



C O L O R A D O
TECHNOLOGY STUDENT ASSOCIATION

26th ANNUAL COLORADO TSA STATE LEADERSHIP EXPOSITION

FEBRUARY 9-11, 2012
DENVER TECH CENTER MARRIOTT, DENVER, COLORADO



CALL TO CONFERENCE & COMPETITIVE EVENTS GUIDE



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

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MISSION STATEMENT

"The mission of the Technology Student Association is to prepare our membership for the challenges of a dynamic world by promoting technological literacy, leadership and problem solving, resulting in personal growth and opportunity."

26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

Sponsored by:
Colorado Community College System and Technology Student Association



COLORADO COMMUNITY
COLLEGE SYSTEM



The Colorado Technology Leadership Exposition is open to all Middle/Junior High and High School Technology Student Association chapters in the state. If you haven't started your chapter yet or to get a complete set of rules, contact:

Tony Raymond - Colorado TSA State Advisor
Colorado Community College System
720-858-2794
tony.raymond@cccs.edu

Dr. Myka Raymond - Colorado TSA State Officer Advisor
myka.raymond@gmail.com

Advisory Committee

Dr. Darrell Green	Executive Director, CACTE	(303) 250-3741
Jennifer Jirous	Program Director - STEM	(720) 858-2811
Mimi Leonard	CTE Director, Littleton Public Schools	(303) 347-3398
David McMullen	Teacher, Arapahoe High School	(303) 347-6043
Jay Moore	Teacher, Grandview High School	(720) 886-6514
Ben Nesbitt	Program Director - Skilled Trades/Tech. Sciences	(303) 595-1614
Jill Parker	Teacher, Elizabeth Middle School	(303) 646-4520
Dr. Myka Raymond	State Officer Team Advisor - Laredo Middle School	(720) 886-5112
Tony Raymond	State Advisor - CCCS	(720) 858-2794
Pamela Wilkins	Littleton High School	(303) 347-7700

The mission of the Colorado Technology Student Association is to develop leadership and personal growth in a technological world. In order to help our members achieve this goal; we offer recognition in both technology and leadership arenas. We believe that by just participation in a carefully designed competition, a student becomes a "winner." He/She learns how to compete by striving to be the best.

These diverse events, which are offered to a variety of grade levels, have been designed and revised by fellow technology education teachers who have had hands-on experience. This book, the final product, is the result of the work of many individuals over the past years.

We hope you find this Competitive Events Guidebook as another motivational tool in the education of your students and plan on attending this year's Colorado Technology State Expo. Feel free to call the people listed above for more information.





LETTER FROM THE STATE ADVISOR

August 2011

Greetings from the State Office!

We begin our second quarter of a century of Colorado TSA at this year's state conference and I hope the next 25 years are as exciting as the last 25 have been! This year, the Colorado TSA State Leadership Exposition will be **February 9-11, 2012** and will be held at the Denver Marriott Tech Center, in Denver, CO.

This year, we have made several important improvements across Colorado TSA. Some you won't see, but they will make your TSA and conference experiences much more enjoyable. Others you'll see immediately - like this combined Call to Conference and Competitive Events Guide. We put these two key documents together this year so that advisors and students alike would have all the information about the state conference in one convenient place.

We've put this document together so you can keep track your TSA chapter's progress in preparation for the 2012 state conference. A list of important dates and deadlines is included; make sure you mark your calendars now 0 before things start to get hectic! If you have any other questions about registration for the conference or about events please email me at tony.raymond@cccs.edu or all my office at 720-858-2794.

Additionally, as you make your way through this document, you'll find a copy of the *conference schedule* - we were able to prepare this ahead of time this year so advisors and students can be more efficient in planning out event and competition schedules.

We've also added several new events at the state level, tweaked a few others to mirror changes at the national level, and revised several others to make them more challenging. For the 2011-12 school year, the national Middle School Competitive Events Guide has undergone the bi-annual revision. Several events have been eliminated, others revised, and new ones added. A complete list of both national and state level events is included at the back of this guide, along with an indicator as to whether the event is new or has undergone revision.

Regardless of what level (middle or high school) you are, I cannot stress enough that both advisors and students should read all the rules thoroughly. Do not assume that the rules are the same as last year! Even though the competitive events guide may not have been wholly revised, there may have been updates and clarifications made to individual events. Periodically throughout the year, the National TSA office will provide updates and clarifications via the national TSA website: <http://www.tsaweb.org/Updates-and-Clarification>

Also, just as a reminder -- the limits for competitive events are different between the state and national competitions. In the aforementioned list of events in this guide, you will find the limits on events at the *state level only*. Limits on the number of entries for the *national conference* are listed in the official national competitive events guides (which you will receive when you affiliate your chapter).

Please be sure to use the latest guides issued by the national office. You will receive a copy of the latest editions when you affiliate your chapter -- and they will be issued on CD-ROM. The CDs will include the specific competitive event guide for your level, leadership lessons and various membership materials. Make sure you take advantage of the marvelous array of leadership lessons included on the CD.

Don't forget -- you can now follow COTSA on Facebook and Twitter for all the latest news and updates (Twitter: ColoradoTSA; Facebook: Colorado Technology Student Association), or you can check out our webpage for updates at: www.ctsoadvisor.com/cotsa/.

I wish you the best of luck this year and look forward to working with all of you. If you have any questions or comments, please feel free to contact me at (720) 858-2794 or via email at: tony.raymond@cccs.edu.

Best regards,

Tony Raymond
COTSA State Advisor

GENERAL INFORMATION

- The State Leadership Exposition will be held on February 9-11, 2012 at the Marriott Denver Tech Center, 4900 South Syracuse, Denver, CO 80237
- The theme for the State Conference this year will be: “The Road to Success” *Please Note: This theme is the same as the TSA National Conference. For all competitive event themes, please go to: www.tsaweb.org/Themes-and-Problems*
- The COTSA website is www.cotsa.cccs.edu. Please use this source to access any needed information or forms. News and updates may be found at: www.ctsoadvisor.com/cotsa/.
- Please remind your students that award nomination forms are located on the state website, www.cotsa.cccs.edu.
- All chapters are required to supply their safety glasses and tools for each student for designated events. Check with contest descriptions.

NATIONAL CHAPTER AFFILIATION

The first step to becoming an official TSA chapter is to affiliate with the National TSA organization. Go to: www.registermychapter.com/tsa/nat/AffHelp.aspx. Affiliation must be completed so your chapter can participate in the Colorado State Technology Leadership Exposition. Chapters that are not registered (with all documentation completed and both state and national dues paid) with National TSA will not be allowed to compete at the state conference.

STATE LEADERSHIP EXPOSITION

EVENT REGISTRATION

In order to register for the Colorado TSA State Leadership Exposition, AN ADVISOR must affiliate the chapter with National TSA. To affiliate with National TSA, go to: www.registermychapter.com/tsa/nat/AffHelp.aspx and follow the on-screen instructions.

Once you have received confirmation that your chapter has officially affiliated with National TSA, you may register for the state conference. Registration for the conference **MUST** be completed online. There will be **NO ONSITE REGISTRATION**.

The online registration is quick and easy, and it allows you to edit your chapter's competitions at the click of a mouse. *All conference registration and changes must be completed by midnight on January 6, 2011. THERE WILL BE NO EXCEPTIONS!!*

To begin the registration process for the state conference, go to: www.registermychapter.com/tsa/co/Main.asp, and click on CONFERENCE REGISTRATION.

In addition to the online registration, several forms (housing list, liability forms, etc.) are included later in this document and need to be completed and either turned in to the State Advisor prior to or at the State Conference.





FORMS & PAYMENTS

- **Exposition registration will be \$80.00** for all attendees including: students, teachers, advisors, parents and chaperones. Please print out an invoice at the end of your registration process. Payment and forms for conference registration must be received by **February 1, 2012** in order for your chapter to compete.
- Registration includes admittance to all conference activities, and Friday night's dinner.
- Extra dinner tickets can be purchased for \$30.00 for Friday's dinner.
- Purchase orders cannot and will not be accepted as a form of payment for exposition registration.
- Payment for registration can be made via credit card. Please complete the included form and send it in with your registration. *Note: There is an additional charge to pay via credit card.*
- Checks should be made payable to: Colorado TSA
- All forms and payments must be mailed to: Tony Raymond, COTSA State Advisor, Colorado Community College System, 9101 E Lowry Blvd., Denver, CO 80230

HOTEL RESERVATIONS

- Hotel rooms will cost \$114.00 + 14.85% room fee per night. Tax exemption for state tax will only be honored if payments are made with direct school district funds and if the tax exempt form is completed and turned-in.
- All forms can be downloaded at www.cotsa.ccs.edu A housing payment form, a room list form and the tax exempt form must be completed. All housing forms and reservations must be received by the hotel by: January 13, 2012.
- All housing payments and forms should be sent directly to the hotel.
- If you have any housing questions please contact John Hogan: 303-740-2532
- ***PLEASE NOTE: FOR SAFETY AND SECURITY REASONS, ALL EXPOSITION ATTENDEES MUST STAY AS GUESTS OF THE HOTEL.***



STATE OFFICER INFORMATION

One of the many benefits of TSA is the local, state and national leadership opportunities that are available to students. Please encourage your students to take advantage of these unique opportunities by encouraging them to run for a state office.

- State officer application is included in this document and can also be found online at: www.cotsa.ccs.edu.
- State officer applications should be sent to:
Dr. Myka Raymond
Laredo Middle School
5000 S. Laredo Street
Aurora, CO 80015
- All applications must be received by: January 27, 2012
- All applicants must sign up for an interview
- Please call with any questions about state officer positions or applications: Dr. Raymond: 720.886.5112

EVENT COORDINATION

As in previous years, we will be asking advisors to help coordinate and judge the various events. We also endeavor to have additional business and industry people involved with each competition evaluation. It is essential that everyone helps with these positions to ensure a fair and fun competition for all students. All advisors will be contacted regarding their judging/coordination duties at the exposition. If you have judged before and would like to continue judging/coordinates a particular event, please email Dr. Myka Raymond, the Conference Coordinator at mraymond3@cherrycreekschools.org, or Tony Raymond, Colorado State TSA Advisor at tony.raymond@cccs.edu. If you have not judged or coordinated an event before, please consider which events you would feel comfortable judging and email either of the above individuals with your preferences. We would like to have all judges and coordinators in place as early as possible to aid in the planning process.

EVENT COORDINATOR DUTIES

(Advisors, Administrators, Alumni)

All of these duties are with the coordination and the assistance of Dr. Myka Raymond, Conference Coordinator.

- Review and clarify all competition rules.
- Provide stated problem, if needed (most of these will be provided)
- Acquire and organize all needed supplies.
- Assist in securing judges for the competition. Two of these judges must have no alliance to any participants in the competition. The conference coordinator and the state advisor will work with you on this.
- Clarify any rule questions for the judges.
- Coordinate the beginning of the competition.
- Act as a liaison/ambassador for the judges through the competition.
- Validate and secure results with the central judging office.
- Ensure a fair and secure competition area during the competition.
- Can also act as one of the judges.

JUDGES

(Advisors, Teachers, Parents, Community Members, Principals, Business Leaders, Alumni...)

If you know of anyone who would like to assist with judging please send their contact information to: tony.raymond@cccs.edu specifying what events they are interested in.

- Review all rules and clarify scoring/expectations and questions with the event chair.
- Observe competitors during the competition (if needed).
- Complete provided evaluation forms based on the provided rules to determine first, second & third place.
- Turn-in all judging forms and final result forms to the event chair.

ALUMNI

If you know of any former students who are interested in staying involved with Colorado TSA, please have them contact our alumni coordinator by going to www.cotsa.cccs.edu and clicking on the ALUMNI link. Colorado TSA Alumni can also join our Facebook group by going to: www.facebook.com/pages/Colorado-Technology-Student-Association-Alumni/280880062723

Also, you are encouraged to have all of your graduating seniors contact the alumni coordinator early on in the year so they can stay in touch even after graduation.





FACEBOOK, TWITTER & WEBSITE

During the last year, COTSA has made an effort to update the state association's web presence and keep it current. As part of that effort, Colorado TSA has both a Group and a Page on Facebook (www.facebook.com). Advisors, alumni, students, parents, industry partners, and friends are encouraged to join our online ranks!

Do you have photos of your chapter doing community service, working on projects, or participating in meetings or just having fun? If so, send them to Tony Raymond, COTSA State Advisor for posting on the Facebook and web pages! We'd love to see what your chapter is up to, and it's a great way for you to network with your fellow TSA chapters. Send your photos to: tony.raymond@cccs.edu. Please include names, location, and dates for each photo.



In addition, COTSA (ColoradoTSA) now has a Twitter account -- so you can stay on top of the latest happenings by following us on Twitter!

And, last, but not least, for news, updates, forms, and association-related information, you can check out our website at www.cotsa.cccs.edu, or www.ctsoadvisor.com.



AWARDS & RECOGNITION

There are a number of opportunities for students and advisors to be recognized through TSA, and we strongly encourage both students and advisors to take advantage of these great programs! For application forms and complete information, please visit the national TSA website at www.tsaweb.org and click on the Awards and

Recognition link at the top of the website. There you will find complete descriptions, deadlines, rules, and entry forms for each award and recognition program listed below.

Achievement Program:

The TSA Achievement Program is designed to motivate and recognize student members for exemplary effort in a school's technology education program. This is a non-competitive, self-initiated program that encourages students to develop appropriate attitudes and increase their knowledge and skills through involvement in technology education programs and activities. Bronze and Silver awards will be presented at the state conference; Gold awards will be presented at the national conference.

Distinguished Alumni Award:

The recipients (3 per year) of this award are alumni of TSA who have demonstrated continuous commitment and ongoing service by maintaining a strong relationship with TSA beyond high school graduation. Specifically, recipients will have met the following criteria:

- Graduated from high school a minimum of three years prior, having been a member in good standing with TSA for a minimum of two years.
- Maintained active participation in TSA since high school graduation as confirmed by conference attendance, committee membership, student competitive events judging or other service to TSA.

AWARDS & RECOGNITION (CONTINUED)

Dr. Bob Hanson Distinguished Student Award:

The recipient of the Distinguished Student Award is selected on the basis of valued service to the community and to TSA. Both past and present contributions are considered. Criteria for eligibility include:

- Active member in good standing with TSA for a minimum of one school year.
- Active participation in TSA at the local, state, or national level.
- Recognition by fellow students, teachers, or administrators of technology education programs as a student who has achieved prominence and distinction.

Honorary Life Award:

The recipient will have demonstrated significant support on behalf of TSA for a minimum of five years and is an individual from whom TSA may reasonably expect reliable and continued interest in its activities.

Outstanding Recognition Award:

The recipient of this award is selected based on valued service contributing to the growth of TSA. Both past and present contributions are considered. Eligibility is based on:

- The organization(s) the recipient represents has supported TSA in some capacity at the local, state, or national level for a minimum of three years.
- Active participation as evidenced by attendance at the conferences, membership on committees, judging student events, etc.
- Involvement with advancing TSA as evidenced by involving other business personnel.
- Industry leaders to support TSA activities.

TSA Distinguished Service Award:

The recipient is selected based on valued service to TSA. Both past and present contributions are considered. Criteria include the following:

- Association with TSA in some capacity for a minimum of three years.
- Active participation, as evidenced by attendance at conferences, membership on committees, judging student events, etc.
- Involvement with advancing TSA, as evidenced by work in professional education groups, publications, research, etc.
- High standard of attainment as shown by establishment of new TSA chapters, program expansion or innovation, or by achievement of student members who have gained prominence and distinction.
- Recognition by fellow professionals, as indicated by similar awards from local, district, state or regional groups.
- Current TSA board of directors members are excluded from the nomination during their respective terms of office.





AWARDS & RECOGNITION (CONTINUED)

TSA "Teach Technology" Scholarship:

The purpose of the TSA scholarship is to support the technology education profession by encouraging TSA students to pursue careers as K-12 technology teachers. Applicants must have:

- Participated in an active chapter for a minimum of two consecutive years.
- Served as a TSA officer at the local, state, and/or national level for a minimum of one academic year.
- Attended and participated in at least one TSA conference at the state or national level.

TSA Technology Honor Society:

The TSA Technology Honor Society recognizes TSA members who excel in academics, leadership and service to their school and community. The TSA Technology Honor Society is an opportunity for students to be recognized for their efforts and is designed to recognize TSA members who exemplify the high ideals of academics.

William P. Elrod Memorial Scholarship:

The William P. Elrod Memorial Scholarship is a \$500 scholarship awarded annually to a qualified TSA member who is graduating from high school. The scholarship is awarded for outstanding service in the field of technology by a graduating TSA member who is bound for college or vocational or tech school and who is in good academic standing. The winner is announced at the National TSA conference.

TSA Chapter Excellence:

The TSA Chapter Excellence Award recognizes chapters that are outstanding models. Many areas of chapter operation are reviewed, including meetings, scholastic and educational activities, service projects, conference participation, team awards and recognition, and general chapter activities. Also taken into consideration are chapter fund raising projects and leadership development activities.

TSA Star Recognition:

TSA provides recognition to those chapters and members who actively assist new or lapsed TSA chapters to become active members. To qualify for Star recognition, a chapter must submit documentation (included in this packet) to the National TSA office by May 1. Recognition is given as follows:

- White Star - 1-2 new TSA chapters
- Blue Star - 3-5 new TSA chapters
- Red Star - 6 or more new TSA chapters

Advisor of the Year:

Students are encouraged to submit the name of their chapter advisor to the state office for the Annual Advisor of the Year award. The honoree is recognized at the state conference and then again at the National Conference for their outstanding work with TSA.

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**

IMPORTANT DEADLINES



Deadline Date	Task To Be Completed	Done
January 6, 2012	Complete National affiliation process before registering for the state exposition - www.tsaweb.org	
October 31, 2011 - January 6, 2012	State Exposition Online registration begins (www.registtermychapter.com/tsa/co). All substitutions, additions/changes must be completed by midnight January 6, 2012.	
December 30, 2011	One more week to complete conference registration!	
January 6, 2012	REGISTRATION CLOSSES AT MIDNIGHT	
January 13, 2012	All hotel reservations and room lists must be received by the hotel. Send to: John Hogan Marriott Denver Tech Center 4900 S. Syracuse Denver, CO 80237	
January 27, 2012	All state officer applications must be received by: Dr. Myka Raymond Laredo Middle School 5000 S. Laredo Street Aurora, CO 80015	
February 1, 2012	All forms and registration payments must be received including: Liability/Conduct forms and payment for each participant, including adults. Mail to: Tony Raymond COTSA State Advisor Colorado Community College System 9101 E. Lowry Blvd. Denver, CO 80230	
February 9, 2012	4:00 p.m. Conference Registration Opens. All projects must be checked in by 10:30 p.m.	
June 21-25, 2012	National TSA Conference, Nashville, TN National Registration: www.registtermychapter.com/tsa/nat/ConfDefault.aspx	

If you have any questions or comments, please email Tony Raymond at tony.raymond@cccs.edu



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

Medical Release Form

(Required by all students attending the exposition)

To be kept by each local advisor

(PLEASE PRINT CLEARLY)

Student: _____

Advisor: _____ School: _____

Medical Information

Date of Birth: _____

Known allergies (drugs or otherwise): _____

Date last tetanus shot administered: _____

Medication currently being taken: _____

Describe any history of heart condition, diabetes, and asthma, epilepsy, or rheumatic fever, etc.: _____

Physical restrictions (swimming, running, etc.) _____

Relative's name: _____ Work: (_____) _____

Physicians name: _____

Insurance Information

Medical Insurance Co.: _____

Identification / Policy No.: _____

Subscriber's Name: _____ Phone: (_____) _____

Subscriber's place of employment: _____

I, _____ (parent/guardian) hereby authorize any physician member of the Department of Emergency Medicine of an accredited hospital or any member of the Medical Staff of an accredited hospital to render medical treatment, which is in his/her judgment may be deemed necessary in the care of _____

(child/student) while attending the Colorado State Technology Expo (including time traveling to and from the conference).

Parent / Guardian signature

Date

ADVISORS – PLEASE NOTE:

This form is to be kept by local school advisors at the conference and given to the appropriate medical authorities in a medical emergency!!

**26th ANNUAL COLORADO
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Personal Liability Form

**REQUIRED BY ALL STUDENTS & ADULTS ATTENDING THE EXPOSITION
ALL FORMS MUST BE RECEIVED NO LATER THAN FEBRUARY 1, 2012**

Please send to: Tony Raymond
COTSA State Advisor
Colorado Community College System
9101 E Lowry Blvd.
Denver, CO 80230

Name of Participant: _____
Date of Birth: _____
School: _____
School Address: _____
Home Phone: (_____) _____ School Phone: (_____) _____

"I hereby agree to release the Colorado Technology Student Association and the Colorado Technology Education Association Inc., its representative, agents, servants, and employees from liability for any injury to the above named person at any time while attending the Colorado State Technology Expo. 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 Colorado State Technology Expo's conference chair, assistants and/or designees 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 judgement."

"I agree to identify and hold harmless the Technology Student Association Inc., the Colorado Technology Education Association and said conference chair and/or assistants and designees for any and all claims, demands, actions, rights of action, and/or judgments by or on behalf of the above named person arising from or on account of said procedures and/or treatment rendered in good faith and according to accept medical standards."

