



Monday, November 13, 2017

Dear TSA Advisors and Technology, Engineering and Design Teachers,

Attached is the tentative schedule for the Eastern Region NC TSA Conference, to be held on the campus of Lenoir Community College on Friday, February 16, 2018.

All TSA chapters including Guilford County and west are encouraged to attend. Schools from these regions that are interested in starting a TSA chapter are also encouraged to participate as well.

I am also attaching the event information, A TENTATIVE SCHEDULE, [registration link](#) and the medical/photo release form. Please make sure that you turn in the medical/photo release form when you check-in at registration. **This year we are asking that each school provide at least ONE COORDINATOR (Two are preferred) for this event. Registration will open on December 18, 2017.**

Please note that some of the events will operate **differently** than described in the TSA Competitive Events Guides. Due to time constraints, some events that normally involve on-site construction of projects will deviate from the event guidelines.

As many of you know, weather in North Carolina is naturally unpredictable. If Lenoir Community College is closed or if the roads are deemed unsafe by the event coordinator, the event may be delayed or canceled. If the conference is canceled, then schools will receive a maximum of a 50% refund. Refunds will not be given to schools that decide not to attend due to weather or any other unforeseen events. *There will be no on-site registration.*

We can only *guarantee* spaces in events to those schools/students that have **pre-registered by February 2nd**. Payment should be postmarked no later than **February 9<sup>th</sup>**. Failure to submit payment prior to the conference will result in elimination from the event.

For additional information about the events, contact the event coordinator, Jerianne Taylor (taylorjs@appstate.edu), via phone or email.

We look forward to seeing you on February 16<sup>th</sup>.

Sincerely,

*Jerianne S. Taylor*

Jerianne Taylor, EdD, DTE  
NC TSA Executive Director and State Advisor  
Career & Technical Education Program Director  
Appalachian State University  
828-262-6352 (phone) 336-692-4794 (cell) 828-265-8696 (fax) [jerianne.taylor@dpi.nc.gov](mailto:jerianne.taylor@dpi.nc.gov) (email)

# PERSONAL LIABILITY RELEASE FORM

*North Carolina Technology Student Association  
2018 Regional Competitive Events Conference  
February 16, 2018  
Lenoir Community College Kinston NC*

Name of Student Participant:

Name of School:

Advisor:

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

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

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

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

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

\_\_\_\_\_  
Participant

\_\_\_\_\_  
Date

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

\_\_\_\_\_  
Date

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

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

\_\_\_\_\_  
Date

**I DO NOT** give NCTSA the right to collect self-reported data that will be used for educational purposes only, from my child.

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

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Below is a summary description of the 2018 and 2019 MIDDLE School level TSA competitive events. Detailed specifications and rules regarding each event can be found in the *2018 & 2019 Middle School Technology Activities, National TSA Conference Competitive Events Guide*.

**Career Prep:** Participants (**three individuals per chapter**) conduct research on a selected technology-related career and use the knowledge gained to prepare a letter of introduction and a chronological skills resume. Top 5 Semifinalists participate in a mock interview.

In 2018, students choose one (1) of these careers:

- Agriculture, Food & Natural Resources
- Manufacturing
- Finance
- Government & Public Administration

**Children's Stories:** Participants (**three teams per chapter; a team of one individual is permitted**) create an illustrated children's story that will incorporate educational and social values. The story must revolve around the theme for a given year that is posted on the TSA website. Top 5 semifinalists will present their stories to the judges.

**Theme: STEM Interactive – Participants are to design an interactive book for elementary aged students in grades K-3 on a topic of their choosing in Science, Technology, Engineering or Mathematics (STEM).**

**Coding** Participants (**two [2] teams of two [2] members per chapter**) will demonstrate their knowledge of computer science and coding by taking a written test. Semifinalists will further demonstrate their programming knowledge by participating in an on-site programming challenge. Details about the on-site challenge (e.g., programming language to be used and practice problems) can be found on the TSA website under Themes and Problems.

