



2020 NJ TSA MIDDLE SCHOOL SUPPLEMENT

Inspire a Shared Vision

Challenge the Process



Model the Way

Encourage the Heart

Enable Others to Act

COVER ART BY:
SVANA SHANKAR
HOWELL MIDDLE SCHOOL NORTH
1ST PLACE PROMOTIONAL MARKETING
2019 NJ TSA MIDDLE SCHOOL CONFERENCE



2019-2020 New Jersey TSA Executive Committee

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Ms. Wendy Green	Marine Academy of Science & Technology

State Regional Coordinator

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State Advisor and Corporate Member

Mrs. Alison Goeke, Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Competitive Event Coordinator

Mr. Henry Harms, Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Business Administrator

Ms. Rebecca Turner, Center for Excellence in STEM Education, Department of Technological Studies, School of Engineering, The College of New Jersey

Foreword

The diverse competitive events that are listed within this booklet are open to TSA chapters affiliated through registration with the New Jersey state office of TSA, completed by January 31, 2020. The Middle School State Conference will be held at The College of New Jersey on April 22, 2020.

How this booklet works

The *NJ Supplement* works in conjunction with the National TSA Competitive Events Guide, which you will receive access to, online, after affiliation with the National TSA Office has taken place.

This booklet presents the competitive events offered at the NJ State Conference in alphabetical order as well as the maximum number of participants or teams permitted to compete from each chapter. Each New Jersey competitive event in this booklet lists only the modifications from the National guidelines. Substitute the NJ modification in this booklet for the number or letter on the National guidelines to ensure that your chapter meets the guidelines for the NJ Competitive Events.

Competitive Event Categories

Competitive Events are organized according to the requirements for student participation in those competitions. There are three categories: **On-Site, Pre-Conference and Static**.

“On-site Events” require student participation on conference day. Some On-Site Events may even include components that must be completed and submitted prior to conference day. Because of the time commitment involved, students may participate in only one On-Site Event (and no more than six total events).

“Pre-Conference Events” require that entries be submitted prior to the conference, on a designated submission date established by NJ TSA. These entries are judged days prior to the conference and put on display the day of the conference. Some Pre-Conference events may have components or presentations that also take place the day of the conference.

“Static Events” require students to submit entries on conference day, however, students are not required to remain with their entries or make presentations. Static Events usually consist of students creating a display or prototype. These entries are checked-in the morning of the conference in the designated event room listed in the conference program. Judging takes place behind closed doors. After judging is finished, all entries are put on display for the remainder of the conference day.

Please be sure to read all sections of the *Supplement* carefully!

It is the hope of the NJ TSA Executive Committee that this guide will enable teachers, advisors, students and competitive event judges to be better prepared for participation at the State Conference this spring.

Any questions may be directed to Ms. Alison Goeke, NJ TSA State Advisor at (609)771-3244 or goeke2@tcnj.edu or Henry Harms, NJ TSA Competitive Event Coordinator, at harms@tcnj.edu.

General Rules Governing Competitive Events

I. MIDDLE SCHOOL EVENTS

The officially approved **Level I** New Jersey TSA Competitive Events are:

ON-SITE	PRE-CONFERENCE	STATIC
Challenging Technology Issues 2 teams of 2 members per chapter	CAD Foundations 2 individuals per chapter	Biotechnology 2 teams of up to 6 members per chapter
Chapter Team 2 teams of 6 members per chapter	Career Prep 2 individuals per chapter	Medical Technology 2 teams of 2-6 members per chapter
Coding 1 team of 2 members per chapter	Children's Stories 2 teams of up to 6 members per chapter. A team of 1 individual is permitted.	Off the Grid 2 teams of up to 6 members per chapter. A team of 1 individual is permitted.
Construction Challenge 2 teams of up to 6 members per chapter	Community Service Video 2 teams of up to 6 members per chapter. A team of 1 individual is permitted.	System Control Technology 2 teams of 3 members per chapter
Cybersecurity NEW! 2 individuals per chapter	Digital Photography 2 individuals per chapter	
Data Science & Analytics NEW! 2 teams of 2-3 members per chapter <i>Documentation/display due Pre-Conference</i>	Dragster 2 individuals per chapter <i>Top 16 cars raced on conference day</i>	
Electrical Applications 2 individuals per chapter	Mass Production 2 teams of 2-6 members per chapter	
Essays on Technology 2 individuals per chapter	Promotional Marketing 2 individuals per chapter	
Flight 2 individuals per chapter	STEM Animation 2 teams of up to 6 members per chapter	
Forensic Technology 1 team of 2 members per chapter	Technical Design 2 teams of 2 members per chapter <i>Due earlier than other Pre-Conference entries</i>	
Foundations of Information Technology (FIT) NEW! 1 individual per chapter	Video Game Design 1 team of 2-6 members per chapter	
Inventions and Innovations 1 team of 3-6 members per chapter	Website Design 2 teams of 3-6 members per chapter	
Junior Solar Sprint 1 team of 2-4 members per chapter		
Leadership Strategies 2 teams of 3 members per chapter		
Mechanical Engineering 2 teams of 3-6 members per chapter		
Microcontroller Design 2 teams of up to 6 members per chapter. A team of 1 individual is permitted.		
Prepared Speech 2 individuals per chapter		
Problem Solving 1 team of 2 members per chapter		
Structural Engineering 1 team of 2 members per chapter		
Tech Bowl 1 team of 3 members per chapter		

II. PROJECT SUBMISSION

- A. On-site events require students to submit entries, make presentations and/or participate/compete in activities *at* the conference.
- B. Static events require students to submit a display or prototype the day of the conference, however, there is no presentation component along with the entry.
- C. Pre-Conference events require projects to be submitted and judged *prior to* the conference
 1. Pre-Conference entries mailed must be received by **April 8, 2020**

Send to:
NJ TSA/Alison Goeke
The College of New Jersey
2000 Pennington Rd
Armstrong 103
Ewing, NJ 08628

Please call (609)771-3336 or email (tsa@tcnj.edu) the NJ TSA office to indicate description/quantity of items being mailed and expected delivery date.

2. Entries dropped off at the NJ TSA office at The College of New Jersey must be received by **April 8, 2020**. Please call (609)771-3336 or email (tsa@tcnj.edu) the TSA office to arrange time for delivery.
3. A Northern NJ drop off site will be available on **April 7, 2020** from 3:30-5:00pm at Heritage Middle School, 20 Foxcroft Drive, Livingston, NJ 07039.
 - Items received after these dates may not be included in competitions.
 - Mailed deliveries should include provision for obtaining **proof of delivery**.
 - Packages should include a label or packing slip describing contents.

