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The Technology Student Association (TSA) is a national organization for elementary, middle and high school students who are presently enrolled in or have completed technology education classes. Technology education classes have a twofold mission: to help students gain an understanding of all aspects of technology and industry and to assist in the development of individual potential. TSA fosters this mission by developing leadership abilities and instilling a sense of pride in one's work. TSA also promotes high standards of technical ability, scholarship and safety. TSA is an organization that values the unique capabilities of students and offers many opportunities for personal growth and success.

Technology Day at the Georgia National Fair provides Georgia TSA (Technology Student Association) members with an opportunity to compete in various competitions to win money for their chapter and participate in a motivational rally to help get you pumped up and excited about the year to come!

## **Technology Day Rally October 10, 2011 Reaves Arena, Georgia National Fairgrounds**

9:00 - 10:45 a.m.	Registration/Event Check-in
11:00 - 12:00 p.m.	TSA Rally/Motivational Speaker
2:30 p.m.	Technology Day Awards Session

### **Registration**

Rally Registration Fee: \$15

**Registration Deadline: Sept. 16, 2011**

Online registration: [www.registermychapter.com/tsa/ga-td](http://www.registermychapter.com/tsa/ga-td)

### **GENERAL RULES**

1. Open to all students who are presently or have been enrolled in any technology education class in any middle school or high school in the State of Georgia.
2. All participating students must report with their teacher/advisor to the West ticket gate for admittance. NOTE TO ADVISORS NOT ATTENDING WITH GA TSA: If you are bringing students that are not competing in TSA events, please call Teresa Hawk (800-987-3247 ext 483) or email [thawk@gnfa.com](mailto:thawk@gnfa.com) to arrange for entry for those students into the Fair at no charge. While entry into the Fair is free, students must pay a \$15 fee to TSA to attend TSA function. Advisors attending for POW must register and pay for students. Fair midway armbands may be purchased for \$15 with pre-registration and will be available for pick up at CHECK-IN. Otherwise, they may be purchased at the CHECK-IN table at registration.
3. All rules for contests are contained within this document.

4. Top ten entries will be on display in the Miller-Murphy-Howard Building during the remainder of the Fair; other projects may be picked up after 3:00 PM on October 10, 2011.

5. Winning entries will be available for pick up at the FAIR on October 18 (10 a.m. to 8 p.m.) or October 20 (10 a.m. to 4 p.m.) or at the GA TSA Fall Leadership Conference. Any entries not picked up at that time will be discarded.

### COMPETITIONS

There are two categories of events: those that are pre-judged and those that are judged on site. Pre-judged events must be postmarked by September 16, 2011. Send to: Georgia TSA, PO Box 2304, Acworth, GA 30102. All prejudged events should be saved together on a single CD and labeled in the appropriate manner outlined in the rules for each event. Events judged on site should be turned in October 10, 2011 by 10:45 a.m.

#### Pre-Judged Events

##### Classes

01	Architectural Design
02	Georgia TSA Pin Design
03	Promotional Design
04	Webpage Design

#### Events Judged on Site

##### Classes

<i>New</i> 05	Best in Show Dragster
06	Green Design
07	Membership Recruitment High School
08	Membership Recruitment Middle School
09	Shirt Design
10	Structural Bridge
11	Transportation Modeling

*New*

### AWARDS

<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th-7th</u>	<u>8th-10th</u>
\$100	\$75	\$50	\$25	\$15	\$10

Plaque to Event Champion

## GEORGIA NATIONAL FAIR TSA SUPERIOR CHAPTER AWARD

**1<sup>st</sup> Place - Superior Chapter - \$500**

**2<sup>ND</sup> Place - Reserve Superior Chapter - \$250**

Sponsored by the Georgia National Fair

All placings will be put on a point system, example: 1<sup>st</sup> place=10 pts, 2<sup>nd</sup> place=9 pts, etc. These points will be calculated by chapter and the chapter with the highest accumulated points after the last competition will receive a GNF Superior Chapter Award plaque and \$500. The second place chapter will receive a GNF plaque and \$250.