**Construction Challenge:** Participants (**three teams per chapter**) submit a scale model/prototype with a portfolio that documents the use of their leadership and technical skills to fulfill an identified community need related to construction. *No Onsite Presentations or Interviews.*

**Digital Photography:** Participants (**three individuals per chapter**) produce an album of color or black and white digital photographs (representing or relating to a chosen theme) and place the album on a storage device for submission. Semifinalists produce a series of digital photographs taken at the conference that are edited appropriately for an on-site task. *No on-site problem.*

**Theme: Heroes**

**Dragster:** Participants (**five individuals per chapter; one entry per individual**) design and produce a CO<sub>2</sub>-powered dragster according to stated specifications, using only specified materials.

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**Flight:** Participants (**five individuals per chapter, one entry each**) study the principles of flight and design in order to fabricate a glider that stays in flight for the greatest elapsed time. Flight duration of the gliders and documentation of the design process are the primary elements of evaluation.

**Inventions and Innovations:** Participants (**three teams of at least three individuals per chapter; one entry per team**) investigate and determine the need for an invention or innovation of a device, system, or process, and then brainstorm ideas for a possible solution. Top 5 Semifinalists make an oral presentation to a panel of judges (who act as venture capitalist investors) to persuade the panel to invest in their invention/innovation.

**Junior Solar Sprint:** Participants (**three teams per chapter, one entry per team**) apply STEM concepts, creativity, teamwork, and problem-solving skills as they design, construct, and race a solar-powered model car.

**Mechanical Engineering** Participants (two [2] teams of three to six [3-6] individuals per chapter; one [1] entry per team) will design and build a "Rube Goldberg" mechanical device. This device will contain three (3) subsystems within a larger system. Each subsystem will contain all six (6) simple machines in a fun and inventive way. The final solution or grand finale is open-ended to maximize creativity. The transfer of energy in a device will travel a specific path from start to finish for a minimum of seven (7) seconds per board. The device must be self-powered utilizing kinetic energy. The device must be capable of repeated demonstrations without long setup times. No On-site interviews.

**Medical Technology:** Participants (**three teams of at least two individuals per chapter; one entry per team**) conduct research on a contemporary medical technology issue of their choosing, document their research, and create a display. If appropriate, a model or prototype depicting an aspect of the issue may be included in the display. *No Onsite Presentations or Interviews.*

**Prepared Speech:** Participants (**two individuals per chapter**) deliver a speech that reflects the theme of the current year's national conference.

**Theme:** A Celebration of Success

**Problem Solving:** Participants (**one team of two individuals per chapter**) use problem solving skills to develop a finite solution to a problem provided on site.

**Promotional Marketing:** Participants (**three individuals per chapter, one entry per individual**) design a three-part **TSA Marketing Toolkit** that must include a national conference promotional poster, a state delegation fact sheet, and a chapter t-shirt design. *No on-site problem.*

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**Structural Engineering:** Participants (**three teams of two individuals per chapter**) apply the principles of structural design and engineering through basic research, design, construction, and destructive testing to determine the design efficiency of a structure. *No on-site construction.*

Link to 2018 Challenge: <http://tsaweb.org/sites/default/files/2017-2018%20Middle%20School%20Structrual%20Engineering%20Problem%20Statement.pdf>

Link to Verification Form:

<http://tsaweb.org/sites/default/files/MS Structural Engineering Verification form.pdf>

**Tech Bowl:** Participants (**one team of three individuals per chapter**) take a written objective examination to qualify for the oral question/response, head-to-head team competition phase of the event.

**Website Design:** Participants (**three teams of three to six individuals per chapter, one entry per team**) design, build, and launch a website that features the team's ability to incorporate the elements of website design, graphic layout, and proper coding techniques. *No on-site interview.*

Link to 2018 Challenge: <http://tsaweb.org/Themes-and-Problems>

To submit your URL, please use this link:

<https://goo.gl/forms/Vcp5BIfxtGbLJ6Df2>

**Be sure to submit your URL on or before 11:59 PM on February 15, 2018.**

Be sure to refer to the following site for competition updates:

<http://www.tsaweb.org/Competition•Updates>



Below is a summary description of the 2017 and 2018 HIGH school level TSA competitive events. Detailed specifications and rules regarding each event can be found in the 2017 & 2018 High School Technology Activities, National TSA Conference Competitive Events Guide.