III. PARTICIPATION IN COMPETITIVE EVENTS

- A. TSA members may only register and participate in **ONE on-site event**, and no more than **SIX total events**.
- B. Students must be registered at the state conference in order to enter and become finalists/winners in a competition. NO ON-SITE OR LATE REGISTRATIONS WILL BE ACCEPTED.
- C. **No substitutions will be accepted after registration closes, or at the conference.** Substitutions in team events will be accepted only from pre-registered applicants, and only under extenuating circumstances.

- D. **No school or individual names labeled on projects**, except for events which require school/student information. **Otherwise only ID#'s are to be used.** Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolios, models, displays, copyright/release forms, etc.). Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).
- E. For all entries that require documentation materials (comprising a "portfolio") secured in a **CLEAR FRONT REPORT COVER**, visit this [site](#) for a sample report cover.
- F. Please be sure to make a copy of all video/electronic files (e.g. Promotional Marketing, STEM Animation, etc.) for yourself before the project is submitted.
- G. Projects/entries are picked up at the time stated in the conference program and/or event display room. All entries not accounted for will be discarded the following day if no arrangements have been made with the NJ TSA office otherwise.
- H. Audio visual equipment will be provided for those competitive events that require it (e.g. laptops, projectors, etc.), unless otherwise noted.
- I. NJ TSA is not responsible for compatibility issues with electronic files. Judges will not be permitted to install programs to view files.
- J. Proper procedures for citing material taken from other sources must be followed as outlined in specific competitive event guidelines. Copyright procedures and forms must be completed and submitted with entries when necessary.
- K. No electronic communication devices of any kind are permitted during competitions and will result in disqualification.
- L. No one will be permitted to leave a test event and return unless otherwise instructed by judges.
- M. The maximum size of a team is 6 members, unless otherwise designated in a competition's eligibility guideline.
- N. In addition to the information found in the NJ Supplement, participants are responsible for knowing any updates, changes or clarifications that are made to competitive events prior to participation. This information is posted on both the National TSA and NJ TSA websites. It is crucial that students check the Competition Updates page of BOTH the NJ and National TSA websites. DIFFERENT information is posted on each site.

IV. COMPETITIVE EVENT ATTIRE

ALL STUDENTS ATTENDING THE CONFERENCE **MUST** wear either official TSA or business-like attire. Your cooperation with this policy will assist in providing a positive image for the organization and its members.

Please note—the Official TSA Shirt (royal blue) is mandatory for participation at the *National TSA Conference*. Students are strongly encouraged to wear the Official TSA Shirt to the NJ TSA *State Conference*, however, it is not required.

- A. Official TSA Attire:
Blazer: navy blue with official TSA patch
Tie: scarlet red imprinted with official TSA logo (males only, optional for females)
Shirt or blouse: Official TSA Shirt (royal blue) (A white button-down with turn down collar may be substituted for the Official TSA Shirt at the NJ State Conference.)
Pants or skirt: light gray
Dark socks: males only (black or dark blue)
Shoes: black dress shoes (unacceptable: athletic shoes, combat or work boots)
Sandals: females only may wear black open toe shoes or sandals
- B. Business-like attire is considered to minimally include:
A collared shirt/blouse, long pants (no shorts or jeans), dresses/skirts, socks/hosiery and appropriate footwear.
- C. A polo shirt may be substituted for a collared shirt/blouse.

Students not wearing official TSA or business-like attire *will lose 20 points from their total score of each event entered, and will not be granted entry into the awards ceremony.*
A 20 point deduction will also result from the wearing of hats.

All individuals attending the awards ceremony must present their official State Conference ID Badge provided to them at registration. Anyone not in possession of their badge will not be admitted to the awards ceremony.

V. PROPERTY DAMAGE OR LOSS

The College of New Jersey and NJ TSA are not responsible for damage to or loss of property brought to the conference.

VI. AWARDS

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 (1) an opportunity for student members to be recognized for their efforts and (2) designed to recognize TSA members who exemplify the high ideals of academics. Please send completed forms to Alison Goeke (goeke2@tcnj.edu/Fax#609-771-3330) by 5:00pm on April 8, 2020. Go to <https://tsaweb.org/resources/student-members/student-achievement-awards> to view and print forms.

VII. IMPORTANT DATES AND DEADLINES

January 13, 2020

- State Conference Registration OPENS

January 13, 2020

- Design Problems for the following events posted on the [NJ TSA website](#):
 - CAD Foundations
 - System Control Technology
- Note- all other design problems/themes for 2020 can be found within this document, and on the [National TSA website](#)

March 19, 2020

- Technical Design problem posted at 5pm on [NJ TSA website](#)

March 24, 2020

- Technical Design entries due. They must be emailed to NJ TSA (or postmarked) by 5pm.

April 7, 2020

- All Pre-Conference entries must be received at the Northern NJ Drop-Off Site.

April 8, 2020

- All Pre-Conference entries must be received at the NJ TSA office.

April 8, 2020

- Technology Honor Society and State Officer Nominations must be received at the NJ TSA office by 5pm.

April 9, 2020

- State Conference Registration CLOSES at 5pm (absolutely no changes can be made after this time).

April 22, 2020

- NJ TSA Middle School State Conference, The College of New Jersey

June 27-July 1, 2020

- National TSA Conference, Nashville, Tennessee

Plan now to attend the
42th Annual
National TSA Conference
June 27-July 1, 2020
Gaylord Opryland Resort and Convention Center
Nashville, Tennessee
Theme: *"Inspire a Shared Vision"*

Level I – Middle School Events

Biotechnology **Static Event**

OVERVIEW:	No semifinalists. No presentation/interview. Documentation and display submitted on conference day (Static Event).
ELIGIBILITY:	2 teams of up to 6 members per chapter.
TIME LIMITS:	No semifinalist interview/presentation. Static Event.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> 1. Entries are submitted on conference day (Static Event). No LEAP Response. 4. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No LEAP Response. No semifinalist presentation/interview. Top three winners will be announced at Awards Ceremony. Teams should pick up their entries prior to leaving the conference.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No presentation/interview. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p>Delete 3. No semifinalist presentation/interview. Delete 4. No LEAP Response.</p> <p>Evaluation is based on 140 points:</p> <ul style="list-style-type: none"> • Documentation (50) • Display (90)

CAD Foundations

Pre-Conference Event

2020 Design Problem will be posted on the NJ TSA website on January 13, 2020

OVERVIEW:	<p>No change.</p> <p>This design problem will be posted on the NJ TSA website on January 13, 2020.</p>
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<p>Delete 1-3. Entries must be completed during the school year and are submitted Pre-Conference.</p> <p>There is no on-site component.</p> <p>Design problem will be posted on the NJ TSA website on January 13, 2020.</p>
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Preliminary Round:</u> Delete 1-7. Entries are submitted Pre-Conference. No on-site component. No LEAP Response.</p> <p><u>Delete Semifinal Round.</u> No LEAP Response. No semifinalists. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Preliminary Round:</u> Delete A-F. Entries are submitted Pre-Conference. No on-site component.</p> <p>Designs must be submitted on a maximum paper size of 24" x 36" or smaller sheets mounted on a 24" x 36" sheet with no overlapping papers.</p> <p><u>Delete Semifinal Round.</u> No LEAP Response. No semifinalists.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></p>
EVALUATION:	<p>1. Delete "on-site problem." Entries are submitted Pre-Conference. Delete 2. No LEAP Response.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> • Layout (70) • Software Utilization (30)