# 2011 - 2012 TSA State Officers



**Andrew White**  
**President**  
**Arabia Mountain High School**

**Isabella Connor**  
**First Vice President**  
**Irwin County High School**

**AC Williams**  
**Second Vice President**  
**Coastal Middle School**

**Jack Turner**  
**Sergeant-at-Arms**  
**Dunwoody High School**

**Michelle McIntyre**  
**Secretary**  
**Collins Hill High School**

**Vivek Patel**  
**Treasurer**  
**Collins Hill High School**

**Samantha Greene**  
**Reporter**  
**Rockdale Career Academy**

# ARCHITECTURAL DESIGN CHALLENGE

**Objective:** Participants design a floor plan using the current year's TSA Architectural Model problem. The 2011 problem participants will design the ULTIMATE Tree House.

**Entries are limited to three per chapter.**

**Procedures:** All graphics should be saved on a CD as a pdf file with the file name Arch\_student's name. The 3-D rendering file should be saved as 3drend\_student's name. A copy of the floor plan and 3-D rendering should be printed, placed in plastic sheet protectors with the description placed behind it, and mailed with the CD containing the files. All graphics and CD's should be mailed to Georgia TSA following the guidelines on page 13.

## **Regulations:**

The design must meet the following criteria:

1. The participants are to design an architectural floor plan that meets the current year's problem.
2. The drawing is to be submitted on maximum drawing sheet cut size B (11" x 17") with standard scale as found on Architectural triangular scale, ( $1/8" = 1' - 0"$ ,  $1/4" = 1' - 0"$ , etc.).
3. A written description of the style and merits of the design concepts must be included and should answer the following questions (1 page).
  - a. How does your design meet the main requirements for the intended purpose?
  - b. What are the advantages of your layout?
  - c. Why have you included specific features?
4. A 3-D rendering may be included on the CD and in print for optional Bonus Points, however, no points will be deducted for not including the 3-D rendering.
5. While 3-D models may be used to enhance the rendering, the actual tree house should be the original work of the student.

## **Evaluation:**

### **Design (50 pts)**

Does the design incorporate features needed and required for the intended purpose?

Is the layout logical and functional?

Are the sizes of the rooms adequate for their purpose?

### **Quality (25 pts)**

Is the drawing neat and precise?

Are rooms properly labeled?

Are dimensions correctly placed?

### **Written Description (25 pts)**

How does your design meet the main requirements for the intended purpose?

What are the advantages of your layout?

Why have you included specific features?

### **Bonus (1 – 10 points)**

3-D Rendering

# ARCHITECTURAL DESIGN CHALLENGE

2011 OFFICIAL RATING FORM

ENTRANT'S ID#												
<b>EVALUATIVE CRITERIA</b>												
<b>Design (50 pts.)</b> Does the design incorporate features needed and required for the intended purpose? Is the layout logical and useful? Are the sizes of the rooms adequate for their purpose?												
<b>Quality (25 pts.)</b> Is the drawing neat and precise? Are rooms properly labeled? Are dimensions correctly placed?												
<b>Written description (25 pts.)</b> How does your design meet the main requirements for the intended purpose? What are the advantages of your layout? Why have you included specific features?												
<b>TOTAL</b> .....100 PTS.												

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# GEORGIA TSA PIN DESIGN CHALLENGE

**Objective:** Participants design a lapel pin that can be used to promote Georgia TSA's 50th Anniversary

**Entries are limited to three per chapter.**

## **Procedures:**

All graphics should be saved as a .pdf file with the file name Pin\_ student's name and put on a CD. A copy of each graphic should be printed, placed in a plastic sheet protector, and mailed with the CD containing the files. All graphics and CDs should be mailed to Georgia TSA following the guidelines on page 13.