Adult/Parent or Guardian (if child or student) Date

Participant Date



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HOUSING FORM

**DEADLINE -- THIS SHEET MUST BE RECEIVED BY THE HOTEL BY:
FRIDAY, JANUARY 13, 2012**

REMEMBER TO ATTACH PAYMENT, ROOM LISTS & TAX EXEMPT FORMS

PLEASE SEND HOUSING FORMS TO:

Denver Marriott Tech Center
4900 S. Syracuse Street
Denver, Colorado 80237
Phone (303) 740-2532
Fax (303) 770-6112
Attn: John Hogan

School Information:

Group Name: Colorado TSA
School Name: _____
Advisor's Name: _____
School Address: _____
City: _____ Zip: _____
Phone: (_____) _____
Date of Arrival: _____ / _____ /2012
Date of Departure: _____ / _____ /2012
Total Amount Due:

All rooms = \$114.00 + 14.85% room tax. Tax will be exempt if tax exempt forms are completed. All payments must be on School District Checks or School District Card.

Total amount due = _____ # rooms x \$114.00 x # _____ nights = \$ _____ Total
Total with 14.85% tax (if applicable) \$ _____

Payment: (NO POs WILL BE ACCEPTED)

Make checks payable to: Denver Marriott Tech Center
4900 S. Syracuse Street
Denver, Colorado 80237

Credit Card Information: _____
Name on Card: _____
School Credit Card #: _____
Credit Card #: _____ Exp. Date: _____

**PAYMENT MUST BE RECEIVED
BEFORE RESERVATIONS WILL BE CONFIRMED**

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HOUSING ROOMING LIST

DEADLINE -- THIS SHEET MUST BE RECEIVED BY THE HOTEL BY:
FRIDAY, JANUARY 13, 2012

Please list each of the students grouped according to the hotel rooms they will be in (maximum of four (4) people per room. Attach as many sheets as needed to complete your guest list.

	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				
	Grade/ Sponsor	Last Name, First Name	M/F	Special Notes
1				
2				
3				
4				

SCHOOL NAME: _____ PAGE _____ OF _____



**26th ANNUAL COLORADO
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STATE LEADERSHIP EXPOSITION - 2012**

**CLAIM FOR EXEMPTION FROM SALES, USE,
OR LODGERS TAX FORM**

CITY AND COUNTY OF DENVER AND STATE OF COLORADO FOR USE BY HOTELS, MOTELS,
AND RESTAURANTS

Organization's Name: _____
 Date of Event: _____ Phone: _____
 Authorized Representative: _____ Title: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Description of Event: _____

Basis of Exemption: Religious Charitable _____ Governmental
 Indicate if all the following statements are true for this event.

YES	NO	
_____	_____	The purchase is included under, and is part of, the regular religious or charitable activities of the organization or is purchased in a governmental capacity.
_____	_____	The transaction is billed directly to the organization and payment is made directly from organization funds. (Purchases of food or lodging by individuals do not qualify for the exemption even though the individual will be reimbursed by the organization or government.)
_____	_____	The participants at the event have not and will not reimburse the organization in any way for the event such as by purchase of a ticket, payment of a registration fee, or making an involuntary contribution.

The exemption does not apply to food, beverage or lodging where the recipient of the food, beverage or lodging reimburses the organization in any way, such as by the purchase of a ticket, payment of a fee, or making an involuntary contribution.

ALL OF THE ABOVE STATEMENTS MUST BE TRUE FOR THE PURCHASE TO QUALIFY FOR TAX EXEMPTION.

The undersigned declares and affirms that the above statements are true and accepts liability for the tax, should the transaction not qualify for exemption.

Signature: _____ Date: _____

Print Name: _____ Title: _____

FOR HOTEL/MOTEL/RESTAURANT USE TO VERIFY EXEMPTION

City of Denver, Treasury Division, Tax Compliance, Audit Unit: 720-913-9330

Denver exemption verified by _____ Yes No Date: _____

(HOTEL EMPLOYEE)

(CITY EMPLOYEE)

CTSO CREDIT CARD PAYMENT FORM

In addition to checks, payment for all TSA functions may be made by credit card. You may print out and complete this page by hand, or you can get a PDF copy to fill out and print from your computer by going to: http://www.ctsoadvisor.com/CTSO_Resources/CTSO_Credit_Card_Form.pdf

All payment forms should be submitted to Barnetta Greenwalt, CTSO Bookkeeper, 9101 E. Lowry Blvd., Denver, CO 80230.



CTSO CREDIT CARD PAYMENT

ORGANIZATION: DECA FBLA FCCLA FFA
 HOSA PBL SkillsUSA TSA

DATE: _____ PAYMENT FOR: _____

SCHOOL NAME: _____

SCHOOL ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

SCHOOL PHONE: _____ SCHOOL FAX: _____

ADVISOR NAME: _____

ADVISOR EMAIL: _____ ADVISOR CELL #: _____

AMOUNT OWED: _____

ADD 4% CREDIT CARD FEE: _____

TOTAL AMOUNT TO BE CHARGED TO CARD: _____

** Please be sure you have authorization to charge the above amount to the designated card.

PAYMENT METHOD: VISA MasterCard Discover Contact for Card Info

CREDIT CARD NUMBER: _____

CCID#: _____

EXPIRATION DATE: Month: _____ Year: _____

CARD HOLDER NAME: _____

*MUST MATCH BILLING ADDRESS AS DESIGNATED ON CARD.

IF YOU SELECTED "CONTACT FOR CREDIT CARD INFORMATION" AS THE PAYMENT METHOD, PLEASE PROVIDE CONTACT INFORMATION:

CONTACT: _____

PHONE NUMBER: _____ EMail: _____

Barnetta Greenwalt will call the above contact within 3 days of receipt of paperwork for credit card information.

THANK YOU! PLEASE PRINT THIS FORM AND SUBMIT IT TO:

Barnetta Greenwalt, 9101 E. Lowry Blvd., Denver, CO 80230



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

Exposition Conduct and Practices

1. The term “attendee” shall mean any student attending the exposition.
2. Identification badges must be worn at all times by persons in exposition attendance.
3. There shall be no defacing of public property. Any damages to the property or furnishing in the hotel rooms or buildings must be paid by the individual(s) or school(s) responsible.
4. Attendees shall keep their advisors informed of their activities and/or whereabouts at all times.
5. Attendees should be prompt and prepared for all activities.
6. Attendees should be financially prepared for all possibilities.
7. All attendees must stay at conference hotel.
8. No attendee shall remain in the sleeping room of the opposite gender unless the door is open at all times.
9. No attendee shall remain in the sleeping room of the opposite gender past curfew.
10. No exposition attendee shall possess any alcoholic beverages, narcotics or firearms, in any form at any times, under any circumstances.
11. Smoking will not be permitted.
12. No attendees shall leave the exposition hotel (except for authorized events) unless permission has been received from chapter advisors.
13. Attendees are required to attend all general sessions and activities assigned, including workshop, all general sessions, competitive events, committee meetings, etc., for which they are registered, unless engaged in some specific assignment taking place at the same time.
14. Chapter advisors will be responsible for their attendees’ conduct.
15. Attendees violating or ignoring any of the conduct rules will subject their entire delegation to being removed from the Exposition or competitive event participants being disqualified.
16. The Colorado State Exposition committee reserves the right to dismiss any delegate from the exposition for inappropriate actions.

**Note: All attendees, advisors, parents and administrators
must complete the signature form on page 15.**

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**



**Attendee Conduct and Practices
Signature Form**

This form is required by all students attending the conference. Must be mailed to Tony Raymond, COTSA State Advisor, Colorado Community College Systems, 9101 E Lowry Blvd, Denver, CO 80230, NO LATER THAN FEBRUARY 1, 2012.

Attendee:

I have read and completely understand the State exposition Attendee Conduct Practices and Procedures Code. I do hereby agree to follow the procedures and practices 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 the finest qualities of a person representing my school.

Attendee Signature

Date

Parent/ Guardian, Advisor/ Teacher, & Principal:

I approve the student named above to attend the 2012 Colorado Technology Student Association State Leadership Exposition in Denver, CO on February 9-11, 2012.

Parent/Guardian Signature

Advisor/Teacher Signature

School Principal Signature



The Technology Student Association is proud to be a partner with the American Cancer Society's Relay for Life Program.

Relay for Life is the American Cancer Society's signature event which offers your TSA chapter and school a fun, healthy opportunity to participate in the fight against cancer.

Colorado TSA would like to encourage you to help its efforts to support present the American Cancer Society.

If you would like to make a donation, please fill out this form and include your donation with your student's registration form. Thank you for your time and commitment.

Name: _____ School: _____

Donation Amount: \$15 \$25 \$50 \$100 Other _____



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

Competitive Events Attire

Chapter and state advisors, parents and chaperones are responsible for seeing that all TSA student members wear official TSA attire, professional TSA attire, or business casual TSA attire as occasions may require. Official TSA attire may be purchased online via the SHOP tab on the TSA website at www.tsaweb.org.

Official TSA attire, professional TSA attire, and business casual TSA attire are considered appropriate dress for related conference activities and public appearances.

Students must adhere to the TSA dress code requirements as listed below.

- At the State Conference, DURING EVENT CHECK-IN and FOR THE OPENING SESSION ONLY, student members are allowed to dress casually; a chapter's team shirts (e.g., polos or T-shirts) may be worn. FOR ALL OTHER STATE CONFERENCE SESSIONS OR EVENTS, student members must wear official TSA attire, professional TSA attire, or business casual TSA attire as indicated in the competitive events guide. Flip-flops, athletic shoes (tennis shoes, running shoes, etc.), halter tops, tank tops and shorts are not permitted for anyone after event check-in and the opening session.
- TSA contestants must refer to the attire guidelines below and to those for each specific event in which they are participating.
- Students are allowed to dress MORE formally than specified for conference activities. Students who are dressed LESS formally than specified for an event in which they are competing are allowed to compete but lose twenty percent (20%) of the total possible points for that event.

Official TSA Attire (Most Formal)

- Blazer: navy blue with official TSA patch
- Tie: scarlet red imprinted with official TSA logo (for males and females)
- Shirt or blouse: white, button-up with turn-down collar ** (*SEE UNIFORM UPDATE, PGS. 20-21*)
- Pants or skirt: light gray
- Socks: males only (black or dark blue)
- Shoes: black dress shoes (unacceptable: athletic shoes, army boots, combat, or work boots)
- Sandals: females only may wear black open-toe shoes or sandals

****IMPORTANT NOTE:** *The Colorado TSA Executive Committee, Advisory Board and COTSA State Director recognize that not every Colorado TSA member will attend the national conference; they also recognize that the purchase of the new uniform shirt for each member of an entire chapter may put undue financial burdens upon that chapter. With that in mind, Colorado TSA has approved the continued use of white shirts as part of the official uniform AT THE STATE LEVEL ONLY beyond the 2014 national conference. It is an expectation and is REQUIRED that students attending the NATIONAL CONFERENCE must purchase the new official blue uniform shirt to be in compliance with national official uniform requirements.*

AT THE STATE LEVEL ONLY: *If a team is competing in an event where official dress is required, all members of the team MUST wear the same type of shirt – either the white shirt/blouse OR the official royal blue shirt/blouse. Teams may not mix and match blue and white shirts in a team event.*

26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012



Competitive Events Attire (Continued)

Professional TSA Attire (Less Formal)

- Shirt: button-up with turn-down collar (unacceptable: T-shirt, polo or golf shirt)
- Blouse: female only
- Tie: required for males and optional for females
- Dress pants: (unacceptable: jeans, baggy pants, exterior pocket pants)
- Dress/skirt: females only (length even with or longer than the tips of one's fingers)
- Socks: males only (black or dark blue)
- Shoes: dress shoes or dress boots (unacceptable: athletic shoes, combat, or work boots)
- Sandals: females only may wear open-toe shoes or sandals

Business Casual TSA Attire (Least Formal)

This is the same as professional attire, however, a tie is not required and the shirt or blouse may be a polo or golf shirt. (Unacceptable: t-shirt or shorts)

Registrants must wear conference identification badges at all times.

IMPORTANT UNIFORM UPDATE

In the fall of 2010, a survey was posted on TSA's website regarding the official TSA attire. The survey was a joint effort of the TSA, Inc., Board of Directors and the National TSA Officers. Almost 2,000 people responded to the survey which included over 25% of current chapter advisors. Approximately 1,200 student members and about 100 parents also participated in the survey.

There was a survey question about an oxford shirt, which resulted in 53% being interested in a button down collar, long-sleeve oxford shirt/blouse with an embroidered TSA logo (not a patch). Royal blue was the most popular color selected, by 62% over red and light blue.

In the Spring of 2011, after thoroughly reviewing the survey results, and with input from the National TSA officers, the TSA, Inc., Board of Directors approved replacing the white shirt/blouse as part of the official TSA attire with a royal blue oxford shirt/blouse on which the TSA logo is embroidered and the Technology Student Association appears directly below the emblem.

Technology Student Association Official Shirt/Blouse



Continued on next page



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

Competitive Events Attire (Continued)

Continued from previous page

It was further decided that:

- Females will wear the official royal blue blouse with an open collar (no tie or scarf). Males will wear the official royal blue shirt with the official TSA logo neck tie.
- Beginning with the 2011-2012 school year, anyone may replace the white shirt/blouse with the official royal blue shirt/blouse. However, the white shirt/blouse **MUST** be replaced with the official royal blue shirt/blouse by the opening of the 2014 national TSA conference on June 27, 2014.
- During the 2012 and 2013 national TSA conferences, either the white shirt/blouse **OR** the official royal blue shirt/blouse may be worn by participants when they compete in TSA contests.
- Beginning with the 2014 national TSA conference, the official royal blue shirt/blouse **MUST** be worn by participants when they compete in TSA contests.
- No words, lettering or markings will appear on the top or bottom bar of the logo on the official royal blue shirt/blouse. The logo may not be altered.
- The royal blue shirt/blouse cannot be modified in any way when worn.
- No other changes to the official TSA attire are taking place.
- For trademark and branding purposes, only the TSA royal blue shirt/blouse sold through the TSA store by the EGroup will be recognized as official TSA attire.
- National TSA will split the 10% royalty it receives from the sale of the official royal blue shirts/blouses with state TSA delegations whose members have purchased the official royal blue shirts/blouses. Payment will be made on a quarterly basis.

The official royal blue TSA shirt/blouse is being customized for TSA and made from 3-3/4 ounce cotton/poly blend poplin fabric with a full color TSA logo on the left chest and an official TSA tag on the sleeve.

- The shirt is button-down collar, left chest patch pocket, with buttoning sleeve packets and cuffs. It is available in sizes XS to 5XL.
- The blouse is French tailored cut and features a spread collar, buttoning sleeve plackets and cuffs. It is available in sizes XS to 3XL.

Pricing for the 2011-2012 school year is as follows:

- \$27.99 each for 1-9 shirts/blouses for orders placed at the same time.
- \$27.50 each for 10-99 shirts/blouses for orders placed at the same time.
- \$26.05 each for 100 or more shirts/blouses for orders placed at the same time.

The royal blue shirt/blouse is currently on display at the TSA Store website at www.costore.com/tsa and is available for purchase. Production is underway for a December 2011 delivery.

*****IMPORTANT NOTE: The Colorado TSA Executive Committee, Advisory Board and COTSA State Director recognize that not every Colorado TSA member will attend the national conference; they also recognize that the purchase of the new uniform shirt for each member of an entire chapter may put undue financial burdens upon that chapter. With that in mind, Colorado TSA has approved the continued use of white shirts as part of the official uniform AT THE STATE LEVEL ONLY beyond the 2014 national conference. It is an expectation and is REQUIRED that students attending the NATIONAL CONFERENCE must purchase the new official blue uniform shirt to be in compliance with national official uniform requirements.***

AT THE STATE LEVEL ONLY: If a team is competing in an event where official dress is required, all members of the team MUST wear the same type of shirt – either the white shirt/blouse OR the official royal blue shirt/blouse. Teams may not mix and match blue and white shirts in a team event.

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**



Photo Release Form

I hereby consent to and authorize the use and reproduction by Colorado TSA, the Colorado Community College System (CCCS), or anyone authorized by Colorado TSA or CCCS, of any and all photographs/digital images/videotapes/recordings of:

Attendee's Name

from the February 9-11, 2012 Colorado State Technology Leadership Exposition at the Marriott Denver Tech Center for use by Colorado TSA and/or the Colorado Community College System (CCCS), its employees, officers and agents, and the right to copyright and/or use, reuse and/or publish, republish photographic pictures, digital images, video tapes and recordings in conjunction with the above named individual's own name.

I also give permission for these photographic/digital images/videotapes/recordings to be used in its entirety and/or edited version as deemed necessary by Colorado TSA and/or CCCS (to include usage of images on Career and Technical Student Organization (CTSO) websites, including, but not limited to Facebook).

Furthermore, permission is also given for the photographs/digital images/videotapes/recordings completed on February 9-11, 2012 to be used by Colorado TSA and/or CCCS at any time in the future without further clearance from me.

I understand that these photographs/digital images/videotapes/recordings may be used for marketing purposes (including websites) by Colorado TSA and CCCS. I have read the foregoing release, authorization and agreement, before signing below, and warrant that I fully understand the contents thereof.

I hereby grant permission for photographing, videotaping and/or recording.

Signature of Parent/Guardian* or Individual

Date

* If individual is under 18 years of age.

Address: _____

City: _____ State: _____ Zip: _____

NOTE: Any student who is subject to harassment due to the publishing of photos (either in publications or on the websites) should contact their student organization state advisor immediately.



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

OFFICER-AT-LARGE APPLICATION

Applicant Name: _____

The Officer-At-Large position is an appointed position, designed for those who are interested in being involved at the state level but have not had enough experience to be able to run for a state office. Successful candidates will be entering the 9th or 10th grade, have been a member of TSA for at least one year and have attended at least one prior state conference at either the middle or high school level before submitting for candidacy. *You may not run for this office if this is your first state conference.*

*Application and all associated materials must be received by the State Officer Advisor
NO LATER than January 15, 2012. Materials should be sent to:*

Dr. Myka Raymond, State Officer Advisor
Laredo Middle School
5000 S. Laredo St., Aurora, CO 80015

Or via email to (preferred, with application and photo attached as a PDF and JPG):
mraymond3@cherrycreekschools.org

Officer -At-Large Candidates must have the following qualifications:

- All Officer-at-Large candidates must be a bona fide member of an undergraduate high school (per CHSSA/CTSO bylaws)
- All Officer-at-Large candidates must have attended a minimum of one state conference prior to submitting documentation for candidacy. Candidates will not be considered if this is their first state conference.
- All candidates must have successfully passed or be currently enrolled in a technology education class in a high school for a minimum of one semester.
- All candidates must possess Official TSA Attire and submit a picture in JPEG file of themselves dressed in that attire with their application.

Duties and Responsibilities of Colorado TSA Officers-at-Large:

By electing you to a Colorado TSA office, the membership entrusts the leadership of its organization to you and your fellow officers. With the acceptance of this honor come duties and responsibilities. Duty is defined as “the conduct, obedience, loyalty, and submission required of an officer.” Responsibility is the “reliability and moral accountability for duties expected of an officer.” Together, duty and responsibility convey the conduct and performance appropriate to all Colorado TSA officers.

Regardless of which office you hold, your duties and responsibilities as a COTSA officer obligate you to:

- Understand the mission, goals and bylaws of COTSA
- Understand the TSA creed and know it from memory; memorize appropriate ceremonies and rituals
- Be familiar with the organizational structure and policies of COTSA
- Understand and correctly use parliamentary procedure
- Attend all meetings
- Be prepared to conduct organization and COTSA meetings
- Be prepared to serve as a speaker
- Be loyal to COTSA
- Assist other officers to accomplish their tasks
- Practice good speaking and writing skills as you represent COTSA
- Be helpful, respectful, and responsible to all people

Continued on next page

Revised 8/11

26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

OFFICER-AT-LARGE APPLICATION (CONTINUED)



The following items must be submitted with your application:

- Official transcript with GPA
- Photograph of yourself in Official formal TSA attire, JPG format on a CD
- Completed application, with all required signatures (Note: There are TWO separate signature pages of this application)
- Essay, typed: In no more than 250 words, describe a significant leadership experience in your life.
- Please Note: Recommendation forms are to be submitted DIRECTLY to the state officer advisor, after being presented to the teacher/administrator/counselor with an addressed, stamped envelope. They are NOT to be returned to the student, but still must be submitted by the deadline!

Officers-at-Large Officers are required to attend the following meetings:

- March – meeting/pre-year planning for leadership training and national conference
- April – meeting/ pre-year planning for leadership training and national conference
- May - meeting/ pre-year planning for leadership training and national conference
- June – CTSO Leadership Training, National TSA conference
- September - Fall Planning Meeting and/or COTSA Advisory Committee meetings
- October – State conference planning meeting
- January - State conference planning meeting
- February – State conference planning meeting and COTSA Conference
- There may be additions throughout the year as necessary, and the officer must be able to commit to responsibilities on the officer's own time.

Officers-at-Large must also agree to and abide by the COTSA Code of Conduct and State Officer Dress Code, as well as agree to the Duties and Responsibilities for Colorado TSA State Officers as presented later in this document.

By signing below, I understand, accept, and agree to all terms, information, and conditions set forth in this application. I understand that I must complete the transportation waiver if I intend to transport myself to and from state meetings.

I further profess that all information given throughout this application to be true and accurate to my knowledge.

Parent Signature _____ Date _____

Chapter Advisor Signature _____ Date _____

Applicant Signature _____ Date _____

Applicants will be contacted prior to the COTSA state conference only if there is a problem with their application materials or eligibility.
All submitted materials become property of Colorado TSA.

Continued on next page



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

OFFICER-AT-LARGE APPLICATION FORM (PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 15, 2012 in order to be considered.