Career Prep

Pre-Conference Event

In 2020, students select a career from one (1) of the following career clusters:

- Manufacturing
- Marketing, Sales, & Service
- Agriculture, Food, and Natural Resources
- Education and Training

OVERVIEW:	No semifinalists. No interview. Letter and resume submitted Pre-Conference.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> 1. Change May 15 th to April 8 th . 3. Change June 10 th to April 15 th . <u>Delete Semifinal Round</u> No semifinalists. No interview.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> 3. Letter and resume must be emailed as a PDF attachment to tsachall@tcnj.edu by 11:59 p.m. EST on April 8, 2020. No LEAP Response. Include ID# and "Career Prep" in email subject line. 5. Change June 10 th to April 15 th . <u>Preliminary Round:</u> No semifinalists. No interview. Top three winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> C. No interview. Letter and resume submitted Pre-Conference. D. No LEAP Response. Delete F.3. No LEAP Response. G. Letter and resume must be emailed as a PDF attachment to tsachall@tcnj.edu by 11:59 p.m. EST on April 8, 2020. No LEAP Response. Include ID# and "Career Prep" in email subject line. Delete G.2. No LEAP Response. <u>Delete Semifinal Round.</u> No interview. Letter and resume are submitted Pre-Conference. No LEAP Response. Winners announced at Awards Ceremony. <i>Please be sure that submissions have fictitious home address and telephone number. Correct participant names must be used.</i>

	<i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i>
EVALUATION:	Delete 2-3. No interview. No semifinalists. No LEAP Response. Evaluation is based on 80 points: <ul style="list-style-type: none"> • Letter of Introduction (40) • Event Specific Resume (40)

Challenging Technology Issues

On-Site Event

2020 Topics:

- Should young children use smartphones?
- Is online study more effective than traditional study?
- The potential impacts of genetic engineering.
- The potential impacts of synthetic meat.

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of 2 members per chapter.
TIME LIMITS:	No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> Delete 1.b. No LEAP Response. Delete 5. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	A. No semifinal round. Delete E. No LEAP Response.
EVALUATION:	Delete 2. No semifinalists. No LEAP Response. Evaluation is based on 150 points: <ul style="list-style-type: none"> • Pro Side (70) • Con Side (70) • Participation (10)

Chapter Team

On-Site Event

OVERVIEW:	No semifinals. All teams participate in both the written test and the oral presentation.
ELIGIBILITY:	A. 2 teams of 6 members per chapter. C. No semifinalists. All teams take the written test and participate in the oral presentation.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> No semifinalists. All teams make oral presentation. Time-related penalties apply.
LEAP:	No LEAP Response.
ATTIRE:	Participants may wear Official TSA Attire OR Business-Like Attire , as described on Page 6-7 of this guide.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 3. No semifinalists. All teams will make the oral presentation. <u>Semifinal Round:</u> 1-2. No semifinalists. All teams make oral presentation. Delete 3.e. No LEAP Response. No semifinalists. 3.f. Top three winners announced at Awards Ceremony.
REGULATIONS:	<u>Preliminary Round:</u> C.1. No semifinalists. All teams participate in oral presentation. C.3. Change National TSA to NJ TSA. <u>Semifinal Round:</u> E-F. No semifinals. All teams participate in oral presentation. Delete G. No LEAP Response.
EVALUATION:	1. No semifinalists. All teams make oral presentation. Final score based on written test and oral presentation. 1.a. No semifinalists. All teams make oral presentation. Delete 2. No LEAP Response. No semifinalists. Evaluation is based on 220 points: <ul style="list-style-type: none"> • Written test (10) • Business Meeting Demonstration (190) (No LEAP Response) • Possible Bonus (20)

Children's Stories

Pre-Conference Event

2020 Theme: Pop-Up STEM Book

Choose one of the following themes for your pop-up book:

1. Communicate how increases in human population and consumption of natural resources impact Earth's systems.
2. Discuss the rise in global temperatures over the past century.
3. Describe or give an example of how synthetic materials come from natural resources.

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of up to 6 members per chapter. A team of 1 individual is permitted.
TIME LIMITS:	No Semifinal Round. No on-site component. Portfolio and storybook submitted Pre-Conference.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> 1. Storybook and portfolio submitted Pre-Conference. Please follow Pre-Conference submission guidelines on Page 5 of this document. 2.c. No LEAP Response. Delete 4. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No on-site component. No LEAP Response. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> A. Storybook and portfolio submitted Pre-Conference. No LEAP Response.</p> <p><u>Delete Semifinal Round.</u> No on-site component. No LEAP Response. Top three winners announced at Awards Ceremony. Teams pick up their entries prior to leaving on conference day.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>

EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No on-site component. No LEAP Response.</p> <p>Evaluation is based on 210 points:</p> <ul style="list-style-type: none"> • Documentation (80) • Storybook (130)
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Coding **On-Site Event**

OVERVIEW:	No semifinalists. All teams take written test and do on-site challenge. Participants must provide their own computer hardware and software. Details about the on-site challenge can be found on the National TSA website: https://tsaweb.org/competitions-programs/tsa/themes-problems
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> Participants have 1 hour to complete on-site challenge. No semifinalists. All teams participate in on-site challenge.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 3-4. No semifinalists. All teams do written test and on-site challenge. <u>Semifinal Round:</u> 1. No semifinalists. All teams do written test and on-site challenge. 4. Teams have 1 hour to design and present their solution. 5. No LEAP Response. 6. Top three winners will be announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round:</u> B. Tests and answer sheets will be provided. <u>Semifinal Round:</u> Delete G. No LEAP Response. No semifinalists. All teams do written test and on-site challenge.
EVALUATION:	<u>Preliminary Round:</u> 1. No semifinalists. All teams do written test and on-site challenge. Evaluation is based on scores of written test, and solution to on-site challenge. <u>Semifinal Round:</u> 1. No LEAP Response. Evaluation is based on 150 points: <ul style="list-style-type: none"> • Written Test (50) • On-Site Problem – Subjective (20) • On-Site Problem – Objective (80)

Community Service Video

Pre-Conference Event

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of up to 6 members per chapter. A team of 1 individual is permitted.
TIME LIMITS:	1. Change May 15 th to April 8 th . 2. Change June 10 th to April 15 th .
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> 3. No LEAP Response. Entries are due by 11:59pm EST on April 8, 2020. 4. The URL of the video must be emailed to tsachall@tcnj.edu. The Student Copyright Checklist (and any required Photo/Film/Video Consent and Release forms) should be attached as a PDF document to the email. Include ID# and "Community Service Video" in the email subject line.</p> <p><u>Preliminary Round:</u> 1. No semifinalists. Top three winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. No LEAP Response. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> A. The URL of the video must be emailed to tsachall@tcnj.edu. The Student Copyright Checklist (and any required Photo/Film/Video Consent and Release forms) should be attached as a PDF document to the email. Include ID# and "Community Service Video" in the email subject line. F. The chapter name may appear in the entry. I. There is no submission form. Entries are emailed to tsachall@tcnj.edu. Please see submission instructions above.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No on-site component. No LEAP Response.</p> <p><i>No individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	Delete 2. No semifinalists. No LEAP Response.