**Architectural Design:** Participants (**three teams, or one individual, per chapter; one entry per team or individual**) develop a set of architectural plans and related materials for an annual [architectural design challenge](#) and construct a physical, as well as a computer-generated model, to accurately depict their design.

**Children's Stories:** Participants (**three teams per chapter; a team of one individual is permitted**) create an illustrated children's story of high artistic, instructional, and social value. The narrative may be written in prose or poetry and take the form of a fable, adventure story, or other structure. The physical storybook should be of high quality and designed to meet the [year's given theme](#). The story must have a science, technology, engineering, and mathematics (STEM) focus. Top 5 semifinalists will read their stories to the judges.

**Coding:** Participants (**two (2) individuals, or two (2) teams of two to three (2-3) members**). Participants respond to an annual coding-related design challenge by developing a software program that will accurately address an on-site problem in a specified, limited amount of time. Specific elements to be used, such as the programming language, operating system, or application programming interface (API), will be released on-site. Completed solutions will be objectively measured to determine the best and most effective solution for the stated problem.

**Computer Integrated Manufacturing (CIM):** Participants (**three teams of two members per chapter**) design, fabricate, and use Computer Integrated Manufacturing (CIM) to create a promotional TSA product that will showcase the current conference city and/or state.

**Digital Video Production:** Participants (**three teams per chapter, one entry per team**) develop a public service announcement and a digital video (with sound) that focuses on the given [year's theme](#).

**Dragster Design:** Participants (**five individuals per chapter, one entry per individual**) design, produce working drawings for, and build a CO<sub>2</sub>-powered dragster. *No Interviews.*



**Engineering Design:** Participants (**three teams of three to five individuals per chapter, one entry per team**) develop a solution to a National Academy of Engineering grand challenge that is posted on the national TSA website. The solution offered will be informed and designed by precise problem definition, thorough research, creativity, experimentation (when possible), and the development of documents and appropriate models (mathematical, graphical, and/or physical prototype/model). Semifinalists justify and demonstrate their solution in a timed presentation.

**Theme: Engineer the Tools of Scientific Discovery**

**Flight Endurance:** Participants (**five individuals per chapter, one entry per individual**) analyze flight principles with a rubber band-powered model aircraft.

**Future Technology Teacher:** Participants (**three individuals per chapter**) research and select three accredited colleges or universities that offer technology education teacher preparation as a major. Each participant writes a one page simulated college essay explaining why he/she would like to become a technology educator and what would constitute success in the field. Participants also develop and present a lesson plan to judges. Top 5 Semifinalists will present their lessons to the judges.

**Photographic Technology:** Participants (**three individuals per chapter**) capture and process photographic and digital prints that depict the current year's published theme. Semifinalists participate in an on-site event in which they capture digital images and utilize multimedia software to prepare and develop a media presentation during the annual conference. *No On-Site Problem.*

**Theme: Battle Between Nature and Technology – Who Wins?**

**Prepared Presentation:** Participants (**three individuals per chapter**) deliver an oral presentation that includes a visual enhancement, based on the theme for the current year's conference.

**Promotional Design:** Participants (**three individuals per chapter, one entry each**) develop and submit electronically a graphic design that can be used to promote participation in TSA-related interests.

**Structural Design and Engineering:** Participants (**two teams of two individuals per chapter, one entry per team**) work as part of a team to build a structure that is posted on the [TSA website](#). The structure is destructively tested and assessed to determine design efficiency. Semifinalists work on a construction problem that is a variation of the posted design. *No On-site Problem.*

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**STEM Careers:** Participants (**five individuals per chapter**) develop a specific skill and complete a thorough project about the skill's relationship to a STEM career area of their choice. Participants research and prepare documentation related to the skill and prepare a video that demonstrates the skill. Semifinalists participate in an on-site interview to discuss the skill developed.