Applicant Name: _____

Home Address: _____

Cell Phone Number: _____

Home Phone Number: _____

Email Address: _____

Birthdate: _____ Applicant Age: _____

Current Grade Level (Circle One): 9 10 11

Parents'/Guardians' Names: _____

Parents'/Guardians' Phone Numbers: _____

Advisor's Name(s): _____

School Name: _____

School Phone: _____

List chapter and state offices (in any organization) that you have held, most recent first, including dates:

List all extracurricular activities in which you participate besides TSA:

Candidate: Please be candid in rating yourself on the following items:

	Excellent	Good	Fair	Poor
Public Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Work in a Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership Abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer/Technical Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Esteem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Produce Quality Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Follow Through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professionalism (Punctuality, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parliamentary Procedure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**



**OFFICER-AT-LARGE CANDIDATE
CHAPTER ADVISOR RECOMMENDATION FORM**

(PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 27, 2012 in order to be considered.

Advisor Name: _____

School: _____

**** To the Student:** You must submit this form to the advisor for the chapter from the school you represent with a stamped envelope addressed to Dr. Myka Raymond, Laredo Middle School, 5000 S. Laredo St., Aurora, CO 80015. This form is to be sent DIRECTLY to the state officer advisor. By signing below, you waive all rights to inspect this form before or after it is submitted to COTSA.

Applicant Signature: _____ Date: _____

Applicant Name: _____

Position Sought: _____

To the Advisor: Please answer these questions as candidly as possible. All answers are held in strictest confidence.

Please describe how well you know the applicant, including how long you have known him/her:

What chapter offices has this candidate held in your TSA chapter?

Please rate the candidate on the following items:

	Excellent	Good	Fair	Poor	Unable to rate this student in this category
Public Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Work in a Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership Abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer/Technical Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Esteem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Produce Quality Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Follow Through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professionalism (Punctuality, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parliamentary Procedure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any further comments about this potential candidate that would be helpful in determining his/her fitness to hold a state office in COTSA? (Use additional sheets if necessary)



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

OFFICER-AT-LARGE CANDIDATE RECOMMENDATION FORM

(TO BE COMPLETED BY A TEACHER, COUNSELOR, OR OTHER SCHOOL OFFICIAL OTHER THAN THE CHAPTER ADVISOR - PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 15, 2012 in order to be considered.

Name: _____ Title: _____

School: _____

**** To the Student: You must submit this form to the teacher/counselor/school official other than the chapter advisor for the school which you represent with a stamped envelope addressed to Dr. Myka Raymond, Laredo Middle School, 5000 S. Laredo St., Aurora, CO 80015. This form is to be sent DIRECTLY to the state officer advisor. By signing below, you waive all rights to inspect this form before or after it is submitted to COTSA.**

Applicant Signature: _____ Date: _____

Applicant Name: _____

Position Sought: _____

**** To the Teacher/Counselor/School Official: Please answer these questions as candidly as possible. All answers are held in strictest confidence.**

Please describe how well you know the applicant, including how long you have known him/her:

Please rate the candidate on the following items:

	Excellent	Good	Fair	Poor	Unable to rate this student in this category
Public Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Work in a Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership Abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer/Technical Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Esteem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Produce Quality Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Follow Through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professionalism (Punctuality, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parliamentary Procedure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any further comments about this potential candidate that would be helpful in determining his/her fitness to hold a state office in COTSA? (Use additional sheets if necessary)

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**

STATE OFFICER APPLICATION FORM

(PLEASE PRINT CLEARLY)

Applicant Name: _____
Officer Position Sought: _____

*Application and all associated materials must be received by the State Officer Advisor
NO LATER than January 15, 2012. Materials should be sent to:*

Dr. Myka Raymond, State Officer Advisor
Laredo Middle School
5000 S. Laredo St., Aurora, CO 80015

Or via email to (preferred, with application and photo attached as a PDF and JPG):
mraymond3@cherrycreekschools.org

State Officer Candidates must have the following qualifications:

- All state officer candidates must be a bona fide member of an undergraduate high school (per CHSSA/CTSO bylaws)
- All state officer candidates must be one of no more than three candidates from any individual chapter.
- All state officer candidates must have held a chapter office in a high school for at least one year before being considered as a state officer candidate.
- All state officer candidates may not run for national office and state office in the same year.
- All candidates must have successfully passed or be currently enrolled in a technology education class in a high school for a minimum of one semester.
- All candidates must possess Official TSA Attire and submit a picture in JPEG file of themselves dressed in that attire with their application.
- All candidates must prepare a 2 minute campaign speech prior to the conference to be delivered at the Banquet Session on Friday, February 10, 2012 should their candidacy be approved.

Duties and Responsibilities of Colorado TSA Officers:

By electing you to a Colorado TSA office, the membership entrusts the leadership of its organization to you and your fellow officers. With the acceptance of this honor come duties and responsibilities. Duty is defined as “the conduct, obedience, loyalty, and submission required of an officer.” Responsibility is the “reliability and moral accountability for duties expected of an officer.” Together, duty and responsibility convey the conduct and performance appropriate to all Colorado TSA officers.

Regardless of which office you hold, your duties and responsibilities as a COTSA officer obligate you to:

- Understand the mission, goals and bylaws of COTSA
- Understand the TSA creed and know it from memory; memorize appropriate ceremonies and rituals
- Be familiar with the organizational structure and policies of COTSA
- Understand and correctly use parliamentary procedure
- Attend all meetings
- Be prepared to conduct organization and COTSA meetings
- Be prepared to serve as a speaker
- Be loyal to COTSA
- Assist other officers to accomplish their tasks
- Practice good speaking and writing skills as you represent COTSA
- Be helpful, respectful, and responsible to all people

Continued on next page





26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

STATE OFFICER APPLICATION (CONTINUED)

The following items must be submitted with your application:

- Official transcript with GPA
- Photograph of yourself in Official formal TSA attire, JPG format on a CD
- Completed application, with all required signatures (Note: There are TWO separate signature pages of this this application)
- Essay, typed: In no more than 250 words, describe a significant leadership experience in your life.
- Please Note: Recommendation forms are to be submitted DIRECTLY to the state officer advisor, after being presented to the teacher/administrator/counselor with an addressed, stamped envelope. They are NOT to be returned to the student, but still must be submitted by the deadline!

State Officers are required to attend the following meetings:

- March – meeting/pre-year planning for leadership training and national conference
- April – meeting/ pre-year planning for leadership training and national conference
- May - meeting/ pre-year planning for leadership training and national conference
- June – CTSO Leadership Training, National TSA conference
- September - Fall Planning Meeting and/or COTSA Advisory Committee meetings
- October – State conference planning meeting
- January - State conference planning meeting
- February – State conference planning meeting and COTSA Conference
- There may be additions throughout the year as necessary, and the officer must be able to commit to responsibilities on the officer's own time.

By signing below, I understand, accept, and agree to all terms, information, and conditions set forth in this application. I understand that I must complete the transportation waiver if I intend to transport myself to and from state meetings.

I further profess that all information given throughout this application to be true and accurate to my knowledge.

Parent Signature

Date

Chapter Advisor Signature

Date

Applicant Signature

Date

Applicants will be contacted prior to the COTSA state conference only if there is a problem with their application materials or eligibility.

All submitted materials become property of Colorado TSA.

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**



State Officer Application Form
(PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 15, 2012 in order to be considered.

Applicant Name: _____

Position Sought: _____

Home Address: _____

Home Phone Number: _____

Email Address: _____

Birthdate: _____ Applicant Age: _____

Current Grade Level: (Circle One) 9 10 11

Parents'/Guardians' Names: _____

Parents'/Guardians' Phone Numbers: _____

Advisor's Name(s): _____

School Name: _____

School Phone: _____

List chapter and state offices (in any organization) that you have held, most recent first, including dates:

List all extracurricular activities in which you participate besides TSA:

Candidate: Please be candid in rating yourself on the following items:

	Excellent	Good	Fair	Poor
Public Speaking	○	○	○	○
Writing Skills	○	○	○	○
Ability to Work in a Team	○	○	○	○
Leadership Abilities	○	○	○	○
Computer/Technical Skills	○	○	○	○
Self-Esteem	○	○	○	○
Ability to Produce Quality Work	○	○	○	○
Ability to Follow Through	○	○	○	○
Professionalism (Punctuality, etc.)	○	○	○	○
Parliamentary Procedure	○	○	○	○



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

State Officer Candidate CHAPTER ADVISOR RECOMMENDATION FORM

(PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 27, 2012 in order to be considered.

Advisor Name: _____
School: _____

** To the Student: You must submit this form to the advisor for the chapter from the school you represent with a stamped envelope addressed to Dr. Myka Raymond, Laredo Middle School, 5000 S. Laredo St., Aurora, CO 80015. This form is to be sent DIRECTLY to the state officer advisor. By signing below, you waive all rights to inspect this form before or after it is submitted to COTSA.

Applicant Signature: _____ Date: _____

Applicant Name: _____
Position Sought: _____

To the Advisor: Please answer these questions as candidly as possible. All answers are held in strictest confidence.

Please describe how well you know the applicant, including how long you have known him/her:

What chapter offices has this candidate held in your TSA chapter?

Please rate the candidate on the following items:

	Excellent	Good	Fair	Poor	Unable to rate this student in this category
Public Speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Work in a Team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership Abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer/Technical Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Esteem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Produce Quality Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Follow Through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professionalism (Punctuality, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parliamentary Procedure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any further comments about this potential candidate that would be helpful in determining his/her fitness to hold a state office in COTSA? (Use additional sheets if necessary)

**26th ANNUAL COLORADO
TECHNOLOGY STUDENT ASSOCIATION
STATE LEADERSHIP EXPOSITION - 2012**



**STATE OFFICER CANDIDATE
RECOMMENDATION FORM**

(TO BE COMPLETED BY A TEACHER, COUNSELOR, OR OTHER SCHOOL OFFICIAL OTHER THAN THE CHAPTER ADVISOR - PLEASE PRINT CLEARLY)

Application and all associated materials must be received
NO LATER than January 15, 2012 in order to be considered.

Name: _____ Title: _____
School: _____

*** To the Student: You must submit this form to the teacher/counselor/school official other than the chapter advisor for the school which you represent with a stamped envelope addressed to Dr. Myka Raymond, Laredo Middle School, 5000 S. Laredo St., Aurora, CO 80015. This form is to be sent DIRECTLY to the state officer advisor. By signing below, you waive all rights to inspect this form before or after it is submitted to COTSA.*

Applicant Signature: _____ Date: _____

Applicant Name: _____
Position Sought: _____

*** To the Teacher/Counselor/School Official: Please answer these questions as candidly as possible.
All answers are held in strictest confidence.*

Please describe how well you know the applicant, including how long you have known him/her:

Please rate the candidate on the following items:

	Excellent	Good	Fair	Poor	Unable to rate this student in this category
Public Speaking	○	○	○	○	○
Writing Skills	○	○	○	○	○
Ability to Work in a Team	○	○	○	○	○
Leadership Abilities	○	○	○	○	○
Computer/Technical Skills	○	○	○	○	○
Self-Esteem	○	○	○	○	○
Ability to Produce Quality Work	○	○	○	○	○
Ability to Follow Through	○	○	○	○	○
Professionalism (Punctuality, etc.)	○	○	○	○	○
Parliamentary Procedure	○	○	○	○	○

Any further comments about this potential candidate that would be helpful in determining his/her fitness to hold a state office in COTSA? (Use additional sheets if necessary)



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

COTSA STATE OFFICER CODE OF CONDUCT

One of the goals of Technology Student Association is to become an integral part of the Technology Education program in all schools. Technology is an integral part of the American culture; it is necessary for schools to provide students with an appreciation and understanding of the role and dynamics of technology in our society. TSA springs from the human abilities to reason, solve problems, create, construct and use materials imaginatively. The study of technology, integrated into the school curricula, promotes the development of these abilities and prepares students for a fulfilled and responsible adulthood.

It is the responsibility of all Colorado TSA State Officers to conduct themselves in a proper, business-like manner at all times.

- All officers are expected to attend and be on time to all meetings and events during the year.
- All officers shall behave in a courteous and respectful manner, refraining from language and actions that might bring discredit upon them, their school, their families, or upon Colorado TSA.
- Conduct not conducive to a business environment will not be allowed. Such conduct includes, but is not limited to, actions disrupting a businesslike atmosphere, association with non-conference individuals or activities that endanger self or others.
- At any function sponsored by TSA, all officers, participants and guests shall abide by the dress code. Unless otherwise noted, hats, blue jeans and other casual attire are excluded from all functions.
- There shall be no defacing of public property. The individual(s) responsible must pay any damages to the property or furnishings in the hotel rooms or building.
- If male and female officers visit each other in their hotel rooms at any time, the door must be open. These visits must have prior approval of the State Advisors and an advisor must be present during these visits.
- All officers will be in their own rooms by designated curfew and will not leave the room after curfew. Advisors will always do one or more room checks, following curfew. Officers may expect the advisor to also follow-up with a phone room check at any hour following curfew.
- Officers shall keep the State Advisors informed of their activities and whereabouts at all times.
- Accidents, injuries or illnesses must be reported to the State Advisors when they occur.
- Officers (and other TSA members) must always travel with a group (never alone) and should not go alone into hotel stairwells or areas that are poorly lit or that have light pedestrian traffic.
- Colorado TSA Medical Release Forms are required for all activities.
- Officers, delegates, or alumni shall possess no alcoholic beverages, narcotics or firearms in any form, at any time, under any circumstances.
- Use of tobacco products is prohibited by all officers.
- The Colorado TSA, Inc. Executive Committee reserves the right to dismiss any officer from the team if they are in violation of any rules and regulations.
- The officers will attend all State sponsored meetings found in their officer candidate form and other meetings as called by or with the authority of the COTSA State Advisor or COTSA State Officer Advisor.
- Officers found to be deceitful will be reprimanded, sanctioned, or removed from office.

Continued on next page

26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012



STATE OFFICER CODE OF CONDUCT (CONTINUED)

Results of Code of Conduct Violation:

Immediate expulsion from conference, workshop, camp, executive council meeting, etc. will result from the following activities. Please note that immediate expulsion from an activity will also result in removal from office:

- Possession of alcoholic beverages or narcotics of any form possessed at any time, under any circumstances. Use or possession of such substances may subject the member to criminal prosecution.
- Violation of any laws or legal statutes for any reason.
- Gross violation of male and female room regulations (two officers of the opposite gender a hotel room with the door shut).
- Gross damage to property or violation of hotel safety codes

NOTE: Parents or guardians will be contacted and be responsible for making appropriate arrangements for the officer's immediate return home. It is also the responsibility of the officer or parent(s) to defray any cost relating to the incident.

Colorado TSA State Officers may be removed from office for one or more of the following reasons:

- Failure to perform the duties of their office.
- Failure to attend required meetings.
- Failure to follow rules, regulations and responsibilities to act in a professional manner
- Failure to meet appropriate deadlines without satisfactory explanation.

“We” (officer and parent(s)/guardian) fully understand the Colorado TSA Code of Conduct and agree to comply with these guidelines. Furthermore, we are aware of the consequences that will result from violation of any of the above guidelines.

Officer Candidate Signature

Date

Parent/Guardian Signature

Date



26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012

DUTIES & RESPONSIBILITIES OF COTSA STATE OFFICERS

By electing you to State TSA office, the membership entrusts the leadership of its organization to you and your fellow officers. With the acceptance of this honor come duties and responsibilities.

Duty is defined, as “the conduct, obedience, loyalty, and submission required of an officer.”

Responsibility is “the reliability and moral accountability for duties expected of an officer.”

Together, duty and responsibility convey the conduct and performance appropriate to all Colorado TSA State officers. Regardless of which office you hold, your duties and responsibilities as a State TSA officer obligate you to do the following:

- Understand the mission and goals of Colorado & National TSA.
- Understand the Colorado & National TSA bylaws.
- Understand the TSA Creed and know it from memory.
- Be familiar with the organizational structure and policies of Colorado TSA.
- Understand and correctly use parliamentary procedure.
- Memorize appropriate ceremonies and rituals.
- Attend all meetings.
- Be prepared to conduct meetings.
- Be prepared to serve as a speaker.
- Be loyal to the Colorado TSA.
- Help other officers accomplish their tasks.
- Practice good speaking and writing skills as you represent the State association.
- Be helpful, respectful, and responsible to all people.

26th ANNUAL COLORADO TECHNOLOGY STUDENT ASSOCIATION STATE LEADERSHIP EXPOSITION - 2012



State Officer Attire

State officers shall wear official TSA dress, business-like attire, and/or appropriate dress as the occasion may demand. The official TSA dress and casual TSA wearing apparel are considered appropriate dress for all conference activities. From the first scheduled TSA activity, officers shall adhere to the dress code requirements as listed below.

Official TSA Attire (Most Formal)

- Blazer: navy blue with official TSA patch
- Tie: scarlet red imprinted with official TSA logo (for males and females)
- Shirt or blouse: blue or white, button-up with turn-down collar **** (SEE UNIFORM UPDATE ON PG. 20-21 OF THIS DOCUMENT)**
- Pants or skirt: light gray
- Socks: males only (black or dark blue)
- Shoes: black dress shoes (unacceptable: athletic shoes, army boots, combat, or work boots)
- Sandals: females only may wear black open-toe shoes or sandals

Professional TSA Attire (Less Formal)

- Shirt/Blouse: Collared, button-down shirt
- Tie: For males only
- Dress Pants: (unacceptable: jeans, baggy pants, exterior pocket pants)
- Dress/skirt: females only (length even with or longer than the tips of one's fingers)
- Socks: males only (black or dark blue)
- Shoes: dress shoes or dress boots (unacceptable: athletic shoes, combat, or work boots)
- Sandals: females only may wear open-toe shoes or sandals

Business Casual TSA Attire (Least Formal)

- Shirt/Blouse: TSA State Officer uniform shirt (provided by COTSA)
- Dress Pants: Khaki (no jeans)
- Shoes: Brown or black shoes (no athletic shoes, e.g., tennis or running shoes); females only may wear open-toe shoes or sandals

Personal Appearance

- No dangling earrings will be allowed when in official dress.
- Hair must be all one color and have a business like appearance.
- No hats; exception by approval of the TSA State Advisor only.
- No jeans at any time during the conference.
- Conservative nail polish will be worn when representing COTSA
- Conservative makeup only.



STATE COMPETITIVE EVENTS & NATIONAL COMPETITIVE EVENT OVERVIEWS





CASTLE BALLISTICS

OPEN TO MIDDLE SCHOOL AND HIGH SCHOOL CONTESTANTS

I. PURPOSE

Allow students to demonstrate their ability to design and construct a ballistic device to hit a target within a 36' x 36' area. The locations and distances will be randomly picked.

II. ELIGIBILITY FOR ENTRY

Entrants are limited to two (2) teams of three (3) per chapter. This event is open to both MIDDLE and HIGH SCHOOL students.

III. SPECIFIC REGULATIONS

- A. All entries must be turned in at the designated time. Each entrant will be responsible for obtaining time schedules at registration. The device may be either a trebuchet, ballista or a catapult.
- B. All entries must be delivered free of needed repair and/or maintenance at time of check-in.
- C. Every entrant shall submit a complete set of sketches for the ballistic device detailing each part with basic dimensions. These sketches are to be completed on 8.5" x 11" paper. A firing log or calibration table must be included. Information should be included regarding calculations of time, angle, distance, initial velocity, etc.
- D. Gravity and/or elastic material are to be the ONLY power sources for the ballistic device. *NO EXPLOSIVES or AIR/GAS ASSISTIVE DEVICES OR MECHANISMS WILL BE PERMITTED.* Any device that incorporates explosives or air/gas assistive devices will be disqualified.
- E. The device will launch a standard, off-the-shelf size hackey-sack/footbag (weighing less than 100 grams). No modifications may be done to the sack/footbag. Nothing else may be launched. Students must provide their own hackey-sacks; they must be checked in with the device and must be approved by the contest coordinator prior to launch.
- F. The device must not tip over during launch.
- G. The device must be safe and free of hazards to those operating it and those nearby at all times. The judges determine what is safe, and are the final arbiters of safety.
- H. The maximum size of the device will be 24" high, 24" wide and 24" long. **NO PORTION OF THE DEVICE MAY EXTEND BEYOND THE 24" BOUNDARY AT ANY TIME DURING THE LAUNCH. ANY DEVICE LARGER THAN THE SPECIFIED DIMENSION WILL NOT BE TESTED.**
- I. If the ballistic device does not meet the size, construction or source of power specifications, it will be disqualified or receive point deductions.
- J. No kits are allowed. The participant(s) must create the device from scratch. It may be from plans not original to the team.
- K. During the launch, the hackey sacks may not hit the walls, people, ceiling or anything attached to the ceiling.
- L. The ballistic device **MUST** have a triggering device that keeps it from launching until it is time to fire. It should take very little effort to trigger the ballistic device.

CASTLE BALLISTICS (CONTINUED)

- M. All participants must wear safety glasses when within 10' of their device.
- N. No one may help set up the device except the team members.

IV. PROCEDURE

- A. Event participants must register for the event in accordance with the procedures established for the conference.
- B. Each device will be tested by itself; not against other devices.
- C. Student teams will be given 15 minutes to load, aim and launch up to three hackey sacks/footbags at three (3) randomly placed "castles" inside the testing area. The testing area will be approximately 36' x 36'. The hackey sack/footbag must weigh between 80-90 grams (2.8-3.1 oz.). Teams will lose 5 points for every gram under 80 grams and 5 points for every gram over 90 grams. The launch area will be 36" x 36". All portions of the device must remain within the launch area during the launch. Devices that do not stay within the launch area or do not fit within the launch area will lose 10 points. The "castles" are open-topped containers approximately 24" high, 24" wide and 24" deep. The "castles" will be placed no closer than 36" to the launch area.
- D. Each team will be given three launches per castle. Once a castle is hit or the three shots have been expended, the castle is no longer a target for that team. Left over "shots" cannot be used on remaining castles.
- E. Points will be awarded as follows: 10 points if the footbag/hackey sack is within 36" of the castle; 25 points if the footbag hits the castle; and 50 points if the footbag goes inside the castle.
- F. A tie-breaking round will be held in the event of a tie.
- G. Teams may be disqualified for interfering with adjacent teams during competition.
- H. Ballistic devices will be returned to the display area at the end of the competition.