	<p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none">• Video Production (50)• Video Effectiveness (100)
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Construction Challenge

On-Site Event

OVERVIEW:	No semifinalists. All teams do presentation/interview.
ELIGIBILITY:	2 teams of up to 6 members per chapter. No semifinalists. All teams do presentation/interview. All representatives of a team may participate in the presentation/interview, if desired.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> No Semifinal Round/semifinalists. All teams participate in presentation/interview.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> No change. <u>Preliminary Round:</u> 2. No LEAP Response. 4. No semifinalists. All teams do presentation/interview. <u>Semifinal Round:</u> 1. No semifinalists. All teams do presentation/interview. 2. All representatives of a team may participate in the presentation/interview, if desired. Delete 4. No LEAP Response. No semifinalists. 5. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> No change. <u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> A. No semifinalists. All teams do presentation/interview. All representatives of a team may participate in the presentation/interview, if desired. Delete B. No LEAP Response. No semifinalists. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i>

EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> No semifinalists. All teams participate in presentation/interview. No LEAP Response.</p> <p>Evaluation is based on 120 points:</p> <ul style="list-style-type: none"> • Display (20) • Portfolio (50) • Presentation Interview (50) (No LEAP Response)
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Cybersecurity

On-Site Event

2020 Theme:

Stark Industries recently had a data breach that affected their daily operations. It was discovered that the compromise was related to system administrator reusing the same password across multiple websites and computer systems. At the time of the breach, he did not have multi-factor authentication enabled on his work computer.

Explain the importance of why you shouldn't reuse passwords and how multi-factor authentication could have prevented this breach. In addition, how would you address concerns from employees about having multiple passwords and having to deal with multi-factor authentication.

OVERVIEW:	No semifinals. All teams participate in both the written exam and the oral presentation.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> 1-2. Participants have a total of 5 minutes to present their solution: digital presentation/video may be no more than 2 minutes in length. Participants have 3 minutes to respond to questions.</p> <p>No semifinalists. All teams make oral presentation. Time-related penalties apply.</p>
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> 1. No LEAP Response. 3. No semifinalists. All teams will make the oral presentation.</p> <p><u>Semifinal Round:</u> 1-2. No semifinalists. All teams make oral presentation. 3. Participants have 5 minutes to present their solution (see time limits). Delete 4. No LEAP Response. No semifinalists. 5. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Preliminary Round:</u> B,C,D. Tests and answer sheets will be provided. Participants must bring No.2 pencils for test, and laptop or presentation hardware (e.g. I-pad) for oral presentation. G. NJ TSA will share competition updates, as needed.</p> <p><u>Semifinal Round:</u> A-B. No semifinalists. All teams participate in oral presentation. F.2. Presentations shall not last longer than 2 minutes. J. No semifinalists. Participants are given 2 minutes to present and 3 minutes to respond to questions. Delete K. No LEAP Response.</p>

EVALUATION:	<p><u>Preliminary Round:</u> 1. No semifinalists. Evaluation is based on score of written test, and score for oral presentation.</p> <p><u>Semifinal Round:</u> 1. No semifinalists. All teams will be evaluated on oral presentation. Delete 2. No LEAP Response.</p> <p>Evaluation is based on 170 points:</p> <ul style="list-style-type: none"> • Written Test (50) • On-Site Presentation (120)

Data Science and Analytics

On-Site Event (with Pre-Conference Component)

2020 Theme:

The number of species classified as endangered is constantly in flux due to various factors such as: human activities, environmental impacts, climate change, and a decline in resources. Through the use of visual graphic data (i.e., charts), participants will analyze and conduct research to explain instabilities of one endangered population and attempt to predict the future for that population.

OVERVIEW:	Documentation and display submitted Pre-Conference. All teams do on-site presentation on conference day. No semifinalists. No on-site data analysis/synthesis challenge.
ELIGIBILITY:	2 teams of 2-3 members per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Delete Semifinal Round:</u> No semifinalists. No on-site data analysis/synthesis challenge.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> No change. <u>Preliminary Round:</u> 1. Participants report on conference day to sign up for a presentation time. Documentation and display are submitted Pre-Conference. No LEAP Response. 4. Documentation and display are evaluated by judges Pre-Conference. 5. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No on-site analysis/synthesis challenge. No LEAP Response. Top three winners will be announced at Awards Ceremony. Teams should pick up their entries prior to leaving the conference.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> No change. Documentation and display are submitted Pre-Conference. <u>Preliminary Round:</u> A. No semifinalists. All teams make 5-minute presentation on conference day. <u>Delete Semifinal Round.</u> No semifinalists. No on-site analysis/synthesis challenge. No LEAP Response. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio,</i>

	<p><i>display, model, etc.)</i></p> <p><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Preliminary Round:</u></p> <p>3. No semifinalists. All teams make 5-minute presentation on conference day.</p> <p><u>Delete Semifinal Round.</u></p> <p>No semifinalists.</p> <p>No on-site analysis/synthesis challenge.</p> <p>No LEAP Response.</p> <p>Evaluation is based on 130 points:</p> <ul style="list-style-type: none"> • Supporting Documentation (50) • Display (and Delivery of Presentation/Interview) (80)

Digital Photography

Pre-Conference Event

2020 Theme: Nature

OVERVIEW:	Entries are emailed to tsachall@tcnj.edu as a PDF document. No semifinalists. No on-site task. Entries are submitted Pre-Conference.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> 1. Change May 15 th to April 8 th . 2. Change June 10 th to April 15 th . <u>Delete Semifinal Round.</u> No semifinalists. No on-site task.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> 2. Entries must be emailed to tsachall@tcnj.edu by 11:59pm EST on April 8, 2020. Digital portfolio must be submitted as a <u>PDF attachment</u> to the email. Include ID# and "Digital Photography" in email subject line. 3. Change June 10 th to April 15 th . <u>Preliminary Round:</u> 1. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No on-site task. No LEAP Response. Top three winners announced at award ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> D. The portfolio must be emailed to tsachall@tcnj.edu by 11:59pm EST on April 8, 2020. It must be submitted as a <u>PDF attachment</u> to the email. Include ID# and "Digital Photography" in email subject line. <u>Delete Semifinal Round.</u> No semifinalists. No on-site task. No LEAP Response. Top three winners announced at award ceremony. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i>
EVALUATION:	1-2. No semifinalists. No semifinal round. Delete 3-5. No LEAP response. No on-site interview/task.