**Technology Bowl:** Participants (**one team of three individuals per chapter**) complete a written, objective test in order to qualify for oral question/response, head-to-head team competition.

**Technology Problem Solving:** Participants (**one team of two individuals per chapter**) work together on site to develop and create a solution to a problem using the limited materials provided and the tools allowed.

**Transportation Modeling:** Participants (**three individuals per chapter, one entry per individual**) design and produce a scale model of a vehicle that fits the annual design problem.

**Theme: History of Stock Car Racing**

**Webmaster:** Participants (**one team of three to five individuals per chapter**) are required to design, build, and launch a website that features their school's career and technology/engineering program, the TSA chapter, and the chapter's ability to research and present a given topic pertaining to technology. Semifinalists participate in an on-site interview to demonstrate the knowledge and expertise gained during the development of the website - with an emphasis on web design methods and practices, as well as their research for the annual design topic. *No On-Site Interview.*

[Link to the 2018 Challenge](#)

To submit your URL, please use the following link:

<https://goo.gl/forms/Fm7GxO8E18vsdAqM2>

**Be sure to submit your URL on or before 11:59 PM on February 15, 2018.**

Be sure to refer to the following site for competition updates:

<http://www.tsaweb.org/Competition-Updates>



# Lunch

Little Caesars Pizza will be available for purchase. You must pre-order. Please email your order directly to Dr. Taylor ([Jerianne.taylor@dpi.nc.gov](mailto:Jerianne.taylor@dpi.nc.gov)) on or before Wednesday. You will have a choice of cheese or pizza. To make life easy, it will be \$6.00 a pizza. Please make checks payable to NCTSA or have cash on hand.

School: \_\_\_\_\_  
Advisor: \_\_\_\_\_  
Advisor's Cell Phone Number: \_\_\_\_\_

Number of Cheese Pizzas: \_\_\_\_\_  
Number of Pepperoni Pizzas: \_\_\_\_\_  
  
Total Number of Pizzas: \_\_\_\_\_  
@ \$ 6.00 \_\_\_\_\_  
Amount due: \_\_\_\_\_

Vending machines are located on the Lenoir Community College Campus.

STEMEast /NCTSA Eastern Region Conference				Coordinator
Event	Description	Space Needs	Number of Judges	Time
<b>Career Prep MS</b>	Participants (three individuals per chapter) conduct research on a selected technology-related career and use the knowledge gained to prepare a letter of introduction and a chronological skills resume. Top 5 Semifinalists participate in a mock interview.	Room to judge packets and interview to Top 5.	2	Check-in event by 10:00. Judge from 10-11. Interviews 11-12.
<b>Children's Stories MS</b>	Participants (three teams per chapter; a team of one individual is permitted) create an illustrated children's story that will incorporate educational and social values. The story must revolve around the theme for a given year that is posted on the TSA website. Top 5 semifinalists will present their stories to the judges.	Room to judge stories and for the top 5 to read the stories.	2	Check-in event by 10:00. Judge from 12:30-1:30. Interviews 1:30-2:30.
<b>Coding MS</b>	Participants (two [2] teams of two [2] members per chapter) will demonstrate their knowledge of computer science and coding by taking a written test. Semifinalists will further demonstrate their programming knowledge by participating in an on-site programming challenge. Details about the on-site challenge (e.g., programming language to be used and practice problems) can be found on the TSA website under Themes and Problems per Chapter.	Room - Classroom setup with tables. Onsite Event and Judging. Needs to hold at least 20 students.	2	Event will run from 9:30 - 12:00.
<b>Construction Challenge MS</b>	Participants (three teams per chapter) submit a scale model prototype with a portfolio that documents the use of their leadership and technical skills to fulfill an identified community need related to construction. Onsite Presentations or Interviews.	Room for Displays	2	Check-in event by 10:00. Judge from 10-11.
<b>Digital Photography MS</b>	Participants (three individuals per chapter) produce an album of color or black and white digital photographs (representing or relating to a chosen theme) and place the album on a storage device for submission. Semifinalists produce a series of digital photographs taken at the conference that are edited appropriately for an on-site task. No on-site problem. Theme: Heroes	Room for Displays	2	Check-in event by 10:00. Judge from 10-11.