## **Regulations:**

The design must meet the following criteria:

1. Any and all use of the TSA emblem must abide by TSA Trademark Policies as outlined in the National TSA webpage at [www.tsaweb.org](http://www.tsaweb.org).
2. There should be no use of copyrighted materials other than the TSA logo.
3. Participants will design a TSA pin that can be worn on blazers, jackets, shirts, sweaters, or blouses.
4. The pin must include the letters TSA. It must also include the shape and/or letters of the state of Georgia.
5. The design must be computer generated and submitted on 8 ½" x 11" paper and should include the design in both actual size and in an enlarged version to show detail.
6. The actual pin size will range from ¾" to 2". The size and number of letters in the design should be taken into consideration; a letter on a 10 inch piece of paper will be reduced to 1/10 of an inch on a 1" pin. Therefore, fewer letters and greater size is recommended for a more legible pin.

## **Evaluation:**

### **Impact (25 pts)**

Effectively represents Georgia TSA.

### **Graphic (25 pts)**

Is graphic appropriate?

### **Design Elements (20 pts)**

Balance: visual weight of design elements (5 pts)

Dominance: eyes are drawn to the main ideas of the pin (5 pts)

Proportion: size relationships within the design (5 pts)

Unity: design elements flow together (5 pts)

### **Font (15 pts)**

Readability, eye appeal, size, placement, distracting or effective use of different styles, etc.

### **Technical (15pts)**

Sharp clean edges of graphics and fonts clear of smudges, smears, pencil or other extraneous marks.

**NOTE:** Georgia TSA reserves the right to make any changes to the design which may conflict with its production. All pin designs become the property of GA TSA. When a participant enters a design, he or she relinquishes all rights for the sale and use of the design to GA TSA. All entries will become the property of GA TSA.

# GEORGIA TSA PIN DESIGN CHALLENGE

2011 OFFICIAL RATING FORM

ENTRANT'S ID#															
<b>EVALUATIVE CRITERIA</b>															
<b>Impact (25 pts.)</b> Effectively represents Georgia TSA															
<b>Graphics (25 pts.)</b> Is graphic appropriate?															
<b>Design Elements (20 pts.)</b>															
Balance: visual weight of design elements (5 pts.)															
Dominance: eyes are drawn to the main ideas of the pin (5 pts.)															
Proportion: size relationships within the design (5 pts.)															
Unity: design elements flow together (5 pts.)															
<b>Font (15 pts.)</b> Readability, eye appeal, size, placement, distracting or effective use of different styles, etc.															
<b>Technical (15 pts.)</b> Sharp, clean edges of graphics and fonts clear of smudges, smears, pencil or other extraneous marks.															
<b>TOTAL</b> .....100 PTS.															
Comments:															
I certify these results to be true and accurate to the best of my knowledge.															
<u>Documentation and Display evaluator</u>															
Printed Name: _____ Signature: _____															
<u>Presentation/interview evaluator</u>															
Printed Name: _____ Signature: _____															

# PROMOTIONAL DESIGN CHALLENGE

**Objective:** Participants design a computer generated graphic that can be used to promote the Georgia TSA 50th Anniversary.

**Entries are limited to three per chapter.**

**Procedures:** All graphics should be saved as a pdf file with the file name PDC\_student's name and put on a CD. A copy of each graphic should be printed, placed in a plastic sheet protector, and mailed with the CD containing the files. All graphics and CD's should be mailed to Georgia TSA following the guidelines on page 13.

## **Regulations:**

The design must meet the following criteria:

1. The design may not exceed 8"x10" and may be presented either horizontal or vertical. It should be printed on photo or cardstock paper.
2. The design must be computer generated.
3. The design must be original work of the student.
4. The design must include the following:
  - a. The words "GA TSA" and "50th Anniversary"
  - b. The following non-discrimination statement: In accordance with Federal law and U.S. Department of Agriculture's policy, Georgia Engineering and Technology Education programs are prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs or disability.
5. Computer-generated type and public domain computer clip-art may be used. All entries must be the original work of the entrant. If copyrighted material is used, separate written permission must be included. Failure to follow this procedure results in disqualification. This information must be inserted facing out behind the promotional graphic in the clear plastic page protector.
6. Any and all use of the TSA emblem must abide by TSA Trademark Policies as outlined in the National TSA webpage at [www.tsaweb.org](http://www.tsaweb.org).
7. The winning entry may be used as a promotional poster for Engineering and Technology Education.