V. EVALUATION

The following rubric will be used. In the event of a tie, a tie-breaking rounds will be held until a winner is determined.





CASTLE BALLISTICS (RUBRIC)

Contestant ID: _____												
Record information about the shots taken on each castle here. Add all shot scores together and put the result in the TOTAL column at the far right.												
	Points are awarded as follows: ● If the footbag/hackey sack is within 36" of the castle: 10 pts. ● If the footbag/hackey sack hits the castle: 25 pts. ● If the footbag/hackey sack goes in the castle: 50 pts. ADD ALL 9 SHOT SCORES TOGETHER AND PUT THE TOTAL AT THE FAR RIGHT	Castle 1			Castle 2			Castle 3			TOTAL	
		Shot 1	Shot 2	Shot 3	Shot 1	Shot 2	Shot 3	Shot 1	Shot 2	Shot 3		
		15 Points			10 Points			5 Points				
Drawing	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the device. It is to scale. Measurements are included.	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the device, but is not to scale. Measurements are not included.	Drawing is on 8.5" x 11" paper reflects the design of the device, but may not be accurate. It's not to scale. Measurements are not included.	Drawing is not neat, is not on 8.5" x 11" paper, is not accurate, or is missing. It is not to scale. Measurements are not included.								
Design Specs- Overall	The device meets design specs for height, width, and length.	Device does not meet one of the specs for height, width, or length.	Device does not meet two of the specs for height, width, and length.	The device doesn't meet design specs for height, width, and length.								
Design Specs - Launch Area	Device stays within the launch area and does not tip over during launch.	N/A	N/A	Device does not stay within the launch area and/or tips over.								
Design Specs - Trigger	Has a triggering device. Very little effort required to trigger the device.	Has a triggering device. Some effort is required to trigger the device.	Has a triggering device or takes substantial effort to trigger.	The device does not have a triggering device.								
Design Specs - Power Source	Gravity and/or elastic material are the ONLY power sources.	N/A	N/A	Uses other power sources than those specified.								
Design Specs - Appearance	Device is neatly constructed, using a proper amount of glue, tight fitting pieces, and cuts are clean. Device is constructed from scratch.	Device is neatly constructed, but there is one need for improvement: glue usage, tight fitting pieces, and cuts are clean. Device is built from scratch.	Device has two needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Device may contain parts from a kit.	Device has three needs for improvement: glue usage, tight fitting pieces, and cuts are clean, or device is constructed from a kit.								
Documentation	Documentation is complete with calibration table, calculations of time, angle, distance, initial velocity, etc.	Documentation is complete with calibration table, and some calculations of time, angle, distance, etc.	Documentation includes a calibration table.	Documentation is incomplete and does not include calibration table.								
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____												
COMMENTS:											TOTAL	

CRASH TEST

OPEN TO MIDDLE SCHOOL CONTESTANTS ONLY



I. PURPOSE

This event is designed to stimulate elementary students' interest in TSA by encouraging middle school TSA members to share their love and interest in technology. For this contest, one elementary student (grades 1-5 or 6 - *SEE ELIGIBILITY SECTION BELOW*) will work with a middle school student to design and build a "crash test car" that will be tested in multiple head-on and rear-end collisions. The survivability of the passenger, a regular raw egg, will be a determining factor in the car's success.

II. ELIGIBILITY FOR ENTRY

This event is open to Middle School TSA Chapters.

Entrants are limited to TEN (10) teams of two (2) students per chapter. Each team **MUST** have 1 elementary student, and 1 middle school student. *Students in 6th grade can be considered elementary students **ONLY IF 6th grade is part of the elementary school in which they are currently enrolled.** Students in sixth grade who are part of a K-8 or K-12 school would be considered middle school students. Contact the state advisor if there are any questions regarding eligibility.*

III. SPECIFIC REGULATIONS

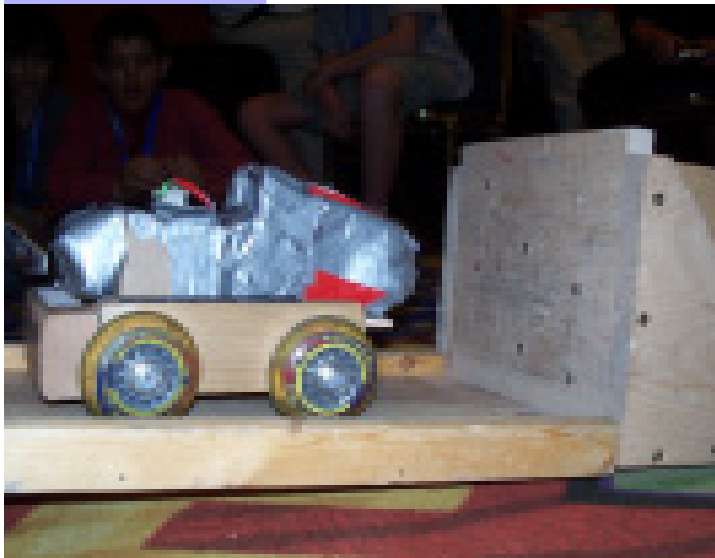
The theme for 2012 will be: **Ambulance.**

- A. All entries must be designed and constructed before the conference.
- B. Vehicles must be turned into the event coordinator at the beginning of the conference to be displayed. Students may not pick up their vehicles until the end of the conference.
- C. The crash test vehicle:
 - Must comply with the current year's published theme.
 - Must have seating capacity for at least TWO passengers (although only one egg will be used for testing purposes). Seating should be able to accommodate not only the egg, but the "body bag" (Ziploc™ snack size bag) as well.
 - Cannot use pre-made containers for the passenger compartment (for example, Rubbermaid™, Tupperware™, Gladware™ or similar containers). However, portions of the passenger compartment may pre-made (for example, a single cup from an egg carton, or a plastic steering wheel from a model car kit).
 - The safety systems and the vehicle body should not have metal components
 - Must have a windshield through which the driver can be clearly seen.
 - Must have at least one clearly identifiable safety system for occupant protection.
 - Must have both front and rear bumpers.
 - Must have a steering wheel within reach of the driver.
 - Must have a reusable way to get the driver in and out of the vehicle after each impact. The egg will be checked for survivability after every crash.
 - Must have a flat bottom with four 1.5" strips of Velcro (the soft side) firmly attached. This will keep the vehicle on the testing sled.
 - Should NOT have any wheels. The wheels are provided in the form of a testing sled. (See attached schematic for the testing sled specifications.)
 - Must be between 3"-4" in width
 - Must be between 7"-12" in length
 - Has no restriction on height.
- D. No commercially produced kits are allowed. The car must be primarily designed and built by the elementary student with guidance from the middle school student.



CRASH TEST (CONTINUED)

- E. The vehicle will be placed on a testing sled which will serve as the wheels for the vehicle. A schematic of the sled is provided with these regulations.
- F. The ramp is made from a standard 1" x 10" x 3/4", with 1" x 2" x 3/4" boards as siderails. The end block is a composite hardwood block 9" wide, 8" high and 6-1/2" thick. It is reinforced on the sides with 3/4" solid wood. The guard rails will assist the vehicle down the ramp, but will NOT prevent the vehicle from leaving the track. A schematic of the ramp is included with these regulations.
- G. A drawing of the vehicle done by the elementary student must accompany the vehicle. It should be as accurate to the final model as possible.



- H. The elementary student should be the primary lead in the design and construction of the vehicle.
- I. The middle school student must present a portfolio documenting the project. The portfolio should include:
 - Photos of the project
 - An essay describing the project and each person's part in it
 - A time log documenting the time spent with the elementary student on the project.

IV. PROCEDURE

- A. Participants will turn in their vehicles and design briefs to the display area at the beginning of the conference.
- B. At the time of testing, each vehicle will be given a single, raw egg and a "body bag" (a single snack-sized Ziploc™ bag) to contain any potential egg innards should the shell crack during testing.
- C. The sled, with the car attached, will be rolled down the testing ramp. At the end of the ramp will be a barrier (which may or may not have protrusions) into which the car will crash.
- D. After the car has impacted the barrier, the egg must be removed to check for cracks. If the egg is broken, the crash was unsuccessful and testing will be stopped. If the egg remains unbroken, testing will continue.
- E. The starting edge of the ramp will begin at 4' from the floor. After each successful test, the starting edge of the ramp will be raised 2', until the ramp is near vertical. If the vertical test is successful, the ramp will be lowered back to the 4' level and the car will be repositioned BACKWARDS on the sled and the tests will be repeated. If the backwards test is successful, the ramp will be lowered back to the 4' level and the car will be repositioned forwards on the sled and the tests will be repeated with unknown "Road Obstacles."
- F. Testing of the vehicle ends with either a cracked egg or completion of 16 trials (8 forward and 8 backward).
- G. Vehicles will be returned to the display area at the end of the competition.

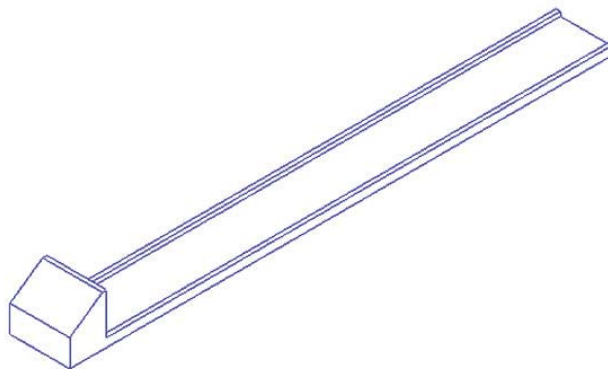
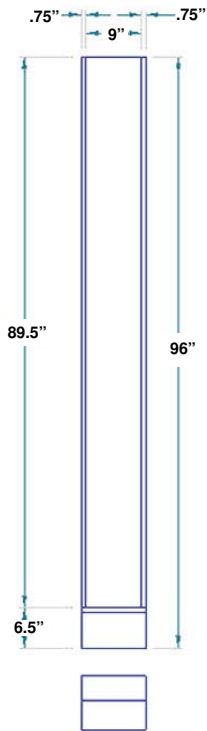
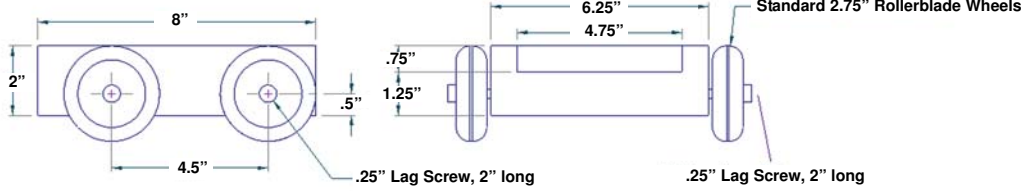
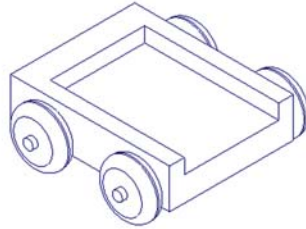
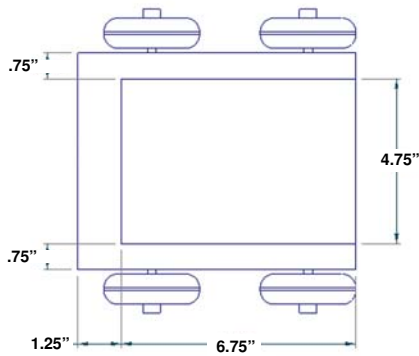
VI. EVALUATION

Each vehicle will receive points based on how many impacts the car is able to withstand, the accuracy of the drawing, and on the design portfolio. The following rubric (please see page 10 of this guide) will be used. In the event of a tie, ranking will be determined by the most innovative design. The Event Coordinator will make this determination.

CRASH TEST (CONTINUED)

V. SCHEMATICS

Below are the specifications for the crash test sled and ramp.





CRASH TEST [RUBRIC]

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

					TOTAL POINTS
Contestant ID: _____					
Survivability: Award points based on how high the car got BEFORE the egg cracked (e.g., if the egg cracked after a crash on Step 5, award the points for Step 4)					
FORWARD-FACING HEIGHT: 4-feet = 5 pts. 6-feet = 10 pts. Vertical Drop = 15 pts					
BACKWARD-FACING HEIGHT: 4-feet = 5 pts. 6-feet = 10 pts. Vertical Drop = 15 pts					
FORWARD-FACING HEIGHT W/OBSTACLES: 4-feet = 5 pts. 6-feet = 120pts. Vertical Drop = 15pts.					
	10 POINTS	8 POINTS	6 POINTS	4 POINTS	
Drawing	Drawing is neatly prepared and accurately reflects the design of the car. The drawing is to scale. Measurements are included.	Drawing is neatly prepared and accurately reflects the design of the car, but is not to scale. Measurements are included.	Drawing accurately reflects the design of the car. It is not to scale; measurements are included.	Drawing is not neat, does not reflect design of the car, or is missing. Not to scale. Measurements aren't included.	
Portfolio	Portfolio is complete with documentation proving the elementary student was the primary lead in the design and construction of the vehicle. Photos of the project are included as well as an essay describing the project and each person's part in it. A time log documenting the time spent with the elementary student on the project is included.	Portfolio is missing one of the following: documentation proving the elementary student was the primary lead in the design and construction; photos, essay describing the project and each person's part in it, or a time log documenting time spent with the elementary student.	Portfolio is missing two of the following: documentation proving the elementary student was the primary lead in the design and construction; photos, essay describing the project and each person's part in it, or a time log documenting time spent with the elementary student.	Portfolio is missing three or more items or is missing.	
Design Specs - Construction	The car meets design specs for height, width and length. It fits on the test sled properly. The car has ample seating area for at least two passengers. There is an unobstructed view through the windows. Steering wheel is accessible by the driver.	The car doesn't meet one of the design specs for length, width or height, or may not fit test sled. The car has seating for at least two passengers. There may be an obstruction of the windows or controls may not be accessible by the driver.	The car does not meet two of the design specs for length, width or height, or may not fit test sled. The car has seating for one passenger. May have an obstruction of the windows or the controls may not be accessible by the driver.	The car does not meet three or more design specs for length, width or height, or does not fit the test sled. The passenger area does not provide comfortable seating. There is an obstruction of the windows and the controls are not accessible by the driver.	
Design Specs - Appearance	The car has a clear windshield, front and back bumpers, a steering wheel and more than one safety system. The car is neatly done, using a proper amount of glue, tight fitting pieces, and cuts are clean. Car is painted well. The car follows published theme.	The car is missing one of: a clear windshield, front and back bumpers or a steering wheel. There is only one safety system. Car is neatly done, but there is one need for improvement: glue usage, tight fitting pieces, or clean cuts. Car is painted or decorated. Follows theme.	The car is missing two to three of: a clear windshield, front and back bumpers or a steering wheel. There is only one safety system. Car has two needs for improvement: glue usage, tight fitting pieces, or clean cuts. Car is decorated but quality is lacking or may not follow published theme.	The car is missing three or more of the following: a clear windshield, front and back bumpers or a steering wheel. There is no safety system. Car has needs for improvement in three areas: glue usage, tight fitting pieces, or clean cuts. Car is not decorated.	
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____					TOTAL
COMMENTS: _____					

CREATIVITY CHALLENGE - HS

OPEN TO HIGH SCHOOL CONTESTANTS ONLY

such as originality, to evaluate solutions.

I. GOAL

To stimulate elementary students' interest in TSA by encouraging high school TSA members to share their love and interest in technology.

II. PURPOSE

In this ON-SITE event, one elementary student (grades 1-5 or 6 - *NOTE: SEE ELIGIBILITY SECTION BELOW*) will work with a high school student in an on-site design problem. *NOTE: This is a non-competitive event and does not earn points for your school toward the Chapter of the Year award. All High School and Elementary buddies will be recognized at the Awards Ceremony.*

III. ELIGIBILITY FOR ENTRY

This event is open to High School TSA Chapters.

Entrants are limited to 10 teams of two students per chapter. Each team **MUST** have 1 elementary student (grades 1-5 or 6).

*Students in 6th grade can be considered elementary students **ONLY IF** 6th grade is part of the elementary school in which they are currently enrolled. Students in sixth grade who are part of a K-8 or K-12 school would be considered middle school students. Contact the state advisor if there are any questions regarding eligibility.*

III. PROCEDURE/SPECIFIC REGULATIONS

- A. Participants report to the event area at the time and place stated in the conference program.
- B. The teams allowed 1 hour and 30 minutes to design and construct a solution.
- C. Each solution is tested as soon as possible after the construction phase is completed.
- D. All work must be completed in the event area during the time specified for the event.
- E. All materials are provided. Only the materials issued to each team by the event coordinator may be used in the development of the solution.

IV. EVALUATION

Each team's solution is evaluated objectively. A finite measure, such as elapsed time, horizontal or vertical distance, and/or strength, is used to determine the best solution. Solution designs will be used to break ties. Only as a last resort does the event coordinator use subjective measurement, such as originality, to evaluate solutions.





CREATIVITY CHALLENGE - MS

OPEN TO MIDDLE SCHOOL CONTESTANTS ONLY

I. GOAL

To stimulate elementary students' interest in TSA by encouraging middle school TSA members to share their love and interest in technology.

II. PURPOSE

In this ON-SITE event, one elementary student (grades 1-5 or 6 - **NOTE: SEE ELIGIBILITY SECTION BELOW**) will work with a middle school student in an on-site design problem. **NOTE: *This is a non-competitive event and does not earn points for your school toward the Chapter of the Year award. All Middle School and Elementary buddies will be recognized at the award ceremony.***

III. ELIGIBILITY FOR ENTRY

This event is open to Middle School TSA Chapters.

Entrants are limited to 10 teams of two students per chapter. Each team **MUST** have 1 elementary student, and one middle school student. *Students in 6th grade can be considered elementary students ONLY IF 6th grade is part of the elementary school in which they are currently enrolled. Students in sixth grade who are part of a K-8 or K-12 school would be considered middle school students. Contact the state advisor if there are any questions regarding eligibility.*

III. PROCEDURE/SPECIFIC REGULATIONS

- A. Participants report to the event area at the time and place stated in the conference program.
- B. The teams allowed 1 hour and 30 minutes to design and construct a solution.
- C. Each solution is tested as soon as possible after the construction phase is completed.
- D. All work must be completed in the event area during the time specified for the event.
- E. All materials are provided. Only the materials issued to each team by the event coordinator may be used in the development of the solution.

IV. EVALUATION

Each team's solution is evaluated objectively. A finite measure, such as elapsed time, horizontal or vertical distance, and/or strength, is used to determine the best solution. Solution designs will be used to break ties. Only as a last resort does the event coordinator use subjective measurement,

FORE!

OPEN TO HIGH SCHOOL CONTESTANTS ONLY



I. GOAL

To stimulate elementary students' interest in TSA by encouraging high school TSA members to share their love and interest in technology.

II. PURPOSE

The local parks and recreation department has recently begun work on renovating the municipal golf course. Prior to the renovation, there was an 9-hole themed miniature golf course which had become dated and unattractive. As part of the renovation, the Department of Parks and Recreation has the opportunity to update the course; they want to design and build an attractive course that is appealing to all of the city's residents and have put out a call for design ideas for a new 9-hole golf course.

Your design team, consisting of one elementary student (grades 1-5 or 6 - **NOTE: SEE ELIGIBILITY SECTION BELOW**) and one high school student, has been hired to design and develop one hole for the proposed miniature golf course.

III. ELIGIBILITY FOR ENTRY

This event is open to High School TSA Chapters.

Entrants are limited to 10 teams of two students per chapter. Each team **MUST** have 1 elementary student (grades 1-5 or 6), and one high school student.

Students in 6th grade can be considered elementary students ONLY IF 6th grade is part of the elementary school in which they are currently enrolled. Students in sixth grade who are part of a K-8 or K-12 school would be considered middle school students. Contact the state advisor if there are any questions regarding eligibility.

III. SPECIFIC REGULATIONS

- A. Your group will present:
- Drawings of your design creation
 - A list of necessary materials
 - A constructed, playable table top model of your creation
 - All entries must be designed and constructed before the conference.
- B. Golf course holes must be turned into the event coordinator at the beginning of the conference to be displayed. Students may not pick up their models until the end of the conference.
- C. Specifications:

The high school student must present a portfolio documenting the project. Included in this portfolio should be:

- A list of materials (including cost)
- Photos of the project
- An short essay describing the golf course hole and each person's part in the project. Included in this essay should be an explanation of how the par of the hole was determined.
- A time log documenting the time spent with the elementary student on the project.
- A colored blueprint/schematic of the hole with all parts clearly labeled.

FORE! (CONTINUED)

The model should meet the following specifications:

- The golf course hole model must be a playable tabletop model not to exceed 24" x 24".
- The model must include a "tee" area.
- The model must include a cup 1" in diameter.
- The model must include a marble to serve as a miniature golf ball.
- The team must design and develop a "putter" or launch mechanism to hit the ball on the hole.
- In order to minimize costs, the model should be constructed primarily from recyclable materials.