	<p>Evaluation is based on 60 points:</p> <ul style="list-style-type: none">• Portfolio Album (60)
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Dragster

Pre-Conference Event

There are no special specifications or theme for 2020. Refer to the event's Regulations and Requirements for all specifications.

OVERVIEW:	No change. Dragster and drawing submitted Pre-Conference. Top 16 cars that meet specifications will be raced on conference day.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	1. Dragster and drawing submitted Pre-Conference. 2. No interview. Cars that do not meet specifications will NOT be raced
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> 1. Dragster and drawing submitted Pre-Conference. No LEAP Response.</p> <p><u>Semifinal Round:</u> 1. No interview. Delete 5. No LEAP Response. 6. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p>E. All CO₂ cartridges are provided by NJ TSA.</p> <p><i>Please note the changes to the specifications on p.132 (of the Middle School Competitive Events Guide), and listed on the National TSA Competition Updates page:</i> https://tsaweb.org/competitions-programs/tsa/competition-updates</p> <p><i>"The spacer washers used shall not exceed ten (10), and the axle clips shall not exceed four (4). These quantities indicate maximum amounts, not minimum, as printed in the guide."</i></p> <p><u>Delete Semifinal Round.</u> No interview. No LEAP Response.</p> <p>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the State Conference online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</p>
EVALUATION:	<p>Delete 3. No Interview. Delete 5. No LEAP Response.</p> <p>Evaluation is based on 110 points:</p> <ul style="list-style-type: none"> • Dragster Construction (50) • Race (60)

	<p><i>The top 16 dragsters meeting specifications will be raced in the double elimination bracket at the conference.</i></p>
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	<p><i><u>Cars not meeting specs WILL BE DISQUALIFIED from competition.</u></i></p>
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	<p><i>Place ID# on drawings and directly on dragster. It is recommend ID#'s are placed on bottom or back side of dragster with tape or label.</i></p>
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Electrical Applications

On-Site Event

OVERVIEW:	Written test only. No semifinalists. No on-site problem or interview. Winners announced at award ceremony.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Delete Semifinal Round.</u> No on-site problem or interview.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 2. Participants take test as individuals, not as a team (not a team event). Delete 3-4. No semifinalists. Top three winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No on-site problem or interview. Written test only. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round:</u> 1. Tests and answer sheets are provided. <u>Delete Semifinal Round.</u> No on-site problem or interview. Written test only. No LEAP Response. Top three winners announced at Awards Ceremony.
EVALUATION:	<u>Preliminary Round:</u> 1. Participants take test as individuals, not as a team (not a team event). <u>Delete Semifinal Round.</u> No on-site problem or interview. Written test only. No LEAP Response. Evaluation is based on 50 points: <ul style="list-style-type: none"> • Written test (50 points)

Essays on Technology

On-Site Event

2020 Topic:

Post-secondary education is defined as any level of education after high school. This can include vocational degree programs, associate degree programs, or bachelor degree programs. Imagine that you are ready to embark on the post-secondary path of your educational career in a technology related field. Analyze each of the following as it relates to programs offered within this field and the cost. Choose a program within each post-secondary institution that fits your interests and write an essay. Discuss career possibilities for which the program would prepare you. You may include such information as salary structures, specialized locations, job demand, and job risks. Remember, each subtopic is independent of the others.

Subtopics

- Trade Schools/Technical Schools
- Community Colleges
- Four-Year Universities

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	No semifinalists. All participants write outline (45 minutes) and essay (45 minutes).
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> 2. No LEAP Response. 5-6. Participants have 45 minutes to draft the detailed outline. 7. No semifinalists. All participants write outline and essay.</p> <p><u>Semifinal Round:</u> 1. No semifinalists. All participants write essay. 2-3. Participants have 45 minutes to write essay. 4. No LEAP Response. 5. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Preliminary Round:</u> 7. No semifinalists. All participants write essay on a subtopic.</p> <p><u>Semifinal Round:</u> No semifinalists. All participants write essay. 7. Change TSA to NJ TSA Delete 8. No LEAP Response.</p>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> No LEAP Response.</p> <p>Evaluation is based on 170 points:</p>

	<ul style="list-style-type: none">• Detailed Outline (80)• Essay (90) (No LEAP Response)
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Flight **On-Site Event**

OVERVIEW:	Students bring completed glider and portfolio to event.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Delete Semifinal Round.</u> No on-site construction of glider. No semifinalists.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
SAFETY:	4. NJ TSA will not supply safety glasses. Participants must provide their own.
PROCEDURE:	<u>Preliminary Round:</u> <u>On-site Testing of Pre-Built and Trimmed Gliders</u> Delete 1.c. No LEAP Response. 4. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No on-site construction. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> No change. <u>Preliminary Round:</u> <u>The Flight Test</u> B-C. Catapults that are used at the NJ TSA State Conference are supplied by NJ TSA. <u>Delete Semifinal Round.</u> No semifinalists. No on-site construction challenge. No LEAP Response. Top three winners announced at Awards Ceremony. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i>
EVALUATION:	Delete 3. No semifinalists. No LEAP Response. Evaluation is based on: <ul style="list-style-type: none"> • Documentation (70) • Flight Score

Forensic Technology

On-Site Event

OVERVIEW:	No change. All teams take written test. 12 teams with the highest averaged scores will do on-site problem (skill demonstration).
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> No change. All teams take written test. 12 teams with the highest averaged scores will do on-site problem (skill demonstration).
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. <u>Semifinal Round:</u> 3. No LEAP Response. 4. Top three winners announced at Awards Ceremony.
REGULATIONS:	<u>Preliminary Round:</u> A. Tests and answer sheets will be provided. <u>Semifinal Round:</u> F. Materials are provided by NJ TSA. Delete G. No LEAP Response.
EVALUATION:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> 1. No LEAP Response. Evaluation is based on 130 points: <ul style="list-style-type: none"> • Written Test (50) • Demonstration (80)

Foundations of Information Technology (FIT)

On-Site Event

OVERVIEW:	No semifinalists. All participants take exam and do on-site challenge.
ELIGIBILITY:	1 individual per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 3. No semifinalists. All participants do on-site challenge. <u>Semifinal Round:</u> 1-3. No semifinalists. All participants do on-site challenge. Delete 4. No LEAP Response. 5. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round:</u> B-E. Test and answer sheets will be provided. F. Refer to the NJ TSA website prior to the conference for any competition updates. <u>Semifinal Round:</u> A,B,D. No semifinalists. All participants do on-site challenge. Delete G. No LEAP Response.
EVALUATION:	<u>Preliminary Round:</u> 1. No semifinalists. All participants take test and do on-site challenge. <u>Semifinal Round:</u> 1. No semifinalists. All participants do on-site problem. No LEAP Response. Evaluation is based on 100 points: <ul style="list-style-type: none"> • Test (50) • On-Site Problem - Subjective (50)

Inventions and Innovations

On-Site Event

2020 Theme: Today society moves at a faster pace than ever before. We are always on the move. This year's theme is for a mobile device to make everyday life on the go easier to handle.