## **Evaluation:**

### **Impact (25 pts)**

Effectively represents Engineering and Technology Education, first impression.

### **Graphic (25 pts)**

Is graphic appropriate? Are there any copyright images or graphics

### **Design Elements (20 pts)**

Balance: visual weight of design elements (5 pts)

Dominance: eyes are drawn to the main ideas of the design (5 pts)

Proportion: size relationships within the design (5 pts)

Unity: design elements flow together (5 pts)

### **Font (15 pts)**

Readability, eye appeal, size, placement, distracting or effective use of different styles, etc.

### **Technical (15 pts)**

Sharp clean edges of graphics and fonts clear of smudges, smears, pencil or other extraneous marks

NOTE: Georgia TSA reserves the right to make any changes to the design which may conflict with its production. All designs become property of Georgia TSA. When a participant enters a design, he or she relinquishes all rights for the sale and use of the design to Georgia TSA. All entries will become property of GA TSA.

# GEORGIA TSA PROMOTIONAL DESIGN CHALLENGE

## 2011 OFFICIAL RATING FORM

ENTRANT'S ID#																			
<b>EVALUATIVE CRITERIA</b>																			
<b>Impact (30 pts.)</b> Effectively represents Georgia TSA (15 pts) Eye Appeal (15 pts.)																			
<b>Graphics (30 pts.)</b>																			
Is graphic appropriate? (10 pts.)																			
Fonts are readable, attractive, and have appropriate dimension and placement. (10 pts.)																			
Final product presentation (sharp clean edges of graphics and fonts) (10 pts.)																			
[Proof of permission to use copyrighted images must be included. A release form must be present if photographs of individuals are used. Clipart must be documented.]																			
<b>Design Elements (40 pts.)</b>																			
Balance: visual weight of design elements (10 pts.)																			
Dominance: eyes are drawn to the main ideas of the pin (10 pts.)																			
Proportion: size relationships within the design (10 pts.)																			
Unity: design elements flow together (10 pts.)																			
<b>TOTAL</b> <span style="float: right;">100 PTS.</span>																			

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# WEBPAGE DESIGN CHALLENGE

**Objective:** In this competition, students create a web site that invites Georgia's technology students to showcase the fun, excitement, and personal growth available through activities sponsored by GA TSA and showcase "TSA - 50 Years of Excellence"

**Entries are limited to one per chapter.**

**Procedures:** All web sites must be submitted on a single CD-ROM. The media must be properly labeled with your name, address, phone number and your grade level, school name and county. Note to Mac users: **Please submit entries on a PC formatted disc rather than a Mac formatted disc.** CDs should be mailed to Georgia TSA following the guidelines on page 13.

**Regulations:**

1. The home page for your site must be named index.htm. Your home page text should also identify your name, age and school name.
2. All Web sites must contain no more than five (5) pages and be completely self-contained. Links to the World Wide Web will not be permitted and, if included, will disqualify your entry.
3. Entrant must obtain and submit written permission from the author or Web designer of any copyrighted materials used in the creation of the Web site.
4. The Georgia National Fairgrounds reserves the right to refuse any entries that may be offensive or obscene or that are deemed inappropriate for minors to view.

**Evaluation:**

**Content (15 pts)**

Does the web site accurately depict the theme?

**Creativity (25 pts)**

Does the Web site promote its content in an interesting manner

**Quality (25 pts)**

Includes the speed of site, reliability and accuracy

Do the pages load quickly? Do the links work properly?

**Interface (15 pts)**

Can you link to the various pages without having to use the back or forward button on the browser?

**Graphics (20 pts)**

Does the Web site make effective use of graphics or do they distract the user?

# WEBPAGE DESIGN CHALLENGE

## 2011 OFFICIAL RATING FORM

ENTRANT'S ID#														
<b>EVALUATIVE CRITERIA</b>														
<b>Content (15 pts.)</b> Does the web site accurately depict the theme?														
<b>Creativity (25 pts.)</b> Does the web site promote its content in an interesting manner?														
<b>Quality (25 pts.)</b> Includes the speed of site, reliability and accuracy. Do the pages load quickly? Do the links work properly?														
<b>Interface (15 pts.)</b> Is the site easy to navigate? Is the design clean and attractive?  Can you link to the various pages without having to use the back or forward button on the browser?														
<b>Graphics (20 pts.)</b> Does the web site make effective use of graphics or do they distract the user?														
<b>TOTAL.....</b> 100PTS.														