D. The elementary student should be the primary lead in the design and construction of the model.

IV. PROCEDURE

- A. Participants will turn in their golf course holes and design portfolios to the display area at the designated time.
- B. Each golf course hole will be demonstrated by the design team. The team's "putter" or launch mechanism will be used to propel the golf ball through the course.
- C. Golf courses will be returned to the display area at the end of the competition.

V. EVALUATION

Each golf course hole will be evaluated using the rubric on the next page. The project will receive points based on the design folder prepared by the high school student. The following rubric will be used. In the event of a tie, ranking will be determined by the most economically-produced model. The Event Coordinator will make this determination.



FORE! (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

Contestant ID: _____						
CRITERIA	20 POINTS	15 POINTS	10 POINTS	5 POINTS	TOTAL	TOTAL
Portfolio Portfolio is complete and easy to read and is clearly understandable. It includes: <ul style="list-style-type: none"> • A detailed list of materials used in the creation of the hole. • Multiple photographs detailing the work of the TSA member AND the elementary student in the creation of the model. • A short essay describing in detail the golf course hole and each person's part in the project. • A detailed time log documenting the time spent with the elementary student. • A colored blueprint/schematic of the hole will all part/features clearly labeled. 	Portfolio is complete and includes: <ul style="list-style-type: none"> • A list of materials used in the creation of the hole. • Photographs detailing the work of the TSA member AND the elementary student in the creation of the model. • An essay describing in detail the golf course hole and each person's part in the project. • A time log documenting the time spent with the elementary student. • A blueprint/schematic of the hole will all part/features clearly labeled. 	Portfolio is complete and includes: <ul style="list-style-type: none"> • A list of materials used in the creation of the hole. • Photographs detailing the work of the TSA member AND the elementary student in the creation of the model. • An essay describing in detail the golf course hole and each person's part in the project. • A time log documenting the time spent with the elementary student. • A blueprint/schematic of the hole will all part/features clearly labeled. 	The portfolio may be missing one of the following items or the information presented is not complete: <ul style="list-style-type: none"> • A list of materials used in the creation of the hole. • Photographs detailing the work of the TSA member AND the elementary student in the creation of the model. • An essay describing in detail the hole and each person's part in the project. • A time log documenting the time spent with the elementary student. • A blueprint/schematic of the hole will all part/features clearly labeled. 	The portfolio may be missing two or more of the following items and/or the information presented is not complete: <ul style="list-style-type: none"> • A list of materials used in the creation of the hole. • Photographs detailing the work of the TSA member AND the elementary student in the creation of the model. • An essay describing in detail the hole and each person's part in the project. • A time log documenting the time spent with the elementary student. • A blueprint/schematic of the hole will all part/features clearly labeled. 		
Model The model hole: <ul style="list-style-type: none"> • Fits within the 24" x 24" dimensions • Includes a "tee" area • Includes a cup 1" in diameter • Includes a marble to serve as a ball. • Has a student-developed putter/launch mechanism to hit the ball on the hole. • Is constructed from recycled materials. The hole takes full advantage of all available space. Many include multiple levels or other features such as tunnels or uneven topography. The model accurately follows the drawings. The model is complete with greens, walkways, bumpers, tees, holes, flags and obstacles. The goal is readily apparent. The hole is well constructed and neatly presented.	The model includes/meets all but ONE of the following: <ul style="list-style-type: none"> • Fits within the 24" x 24" dimensions • Includes a "tee" area • Includes a cup 1" in diameter • Includes a marble to serve as a ball. • Has a student-developed putter/launch mechanism to hit the ball on the hole. • Is constructed from recycled materials. The hole adequately uses the space provided; may include one feature such as a tunnel or uneven topography.	The model includes/meets all but ONE of the following: <ul style="list-style-type: none"> • Fits within the 24" x 24" dimensions • Includes a "tee" area • Includes a cup 1" in diameter • Includes a marble to serve as a ball. • Has a student-developed putter/launch mechanism to hit the ball on the hole. • Is constructed from recycled materials. The hole may not make good use of the available space and does not utilize unique features such as tunnels or uneven topography.	The model is missing two or three items from the following: <ul style="list-style-type: none"> • Fits within the 24" x 24" dimensions • Includes a "tee" area • Includes a cup 1" in diameter • Includes a marble to serve as a ball. • Has a student-developed putter/launch mechanism to hit the ball on the hole. • Is constructed from recycled materials. The hole makes poor use of the space; design indicates simple two-dimensional design. No special features such as tunnels or uneven topography are included.	The model is missing three or more items from the following: <ul style="list-style-type: none"> • Fits within the 24" x 24" dimensions • Includes a "tee" area • Includes a cup 1" in diameter • Includes a marble to serve as a ball. • Has a student-developed putter/launch mechanism to hit the ball on the hole. • Is constructed from recycled materials. The model is incomplete. Many parts of the model are missing. The hole is not well constructed.		
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____						
COMMENTS:						TOTAL





INTEGRATED AUTONOMOUS VEHICLE

OPEN TO MIDDLE SCHOOL AND HIGH SCHOOL CONTESTANTS

I. PURPOSE

The challenge is to create and operate an integrated autonomous vehicle. The vehicle will operate in a number of courses, but must be able to navigate a course without prior knowledge of distance or direction within a chosen course. Two separate modes of operation will be used: Student-controlled and Autonomous. In an effort to move towards an open-source model which provides the most challenging learning, the Judging has been modified from the 2011 challenge. In the past the judging has given an advantage to teams with kits, this year the rubric has been modified to try and recognize the effort expended by teams who choose a build-from-scratch approach. **Please review the rubric carefully.**

II. ELIGIBILITY FOR ENTRY

Eligibility is limited to two (2) teams of three (3) members per chapter. This event is open to MIDDLE AND HIGH SCHOOL STUDENTS.

III. SPECIFIC REGULATIONS

- A. All entries must be turned in at the designated time. Each team is responsible for signing up for a technical interview time. The whole team will attend the technical interview.
- B. Every entry shall include a standard three ring 8.5" x 11" notebook. The notebook shall contain:
 1. A title page with the event title, state conference information, including date of conference.
 2. A one (1) page, typewritten description of the vehicle, including the building system/components used, a brief discussion of the program language and any special features of the vehicle/programming and student driver interface.
 3. A set of mechanical technical drawings of the vehicle. The drawings will present a plan view, at least two elevations, and cut sheets for specific features.
 4. At least one (1) page of schematic drawings representing the vehicle's control systems.
 5. A programming log, including a printout of the complete program for operation. Comments in the program log are encouraged.
- C. Vehicles may be constructed from a kit or may be built from scratch. Kits include: Lego RCX, Lego NXT, VEX, GEARS Educational System, Parallax Boe-Bot, Arduino Microcontroller, or any other available microcontroller system. Entries built from scratch may contain any portion of the above listed kits (i.e., Lego gears driven by an Arduino microcontroller servo. For schools looking for a build from scratch solution, SparkFun Electronics offers a list of parts and a tutorial at the following web address; <http://www.sparkfun.com/tutorials/129>. This solution, while more economical, is more technical and will receive higher points in the judging.)
- D. A student-controlled run will be made using a remote control system. This system includes all available RF spectra, Bluetooth and infrared communication. RCX-based vehicles may use a tethered remote based on touch sensors or use an Infrared or adapted radio frequency control system. Vehicles will be inspected for remote control links. Programming of vehicles via Bluetooth, RF or infrared is allowed but may not be used during the autonomous runs.
- E. Each team will be expected to discuss program flow, performance and engineering aspects of their vehicle. Discussions may or may not be limited to the technical interview. Due to the highly technical nature of the challenge, expect the judges to ask the team questions.
- F. Vehicles deemed unsafe by the judges will be removed from competition.
- G. Ultrasonic, infrared, touch, motion, and light sensors may be used. Distance encoders may be used as well. The use of distance-based programming is discouraged. A radio frequency link may consist of traditional RF equipment, including off-the-shelf transmitters and receivers as well as component-built or "adapted" systems. Infrared communication is allowed - however, please alert the judging team at the check-in if you are using infrared (this will prevent you reprogramming or interfering with another team that may also be using infrared.) If your team plans on using infrared, line a shoebox with aluminum foil and store your vehicle in it to avoid interference from another team's control/program stream.

INTEGRATED AUTONOMOUS VEHICLE (CONTINUED)

- H. Time will be afforded to each team in order to make modifications to their vehicle and programs.
- I. A team may provide navigation beacons as a means to mark the course. Beacons may be infrared, visible spectrum or sonic. Sonic beacons in the audible range are subject to the judge's approval, and a beacon deemed disruptive will be removed from the challenge (e.g., a continuous tone at 9 KHZ).
- J. Once the beacon is placed it may not be moved until after the team placing it has completed its run.
- K. The use of fiducial markers is allowed. Fiducials may be 4"x4" or less and the team may only have as many fiducials as there are intersections in the course.
- L. The use of cell phones during the competition is strictly prohibited. The only cell phone permitted in use is the one controlling a robot during the student-operated portion. This includes spectators. If the judges see a cell phone in the contest area, they will ask that it be put away; if the judge sees the cell phone a second time, the person will be asked to leave the contest area. This is consistent with other TSA challenges.
- M. The vehicle may not exceed the following dimensions: 7-1/2" high, 7-1/2" wide, and 7-1/2" long.

IV. PROCEDURE

- A. Each vehicle will make three timed runs on a course that is 8' x 8' (the equivalent of 2 - 4' x 8' sheets of plywood laid side by side). The course will have barrier walls 3-1/2" high and will be placed in a random configuration. Every effort will be made to give a unique course for each vehicle run. The floor of the course will be a plywood sheet, laid out with a grid of holes drilled on 4" centers. Barrier walls 3-1/2" high with lengths of 8", 12" and 16" will be moved around the grid to provide randomly changing courses. The outside edge of the plywood will have a permanently affixed 3-1/2" barrier. Classroom or home courses may be constructed of plywood and 1x4" pine to match the challenge course.
- B. The runs will increase in difficulty. The first run is student-operated via the remote control system. Students have the option to add moving a block placed at random in the course to the end of the course. The block dimensions are 1-1/2" x 1-1/2" x 3" tall, and the block is painted red. Should the students opt to move the block, it must be moved to the end of the course and placed in a marked 4" square area at the end of the course. If a team chooses not to move the block, 20 points will be added to the overall score. The second round of testing is autonomous. In the second round, there will be an area within the course where the vehicle will have to make a choice between two possible paths. Each path leads to the finish, but the vehicle must be able to decide upon one of two choices. In the third course, the vehicle will have to navigate over a rough section of the course. This rough section may comprise 25% of the course. Vehicles should possess a ground clearance of 1/2".
- C. Each second a vehicle touches a wall will add one second to the vehicle's overall time. A vehicle navigating using touch sensors is allowed, but the touch time will be added to the overall time. Each contact with the wall will be counted as one second, even if the actual touch is less. Contact time will be rounded up (i.e., a 4.2-second touch will be counted as a 5-second penalty).
- D. At any point during the autonomous runs, the team may choose to add moving the block to the end of the course. Should the students opt to move the block, it must be moved to the end of the course and placed in a marked 4" square area at the end of the course to qualify for a 30-point deduction.
- E. At the end of the three runs, the scores from the technical interview, the notebook and the runs will be totaled and the lowest score wins.

V. EVALUATION

The following rubric will be used. In the event of a tie, a tie-breaking rounds may be held until a winner is determined.





INTEGRATED AUTONOMOUS VEHICLE (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

Contestant ID: _____					Total Points
CRITERIA	GOOD	BETTER	BEST	JUDGES' COMMENTS	
System Used; Did you have to wire a circuit, decode a datastream? Did you hack something? 100 POINTS	Straight out of the box solution.	Solution including items not intended for or included with kit.	Built from discrete parts without kit framework.		
Technical Interview; Expect and in-depth discussion of your programming, including changes and iteration. 100 POINTS	No iteration, poor understanding of concepts backing the operation and integration of the parts and programming.	Average understanding of the concepts and techniques backing construction and programming. Able to discuss design iteration.	Unique application of parts/practices, good documentation/photos. Able to discuss iteration in depth.		
Course Performance; Formula for course performance is based on Distance/time. The fastest robot will receive 100pts. Each robot after the top tgginisher will receive a pointvalue based on the percent value of the fastest time. For example -- If the fastest bot travels 10 feet in 100 seconds, then .1 feet/second = 100points A bot traveling at .05 feet/second will receive 50 points A bot traveling .025feet /second will receive 25 points, etc. 100 POINTS	The formula for course performance is based on Distance/time. Your distance traveled will be divided by the time taken. The fastest robot will receive 100pts. Each robot after the top tgginisher will receive a pointvalue based on the percent value of the fastest time. For example -- If the fastest bot travels 10 feet in 100 seconds, then .1 feet/second = 100points A bot traveling at .05 feet/second will receive 50 points A bot traveling .025feet /second will receive 25 points, etc.				
Robot construction; Sensor arrays, integration of mechanical features,ingenuity, and innovation are scoring components.	No specific innovation, straight-forward kit construction	Moved outside kit construction, or added sensors to a kit. innovative addition or use of existing structures.	High level of ground-up build.Hacked or repurposed components.		
Rules Violation: Rules violations (a penalty of 20% of the total possible points) must be initialed by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____					
COMMENTS:					
					TOTAL

MOUSETRAP TRACTOR PULL

OPEN TO MIDDLE SCHOOL CONTESTANTS ONLY



I. PURPOSE

To allow students to demonstrate their ability to design and construct a vehicle powered only by a standard mousetrap spring, to pull as much weight as possible.

II. ELIGIBILITY FOR ENTRY

This event is open to Middle School TSA chapters. Entrants are limited to SIX (6) per school.

III. SPECIFIC REGULATIONS

- A. All entries must be designed and constructed before the conference.
- B. Vehicles must be turned into the event coordinator at the beginning of the conference to be displayed. Students may not pick up their vehicles until the end of the conference.
- C. Every entrant shall submit a complete set of sketches for the mousetrap vehicle detailing each part with basic dimensions. These sketches are to be completed on 8-1/2" x 11" paper.
- D. Although the mousetrap may be altered, a standard mousetrap spring may be the only power source for the vehicle. The mousetrap spring must accompany the vehicle the full length of the track. Only a standard mousetrap may be used. *No rat traps.*
- E. Vehicle Specifications:
 - The vehicle may be no longer than 16" at any time during the pull.
 - The vehicle may be no wider than 10" at any time during the pull.
 - The vehicle must have a fixed hook or eye in which a cup hook may be attached. It should be centered in the very back and 1/2" above the ground.
- F. The track will be 3 feet long. The vehicle must pull dead weight 2 feet. The surface that both the vehicle and the sled will travel on will be wood.
- G. The 'sled' will be a wooden device in which weight can be loaded. The weight sled may not be lifted at any time during the pull.
- H. No kits are allowed; the participant must create the vehicle.

IV. PROCEDURE

- A. Participants will turn in their vehicle to the display area at the beginning of the conference.
- B. Each vehicle will be given the opportunity to pull an appropriate starting weight. Those that successfully pull that given weight will then enter Round 2. The process will be repeated with weight being added to the sled in each round until only one vehicle remains.
- C. Participants must launch their own vehicles.

V. EVALUATION

The following rubric will be used to evaluate the vehicle. The vehicle that pulls the most weight will determine final ranking. In the case of a tie, ranking will be determined by the most innovative design. The Event Coordinator will make this decision.



MOUSETRAP TRACTOR PULL (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

Contestant ID: _____					POINTS
Pulling Trials: Record information about the trials.					
Trial 1 - Weight _____	Trial 5 - Weight _____	Trial 9 - Weight _____	Trial 13 - Weight _____	Trial 17 - Weight _____	Trial 21 - Weight _____
Trial 2 - Weight _____	Trial 6 - Weight _____	Trial 10 - Weight _____	Trial 14 - Weight _____	Trial 18 - Weight _____	Trial 22 - Weight _____
Trial 3 - Weight _____	Trial 7 - Weight _____	Trial 11 - Weight _____	Trial 15 - Weight _____	Trial 19 - Weight _____	Trial 23 - Weight _____
Trial 4 - Weight _____	Trial 8 - Weight _____	Trial 12 - Weight _____	Trial 16 - Weight _____	Trial 20 - Weight _____	Trial 24 - Weight _____
Calculate points for pulling trials: Multiply the # of the highest successful trial by 2 (e.g., Trial 16 = 16 x 2 = Total Trial Points					
CRITERIA	10 POINTS	8 POINTS	6 POINTS	4 POINTS	PUT TOTAL HERE >>
Drawing Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle. It is to scale. Measurements are included.	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle. It is to scale. Measurements are included.	Drawing is on 8.5" x 11" paper reflects the design of the vehicle, but may not be accurate. It's not to scale. Measurements aren't included.	Drawing is on 8.5" x 11" paper reflects the design of the vehicle, but may not be accurate. It's not to scale. Measurements aren't included.	Drawing is not neat, is not on 8.5" x 11" paper, is not accurate, or is missing. It is not to scale. Measurements are not included.	
Design Specs - Overall The vehicle meets design specs for height, width, and length. It has a fixed hook properly positioned at the back of the vehicle.	The vehicle does not meet one of the design specs for length, width or height, or the fixed hook is not properly positioned.	The vehicle does not meet two of the design specs for length, width or height or may not have a hook for pulling that is easily accessible.	The vehicle does not meet three or more design specs for length, width, or height or does not have a hook for pulling the sled.	The vehicle does not meet three or more design specs for length, width, or height or does not have a hook for pulling the sled.	
Design Specs - Mousetrap The vehicle is powered only by a single, standard mousetrap.	N/A	N/A	N/A	The vehicle is not powered only by a single, standard mousetrap.	
Design Specs - Appearance The vehicle is neatly constructed, using a proper amount of glue, tight fitting pieces, and cuts are clean. Vehicle is decorated/themed. Theme/decoration does not interfere with operation of vehicle.	The vehicle is neatly done, but there is one need for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is painted or decorated. Theme is not clear. Theme/decoration may occasionally interfere with operation of the vehicle.	The vehicle has two needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is decorated, but quality is lacking. Theme is not clear. Theme/decoration consistently interferes with the operation of the vehicle.	The vehicle has three needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is not decorated or themed.	The vehicle has three needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is not decorated or themed.	
Rules Violation: Rules violations (a penalty of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____					
COMMENTS:					TOTAL

PROJECT SHOWCASE*

OPEN TO MIDDLE SCHOOL AND HIGH SCHOOL CONTESTANTS



OVERVIEW:

The goal of the Technology Student Association is to allow as much participation as possible by students in the Colorado Technology Expo. For this reason, a division called “Project Showcase” was established.

I. PURPOSE

To display student projects that are “Show-worthy” but do not match the criteria of the other events. *

NOTE: *This is a non-competitive event and does not earn points for your school toward the Chapter of the Year award.*

II. ELIGIBILITY FOR ENTRY

This event is open to Middle School and High School TSA Chapters. Entries will be limited to FIVE (5) per chapter.

III. SPECIFIC REGULATIONS

A. Major areas

- Construction
- Energy, Power & Transportation
- Communications
- Manufacturing
- Woods
- Metals
- Drafting
- Graphics
- Electronics
- Combination (materials) projects
- Kit projects may also be included

B. Submission criteria

- Submit a diagram or a working drawing equivalent with a typewritten explanation (not more than five pages) that describes the scope of the project. This description could include: time spent on the project, research, fabrication, tools, equipment & processes used, etc. (Working drawings should not be included as part of the written description.)
- A bill of materials (spec. sheet).
- Validation that project was developed through a Technology Education Program.

IV. PROCEDURE

- A. Registration: Event participants must register for the event in accordance with the procedures established for the conference.
- B. Participants must have the product in the display area specified in the conference program.
- C. Products must be picked up by the assigned pick-up time.

V. EVALUATION

The project will be evaluated based on quality of workmanship, the degree of difficulty (grade level taken into account), as well as the student portfolio.



PROMOTIONAL DESIGN

OPEN TO HIGH SCHOOL CONTESTANTS ONLY*

OVERVIEW:

A long-standing tradition at the national TSA conference is trading state lapel pins at the mixer. In this competition, participants will design a color lapel pin that can be used to promote Colorado TSA at the next national TSA conference.

**NOTE: This contest replaces PIN DESIGN and mirrors the event with the same name in national Middle School Competitive Events Guide. Winning pin designs at the state level will be developed into trading pins for the upcoming national TSA conference.*

I. PURPOSE

Provide a means for TSA members to demonstrate their ability to communicate design and layout skills.

II. ELIGIBILITY FOR ENTRY

Entries are limited to SIX (6) per chapter. Open to both MIDDLE and HIGH school students.

III. SPECIFIC REGULATIONS

- A. The pin design is an individual event. No recognition will be given for a group effort.
- B. The entry must be started and completed during the current school year.
- C. The design may not exceed 1-1/4" by 1-1/4". (However, Larger print outs can be included to view detail- this is in addition to actual size printout not in replacement.)
- D. The design must be a color computer-generated design that is submitted on 8 1/2" x 11" paper and should include the design in both actual size and in an enlarged version to show detail.
- E. The actual pin size may range from 3/4" to 2" (length and width). The size and number of letters in the design should be taken into consideration; a letter on a 10" piece of paper will be reduced to 1/10" on a 1" pin. Therefore, fewer letters and greater size is recommended for a more decipherable pin.
- F. The design may be presented either in portrait or landscape layout.
- G. The design must be printed in color on photo or card stock paper and placed in a three (3)-hole punched clear plastic sheet protector and submitted at check in.
- H. The pin must include (at least) the official TSA logo letters. It also must represent a state association (include the shape and/or name of the state association).
- I. The TSA emblem can be used only in accordance with trademark policies that appear on the national TSA website (www.tsaweb.org). From the homepage, click on About TSA and then Trademark Policies. The TSA logo may be used with or without the registered trademark symbol (the circle R).