OVERVIEW:	No semifinalists. All teams do oral presentation and interview.
ELIGIBILITY:	<u>Preliminary round:</u> 1 team of 3-6 members per chapter. <u>Semifinal round:</u> No semifinalists. All teams do oral presentation and interview. All team members may participate in the oral presentation, if desired (not limited to 3 members).
TIME LIMITS:	No semifinalists. All teams participate in oral presentation and question/answer session.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-conference:</u> No change. <u>Preliminary Round:</u> Delete 1.c. No LEAP Response. 3. No semifinalists. All teams will make an oral presentation. <u>Semifinal Round:</u> 1. No semifinalists. All teams sign up for an oral presentation. Delete 3. No LEAP Response. No semifinalists. 4. Top three winners will be announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> A-B. No semifinalists. All teams make oral presentation. All team members may participate in presentation, if desired (not limited to three). Delete B. No LEAP Response. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i>
EVALUATION:	<u>Preliminary Round:</u> No change. <u>Semifinal Round:</u> 1. No semifinalists. All teams make oral presentation.

	<p>Delete 2. No LEAP Response.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none">• Static Entry (80)• Presentation/Interview (70) (No LEAP Response)
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Junior Solar Sprint

On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2-4 members per chapter.
TIME LIMITS:	No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> Delete 1.d. No LEAP Response.</p> <p><u>Semifinal Round:</u> 1. No semifinalist interview. Delete 3. No LEAP Response. 4. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS:	<p><u>Pre-Conference:</u> D.15. Teams must provide their own battery pack and batteries. Batteries used must be two (2) AA 1.5 V batteries. It is recommended that teams test their vehicle with their battery pack prior to the conference.</p> <p><u>Preliminary Round:</u> <u>Time Trials</u> No change.</p> <p><u>Semifinal Round:</u> <u>Semifinalist Racing</u> Delete B-C. No semifinalist interview. No LEAP Response. D. Top three winners will be announced at Awards Ceremony.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> 1. No semifinalist interview. Delete 3. No LEAP Response.</p>

	<p>Evaluation is based on 190 points:</p> <ul style="list-style-type: none">• Display and Model (80)• Documentation (50)• Race (60)
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Leadership Strategies

On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of 3 members per chapter.
TIME LIMITS:	No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. Delete 8. No semifinalists. No semifinalist round. Teams are evaluated on their presentation during the Preliminary Round only. Winners are announced at the Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary and Semifinal Rounds:</u> E. No semifinals. Teams are evaluated on their presentation during the Preliminary Round only. No observers allowed. Delete H. No LEAP Response.
EVALUATION:	Delete 2. No LEAP Response. Evaluation is based on 80 points: <ul style="list-style-type: none"> • Presentation (80)

Mass Production

Pre-Conference Event

2020 Theme: An organizer for a teacher's desk

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of 2-6 members per chapter. No semifinalists. No presentation/interview. Entries are submitted Pre-Conference.
TIME LIMITS:	No semifinalists. No presentation/interview. Entries submitted Pre-Conference.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-conference:</u> No change.</p> <p><u>Preliminary Round:</u> 1.a-b. Portfolio and prototype are submitted Pre-Conference. Delete 1.c. No LEAP Response. 2. Please follow Pre-Conference submission guidelines on Page 5 of this document. Delete 4. No semifinalists. No presentation/interview. Winners are announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> A.2.i.3. No LEAP Response.</p> <p><u>Preliminary Round:</u> A. Please follow Pre-Conference submission guidelines on Page 5 of this document.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p>

	<p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response.</p> <p>Evaluation is based on 110 points:</p> <ul style="list-style-type: none">• Static Entry (110)
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Mechanical Engineering

On-Site Event

For 2020, teams will design and build a "Rube Goldberg" mechanical device. This device will contain four (4) subsystems that when combined make up a larger system. Each subsystem will contain four (4) simple machines in a fun and inventive way. Each type of simple machine must be used at least twice across the complete system (all four subsystems). The transfer of energy in the 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 after the initial touch that starts the device. The device must be capable of repeating demonstrations with the reset time for the entire system to be less than 3 minutes. The size of each sub system must not exceed 12" wide x 12" deep x 18" tall. The entire system must fit within an area of 24" wide x 24" deep x 18" tall. Each subsystem should be self-contained to its own 12"x12" base made from a material of your choice (please refer to the [attached diagram](#) for a visual reference).

OVERVIEW:	No change.
ELIGIBILITY:	2 teams of 3-6 members per chapter.
TIME LIMITS:	3. No semifinalists. All teams participate in presentation/interview.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> Delete 1.c. No LEAP Response. 7. No semifinalists. All teams do presentation/interview.</p> <p><u>Semifinal Round:</u> 1. No semifinalists. All teams do on-site presentation/interview. Delete 2. No LEAP Response. 4. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Preliminary Round:</u> Delete B. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></p> <p><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Semifinal Round:</u> 1. No semifinalists. All teams do presentation/interview. No LEAP Response.</p> <p>Evaluation is based on 140 points:</p> <ul style="list-style-type: none"> Mechanical Device (80) Presentation/Interview (60) (No LEAP Response)

Medical Technology

Static Event

OVERVIEW:	No semifinalists. No presentation. Entries are submitted on conference day for judging. (Static Event)
ELIGIBILITY:	1. 2 teams of 2-6 members per chapter. Delete 2. No semifinalists. No presentation. Static Event.
TIME LIMITS:	No semifinalists. No presentation.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> Delete 4. No semifinalists.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation. No LEAP Response. Top three winners announced at Awards Ceremony.</p> <p>Team members pick up their entries before leaving the conference.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> B.5. No LEAP Response.</p> <p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p>

	<p><u>Delete Semifinal Round.</u></p> <p>No semifinalists.</p> <p>No presentation.</p> <p>No LEAP Response.</p> <p>Entries are submitted on conference day (Static Event).</p> <p>Evaluations will be based on 130 points:</p> <ul style="list-style-type: none">• Documentation/Display (90)• Model/Prototype (40)
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Microcontroller Design

On-Site Event

2020 Theme: Prototype Laser Game

OVERVIEW:	No change.
ELIGIBILITY:	<p>1. 2 teams of up to 6 members per chapter. A team of 1 individual is permitted.</p> <p>2. All team members may participate in the presentation, if desired (not limited to 3).</p>
TIME LIMITS:	No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> Delete 1.c. No LEAP Response. 4. All team members may participate in the presentation, if desired.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> B. Teams should pick up their entries (including portfolios) prior to leaving the conference.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners announced at Awards Ceremony.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p>Delete 3. No LEAP Response.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> • Documentation (20) • Product (90) • Presentation (40)