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# BEST IN SHOW DRAGSTER CHALLENGE

**Objective:** The participant will design a dragster for aesthetic appeal while considering regulations and producing an orthographic drawing of the model

**Entries are limited to two teams per chapter.**

**Procedures:** Students should submit their Dragster Challenge vehicles during the event check-in at the Georgia National Fair.

## **Regulations:**

The vehicle must meet the following criteria:

1. Each entry must be submitted with a full-size metric drawing of the completed vehicle. A two (2)-view (top and side) drawing with metric dimensions is made on paper no larger than 11" x 17" drawing paper. Drawings are developed using standard engineering practices and procedures. The drawing may be produced using traditional drafting methods or CAD. The title block includes only the participants entry number that is assigned at registration time and is placed on the entry and drawing during check in.

## **Dragster body**

DB1. One (1)-piece, all-wood construction. Any type of lamination results in disqualification. No add-ons such as body strengtheners, fenders, plastic canopy, exhausts, or air foils may be attached to or enclosed within the vehicle. Fiberglass and shrink wrap are considered body strengtheners and cannot be used on the car body for any reason. Decals may be used for decoration only; they may not be used to gain an aerodynamic advantage, i.e., decals cannot cover the exterior axle holes or be used to cover open areas of the body. Two (2) or more like or unlike pieces of wood glued together are not considered one-piece, all-wood construction.

DB2. Body length.....200mm.....305mm

DB3. Body height with wheels.....75mm

DB5 Body width at axles, front and back.....35mm.....42mm

DB6. Vehicle total width (including wheels) .....90mm

## **Axles/axle holes/wheelbase**

A1. Dragsters must have two (2) axles per car, no more.

A2. Bottom of axle hole or bearing above bottom of car body. (Note: This will be measured at the sides of the wood car body, from the bottom of the car directly beneath the axle to the bottom of the axle hole or bearing hole.) ..... 5mm.....10mm

A3. Rear axle hole from rear of car.....9mm.....100mm

A4. Wheelbase (axle distance apart at farthest points)..105mm.....270mm

A5. Bearings, bushings and lubricants may be used

A6. Glue may be used to secure bearings to body.

## Wheels

W1. A dragster must have four (4) wheels, no more. Two (2) wheels must meet rules W2 and W3. The other two (2) must meet rules W4 and W5. All four (4) wheels must touch the racing surface at the same time. All wheels must roll. Wheels must be made entirely from plastic. Dimensions must be consistent for the full circumference of the wheel.

W2. Front diameter .....30mm.....37mm

W3. Front width (at surface contact point).....1.5mm.....5mm

W4. Rear diameter.....30mm.....40mm

W5. Rear width (at surface contact point).....12mm.....18mm

# Best in Show Dragster Challenge

2011 OFFICIAL RATING FORM

ENTRANT'S ID#																				
<b>EVALUATIVE CRITERIA</b> <i>The model only will be judged. Vehicles will not be raced.</i>																				
<b>Paintjob (10 pts.)</b>																				
<b>Graphics (10 pts.)</b>																				
<b>Originality (10 pts.)</b>																				
<b>Craftsmanship (10 pts.)</b>																				
<b>Overall aesthetics (60 pts.)</b>																				
<i>Full size orthographic metric drawings (top and side) (20 pts.)</i>																				
<i>Dragster Specifications (30 pts.)</i>																				
<i>Rule violations (must be initiated by coordinator and manager) will be a deduction of 20 percent of the total possible points.</i>																				

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# GREEN DESIGN CHALLENGE

**Objective:** Participants will construct a full scale working prototype of a product that can be made using at least 75% post-consumer/recycled materials. The 2011 problem is to design an “animal feeder.”