<p><b>Dragster MS</b></p>	<p>Participants (five individuals per chapter; one entry per individual) design and produce a CO2-powered dragster according to stated specifications, using only specified materials.</p>	<p>Gym</p>	<p>Races from 10:00 -10:30. 2 Judge from 10:00 - 11:30</p>	
<p><b>Flight MS</b></p>	<p>Participants (<b>five individuals per chapter, one entry each</b>) study the principles of flight and design in order to fabricate a glider that stays in flight for the greatest elapsed time. Flight duration of the gliders and documentation of the design process are the primary elements of evaluation.</p>	<p>Gym</p>	<p>Check-in 10:00. Judge 10:00 -11:00. Test 11:00 - 12:00. 2</p>	
<p><b>Inventions and Innovations MS</b></p>	<p>Participants (<b>three teams of at least three</b> individuals per chapter; one entry per team) investigate and determine the need for an invention or innovation of a device, system, or process, and then brainstorm ideas for a possible solution. Top 5 Semifinalists make an oral presentation to a panel of judges (who act as venture capitalist investors) to persuade the panel to invest in their invention/innovation.</p>	<p>Gym/Outside</p>	<p>Check-in event by 10:00. Judge from 12-1. 2 Interviews 1-2.</p>	
<p><b>Junior Solar Sprint MS</b></p>	<p>Participants (<b>three teams per chapter, one entry per team</b>) apply STEAM concepts, creativity, teamwork and problem-solving skills as they design, construct, and race a self-powered model car.</p>	<p>Gym/Outside</p>	<p>Testing: 1:00 -2:00 2</p>	
<p><b>Mechanical Engineering MS</b></p>	<p>Participants (two teams of three to six [3-6] individuals per chapter; one [1] entry per team) will design and build a Rube Goldberg mechanical device. This device will contain three (3) subsystems within a larger system. Each subsystem will contain all six (6) simple machines in a fun and inventive way. The final solution or grand finale is open-ended to maximize creativity. The transfer of energy in a device will travel a specific path from start to finish for a minimum of seven (7) seconds per board. The device must be self-powered utilizing kinetic energy. The device must be capable of repeated demonstrations without long setup times. No On-site interviews</p>	<p>Room for Displays</p>	<p>Check-in event by 10:00. 2 Judge from 10-12.</p>	

	Participants (three teams of at least two individuals per chapter; one entry per team) conduct research on a contemporary medical technology issue of their choosing, document their research, and create a display. If appropriate, a model or prototype depicting an aspect of the issue may be included in the display. No Onsite Presentations or Interviews.	Room for Displays			Check-in event by 10:00. Judge from 12-1.	
<b>Medical Technology MS</b>	Participants (two individuals per chapter) deliver a speech that reflects the theme of the current year's national conference. Theme: A Celebration of Success	Room for Presentations			Presentations from 12:30 - 2:00	
<b>Prepared Speech MS</b>	Participants (one team of two individuals per chapter) use problem solving skills to develop a finite solution to a problem provided on site.	Room 2 - Classroom setup with tables. Onsite Event and Judging. Needs to hold at least 30 students.			10:00-12:00	
<b>Problem Solving MS</b>	Participants (three individuals per chapter, one entry per individual) design a three-part TSA Marketing Toolkit that must include a national conference promotional poster, a state delegation fact sheet, and a chapter t-shirt design. <i>No on-site problems.</i>	Room for Displays			Check-in event by 10:00. Judge from 10-11.	
<b>Promotional Marketing MS</b>	Participants (three teams of two individuals per chapter) apply the principles of structural design and engineering through basic research, design, construction, and destructive testing to determine the design efficiency of a structure. <i>No on-site construction.</i>	Gym			Check-in 10:00. Judge 10:00 - 11:00. Test 11:30 - 12:00.	
<b>Structural Engineering MS</b>	Participants (one team of three individuals per chapter) make a written objective examination to qualify for the oral question/response, head-to-head team competition phase of the event.	Room that was used last year worked well.			Testing: 9:30-10:00. Orals 1:00 -2:00	
<b>Tech Bowl MS</b>	Participants (three teams of three to six individuals per chapter, one entry per team) design, build, and launch a website that features the team's ability to incorporate the elements of website design, graphic layout, and proper coding techniques. No on-site interview.	Room to Judge with computers			Check-in event by 10:00. Judge from 10-11.	
<b>Website Design MS</b>						