Off the Grid

Static Event

2020 Theme: Design a home for a family of four (4) in a country that is classified as a developing economy

OVERVIEW:	No semifinalists. No presentation/interview. Teams submit entries on conference day for judging. (Static Event)
ELIGIBILITY:	<u>Preliminary Round:</u> 1. 2 teams of up to 6 members per chapter. A team of 1 individual is permitted. <u>Delete Semifinal Round.</u> No presentation/interview. Static Event. Entries submitted on conference day.
TIME LIMITS:	No semifinalists. No presentation/interview.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> Delete 4. No presentation. Static Event. <u>Preliminary Round:</u> Delete 1.d. No LEAP Response. Delete 3. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference:</u> No change. <u>Preliminary Round:</u> No change. <u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i>

EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No presentation/interview. No LEAP Response.</p> <p>Evaluations will be based on 170 points:</p> <ul style="list-style-type: none"> • Documentation (80) • Design Challenge (30) • Display and Model (60)
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Prepared Speech
On-Site Event
 2020 Theme: Inspire a Shared Vision

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	No change.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 4. No semifinalists. All students make one speech. <u>Delete Semifinal Round.</u> No semifinalists. All students make speech. No LEAP Response. Top three winners announced at award ceremony.
REGULATIONS:	<u>Preliminary Round:</u> No change. <u>Delete Semifinal Round.</u> No semifinalists. All students make one speech. No LEAP Response. Top three winners announced at award ceremony.
EVALUATION:	Delete 3. No LEAP Response. Evaluation is based on 90 points: <ul style="list-style-type: none"> • Content (30) • Stage Presence (30) • Organization (30)

Problem Solving

On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	Change time from 2 to 1.5 hours.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Preliminary Round:</u> 1. No LEAP Response. 3. Teams are allowed 1.5 hours to design and construct solution. <u>Delete Semifinal Round.</u> Delete 1. No LEAP Response. 2. Top three winners announced at Awards Ceremony.
REGULATIONS:	<u>Preliminary Round:</u> B. All materials will be provided by NJ TSA. Delete D-E. All tools and materials will be provided by NJ TSA. Delete G. NJ TSA will provide safety eyewear, if needed. <u>Delete Semifinal Round.</u> No LEAP Response. No semifinalists.
EVALUATION:	1-4. Evaluation will be based on a scoring guide provided at the event Delete 5. No LEAP Response.

Promotional Marketing

Pre-Conference Event

2020 Theme: TSA Marketing Tool Kit

You should approach your design with the following scenario in mind: You are inviting participants to attend a fictitious special interest session at the National TSA Conference that discusses how technologies can mitigate the effects of minimizing human impacts on the environment. Fake names must be used for the special interest presenters and any affiliated organizations (i.e., if using an organization for example, PETA, use "Organization for Animal Ethics" or another fake name).

1. Printable: a tri-fold brochure advertising the special interest session.
2. Wearable: a T-shirt that promotes minimizing human impacts on the environment
3. Digital Signage: to be displayed in the lobby of the Gaylord that promotes this theme.

OVERVIEW:	No semifinalists. No on-site problem. Entries submitted Pre-Conference.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	<u>Pre-Conference:</u> 1. Change May 15 th to April 8 th . 3. Change June 10 th to April 15 th . <u>Delete Semifinal Round.</u> No semifinalists. No on-site problem.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> Delete 2.c. No LEAP Report. 4. Printable advertisement (and supporting documentation), and wearable design (and supporting documentation), are to be emailed to tsachall@tcnj.edu as PDF attachments. Digital signage is to be sent in the form of a URL link, included in the body of the email. Entries are due by 11:59pm EST on April 8, 2020. Include ID# and "Promotional Marketing" in email subject line. 5. Change June 10 th to April 15 th . <u>Preliminary Round:</u> No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No on-site problem. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference</u> D. Change May 15 th to April 8 th . <u>Delete Semifinal Round.</u> No semifinalists. No on-site problem. No LEAP Response. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be</i>

	<i>used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i>
EVALUATION:	<p>Delete 3. No LEAP Response. No semifinalists.</p> <p>Evaluation is based on 150 points:</p> <ul style="list-style-type: none"> • Print Design (50) • Wearable Marketing (50) • Digital Signage (50)

STEM Animation

Pre-Conference Event

2020 Theme: Podcast Technologies

Context: Podcasting has become one of the most consumed mediums in the world, changing the way that information and entertainment are written, produced and delivered.

Challenge: Create a STEM animation that demonstrates what podcasting is, its production process, and what its future holds.

OVERVIEW:	No semifinalists. No presentation. Animation and portfolio submitted Pre-Conference.
ELIGIBILITY:	2 teams of up to 6 members per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> 1. Change May 15 th to April 8 th . 3. Change June 10 th to April 15 th . <u>Delete Semifinal Round.</u> No semifinalists. No presentation. Entries submitted Pre-Conference.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference:</u> 1. No LEAP Response. 2. Change May 15 th to April 8 th . 3. URL of the Animation, and portfolio, must be emailed to tsachall@tcnj.edu by 11:59pm EST on April 8, 2020. Portfolio must be submitted as a <u>PDF attachment</u> to the email. No LEAP Response. Include ID# and "STEM Animation" in email subject line. <u>Preliminary Round:</u> No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No presentation. No LEAP Response. Top three winners announced at Awards Ceremony.
REGULATIONS:	<u>Preliminary Round:</u> Delete B.11. No LEAP Response. <u>Delete Semifinal Round.</u> No semifinalists. No presentation. No LEAP Response. <i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are</i>

	<i>multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i>
EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No presentation. No LEAP Response.</p> <p>Evaluation is based on 80 points:</p> <ul style="list-style-type: none"> • Portfolio (30) • Animation (50)

Structural Engineering

On-Site Event

2020 Problem Statement and Forms (Truss Tower): <https://tsaweb.org/competitions-programs/tsa/themes-problems>

OVERVIEW:	<p>All participants bring the following on conference day to be evaluated:</p> <ul style="list-style-type: none"> • Pre-Built Structure in storage box • Portfolio containing: <ul style="list-style-type: none"> ○ Title page ○ Team Verification Form ○ Analysis and Assessment Form ○ Full size drawing of one-side view of structure ○ Complete cut parts list of materials for structure <p>There is no on-site semifinalist construction problem. All groups are present for testing of their Pre-Built Structures.</p> <p>No semifinalists/finalists. 1st, 2nd and 3rd place winners are announced at Awards Ceremony.</p>
ELIGIBILITY:	1 team of 2 members per chapter.
SAFETY EYEWEAR:	Participants must bring their own safety eyewear. It is required during the testing of Pre-Built Structures.
TIME LIMITS:	Delete 1-2. No semifinalists. No on-site construction problem.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURES:	<p><u>Pre-Conference:</u> No change.</p> <p><u>Preliminary Round:</u> ON-SITE DESTRUCTIVE TESTING OF PRE-BUILT STRUCTURES Delete 1.c. No LEAP Response. 4. Destructive testing of pre-built structures IS open for public viewing. 6. No semifinalists. Winners announced at Awards Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No on-site construction.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> Delete A.4. No LEAP Response.</p> <p><u>Preliminary Round:</u> C. Destructive testing of pre-built structures IS open to spectators.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No on-site construction. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be</i></p>