PROMOTIONAL DESIGN (CONTINUED)

- J. All entries must be the original work of the participant. Computergenerated type fonts and public domain computer clip-art may be used. All ideas, text or images from sources other than the designer must be cited (copyrighted or not). Cited works should be in MLA format and appear on one (1) page following the one (1) page description of the design process. If copyrighted material is used, separate written permission must be included as well. Failure to follow this procedure results in disqualification. If the artwork is completely original, this must be stated in the description. This information must be inserted between the promotional design and the typed technical explanation in the clear plastic page protector.
- K. Maximum one (1) page typed technical explanation of the design process (including software programs and artwork/ graphic/ photo sources used in the production of the graphic) and an explanation of the designer's inspiration must be included. This material should be inserted facing out behind the promotional design in the clear plastic page protector.
- L. All entries in this event at the High School level become the property of Colorado TSA and may or may not be used in future promotional materials and publications.
- M. Entries in the national Middle School event of the same name may be submitted at the national conference for competition and become property All entries become the property of TSA, Inc. and may or may not be used in future promotional materials and publications.

V. PROCEDURE

- A. Registration: Event participants must register and follow the guidelines for the event in accordance with the procedures established for the conference.
- B. ALL designs must include a digital copy of the design as well as a hard copy print out as stated above to be considered for the competition.
- C. For the purposes of reproduction for a state trading pin, COTSA reserves the right to modify the winning pin design. Middle School entries may continue on to the national conference to compete in this event; at the high school level, this is a "state only" event.

V. EVALUATION

- A. Middle School level and High School level winning designs will be recognized at the awards ceremony. However, winning pin designs may or may not be selected to be the pins that represent Colorado as the trading pins at national competition. A Middle School and a High School pin will be produced for trading at the national conference.
- B. Copies of previous winning pin designs shall not be used.
- C. Colorado TSA reserves the right to modify design as needed for production of the pin.
- D. The following rubric will be used in the evaluation of entries.





PROMOTIONAL DESIGN (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

CONTESTANT ID NUMBER:							
Evaluators: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the column spaces to the far right. Multiply your score by the multiplier to get the final score. Example: an "adequate" score of 7 for an X1 criterion = 7 points; an "adequate" score of 7 for an X2 criterion = 14 points.							
CRITERIA	MINIMAL PERFORMANCE (1-4 PTS.)	ADEQUATE PERFORMANCE (5-8 PTS.)	EXEMPLARY PERFORMANCE (9-10 PTS.)	MULT.	PTS.		
Inspiration for Graphic Design	Little or no discussion of the inspiration for the graphic is included; no, or illogical, order of the design process is evident.	General overview of the design process is included, as is a basic description of the inspiration for the graphic.	An organized and logical overview of the entire design process, which details inspiration for the graphic design, is included.	X1			
Design Process	Explanation does not discuss the technical development of the graphic; software packages used are not mentioned; frequent grammar and spelling errors are evident; MLA format is not used, and/or the citations are inadequate.	General overview of the technical development of the graphic (which mentions by name the primary software packages used in the design) is included; a few grammar and spelling errors are evident; MLA format is used for an adequate number of resources.	Detailed and concise description of the technical development of the design (with discussion of all software packages used in the design) is included; proper grammar and spelling are evident; MLA format is used for the citations.	X1			
Relevance	Brief and weak explanation of how the graphic design correlates to the challenge is included, and/or the explanation is illogical.	The challenge is discussed in the explanation, but questions arise in trying to understand the correlation between the challenge and the design.	Explanation of relevance (i.e., how the final graphic design relates to the challenge) is clear and complete.	X1			
<i>Proof of permission to use copyrighted image(s) must be included. A release form must be present if photographs of individuals are used. Clipart must be documented. Failure to do any of the above results in DISQUALIFICATION. No permission is needed for the use of the TSA logo by affiliated chapters.</i>							
First Impression of Graphic	Design is messy and/or damaged; it includes three (3) or more of the following: dull/rough edges, hard to read fonts, smudges, smears on the graphic, extraneous markings.	Design has several good points, but some details detract from the overall quality; it includes two (2) or fewer of the following: dull/rough edges, hard to read fonts, smudges, smears on the graphic, extraneous markings.	Graphic is striking, elegant and includes one (1) or none of the following: dull/rough edges, hard to read fonts, smudges, smears on the graphic, extraneous markings.	X2			
Appropriateness	Graphic has no correlation to the state TSA affiliate it is intended to relate to; design does not work for the intended purpose.	Design generally works for its intended purpose, but it may be a little too big or too small in size; design correlates to the intended state TSA affiliate.	The design is a perfect size for the intended purpose; there is strong evidence for correlation of the design to the TSA affiliate.	X1			
Dominance	Eyes are drawn away from what should have been focal point by some other component of the graphic.	An attempt is made to use a graphic component that will draw attention to the design's main idea, but the result is confusing.	The design's main components draw eyes to the appropriate location and/or focal point of graphic.	X1			
Balance and Proportion	Design seems unbalanced; too little and/or too many graphic elements are included, and they are out of proportion.	Design is somewhat balanced but some graphic elements are too large and/or too small; the design is not proportioned.	All design elements included are balanced and equally proportioned.	X1			
Incorporation of Graphic Design Principles	Design principles (alignment, consistency, contrast, unity, white space) are not incorporated into the graphic, and/or they are considered as an afterthought.	Graphic is missing two (2) or fewer design principles (alignment, consistency, contrast, unity, white space), but the overall layout is aesthetically pleasing.	Graphic is aesthetically pleasing and all design principles are incorporated into the design and layout.	X2			
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____							
COMMENTS:				TOTAL			

RAT TRAP DRAG RACE

OPEN TO HIGH SCHOOL CONTESTANTS ONLY



I. PURPOSE

To allow students to demonstrate their ability to design and construct a vehicle powered only by a standard rat trap spring, to travel a specified distance as fast as possible.

II. ELIGIBILITY FOR ENTRY

This event is open to High School TSA Chapters. Entrants are limited to *SIX* (6) per school.

III. SPECIFIC REGULATIONS

- A. All entries must be designed and constructed before the conference.
- B. Vehicles must be turned into the event coordinator at the beginning of the conference to be displayed. Students may not pick up their vehicles until the end of the conference.
- C. Although the rat trap can be altered, a standard rat trap spring may be the only power source for the vehicle.
- D. The rat trap spring must accompany the vehicle the full length of the track.
- E. Vehicle Specifications:
 - The vehicle may be no longer than 16" at any time during the race.
 - The vehicle may be no wider than 10" at any time during the race.
- F. The track will be 15' long.
- G. The surface the vehicles will travel on will be hotel-grade carpet.
- H. If the vehicle does not meet the specifications, it will have points deducted from the final score.
- I. Only a standard rat trap may be used.
- J. No kits are allowed; the participant must create the vehicle.

IV. PROCEDURES

- A. Participants will turn in their vehicle to the display area at the beginning of the conference.
- B. Participants must launch their own vehicles
- C. Each vehicle will be launch once and timed. The top 16 vehicles will go to the next round.
- D. The subsequent rounds are single-elimination, head-to-head races with the winner advancing through the bracket.
- E. Vehicles will be returned to the display area at the end of the competition.

V. EVALUATION

The rubric on the following page will be used in the evaluation of this event. In the case of a tie, ranking will be determined by the most innovative design. The Event Coordinator will make this decision. In the case of a tie, ranking will be determined by the most innovative design. The Event Coordinator will make this decision.



RAT TRAP DRAG RACE (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

Contestant ID: _____					
Trials: Record information about the time trail and placement on initial bracket TIME: _____ PLACEMENT ON INITIAL BRACKET: _____					
CRITERIA	10 POINTS	8 POINTS	6 POINTS	4 POINTS	TOTAL
Drawing Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle. It is to scale. Measurements are included.	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle, but is not to scale. Measurements are included.	Drawing may not be on 8.5" x 11" paper and reflects the design of the vehicle, but may not be accurate. It's not to scale. Measurements are not included.	Drawing is not neat, is not on 8.5" x 11" paper, is not accurate, or is missing. It is not to scale. Measurements are not included.		
Design Specs - Overall The vehicle meets design specs for width and length. It remains in spec during the race.	The vehicle does not meet one of the specs for width or length. It remains in spec during the race.	Vehicle does not meet two of the specs for width and length or may not remain in spec for the duration of the race.	Vehicle does not meet the design specs for width and length and is out of spec for the duration of the race.		
Design Specs - Rat Trap The vehicle is powered only by a single standard rat trap spring.	The vehicle is powered only by a single standard rat trap spring.	N/A	N/A	The vehicle is not powered only by a single, standard rat trap spring.	
Design Specs - Appearance The vehicle is neatly constructed, using a proper amount of glue, tight fitting pieces, and cuts are clean. Vehicle is decorated/themed. Theme/decoration does not interfere with the operation of the vehicle.	Vehicle is neatly done, but there is one need for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is painted or decorated. Theme is not clear. Theme/decoration may occasionally interfere with operation of vehicle.	Vehicle has two needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is decorated, but quality is lacking. Theme is not clear. Theme/decoration consistently interferes with the operation of the vehicle.	Vehicle has three needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is decorated or themed.		
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initialed by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____					
Race Final Placement 1st Place: 50 points 4th Place: 35 points 9th-12th Place: 20 points 2nd Place: 45 points 5th-6th Place: 30 points 13-16th Place: 10 points 3rd Place: 40 points 7th-8th Place: 35 points					
				TOTAL	

RUBBERBAND POWERED CARS

OPEN TO MIDDLE SCHOOL AND HIGH SCHOOL CONTESTANTS



I. PURPOSE

To allow students to demonstrate their ability to design and construct a vehicle powered only by a rubber band and propeller.

II ELIGIBILITY FOR ENTRY

This event is open to Middle School and High School Chapters. Entrants are limited to SIX (6) per school.

III. SPECIFIC REGULATIONS

- A. All entries must be designed and constructed before the conference.
- B. Cars must be turned into the event coordinator at the beginning of the conference to be displayed. Students may not pick up their cars until the end of the conference.
- C. Student must make car from scratch in the year it is raced. (No kits)
- D. Racers may use any commercial wheels, axles and props.
- E. Vehicle Specifications:
 - The car may not exceed 24 inches in length.
 - The car may not exceed 8 inches in width.
 - The car may not exceed 10 inches in height.
 - The car will be powered by a single 7" x 1/8" rubber band (also known as a file band).
 - The car must be designed so that an eyelet is placed at the front of the car, 1/4" from the floor.
 - The car must be powered solely by the rubberband and propeller; the rubberband should be NOT be used in a manner other than to provide power to the propeller.
- F. The track will be 20' long x 15" wide. The surface of the track will be hotel-grade carpet.
- G. The cars will race against the stopwatch. Each car will race three times, and an average speed calculated.
- H. If the vehicle does not meet the specifications, it will have points deducted from the final score.

IV. PROCEDURES

- A. Participants will turn in their car to the display area at the beginning of the conference.
- B. Participants must launch their own cars

V. EVALUATION

The vehicle will be evaluated using the rubric on the following page. In the event of a tie, ranking will be determined by the most economically-produced model. The Event Coordinator will make this determination.



RUBBERBAND POWERED CARS (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

Contestant ID: _____		TOTAL		
Time Trials -- Calculated by: Distance (in inches) traveled / Time (in seconds)				
Speed Trial 1: _____" / _____sec. = _____/second				
Speed Trial 2: _____" / _____sec. = _____/second				
Speed Trial 3: _____" / _____sec. = _____/second				
TOTAL = _____/3 = (_____/sec) x 10 = PUT TOTAL HERE >>				
CRITERIA	10 POINTS	8 POINTS	6 POINTS	4 POINTS
Drawing	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle. It is to scale. Measurements are included.	Drawing is neatly prepared on 8.5" x 11" paper and accurately reflects the design of the vehicle, but is not to scale. Measurements are included.	Drawing may not be on 8.5" x 11" paper and reflects the design of the vehicle, but may not be accurate. It's not to scale. Measurements are not included.	Drawing is not neat, is not on 8.5" x 11" paper, is not accurate, or is missing. It is not to scale. Measurements are not included.
Design Specs- Overall	The vehicle meets design specs for length, width and height. It has an eyelet screw placed at the front of the car 1/4" from the floor.	Vehicle does not meet one of the specs for width, length or height, or it may not have an eyelet screw correctly placed at the front of the car.	Vehicle does not meet two of the specs for width, length or height or may not have an eyelet screw placed at the front of the car.	Vehicle does not meet the design specs for width, length and height and does not have an eyelet screw at the front of the car.
Design Specs - Rat Trap	The vehicle is powered no more than the specified 7" x 1/8" rubber band.	N/A	N/A	The vehicle is powered by a source other than the specified 7" x 1/8" rubber band.
Design Specs - Appearance	The vehicle is neatly constructed, using a proper amount of glue, tight fitting pieces, and cuts are clean. Vehicle is decorated/themed. Theme/decoration does not interfere with the operation of the vehicle.	Vehicle is neatly done, but there is one need for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is painted or decorated. Theme is not clear. Theme/decoration may occasionally interfere with operation of vehicle.	Vehicle has two needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is decorated, but quality is lacking. Theme is not clear. Theme/decoration consistently interferes with the operation of the vehicle.	Vehicle has three needs for improvement: glue usage, tight fitting pieces, and cuts are clean. Vehicle is not decorated or themed.
Race Final Placement		PUT TOTAL HERE >>		
1st Place: 50 points	4th Place: 35 points	9th-12th Place: 20 points		
2nd Place: 45 points	5th-6th Place: 30 points	13-16th Place: 10 points		
3rd Place: 40 points	7th-8th Place: 35 points	Did Not Finish = 0 points		
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____				
TOTAL				

T-SHIRT DESIGN

OPEN TO MIDDLE AND HIGH SCHOOL CONTESTANTS



OVERVIEW:

Participants are required to develop and present a T-shirt screen design, which can be adopted, as the Colorado state delegation T-shirt to be worn at the National TSA conference..

I. PURPOSE

Provide a means for TSA members to demonstrate their ability to communicate design and layout skills.

II. ELIGIBILITY FOR ENTRY

This event is open to Middle School and High School Chapters. Entries are limited to *ONE* (1) per chapter.

III. SPECIFIC REGULATIONS

- A. The T-shirt design is an individual event. No recognition will be given for a group effort.
- B. The student should develop a design for the back of the t-shirt as well as an accompanying design for the front left pocket area of the Shirt. The design for the back of the shirt should not exceed 20 cm (8") by 25 cm (10"), with the 25cm (10") dimension being the vertical measurement. The design for the front left pocket area of the shirt should not exceed 13cm (5") wide by 13cm (5") tall.
- C. The design may have a maximum of three colors.
- D. An original line type illustration(s) must be used that reflects or interprets or in some other way communicates the national conference theme.
- E. The following information *must* be included in the design:
 1. The words "TSA National Conference"
 2. Date of the National Conference
 3. Location of the National Conference (City & State)
 4. The theme for the 2012 National Conference
 5. Either the Colorado TSA logo, or the official TSA logo
 6. The type face(s) may be original in design or may consist of a traditional-type style(s). The required alphanumeric characters may be incorporated as an integral part of the illustration.
- F. Prepare a printed T-shirt for the design. Shirt color is the choice of the participant but should be available in quantity.
- G. Clean, black-line copies of each color separation in the entire screen design *must* be submitted along with the printed-t-shirt.
- H. Public domain computer clip art may be included in the design. Use of copyrighted or registered artwork in design is prohibited without verified permission from the original artist/publisher
- I. Copies of previously submitted (winning or non-winning) designs shall not be used.

T-SHIRT DESIGN (CONTINUED)



IV. PROCEDURE

- A. Registration: Event participants must register and follow the guidelines for the event in accordance with the procedures established for the conference.
- B. No designs may be picked up before the assigned time.
- C. All winning entries will become the property of TSA, Inc.

V. EVALUATION

The designs will be evaluated using the rubric on the following page.

In the event of a tie, ranking will be determined by the Event Coordinator.

Note: Since only one design can be selected and utilized to promote the state of Colorado at the National conference, the top middle school and high school designs will be re-evaluated to determine the overall winning design for the national delegation t-shirt.

T-SHIRT DESIGN (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

	10 POINTS	8 POINTS	6 POINTS	4 POINTS	TOTAL
<p>Contestant ID: _____</p> <p>CRITERIA</p> <p>Design Specs- Artwork</p>	<p>T-shirt design is prepared neatly and in color. Design consists of no more than three colors (not including the color of the shirt). Design is presented on a T-shirt.</p> <p>Artwork is clear and all elements are distinct and easily readable/recognizable. Design includes:</p> <ul style="list-style-type: none"> • The words "TSA National Conference" • The Colorado TSA logo or official TSA logo • Dates of the Nat'l Conference • Location of the Nat'l Conference • The theme of the design reflects some aspect of Colorado and Colorado TSA • The words "Colorado TSA" 	<p>T-shirt design in color. Design consists of no more than three colors (not including the color of the shirt). Design may not be presented on a T-shirt.</p> <p>Artwork is clear and all elements are readable/recognizable. Design may be missing one of the following elements:</p> <ul style="list-style-type: none"> • The words "TSA National Conference" • The Colorado TSA logo or official TSA logo • Dates of the Nat'l Conference • Location of the Nat'l Conference • The theme of the design reflects some aspect of Colorado and Colorado TSA • The words "Colorado TSA" 	<p>T-shirt design is poorly prepared or consists of more than 3 colors (not including the color of the shirt). Design is not presented on a T-shirt.</p> <p>Artwork is not clear and not all elements are readable/recognizable. Design may be missing two or more of the following:</p> <ul style="list-style-type: none"> • The words "TSA National Conference" • The Colorado TSA logo or official TSA logo • Dates of the Nat'l Conference • Location of the Nat'l Conference • The theme of the design reflects some aspect of Colorado and Colorado TSA • The words "Colorado TSA" 	<p>T-shirt design is poorly prepared, is not in color, or has more colors than specified. It is not presented on a T-shirt.</p> <p>Artwork is not clear and all elements are not readable/recognizable. Design may be missing two or more of the following:</p> <ul style="list-style-type: none"> • The words "TSA National Conference" • The Colorado TSA logo or official TSA logo • Dates of the Nat'l Conference • Location of the Nat'l Conference • The theme of the design reflects some aspect of Colorado and Colorado TSA • The words "Colorado TSA" 	TOTAL
<p>Design Specs- Documentation</p>	<p>The artwork reflects, interprets, or in some other way communicates the theme of COTSA's 25th Anniversary. Design also includes some element that reflects, interprets or in some other way communicates a sense of the 25th Anniversary theme.</p> <p>The design is accompanied by clean black-line copies of each color separation in the entire screen design.</p>	N/A	N/A	<p>The artwork DOES NOT reflect, interpret or in some other way communicate the theme of the national conference. Design also does not include some element that reflect, interprets or in some other way communicates a sense of the specified theme as outlined in the rules.</p>	
<p>Design Specs - Size</p>	<p>The design is accompanied by documentation of where the artwork was obtained, with permission from the original artist/publisher if applicable.</p> <p>Back design is <20cm x 25 cm; front design is <13cm x 13 cm.</p>	<p>The design is accompanied by documentation of where the artwork was obtained but may be incomplete or may contain errors.</p>	<p>The design is accompanied by incomplete documentation of where the artwork was obtained and contains errors.</p>	<p>The design is not accompanied by documentation of where the artwork was obtained.</p> <p>Back design is >20cm x 25 cm; front design is >13cm x 13 cm.</p>	TOTAL
<p>Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____</p>					





TRANSPORTATION SYSTEMS

OPEN TO HIGH SCHOOL CONTESTANTS ONLY*

I. PURPOSE

Allow students to apply and document the engineering design process, mathematical principals and scientific concepts used in the research, design, construction, testing and evaluation of a rubber band-powered boat. Performance ratings of the boat will be based on a combination of speed and payload capability measurements. demonstrate their ability to design and construct a boat to travel through water, powered only by one standard rubber band.

II. ELIGIBILITY FOR ENTRY

This event is open to High School TSA chapters. Entrants are limited to **SIX (6)** per school.

**NOTE: This event replaces Hydrodynamics and mirrors the national Middle School event of the same name.*

III. SPECIFIC REGULATIONS

- A. All entries must be turned in at the designated time. Each entrant will be responsible for obtaining time schedules at registration.
- B. Participants submit their boat and documentation notebook for preliminary eligibility inspection during the specified check-in time. No boat will be accepted unless it is accompanied by a complete documentation notebook. Participants with entries that pass inspection will be provided with rubber band(s) and weights for performance testing.
- C. The entry must be completed during the current school year.
- D. Participants will be allowed a maximum of one (1) minute onwater, pre-performance testing preparation time using the official on-site test canal.
- E. Participants report for a pre-race meeting at the time and place stated in the conference program. (Participants do not need to bring their boat and documentation notebook to this meeting.) Instructions for the race will be provided, performance test times will be assigned, and participants will inform evaluators of the number of weights they wish their boat to carry during performance testing. No weight changes will be allowed after this meeting.
- F. Participants report with their boat and documentation notebook to the performance test area fifteen (15) minutes before their assigned testing time.
- G. Participants may practice for one minute prior to their performance test.
- H. A boat's final performance ranking determines its eligibility for semifinalist evaluation. Boats and documentation notebooks will remain at the event site for further evaluation.

IV. PROCEDURE

- A. Participants design a rubber band-powered boat that will be evaluated for its speed and ability to carry a payload down a water canal (4" wide by 8' long). The payload will consist of one (1), two (2), or three (3) one

TRANSPORTATION SYSTEMS (CONTINUED)

(1)-ounce bell shaped fishing weights. Participants will designate the payload for their boat at the pre-race meeting.