**Entries are limited to one per chapter.**

**Procedures:** Students should submit their projects during the event check-in at the Georgia National Fair.

## **Regulations:**

- A. A prototype of the product must be available for display
- B. Teams must submit a bill of materials for the product and indicate which materials are post-consumer materials
- C. Product must fit within a 2' cube.
- D. Product may contain no glass/hazardous materials
- E. Documentation for the event may not exceed six (6) typed, 8.5" x 11" pages in a standard three (3) ring binder as follows:
  - 1. Title page (1 page)
  - 2. Table of contents (1 page)
  - 3. Product Description (1 page)
  - 4. Orthographic Drawing of the product (1 page)
  - 5. Production Flow Chart (1 page)
  - 6. Bill of Materials (1 page)

## **Evaluation:**

Evaluation is based on the review and rating of the prototype and documentation of the product design.

**Prototype Design and Merit (40 pts)**

**Green Rating (10 pts)**

**Title Page and Table of Contents (5 pts)**

**Product Description (10 pts)**

**Orthographic Drawing (15 pts)**

**Manufacturing Flow Chart (10 pts)**

**Bill of Materials (10 pts)**

# GREEN DESIGN CHALLENGE

2011 OFFICIAL RATING FORM

ENTRANT'S ID#																			
<b>EVALUATIVE CRITERIA</b>																			
<b>Prototype (50 pts.)</b>																			
Prototype Function (10 pts.)																			
Craftsmanship (5 pts.)																			
How Green Is It? (10 pts.)																			
Aesthetics (5 pts.)																			
Originality (10 pts.)																			
Overall Quality (10 pts.)																			
<b>Documentation (50 pts.)</b>																			
Title Page and Table of contents (5 pts.)																			
Description of Product (10 pts.)																			
Orthographic Drawing (15 pts.)																			
Manufacturing Flow Chart (10 pts.)																			
Bill of Materials (10 pts.)																			
<b>TOTAL</b> .....																			
100 PTS.																			

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# MEMBERSHIP RECRUITMENT CHALLENGE

**Objective:** Chapter members should work together to create a display that could be used to recruit new members to their TSA chapter. The theme of the display should be TSA Membership Recruitment. Membership Recruitment Challenge will be judged on both the middle school and high school levels. Places will be awarded for this event on each level.

**Entries are limited to one per chapter.**

**Procedures:** Students should submit their display during the event check-in at the Georgia National Fair.

**Regulations:**

The Membership Recruitment Challenge display must meet the following criteria:

1. Display size is limited to 46" in width, 36" in height, and 18" in depth.
2. The entry should contain a display only. Extra printed materials should not be submitted with the display and will not be judged as a part of the project. (ie. brochures, flyers, etc)
3. Theme of the entry should be "TSA Membership Recruitment".
4. Electricity will not be provided for the displays.
5. The top entries will be displayed during the Georgia National Fair; therefore, chapters must be prepared to leave their display in its entirety. The use of expensive accessories (such as laptop computers, tape players, etc.) is strongly discouraged unless the team is prepared to leave the item for the duration of the Georgia National Fair. Neither the Georgia National Fair nor Georgia TSA will be responsible for these items.

**Evaluation:**

**Effectiveness of message (20 pts)**

**Quality of construction (20 pts)**

**Creativity of presentation (20 pts)**

**General appearance (20 pts)**

**Accuracy and appeal of information presented (20 pts)**

# MEMBERSHIP RECRUITMENT CHALLENGE

2011 OFFICIAL RATING FORM

HIGH SCHOOL / MIDDLE SCHOOL

PARTICIPANT/TEAM ID#																				
<b>EVALUATIVE CRITERIA</b>																				
<b>Display (50 pts.)</b>																				
Effectiveness of message (10 pts.)																				
Quality of construction (10 pts.)																				
Creativity of presentation (10 pts.)																				
General appearance (10 pts.)																				
Accuracy and appeal of information presented (10 pts.)																				
<b>Promotional Materials (50 pts.)</b>																				
Tri-fold Brochure (20 pts.)																				
Newsletter (15 pts.)																				
Flyer (15 pts.)																				
<b>TOTAL.....</b>																				
																	100 PTS.			