<p><b>Architectural Design HS</b></p>	<p>Participants (three teams, or one individual, per chapter; one entry per team or individual) develop a set of architectural plans and related materials for an annual architectural design challenge and construct a physical, as well as a computer-generated model, to accurately depict their design.</p>	<p>Room for Displays</p>	<p>2</p>	<p>Check-in event by 10:00. Judge from 11-12.</p>
<p><b>Children's Stories HS</b></p>	<p>Participants (three teams per chapter; a team of one individual is permitted) create an illustrated children's story of high artistic, instructional, and social value. The narrative may be written in prose or poetry and take the form of a fable, adventure story, or other structure. The physical storybook should be of high quality and designed to meet the year's given theme. The story must have a science, technology, engineering, and mathematics (STEM) focus. Top 5 semifinalists will read their stories to the judges.</p>	<p>Room to judge stories and for the top 5 to read their stories.</p>	<p>2</p>	<p>Check-in event by 10:00. Judge from 10-11. Interviews 11-12.</p>
<p><b>Coding HS</b></p>	<p>Participants (two (2) individuals, or two (2) teams of two to three (2-3) members). Participants respond to an annual coding-related design challenge by developing a software program that will accurately address an on-site problem in a specific, limited amount of time. Specific elements to be used, such as the programming language, operating system, application programming interface (API), will be released on-site. Top five solutions will be objectively measured to determine the best and most effective solution for the stated problem.</p>	<p>Room - Classroom setup with tables. Onsite Event and Judging. Needs to hold at least 20 students.</p>	<p>2</p>	<p>Event will run from 12:30 - 2:00.</p>
<p><b>Computer Integrated Manufacturing (CIM) HS</b></p>	<p>Participants (three teams of two members per chapter) design, fabricate, and use Computer Integrated Manufacturing (CIM) to create a promotional TSA product that will showcase the current conference city and/or state.</p>	<p>Room for Displays</p>	<p>2</p>	<p>Check-in event by 10:00. Judge from 11-12.</p>
<p><b>Digital Video Production HS</b></p>	<p>Participants (three teams per chapter, one entry per team) develop a public service announcement and a digital video (with sound) that focuses on the given year's theme.</p>	<p>Room to Judge with computers/internet</p>	<p>2</p>	<p>Check-in event by 10:00. Judge from 10-12.</p>

Dragster Design HS	Participants (five individuals per chapter, one entry per individual) design, produce working drawings for, and build a CO2-powered dragster. No Interviews.	Gym	2	Races from 10:30 - 11:30. Judge from 12:00 - 1:30.	
Engineering Design	Participants (three teams of three to five individuals per chapter, one entry per team) develop a solution to a National Academy of Engineering grand challenge that is posted on the national TSA website. The solution offered will be informed and designed by precise problem definition, thorough research, creativity, experimentation (when possible), and the development of documents and appropriate models (mathematical, graphical, and/or physical prototype/model). Semifinalists justify and demonstrate their solution in a timed presentation. Theme: Engineer the Tools of Scientific Discovery	Room for Displays	2	Check-in event by 10:00. Judge from 10-11.	
Flight Endurance	Participants (five individuals per chapter, one entry per individual) analyze flight principles with a rubber band-powered model aircraft.	Gym	2	Check-in 10:00. Judge 10:00 - 11:00. Test 12:30 - 2:00.	
Photographic Technology	Participants (three individuals per chapter) capture and process photographic and digital prints that depict the current year's published theme. Semifinalists participate in an on-site event in which they capture digital images and utilize multimedia software to prepare and develop a media presentation during the annual conference. No On-Site Problem. Theme: Battle Between Nature and Technology – Who Wins?	Room for Displays		Check-in event by 10:00. Judge from 12-1.	
Prepared Presentation	Participants (three individuals per chapter) deliver an oral presentation that includes a visual enhancement, based on the theme for the current year's conference.	Room for Presentations - Can be the same room as Prepared Speech	2	Presentations from 10:00 - 12:00	

