. **Lights, Camera, Action** - Participants [three teams (a team may be an individual or a group) per chapter] develop and submit a detailed storyboard, production plan and finished video that depicts the chapter's involvement in TSA, technology education, or community service. The theme for 2010 is **Energy Efficiency in Your Community**.
10. **Multimedia Production**- Participants (two individuals per chapter, one entry per individual) create and design a stand-alone multimedia presentation to promote TSA. The theme for 2010 is **What is TSA?** (design to inform school administrators).
11. **Problem Solving** -Participants (two teams of two individuals per chapter) use problem solving skills to develop a finite solution to a stated problem given on site. Participants work as a team to provide the best solution, which is measured objectively. *Must be pre-registered* to enter.
12. **Tech Bowl**- Participants (one team of three individuals per chapter) are required to complete a written objective examination to qualify for the oral question/response, head-to-head team competition phase of the event.
13. **Technical Drawing** - Participants (two individuals per chapter) demonstrate the ability to read and interpret technical sketches, drawings, and the use of materials when they complete a technical design and illustration test. Semifinalists demonstrate their ability to solve an on-site technical design problem using standard sketching, drafting, and problem-solving techniques. 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.
14. **Techno Talk**- Participants (two teams of two members each per chapter) demonstrate the ability to work together in teams of randomly paired students in order to build and replicate a structure using limited communication.

# PERSONAL LIABILITY RELEASE FORM

Technology Student Association  
2010 Regional Competitive Events Conference  
February 19, 2010- Appalachian State University, Boone, NC

Name of Student Participant: \_\_\_\_\_

Name of School: \_\_\_\_\_ Advisor: \_\_\_\_\_

**NOTE: EVERY STUDENT MUST HAVE A COPY OF THIS FORM SIGNED BY PARENT OR GUARDIAN IN ORDER TO PARTICIPATE.**

I hereby agree to release Appalachian State University and the North Carolina Technology Student Association, Inc., its representatives, agents, servants, and employees from liability for any injury to the above named person, resulting from any cause whatsoever occurring to the above named person at any time while attending the North Carolina Technology Student Association State Conference, including travel to and from the conference, excepting only such injury or damage resulting from willful acts of such representatives, agents, servants and employees.

I do voluntarily authorize the North Carolina Technology Student Association's State Conference Chair, assistants and/or designee to administer and/or obtain routine or emergency diagnostic procedures and/or routine or emergency medical treatment for the above named person as deemed necessary in medical judgment.

I agree to indemnify and hold harmless the North Carolina Technology Student Association, Inc., and said medical service coordinator and/or assistants and designees from any and all claims, demands, actions, or rights of action, on account of said procedures and/or treatment rendered in good faith and according to accepted medical standards.

Having read and understood completely the "Student Code of Conduct" for the North Carolina Technology Student Association, Inc., I do hereby agree to follow the conduct described. I fully understand that this is an educational activity and will, to the best of my ability, apply myself for the purpose of learning and will uphold at all times the good qualities of a person representing the North Carolina Technology Student Association, Inc.

\_\_\_\_\_  
Participant Date

\_\_\_\_\_  
Parent or Guardian Date

**PUBLICITY:** I agree to allow pictures of my child from this conference to be used for TSA promotional purposes.

\_\_\_\_\_  
Parent or Guardian Date

**Participants: please bring a signed copy of this form to the Conference**

## Additional notes and precautions...

For **drop-off events**, please make sure to stay in the room until you have scheduled an interview time with the judges.

A few notes to those participants and spectators for the **Dragster Design, Flight Challenge and Flight Endurance** events. Our approval to make use of Varsity Gym is dependent on your responsible behavior while there.

**Please:**

- Stay with the event coordinator: Do not wander in the gymnasium.
- Pick up all trash!
- Be considerate of others' belongings and space.
- Always use extreme care while crossing Rivers Street.

All events will take place in Katherine Harper Hall except the Dragster and Flight events.

Meet in the main lobby of Harper Hall five minutes before your event begins for Flight events.

### **Appalachian State University**

Department of Technology  
Technology Education Program  
<http://www.tec.appstate.edu/>

Dr. Jerianne S. Taylor, Program Coordinator  
Phone: 828-262-6352

E-mail: [taylorjs@appstate.edu](mailto:taylorjs@appstate.edu)



The ASU  
Department of  
Technology  
and  
ASU-TECA  
welcome you to the  
2010  
Western Regional  
TSA Conference!

## Schedule of Events Middle School

Challenging Technology Issues	1:00* drop off 1:30 Interviews	Rm. 168
Communication Challenge	10:00* - 11:00	Rm. 185
Digital Photography	12:00* - 1:00	Rm. 180
Dragster	10:00 - 11:00	GYM
Engineering Structure	11:30 - 12:30	Rm. 148
Flight Challenge	12:30 - 1:30	GYM
Graphic Design	1:00 - 2:00	Rm. 181
Go Green Manufacturing	12:00* - 1:00	Rm. 11
Lights, Camera, Action	9:30 drop off	Rm. 180
Multimedia Production	9:30 drop off TBD interviews	
Problem Solving	12:30 - 2:30	Rm. 122
Technical Design Challenge	11:00 - 1:00	Rm. 185
Tech Bowl Challenge	11:00-10:45 test 12:30-2:00 bowl	Rm. 11 Rm. 17
Techno Talk	10:00-12:00	Rm. 181

## Schedule of Events High School

CAD Architectural with Animation	10:30 - 12:00	Rm. 206
CAD Engineering with Animation	10:30 - 12:00	Rm. 206
Debating Technological Issues	10:00 - 11:00	Rm. 168
Desktop Publishing	11:00* - 12:00	Rm. 168
Dragster Design	11:00 - 12:00	GYM
Extemporaneous Presentation	10:00 - 11:00	Rm. 180
Film	1:00 - 2:30	Rm. 180
Flight Endurance	1:30 - 2:30	GYM
Future Teacher	11:00-12:00	Rm. 180
Imaging Technology	12:00 - 1:00	Rm. 181
Promotional Graphics	1:00* - 2:15	Rm. 206
Scientific Visualization	1:15 - 2:15	Rm. 40
Structural Engineering	10:00 - 11:30	Rm. 148

## Schedule of Events High School (cont.)

Technical Sketching & Application	12:30 - 2:30	Rm. 185
Technology Bowl	11:00-10:45 test 12:30-2:00 bowl	Rm. 11 Rm. 17
Technology Problem Solving	10:00 - 12:00	Rm. 167
Transportation Modeling	12:00 - 1:00	GYM

*\*Students are expected to drop off their competition materials and schedule an interview time with the judges.*

**AWARDS CEREMONY AT 3:00 IN  
ROOM 17**