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# SHIRT DESIGN CHALLENGE

**Objective:** To design a shirt that promotes the local chapter of Georgia TSA.

**Entries are limited to one per chapter.**

**Procedures:** Students should submit a sample shirt ADULT SMALL on a wire hanger during the event check-in at the Georgia National Fair.

## **Regulations:**

The shirt design must meet the following criteria:

1. Original designs can be hand-drawn or computer generated. Computer-generated type and public domain computer clip-art may be used. **All entries must be the original work of the entrant.** If copyrighted material is used, separate written permission must be submitted.
2. Designs must contain the following:
  - a. Chapter's name
  - b. The words "Technology Student Association" (which can be incorporated into a TSA logo)
3. Additional words other than those listed in Regulation 2 may be used in the design.
4. Any and all use of the TSA emblem must abide by TSA Trademark Policies as outlined in the National TSA webpage at [www.tsaweb.org](http://www.tsaweb.org).
5. The design must be placed onto a shirt for submission. This can be done through a variety of processes including (but not limited to) screen printing, heat press, embroidery, sublimation.
6. The design may be on any part(s) of the shirt including the front, back, and sleeves.
7. A shirt in the size Adult Small should be submitted on a wire hanger. This size hangs well on a hanger allowing for easier judging of the shirt.
8. The process of placing the design onto the shirt may be completed by a commercial source.
9. Chapters are encouraged to have their entire chapter wear the shirt design at the Georgia National Fair Tech Day event.

## **Evaluation:**

**Overall appearance of shirt (20 pts)**

**Creativity of design (20 pts)**

**Effectiveness of shirt design (20 pts)**

**Quality of design on shirt (20 pts)**

**Inclusion of required elements (10 pts)**

- Chapter's name
- The words "Technology Student Association" (which can be incorporated into a TSA logo)

**Following required submission procedures (10 pts)**

- Adult Small shirt
- Wire hanger
- Letter of permission if copyrighted materials are used

# SHIRT DESIGN CHALLENGE

## 2011 OFFICIAL RATING FORM

ENTRANT'S ID#																				
<b>EVALUATIVE CRITERIA</b>																				
Overall appearance of shirt (20 pts.)																				
Creativity of design (20 pts.)																				
Effectiveness of shirt design (20 pts.)																				
Quality of design on shirt (20 pts.)																				
Inclusion of required elements (10 pts.)																				
• Chapter's name																				
• The words "Technology Student Association" (which can be incorporated into a TSA logo)																				
• The theme "TSA: Tomorrow's Leaders"																				
Following required submission procedures (10 pts.)																				
• Adult Small shirt																				
• Wire hanger																				
• Letter of permission if copyrighted materials are used																				
<b>TOTAL 100 PTS.</b>																				

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# STRUCTURAL BRIDGE CHALLENGE

Objective: Students will build a truss bridge from wood. The objective is to hold the greatest load possible. The bridge will be submitted with a technical drawing. NO identification of school or name may be included.

**Entries are limited to three per chapter.**

## Materials:

1. The bridge is built from wood and glue. Any species of wood and any type of glue is acceptable. Individual members are limited to 1/8 inch thick by 1/8 inch width by length. Therefore balsa, basswood or other wood measuring up to 1/8 by 1/8 is acceptable.
2. The total mass of the structure is limited to 30 grams.

## Structure dimensions

The span of the bridge is 12 inches. A maximum of one additional inch may rest on each abutment

1. The width of the structure will be no less than 2 ¾ inches and no more than 4"
2. The height will be no greater than 1" above the plane of abutment.
3. Clearance - The structure should be placed easily between the abutments, without pressure or twisting by the judging staff. The test block must fit onto the structure without forcing.
4. Laminations are defined as two or more pieces glued together with grain parallel. Lamination may not exceed two (2) pieces. Lamination of more than two pieces will result in disqualification. Students are cautioned not to laminate at small angles to try to technically circumvent this rule.

(See figure below, end view)



5. The center of the bridge must provide clear passage for the test rod.

## TESTING

All structures are destructively tested by attaching the test block and adding load until the structure fails. The test block is 2 ¾ inches in width and the length of the test block is 10 inches.