B. Performance scoring for boats that travel the full distance of the canal: The performance score for this category of boats is a combination of speed and payload capability. [Each boat will be tested three (3) times to determine its best speed/time and distance.] A boat's best speed will be multiplied by its payload factor to determine its performance score. The boat with the lowest performance score in this category is the best overall performing boat - for both performance scoring categories (Procedures B and C).

Example:

1.5 seconds x .7 payload factor = 1.05 performance score
(best time) x (payload factor) = (performance score)

Payload factor values:

2012: one weight = 1, two weights = .9, three weights = .8
2013: one weight = 1, two weights = .7, three weights = .4

C. Performance scoring for boats that do not complete the full distance of the canal: The performance score for this category of boats is a combination of distance traveled in the canal and payload capability. [Each boat will be tested three (3) times to determine its best speed/time and distance.] A boat's best distance will be multiplied by its payload factor to determine its performance score. The boat with the highest performance score in this category is the best overall performing boat -- in this category only (Regulation C only).

Example:

50 inches x 1.3 payload factor = 65.0 performance score
(best distance) x (payload factor) = (performance score)

Payload factor values:

2012: one weight = 1, two weights = 1.1, three weights = 1.2
2013: one weight = 1, two weights = 1.3, three weights = 1.6

D. Final performance ranking: The overall performance goal is for a boat to complete the full travel distance (8') of the canal in the shortest amount of time while carrying as much weight as possible. The performance scores in the two categories (regulation B and C) are based upon different standards (time and distance, respectively), and so, therefore, cannot be directly compared to each other to determine the final performance ranking. Boats that travel the full travel distance of the canal will be considered better performing boats and, therefore, ranked ahead of boats that do not travel the full distance.

Example:

Fourteen (14) boats complete the full distance and have performance scores of 1.05 to 13.7. These boats will have final performance rankings of 1–14. The boat with a performance score of 1.05 will be ranked #1 and the boat with a 13.7 performance score will be ranked #14. Additionally, twenty-two (22) boats do not complete the full travel distance of the canal and they have performance scores of 45.7 to 13.7. These boats will have final performance rankings of 15–36. The boat with a performance score of 45.7 will be ranked #15 and the boat with a score of 13.7 will be ranked #36.



TRANSPORTATION SYSTEMS (CONTINUED)



E. Transportation system:

- The rubber band-powered boat uses a maximum of two (2) # 33 (3 ½" x ⅛") rubber bands and one (1) propeller. No other sources of power may be used. Rubber bands will be provided and these are the only rubber bands that participants may use during performance testing.
- The propeller may be orientated in any direction and may be above or below the water surface.
- The propeller may not exceed 3" inches in diameter.
- The boat's hull or body must be one (1)-piece construction from a solid material with a maximum size of 12" x 3" x 3" (length x width x height). No additional parts or materials may be added except those materials or parts that are directly related to the power-train [rubber band(s) and propeller].
- The boat's maximum size, including all components, is 12" x 3 ½" x 6" (length x width x height).
- Quality of design and construction, appearance and performance will be evaluated.
- Repairs are not allowed unless approved by the evaluators.

F. Documentation notebook

- A standard three-ring binder, with a clear front sleeve for a cover page, is required. The cover page must include a picture of the participant's boat and the following information, centered on the page in consecutive lines: event title, conference site, conference year, and participant ID #. Sheet protectors and divider pages may be used in the binder and will not count as additional pages. The inside of the binder must include the following single-sided, 8 ½" x 11" pages in the order below.
 - Title page with the event title, conference city and state, and the year.
 - Table of contents
 - Explanation and evidence (including illustrations, pictures, charts and graphs) of how the engineering design process (see description below), scientific concepts and mathematics principles were used in the development of the solution to the transportation system problem.

The engineering design process is a set of steps used by engineers to solve problems. The process can be broken into three (3) stages (concept, development, and evaluation); each stage is comprised of four (4) steps.

- Concept; four (4) pages maximum
 - i. Define the problem
 - ii. Brainstorm solutions
 - iii. Research and generate ideas
 - iv. Identify criteria and constraints
- Development; two (2) pages maximum
 - i. Explore possibilities
 - ii. Select an approach
 - iii. Develop a design proposal
 - iv. Make a prototype
- Evaluation; two (2) pages maximum
 - i. Test and evaluate
 - ii. Refine the design
 - iii. Create or make a solution
 - iv. Communicate results

G. Canal

- The overall dimensions of the canal are 4" wide by 10' long. The start line will be placed 16" from one end of the canal and the finish line will be placed 8" from the opposite end of the canal. Thus the actual travel distance is 8'.
- Water level will be maintained at ¾" from the top of the canal.
- Suggested canal construction materials are 4" PVC pipe cut in half, or rain gutter. Note: a canal's underwater crosssection may be rounded (PVC pipe), or not symmetrical (rain gutter), restricting the underwater possibilities for the design of a boat.

V. EVALUATION

The craft will be evaluated based on the rubric on the following page.

TRANSPORTATION SYSTEMS (RUBRIC)

NOTE: ALL DECISIONS BY THE JUDGE ARE FINAL

CONTESTANT ID NUMBER:				POINTS
Evaluators: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10) points performance levels as a guideline, record the scores earned for the event criteria in the SCORE column space to the right.				
CRITERIA	MINIMAL PERFORMANCE (1-4 PTS.)	ADEQUATE PERFORMANCE (5-8 PTS.)	EXEMPLARY PERFORMANCE (9-10 PTS.)	POINTS
DESIGN	Solution appears weak and ineffective; not all criteria are met.	A solution is provided but it lacks creativity and uniqueness.	An effective solution is presented; it is creative and unique and covers all criteria.	
CONSTRUCTION	Boat is poorly constructed, with little or no attention to detail and quality.	Boat displays adequate construction, with minor flaws/defects that may or may not affect performance.	Exceptional construction is evident, with no flaws to impact performance.	
APPEARANCE	Little effort and consideration are given to appearance; boat lacks appropriate finish.	Adequate, but average attempt is made to provide a finished appearance for the boat.	Exceptional effort, with attention to details and quality of the boat, is evident.	
DOCUMENTATION	Notebook is missing several components and/or is unorganized; it is messy and lacking quality.	Most components are included in the notebook, but documentation is loosely organized and lacking quality.	All components are included and organized in the notebook; effort and quality of work are evident.	
CONCEPTUALIZATION (in notebook)	Little understanding of this stage of the engineering design process is evident (i.e., there is inadequate restatement of the problem, constraints, and criteria, and/or a lack of evidence of brainstorming, research, & generation of ideas for solutions).	Some understanding of this stage of the engineering design process is evident, but restatement of the problem appears weak, and/or there is an effective but limited number of brainstorming solutions, and/or research is weak and ideas are limited; there is limited evidence of understanding or application of scientific principles related to the design problem.	Clear and concise proposals are evidenced and supported by the research, range of ideas, and examples of solutions provided; understanding and application of related scientific concepts is evident.	
DEVELOPMENT (in notebook)	There is a vague approach to this stage of the engineering design process; there is no evidence of exploring possibilities for this stage and for prototype development; a poor explanation of the approach taken and the design proposal is evident.	An understanding of this stage of the engineering design process is evidenced; possibilities have been explored and prototype development has been completed; there is an adequate but weak explanation of the final process and design proposal.	An effective and convincing explanation of the complete process followed to finalize a design proposal and prototype recommendation is evident; an explanation of related mathematical principles and scientific concepts is provided.	
EVALUATION	There is little or inadequate evidence of testing and refining during this stage of the engineering design process; no recommendations are provided.	Testing and refinement data are provided and may/may not adequately and correctly support the final results that are presented; an attempt is made to use mathematical principles to support the final recommendation.	The evaluation communicates appropriate and effective evidence to support final recommendations; mathematical principles are effectively used to support the final recommendation.	
PERFORMANCE BONUS: Determined by place	1st - 30 pts; 2nd - 28 pts; 3rd - 26 pts; 4th - 24 pts; 5th - 22 pts; 6th - 18 pts; 7-8th - 14 pts; 9-10th - 10 pts; 11th - 5 pts; 12th - 0 pts.			
Rules Violation: Rules violations (a deduction of 20% of the total possible points) must be initiated by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____				
			TOTAL	





MIDDLE SCHOOL EVENT SUMMARIES

PLEASE NOTE: These are only brief summaries about the events available to students. For detailed information about each of the events, please consult the official Middle School National TSA Conference Competitive Events Guide. Please be sure to carefully read the event descriptions, regulations and procedures in the National TSA Competitive Events Guide.

Additionally, contest updates may occur throughout the school year and are available at:
www.tsaweb.org/Updates-and-Clarification

Themes for several events will be posted on the National TSA website at:
www.tsaweb.org/Themes-and-Problems

****NOTE:** Number of entries listed here are only applicable to the Colorado TSA State Conference; entries permitted at the National TSA Conference are listed in the National TSA Competitive Events Guide.

NATIONAL EVENTS

**** UPDATE - Agriculture and Biotechnology Design** – Participants conduct research on a contemporary agriculture or biotechnology issue of their choosing, document their research, and create a display.
Limited at State to: Three (3) teams of two (2) per chapter.

Career Prep – Participants conduct research on a selected technology-related career and use the knowledge gained to prepare a resume and cover letter, complete a job application, and participate in a mock interview. See National Competitive Events Guide for this year's career choices.
Limited at State to: Three (3) students per chapter.

Challenging Technology Issues – Participants prepare and deliver an extemporaneous, debate-style presentation with team members explaining opposing views of a current technology issue that has been selected from a choice of three (3) issues that are provided on site.
Limited at State to: Three (3) teams of two (2) per chapter.

Chapter Team – Parliamentary procedure competition.
Limited at State to: One (1) team of six (6) per chapter.

Communication Challenge – Participants design and produce 1) a trifold brochure that promotes the chapter 2) an effective sponsor support request on chapter letterhead, and 3) a two-sided postcard promoting TSA's current national service project. Semifinalists are asked to work creatively under constraints in designing a solution to a problem given on site.
Limited at State to: Three (3) students per chapter.

**** NEW - Community Service Video** – Participants create a video that highlights their chapter's involvement with the American Cancer Society (ACS) over the course of a school year.
Limited at State to: One (1) entry per chapter with no more than six (6) students per entry.

Construction Challenge – Participants identify a community need related to construction and then plan and implement a course of action that involves students and community members.
Limited at State to: Three (3) teams of two (2) per chapter.

Digital Photography – Participants produce and submit an album of digital photographs. Finalists are assigned a task on site.
Limited at State to: Six (6) students per chapter.

Dragster – Participants design, produce working drawings for and build a CO₂-powered dragster.
Limited at State to: Three (3) students per chapter.

MS NATIONAL EVENT SUMMARIES (CONTINUED)

Electrical Applications – Through a written test, the participants demonstrate a knowledge of basic electrical and electronic theory, as well as the use of a multimeter. Semifinalists are given a circuit to assemble on-site.

Limited at State to: Three (3) students per chapter.

Environmental Focus – Participants identify and research a specific environmental problem or issue that has been influenced by advancements in technology. They will gather information, analyze data, develop strategies and submit conclusions relative to the specific problem or issue and its impact/s on society and the environment. Students will present their findings in a multimedia presentation and interview.

Limited at State to: One (1) team per chapter (up to 6 students), but limited to two (2) student representatives for finalist review.

**** NEW - Essays on Technology** – Participants conduct research in specified subtopics of a broader technological area and, using the knowledge and resources gained through that research, write a comprehensive essay on the one (1) subtopic that is designated on site.

Limited at State to: Three (3) individuals per chapter.

Flight – Participants create a glider that stays in flight for the greatest elapsed time. The glider must be designed to be launched from a catapult that is provided on site. The design process is documented in a notebook that is submitted for evaluation.

Limited at State to: Six (6) students per chapter.

Global Manufacturing – A TSA chapter, working with at least two (2) other TSA chapters, designs, manufactures and packages a marketable mass-produced product. Two (2) completed products will be included in the display for this event.

Limited at State to: One team from the TSA chapters involved with a maximum of six (6) students on the team (no more than two (2) per chapter).

Go Green Manufacturing – Participants identify a consumer need and manufacture a marketable product. The chapter submits documentation of chapter activities and two (2) product samples made during the manufacturing experience.

Limited at State to: Two (2) teams of three (3) students per chapter.

**** UPDATE - Inventions and Innovations** – Participants investigate and determine the need for an invention or innovation of a device, system or process and brainstorm possible solutions to determine the best idea for the invention or innovation. Team members create a prototype or model, develop a stand-alone multimedia presentation and document work completed as they prepare to promote and demonstrate their idea for the invention or innovation. Semifinalists will make an oral presentation.

Limited at State to: Three (3) teams per chapter.

Leadership Strategies – Participants work in teams to develop a plan of action that addresses a specific challenging situation provided on site. Under time constraints, semifinalists develop a plan for a second situation and then make a team presentation.

Limited at State to: Three (3) teams of three (3) per chapter.

Medical Technology Issues - Participants conduct research on a contemporary medical technology issue of their choosing, document their research, and create a display.

Limited at State to: Three (3) teams of two (2) per chapter.

**** UPDATE - Multimedia Production** – Participants use their creative skills to develop an animation that focuses on the current year's theme. Check National Competitive Events Guide for this year's theme.

Limited at State to: Six (6) students per chapter.

Prepared Speech – Participants deliver an oral presentation that reflects a theme which appears in the official competitive events guide. See the National Competitive Events Guide for this year's theme.

Limited at State to: Three (3) students per chapter.



MS NATIONAL EVENT SUMMARIES (CONTINUED)



Problem Solving – Participants use their skills in problem-solving to develop a finite solution to a state problem provided on-site. You won't know what this one is until you show up!

Limited at State to: Two (2) teams of two (2) members per chapter.

****NEW - Promotional Design** – This national event replaces the State-only Pin Design Event. Participants create and produce a color pin design that is appropriate for trading at the national TSA conference.

Limited at State to: Six (6) students per chapter.

****UPDATE - Structural Engineering** – Participants design and build a model structure utilizing and adhering to the principles of engineering. Each team is given the dimensions for the specific design and then must construct a model using the supplied materials. The completed model structures will be subjected to destructive testing to determine the greatest weight that can be held.

Limited at State to: Two (2) teams of two (2) per chapter.

System Control Technology – Participants use a team approach to develop a computer-controlled model solution to a given problem - usually from an industrial setting. Students may use Legos, Fischer techniques or LASY systems to build and program the solution on-site.

Limited at State to: One (1) team of three (3) per chapter.

****NEW - Technical Design** – Participants will be given a design brief on site that includes a problem statement and specific criteria and constraints. Participants will utilize the technical design process to solve the problem.

Limited at State to: Six (6) students per chapter.

****UPDATE - Techno Talk** – Students who have been randomly paired [one (1) team of two (2) students from one school with a team of two (2) students from another school, in order to form one (1) team of four (4) members at the conference] must demonstrate creativity and communication skills by building a structure and then replicating it through the use of a short message service (SMS)/text messaging device.

Limited at State to: Two (2) teams of two (2) members each per chapter.

Technology Bowl – A team of three (3) students complete a written test and then compete in a head-to-head competition similar to “Jeopardy” where students “buzz-in” and answer technical questions orally. *Limited at State to: One (1) team of three (3) per chapter.*

****NEW - Transportation Systems** – Participants apply and document the engineering design process, mathematical principals and scientific concepts used in the research, design, construction, testing and evaluation of a rubber band-powered boat. Performance ratings of the boat will be based on a combination of speed and payload capability measurements.

Limited at State to: Six (6) students per chapter.

****NEW - Video Game Design** – Participants develop an E-rated game that focuses on the subject of their choice. The game should be interesting, exciting, visually appealing and intellectually challenging. The game should have high artistic, educational and social value. A working, interactive game will be submitted on a DVD for evaluation. **NOTE: Due to the complexity of the event and the limited duration of the state conference, FOR THE STATE CONFERENCE ONLY, this event has an early submission deadline! All submissions must be received by the State Advisor no later than January 27, 2011.**

Limited at State to: Three (3) teams of two (2) students per chapter.

****UPDATE -Website Design** – Participants are required to design, build and launch a World Wide Web site that features the team's ability to research topics pertaining to technology. **NOTE: Due to the complexity of the event and the limited duration of the state conference, FOR THE STATE CONFERENCE ONLY, this event has an early submission deadline! All submissions must be sent to: COTSA.Submissions@gmail.com no later than February 1, 2012. For the national conference, there is also an early deadline. Please consult the National Competitive Events Guide for national deadlines.**

Limited at state to: One (1) team of (3) three to (5) five members.

MIDDLE SCHOOL STATE-ONLY EVENTS

****UPDATE - Castle Ballistics** -- Teams work to design a catapult, ballista or trebuchet to launch a hacky-sack/footbag at three randomly placed targets within a specified area.
Limited to two (2) teams of three (3) per chapter.

**** UPDATE - Crash Test** – Teams will design and build a “crash test” car that will be tested in multiple head –on and rear-end collisions.
Limited at State to: Ten (10) teams of two (2) students per chapter. Each team MUST include one (1) MS and one (1) Elementary student (grades 1-5).

****NEW - Integrated Autonomous Vehicle** - Participants create and operate an integrated autonomous vehicle. The vehicle will operate in a number of courses, but must be able to navigate a course without prior knowledge of distance or direction within a chosen course. Two separate modes of operation will be used: Student-controlled and Autonomous.
Limited at State to: Two (2) teams of three (3) members per chapter.

Middle School Creativity Challenge – Design teams, composed of one middle school student and one elementary student, work to solve an on-site problem.
Limited at State to: Ten (10) teams of two (2) students per chapter. Each team MUST include one (1) MS and one (1) Elementary student (grades 1-6 See rules for more information).*

Mousetrap Tractor Pull – Participants design, build and test a model vehicle powered only by a standard mousetrap. The vehicle is tested by having it pull as much weight as possible over a set distance.
Limited at State to: Six (6) students per chapter.

Project Showcase – The project showcase allows students to display “show-worthy” projects they have created within the past school year and may not fit into any other category. Students do not receive medals and do not earn points towards chapter of the year award for this event.
Limited at State to: Ten (10) entries per chapter.

**** UPDATE - Rubber Band Powered Cars** – Participants design, build and then race a rubberband-powered propeller car. Six (6) students per chapter.

T-shirt Design – Participants design the Colorado delegation’s national conference T-shirt. The winner between the middle and high school top finishers will become the state delegation T-shirt. One (1) per chapter.





HIGH SCHOOL EVENT SUMMARIES

PLEASE NOTE: These are only brief summaries about the events available to students. For detailed information about each of the events, please consult the official High School National TSA Conference Competitive Events Guide for 2011-2012. Please review ALL events to ensure that student projects meet the criteria as outlined in the current rule book.

Periodically throughout the year, national TSA will post updates and changes to the rules on their website. Please be sure to stay abreast of the latest changes/updates by visiting the site regularly.

Contest updates and clarifications can be found at:

www.tsaweb.org/Updates-and-Clarification

Themes for several events will be posted on the National TSA website at:

www.tsaweb.org/Themes-and-Problems

****NOTE:** Number of entries listed here are only applicable to the Colorado TSA State Conference; entries permitted at the National TSA Conference are listed in the National TSA Competitive Events Guide.

NATIONAL EVENTS

Animatronics – Participants work as a team to demonstrate knowledge of mechanical and control systems by designing, fabricating, and controlling an animatronics device that will communicate, entertain, inform, demonstrate and/or illustrate a topic, idea, subject or concept. Sound, lights and surrounding environment are to accompany the device.

Limited at State to: Three (3) teams of three (3) per chapter.

Architectural Model – Participants develop a set of architectural plans and related materials for an annual architectural design challenge and construct an architectural model to accurately depict their design. *Limited at State to: Six (6) entries (individual or team) per chapter.*

Biotechnology Design – Participants select a contemporary biotechnology problem that relates to the current year's published area of focus and demonstrate understanding of it through documented research, the development of a solution, a display, and an effective multimedia presentation. If appropriate, a model or prototype of the solution may be included in the display. Participants may choose to recreate or simulate research that previously has been performed within the scientific community.

Limited at State to: Three (3) teams of two (2) per chapter.

Career Comparisons - Participants thoroughly research various technology-related careers associated with one of the technology areas listed in the national competitive events guide. After documenting the research, each participant must submit a cover letter and resume for one of the careers and complete a job application on site. Semifinalists also participate in an on-site job interview.

Limited at State to: Six (6) students per chapter.

Chapter Team – Parliamentary procedure competition.

Limited at State to: One (1) team of six (6) per chapter.

Computer Aided Design - 2D Architecture – Students will compete on site to solve a given problem. Participants create representations, such as foundation and/or floor plans, and/or elevation drawings, and/or details of architectural ornamentation or cabinetry. NOTE: Participants may compete in CAD 2D, Architecture or CAD 3D, Engineering, but not both.

Limited at State to: Four (4) students per chapter with only one (1) CAD event per student.

HS NATIONAL EVENT SUMMARIES (CONTINUED)

Computer Aided Design - 3D Engineering – Students will compete on site to solve a given problem. Participants create a 3D computer model(s) of an engineering or machine object, such as a machine part, tool, device, or manufactured product. NOTE: Participants may compete in CAD 2D, Architecture or CAD 3D, Engineering, but not both.

Limited at State to: Four (4) students per chapter with only one (1) CAD event per student.

Construction Renovation – Participants develop a set of presentation boards to include plans, illustrations and finishes for a specified space. The solution must include all applicable construction systems.