Promotional Design	Participants (three individuals per chapter, one entry each) develop and submit electronically a graphic design that can be used to promote participation in TSA-related interests.	Room to judge	2	Check-in event by 10:00. Judge from 11-12.	
Structural Design and Engineering	Participants (two teams of two individuals per chapter, one entry per team) work as part of a team to build a structure that is posted on the TSA website. The structure is destructively tested and assessed to determine design efficiency. Semifinalists work on a construction problem that is a variation of the posted design. No On-site Problem.	Gym	2	Check-in 10:00. Judge 10:00 - 11:00. Test 12:30 - 1:00.	
STEM Careers	Participants (five individuals per chapter) develop a specific skill and complete a thorough project about the skill's relationship to a STEM career area of their choice. Participants research and prepare documentation related to the skill and prepare a video that demonstrates the skill. Semifinalists participate in an on-site interview to discuss the skill developed.	Room to judge, packet and interview to Top 5. - Packet with Career Prep	2	Check-in event by 10:00. Judge from 12:30-1:30. Interviews 1:30-2:30	
Technology Bowl	Participants (one team of three individuals per chapter) complete a written, objective test in order to qualify for oral question/response, head-to-head team competition.	Room that was used last year worked well.	2	Testing: 9:30-10:00. Orals 10:00 - 1:00	
Technology Problem Solving	Participants (one team of three individuals per chapter) work together on-site to develop and create a solution to a problem using the limited materials provided and the tools allowed.	Room 2 - Classroom setup with tables. Onsite Event and Judging. Needs to hold at least 30 students.	2	12:00- 2:00	
Transportation Modeling	Participants (three individuals per chapter, one entry per individual) design and produce a scale model of a vehicle that fits the annual design problem. Theme: History of Stock Car Racing	Gym	2	Races from 11:00 - 11:30. Judge from 10:00 - 12:00	

<p>Webmaster</p>	<p>Participants (one team of three to five individuals per chapter) are required to design, build, and launch a website that features their school's career and technology/engineering program, the TSA chapter, and the chapter's ability to research and present a given topic pertaining to technology. Semifinalists participate in an on-site interview to demonstrate the knowledge and expertise gained during the development of the website - with an emphasis on web design methods and practices, as well as their research for the annual design topic. No On-Site Interview. Link to the 2018 Challenge To submit your URL, please use the following link: <a href="https://goo.gl/forms/1t5YNVehKvmuWUEU">https://goo.gl/forms/1t5YNVehKvmuWUEU</a></p>	<p>Form to judge with computers/internet</p>	<p>2</p>	<p>Check-in event by 10:00. Judge from 11-12.</p>	
<p>Future Technology Teacher</p>	<p>Participants (three individuals per chapter) research and select three accredited colleges or universities that offer technology education teacher preparation as a major. Each participant writes a one page simulated college essay explaining why he/she would like to become a technology educator and what would constitute success in the field. Participants also develop and present a lesson plan to judges. Top 5 Semifinalists will present their lessons to the judge.</p>	<p>Room to review lessons and top 5 present.</p>	<p>2</p>	<p>Check-in: 10:00. Judge from 10:00 -12:00. Judge Top 5 Present 12:30 - 2:00.</p>	<p>Awards 5:00 in the Auditorium.</p>