Structures are disqualified if:

1. Pins, paper or other foreign materials are found in or on the structure.
2. The center is blocked or the test rod (0.375 inch diameter) cannot be inserted.
3. Excessive glue has been used. Excessive means that in the opinion of the judges, glue has been used to coat members, create gussets or serve as a structural element.
4. The structure is more than 2" greater than the span (example: the structure would not be tested if the span is 12" and the structure submitted for testing is more than 14" long).
5. Three (3) or more pieces in the structure are laminated.
6. The test block is unable to pass from end to end of the structure.
7. Any single member is more than 1/8 inch thick by 1/8 inch wide.

Deductions of 20% of the greatest weight held in the event are given for:

1. Failure to submit a drawing or submitting a drawing that does not accurately represent the structure.
2. The structure fails to comply with width or height regulations.

Ties are broken by the mass of the structure, the structure with the lowest mass wins

# STRUCTURAL CHALLENGE

2011 OFFICIAL RATING FORM

HIGH SCHOOL / MIDDLE SCHOOL

	PARTICIPANT/TEAM ID#																		
<b>EVALUATIVE CRITERIA</b>																			
Drawing?																			
OK Height																			
Laminations																			
Amount of Glue																			
Base Plate																			
Weight Held																			
Deductions																			
Final Weight																			
<b>Deductions of 20% of the greatest weight held are given for:</b>																			
1. Failure to submit a drawing or submitting a drawing that does not accurately represent the structure.																			
2 The structure fails to comply with width or height regulations.																			
<b>Structures are not tested if:</b>																			
Any materials other than those specified are used, center is blocked or the test rod cannot be inserted. The structure is greater than 2" greater than the span lamination occur, weight of structure exceeds 45 grams, or if more than two (2) rule violations are present. Excessive glue has been used																			
<b>TOTAL</b> .....	.....100 PTS.																		

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# TRANSPORTATION MODELING CHALLENGE

**Objective:** The participant will experience the automotive design process from the concept phase to the making and testing of a scaled model, while considering appearance and performance by designing an appropriate vehicle suited to the stated automotive problem. This year's design problem is to design a pre-1960 antique vehicle. A Transportation Modeling Vehicle Design Kit can be obtained from PITSCO, INC. 1-800-835-0686 or [www.pitsco.com](http://www.pitsco.com).

**Entries are limited to three per chapter.**

**Procedures:** Students should submit their Transportation Modeling vehicles during the event check-in at the Georgia National Fair.

## **Regulations:**

The vehicle must meet the following criteria:

1. The body of the vehicle must be made from wood. Additional parts such as body strengtheners, fenders, plastic canopy, exhausts, air foils, mirrors, and antennae may be attached to or enclosed with the vehicle and may be constructed from materials other than wood, excluding glass or liquid. These parts must be fastened securely unless they will be removed prior to the run. Any removable parts must be identified as removable on the drawing.

## 2. **Building requirements:**

Specification Area	Minimum	Maximum
Body total width (including wheels)	None	4 inches
Body height with wheels	None	4 inches
Body mass (completed model without CO2)	None	2 pounds
Model must be designed and built to a designer-specified scale between	1:16	1:24

3. **Cartridge Hole:** The power plant hole must be at the farthest point at the rear of the vehicle and must be drilled parallel to the race surface to assure proper puncture of the CO2 cartridge.

# TRANSPORTATION MODELING CHALLENGE

2011 OFFICIAL RATING FORM

ENTRANT'S ID#															
<b>EVALUATIVE CRITERIA</b> <i>The model only will be judged. Vehicles will not be raced.</i>															
<b>Appropriateness to problem (40 pts.)</b>															
<b>Model appearance (60 pts.)</b>															
<i>Rule violations will be a deduction of 20 pts.</i>															

Comments:

I certify these results to be true and accurate to the best of my knowledge.

Documentation and Display evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Presentation/interview evaluator

Printed Name: \_\_\_\_\_ Signature: \_\_\_\_\_