Limited at State to: Three (3) teams of two (2) per chapter.

Debating Technological Issues - Team members work together to prepare for a debate against a team from another chapter. The teams will be instructed to take either the pro or con side of the designated topic published in the national competitive events guide.

Limited at State to: One (1) team of two (2) members per chapter.

Desktop Publishing – Participants develop a notebook, a tri-fold pamphlet, a three (3)-column newsletter, and a poster. All participants (not just semifinalists) then work to solve an on-site problem that demonstrates their abilities to use the computer to design, edit, and print materials for publication.

Limited at State to: Six (6) students per chapter.

Digital Video Production - Participants develop a digital video/film that focuses on the given year's theme. Sound may accompany the film.

Limited at State to: One (1) team of no more than six (6) per chapter.

Dragster Design – Participants design, produce working drawings for, and build a CO₂- powered dragster.

Limited at State to: Three (3) students per chapter.

Engineering Design – Participants work as part of a team to solve a design problem. Through use of a model/ prototype, display, and design notebook, the team explains in detail how it has solved the problem and the solution's impact on society and the environment. Semifinalists demonstrate the problem and solution in a timed presentation.

Limited at State to: Three (3) teams of three to five (3-5) people per chapter.

Essays on Technology – Participants conduct research in a published technological area and, using the knowledge and personal insights gained from this research, write a persuasive essay on one (1) subtopic selected from two (2) or three (3) related subtopics designated on site.

Limited at State to: Three (3) students per chapter.

Extemporaneous Presentation – Participants give a three to five (3-5) minute speech fifteen (15) minutes after having drawn a card on which a technology or TSA topic for their speech is written.

Limited at State to: Three (3) students per chapter.

Fashion Design - Students have the opportunity to research, develop, and create garment designs, garment mock-ups, and portfolios that reflect the current year's published theme. At the state competition, teams participate in an on-site event in which they present their potential garment designs to the judges on a TSA runway.

Limited at State to: Two (2) teams of two to four (2-4) members per chapter.



HS NATIONAL EVENT SUMMARIES (CONTINUED)



Flight Endurance – Build an airplane (ahead of time) to stay in the air the longest amount of time. This plane must rise off the ground (R.O.G.) on its own.

Limited at State to: Six (6) students per chapter.

Future Technology Teacher - Participants research and select three (3) accredited colleges or universities that offer technology education/engineering technology teacher preparation as a major. Each participant will write no more than one (1) page (simulated college essay) explaining why s/he would like to become a technology education/engineering technology teacher and what would constitute success in the field. In addition, each participant will develop and present a one (1)-class period activity (with a lesson plan) using the ITEEA standards for technological literacy.

Limited at State to: Three (3) individual students per chapter.

Manufacturing Prototype – Participants design and manufacture a prototype of a product and provide a description of how the product could be manufactured in a state-of-the-art American manufacturing facility. *Limited at State to: Two (2) entries per chapter.*

Music Production - Participants produce an original musical piece that is designed to be played during the national TSA conference opening or closing general sessions. The musical piece should be energizing, interesting and of a spirit consistent with the Technology Student Association.

Limited at State to: One (1) team per chapter.

On Demand Video - Participants write, shoot, and edit a short video during the conference in this on-site event. Required criteria, such as props and a line of dialogue, make the competition more challenging and will be revealed at the event orientation meeting. NOTE: Due to the length of the state conference, this event will be shortened at state to fit within the allotted time.

Limited at State to: One (1) team of two (2) to six (6) students per chapter.

Photographic Technology – Students capture images and process photographic and digital prints that depict the current year's published theme. Twelve (12) qualifying semifinalists participate in an on-site event in which they capture

digital images and utilize multimedia software to prepare a storyboard/outline and media presentation of newsworthy TSA conference activities and events.

Limited at State to: Six (6) students per chapter.

Prepared Presentation – Participants deliver an oral presentation that includes audio and/or visual enhancement based on the theme for the current year's conference.

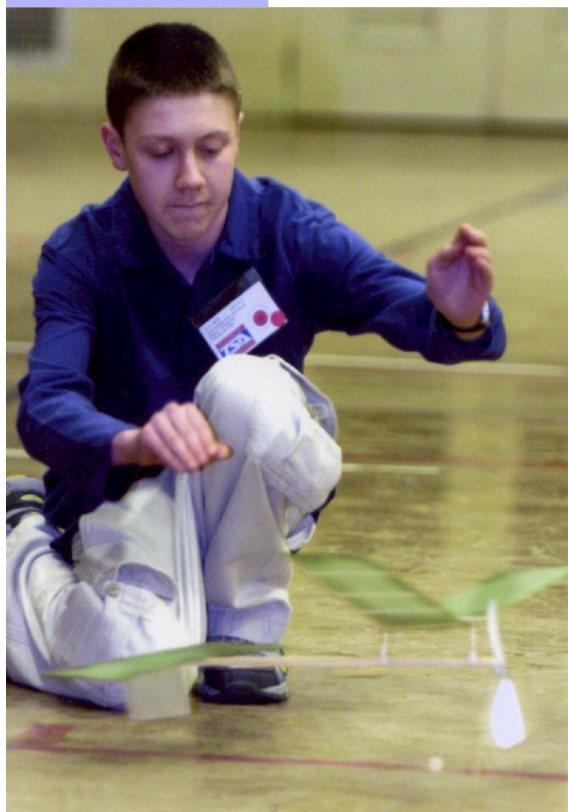
Limited at State to: Three (3) students per chapter.

Promotional Graphics – Participants develop and present a graphic design that can be used to promote participation in TSA competitive events. The design will promote competitions offered in the TSA competitive events guide. Participants will choose one (1) of the three (3) competitions listed in the national competitive events guide.

Limited at State to: Six (6) students per chapter.

SciVis – Participants develop a visualization focusing on a subject or topic from one (1) or more of the following areas: science, technology, engineering or mathematics.

Limited at State to: Three (3) per chapter.



HS NATIONAL EVENT SUMMARIES (CONTINUED)



Structural Engineering – Participants work as part of a team on site with supplied materials to build a model of a structure that is destructively tested to determine design efficiency.

Limited at State to: Two (2) teams of two (2) per chapter.

System Control Technology – Participants work as part of a team on-site to develop a computer-controlled model-solution to a problem, typically one from an industrial setting. Teams analyze the problem, build a computer-controlled mechanical model, program the model, explain the program and mechanical features of the model-solution, and leave instructions for evaluators to operate the device.

Limited at State to: One (1) team of three (3) per chapter.

Technical Sketching and Application – Participants complete a written test in order to qualify as semifinalists. Semifinalists then demonstrate their ability to solve on-site engineering graphics problems using standard drafting techniques.

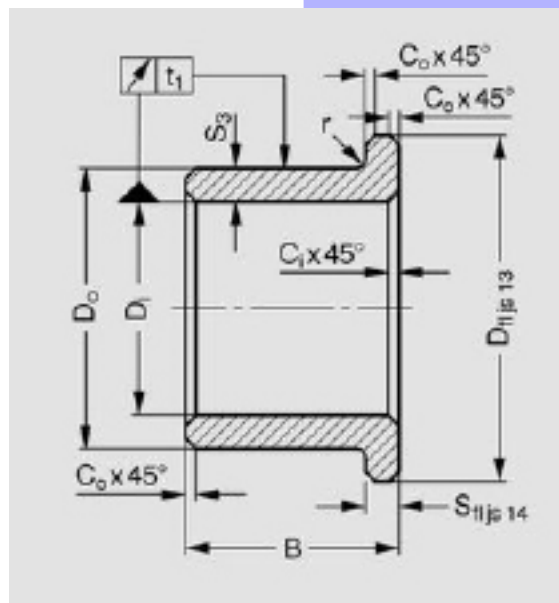
Limited at State to Six (6) individuals per chapter.

Technology Bowl – A written test followed by a knowledge bowl format like “Jeopardy” where students “buzz-in” and answer technical questions orally.

Limited at State to: One (1) team of three (3) students per chapter.

Technology Problem Solving – Participants work together to develop and create a solution to a problem using the limited materials provided and the tools allowed. Completed solutions will be objectively measured and judged to determine the best and most effective solution for the stated problem. Participants won't know what this one is until they show up!

Limited at State to: Two (2) teams of two (2) per chapter.



Transportation Modeling – Participants use engineering skills to design and fabricate a CO₂-powered scale model of a vehicle that meets the current year's stated design theme.

Limited at State to: Three (3) students per chapter.

Video Game Design -- Participants develop an E-rated game that focuses on the subject of their choice. The game should be interesting, exciting, visually appealing and intellectually challenging. The game should have high artistic, educational, and social value. A working, interactive game will be submitted on a DVD for evaluation.

NOTE: Due to the complexity of the event and the limited duration of the state conference, FOR THE STATE CONFERENCE ONLY, this event has an early submission deadline! All submissions must be received by the State Advisor no later than January 27, 2011.

Limited at State to: Three (3) teams of two (2) students per chapter.

Webmaster – Participants are required to design, build and launch a World Wide Web site that features the school's career and technology education program, the TSA chapter, and the chapter's ability to research topics pertaining to technology. Conference semifinalists participate in an on-site interview to demonstrate the knowledge and expertise gained during the development of the website with an emphasis on Internet and web history, web design (school, chapter and design brief pages), and research about cutting edge advances in technology. **NOTE: Due to the complexity of the event and the limited duration of the state conference, FOR THE STATE CONFERENCE ONLY, this event has an early submission deadline! All submissions must be sent to: COTSA.Submissions@gmail.com no later than February 1, 2012. For the national conference, there is also an early deadline. Please consult the National Competitive Events Guide for national deadlines.**

Limited at State to: One (1) team of three to five (3-5) members.



HIGH SCHOOL STATE-ONLY EVENTS

- * UPDATE - Castle Ballistics** – Teams work to design a catapult, ballista or trebuchet to launch a hackey-sack/footbag at three randomly placed targets within a specified area.
Limited at State to: Two (2) teams of three (3) per chapter.
- Fore!** – Teams, composed of one high school student and one elementary student, design and develop one hole for a proposed miniature golf course.
Limited at State to: Ten (10) teams of two (2) students per chapter. Each team MUST include one (1) HS and one (1) elementary student (grades 1-5).
- High School Creativity Challenge** – Design teams, composed of one high school student and one elementary student, work to solve an on-site problem.
Limited at State to: Ten (10) teams of two (2) students per chapter. Each team MUST include one (1) HS and one (1) elementary student (grades 1-6 See rules for more information). NOTE: This is a non-competitive event and does not earn points for your school toward the Chapter of the Year award.*
- Integrated Autonomous Vehicle** - Participants create and operate an integrated autonomous vehicle. The vehicle will operate in a number of courses, but must be able to navigate a course without prior knowledge of distance or direction within a chosen course. Two separate modes of operation will be used: Student-controlled and Autonomous.
Limited at State to: Two (2) teams of three (3) members per chapter.
- Project Showcase** – Project showcase allows students to display “show-worthy” projects they have created within the past school year and may not fit into any other category. Students do not receive medals and do not earn points towards chapter of the year award for this event.
Limited at State to: Ten (10) entries per chapter.
- ** NEW - Promotional Design** – Replaces Pin Design. Participants design a mock-up for the Colorado trading pin to be used at the national conference. The high school winner will be one of two trading pins produced for the national conference.
Limited at State to: Six (6) entries per chapter.
- Rat Trap Drag Races** – Participants design and build a vehicle powered solely by a standard rat trap.
Limited at State to: Six (6) students per chapter.
- * UPDATE - Rubber Band Powered Cars** – Participants design, build and then race a rubberband-powered propeller car.
Limited at State to: Six (6) students per chapter.
- ** NEW - Transportation Systems** – This event replaces Hydrodynamics and mirrors the Middle School Event with the same name. Participants design, build and test a model boat powered by a rubber band.
Limited at State to: Six (6) students per chapter.
- T-shirt Design** – Participants design the Colorado delegation’s national conference T-shirt. The winner between the middle and high school top finishers will become the state delegation T-shirt.
Limited at State to: One (1) entry per chapter.

2012 COTSA SCHEDULE

This is the tentative schedule for the 2012 Colorado TSA State Conference which you can use for your planning. This schedule is subject to change and is to be used only for initial conference planning purposes. Please consult the conference program for the final, official schedule.



ROOM ROOM SET	Spruce N/A	Evergreen D Tables for display	RMEC Theatre	Aspen Theatre	Bluebell Schoolroom	Primrose Schoolroom	Larkspur Schoolroom	Lupine Schoolroom	ROOM ROOMSET
TIME									TIME
3:00 PM									3:00 PM
3:30 PM									3:30 PM
4:00 PM									4:00 PM
4:30 PM		Display / Event Check-In							4:30 PM
5:00 PM	Registration								5:00 PM
5:30 PM									5:30 PM
6:00 PM									6:00 PM
6:30 PM									6:30 PM
7:00 PM	REGISTRATION ENDS	CHECK-IN ENDS							7:00 PM
7:30 PM									7:30 PM
8:00 PM			OPENING SESSION*						8:00 PM
8:30 PM									8:30 PM
9:00 PM									9:00 PM
9:30 PM									9:30 PM
10:00 PM				High School Written Testing	Middle School Written Testing	On Demand Orient. Tech Design Orient. Leadership Strat. Initial Problem	Career Comparison App. Turn in	Trans. Syst. Sign Up	10:00 PM
10:30 PM								Advisor Forum	10:30 PM
11:00 PM									11:00 PM
CURFEW - 11:30									
	Static								
	MS & HS Events			Judging of Events begins at 7:00 p.m.; no projects can be checked in after that time.					
	HS Events			* Note: The Opening and Banquet Sessions are MANDATORY sessions; important information and business occurs during these meetings and all chapters are required to be in attendance at these functions.					
	MS Events								
THURSDAY, FEBRUARY 9, 2012									

2012 COTSA SCHEDULE

This is the tentative schedule for the 2012 Colorado TSA State Conference which you can use for your planning. This schedule is subject to change and is to be used only for initial conference planning purposes. Please consult the conference program for the final, official schedule.



Pool Area	Evergreen A Catwalk/Open	Evergreen B Schoolroom	Evergreen C Schoolroom	Conference Lobby Rope/Stanchion	Evergreen D Tables for displays	Atrium Rope/Stanchion	Evergreen E Schoolroom	Evergreen F Schoolroom	TIME
N/A									7:00 AM
		Flight Build	Leadership Strategies - FINALS		DISPLAYS Environmental Focus Interviews			Med Tech Interviews - MS	7:30 AM
	Fashion Design	Electrical Apps.	MS Chapter Team						8:00 AM
Transportation Systems - HS						Flight Endurance - HS		Write Now - Technical Writing - MS & Essays on Tech - HS	8:30 AM
									9:00 AM
	Rubberband Powered Cars - MS & HS	Mousetrap Tractor Pull							9:30 AM
Transportation Systems - MS									10:00 AM
									10:30 AM
									11:00 AM
									11:30 AM
									12:00 PM
									12:30 PM
						Flight - MS Trim/Fly			1:00 PM
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									10:30 PM
									11:00 PM
COMPETITION ENDS									
CURFEW - 11:30 PM									
FRIDAY, FEBRUARY 10, 2012									



2012 COTSA SCHEDULE

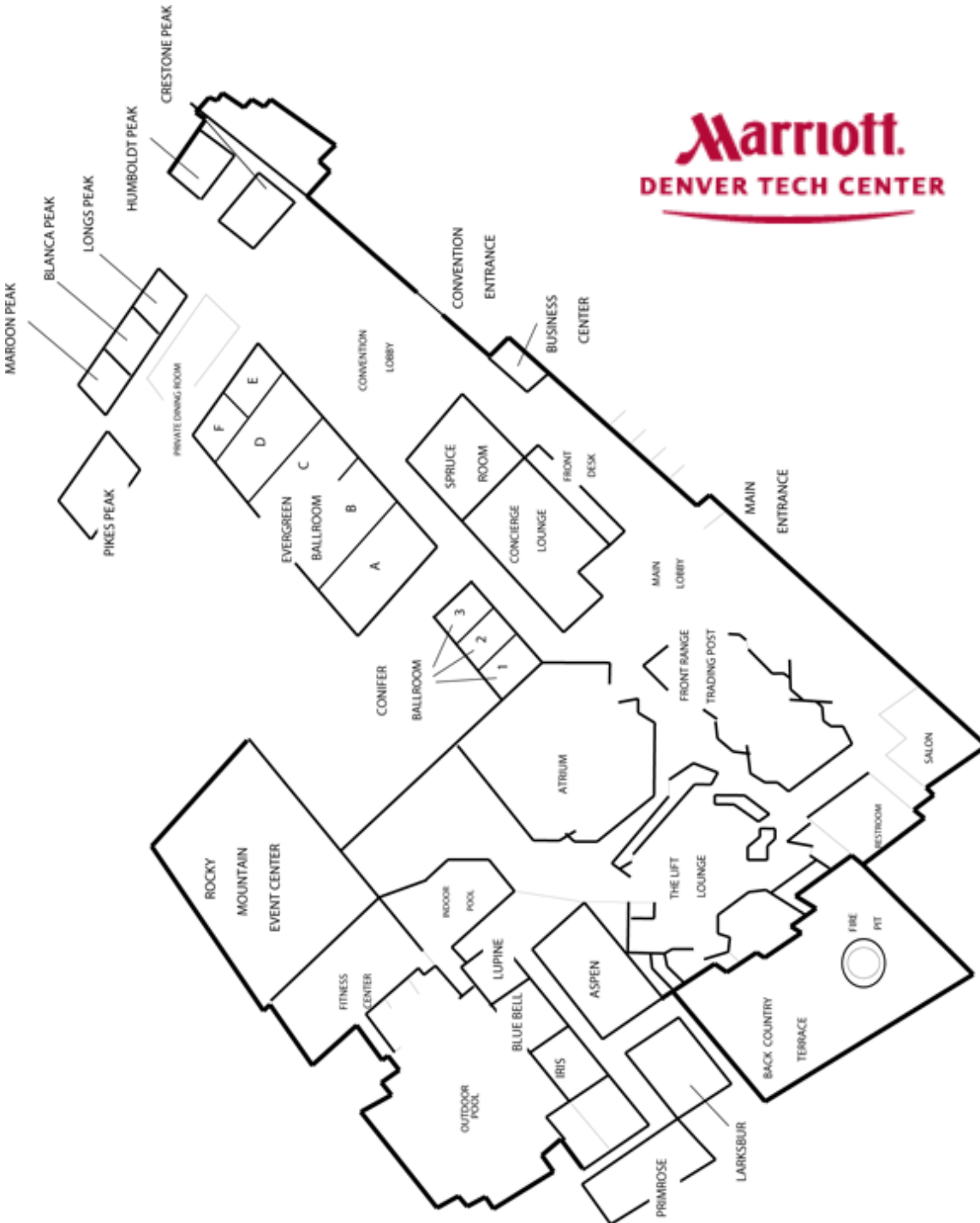
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ROOM ROOM/SET TIME	Spruce N/A	Evergreen B Schoolroom	Evergreen D Tables for Display	RMEC Theatre	Aspen Theatre	Larkspur Schoolroom	Primrose Schoolroom	Bluebell Schoolroom	Atrium N/A	ROOM ROOM/SET TIME		
7:00 AM	Conference HQ	Creativity Challenge On Site Problems MS & HS	Open Viewing of Displays		Tech Bowl MS	Photo Tech Finalist Presentations	Debating Tech Issues Prep Room	Debating Tech Issues	Structural Engineering/ Engineering Structure Testing	7:00 AM		
7:30 AM										7:30 AM		
8:00 AM		Fore! - HS - In Display Area			Tech Bowl HS	Awards Ceremony	Tech Bowl HS				Crash Test - MS	8:00 AM
8:30 AM												8:30 AM
9:00 AM		Conference HQ										9:00 AM
9:30 AM												9:30 AM
10:00 AM												10:00 AM
10:30 AM												10:30 AM
11:00 AM												11:00 AM
11:30 AM												11:30 AM
12:00 PM	Conference HQ								12:00 PM			
12:30 PM									12:30 PM			
1:00 PM									1:00 PM			
1:30 PM									1:30 PM			
2:00 PM	Conference HQ	Project Pickup							2:00 PM			
2:30 PM									2:30 PM			
CLEAN UP - MOVE OUT END OF CONFERENCE												
	Static											
	MS & HS Events											
	HS Events											
	MS Events											
	Special Interest Sessions											

SATURDAY, FEBRUARY 11, 2011

STATE CONFERENCE HOTEL MAP

This is the map of the Marriott Denver Tech Center, site of the 2012 Colorado TSA State Conference.





SPECIAL INTEREST SESSION PROPOSAL FORM

At the 2012 Colorado TSA State Conference there will be several special interest sessions offered for both students and advisors. Use this form if you would like to be a presenter at one of these sessions.

Each special interest sessions will last 50 minutes and should offer an opportunity for advisors and/or students to explore various topics in TSA, including competitive events, chapter management, and/or leadership development.

The deadline for submission of a special interest session proposal is January 13 in order to be included in the conference program. You will be notified if your proposal has been selected to present at the 2012 COTSA State Conference:

Please complete the form below or complete it online at: www.ctsoadvisor.com/cotsa/special_interest_session_proposal.html.

Name of presenter: _____

Contact Information:

School/Company: _____

Address: _____

City/State/Zip: _____

Phone Number: _____

Email: _____

Title of special interest session: _____

Brief outline (up to 200 words): _____

Thank you! Submit your proposal to:
Tony Raymond, COTSA State Advisor, 9101 E. Lowry Blvd., Denver, CO 80230, or tony.raymond@cccs.edu.