	<p><i>used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></p> <p><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p>Evaluation is based on the compliance and design efficiency of pre-built structure only. No on-site construction problem. No semifinalists. No LEAP Response.</p> <p>Evaluation is based on 50 points:</p> <ul style="list-style-type: none"> • Pre-Built Structure – Construction (40) • Drawing (10)

System Control Technology

Static Event

2020 Design Problem will be posted on the NJ TSA website on January 13, 2020

OVERVIEW:	Model is constructed off-site during the school year and submitted on conference day (Static Event). Design problem will be posted on the NJ TSA website on January 13, 2020.
ELIGIBILITY:	2 teams of 3 members per chapter.
TIME LIMITS:	Delete 1-3. Model is constructed off-site during the school year and submitted on conference day. Teams will set up their device and leave instructions for evaluators to operate the device.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p>Delete 1-8. Design problem will be posted on the NJ TSA website on January 13, 2020. Model is constructed off-site. Inventor's Log is developed off-site. Students set up their device on conference day and leave instructions for evaluators to operate the device. No LEAP Response.</p> <p>9. Teams pick up their entries prior to leaving the conference.</p> <p>Delete 10. No LEAP Response.</p> <p>11. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS:	<p><u>Preliminary Round:</u> A-D. Design problem will be posted on the NJ TSA website on January 13, 2020. Model is constructed off-site. No on-site portion. F-G. Model is constructed off-site and submitted on conference day (Static Event). Delete I. No LEAP Response. Top three winners will be announced at Awards Ceremony.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p>Delete 4. No LEAP Response. No semifinalists.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> • Inventor's Log (20) • Solution to Problem (60) • Programming Structure (20)

Tech Bowl

On-Site Event

OVERVIEW:	All participants will complete a written exam and then participate in the oral event.
ELIGIBILITY:	1 team of 3 members per chapter.
TIME LIMITS:	<u>Preliminary Round:</u> 2. Forty-five (45) minutes is allowed for the test. <u>Semifinal Round:</u> All teams will participate in the oral competition.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p>Follow procedures listed below. Do not refer to the <i>TSA Competitive Events Guide</i>.</p> <ul style="list-style-type: none"> A. Following the written test, team members will report to the oral event area holding room for briefing at the designated time. After briefing, advisors must leave and the team will remain in the holding room until called for competition. Teams may visit with other teams; however, <u>no advisors or visitors</u> may enter the holding room. B. No audience members are permitted into the oral event area. C. When instructed to do so, two (2) teams will enter the event area and be seated according to instructions. D. When a team has been defeated in any round of the oral event, the team is out of the competition. E. Questions will be drawn, as needed, from a card file resource bank. F. A team's total score is derived from the correct answers to the questions asked. For each correct answer, a team will receive ten (10) points. When a question has been completely read and a team is recognized to answer, if the team does not answer or answers incorrectly, five (5) points will be deducted from the team's score. In this instance, the other team does not have the opportunity to respond to this question, and the next question is read for both teams. If a question is being read and a team member presses the button before the question is finished, the member must answer completely as stated on the answer card. If the answer given is incorrect, the entire question will be read for the other team. G. A total of twelve (12) questions will be asked per round. No questions will be repeated in another round. In the case of the tie, five (5) additional questions will be asked. This procedure will continue until the tie is broken. The questions will be picked at random from the basic areas tested. H. <u>Bonus Question</u> There will be one additional question (bonus question). The bonus question will be announced, and the team that answers it correctly will have the opportunity to answer one additional question. This is the only time when team members may consult with each other before giving an answer. The team will have ten (10) seconds to give its answer. If a team gives an incorrect answer to the bonus question, then the question will be read to the other team. Bonus point scoring: If a team answers the bonus correctly, that team receives fifteen (15) points; if a team answers the bonus incorrectly, that team loses five (5) points from its score.

	<ol style="list-style-type: none"> I. A panel of evaluators will be available to respond to questions concerning acceptable answers. <ol style="list-style-type: none"> 1. Rulings on acceptable answers will be made only during the round in question. 2. Rulings will be made immediately, to do one of the following: <ol style="list-style-type: none"> a. Accept only the answers listed on the card. b. Accept the student's answer and renew points, or remove the question and read another in its place. c. The rulings of the panel will be final.
REGULATIONS:	<p><u>Follow procedures listed below. Do not refer to the <i>TSA Competitive Events Guide</i>.</u></p> <ol style="list-style-type: none"> A. No transmitting or recording devices will be permitted in the event area. No prompting will be permitted. B. The team member who "buzzes in" will have five (5) seconds to answer the question, without discussion. C. The team that answers the bonus question will be allowed ten (10) seconds to discuss the extra question and give an answer. D. After a question is read, the competing teams will have ten (10) seconds to answer. If neither team can answer the question, then another question will be read. E. If a team member "buzzes in" before a question is finished being read, that member must give the exact answer as printed on the card.
EVALUATION:	Evaluation is based on the total points from the three written tests plus the total points from the oral competition. Awards will be given to the top three (3) teams

Technical Design

Pre-Conference Event

Please note—this event has an **earlier due date** than other Pre-Conference events. Teams have a limited amount of time to solve the problem and submit their solution.

The 2020 Design Problem will be posted on the NJ TSA website at 5pm on March 19, 2020. Entries must be submitted by 5pm on March 24, 2020.

OVERVIEW:	Problem is solved off-site. Students have a limited amount of time to solve the problem. The design problem will be posted on the NJ TSA website at 5pm on March 19, 2020. Entries must be submitted by 5pm on March 24, 2020.
ELIGIBILITY:	2 teams of 2 members per chapter.
TIME LIMITS:	Participants will have from 5pm on March 19, 2020 until 5pm on March 24, 2020 to solve the engineering design problem.
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Preliminary Round:</u> 1. The design problem will be posted on the NJ TSA website at 5pm on March 19, 2020. The portfolio must be emailed to tsachall@tcnj.edu, (or postmarked), by 5pm on March 24, 2020. No LEAP Response.</p> <p><u>For email submission</u>, the portfolio must be saved as a multipage, PDF document and emailed as an attachment. Please include ID# and “Technical Design” in the email subject line.</p> <p><u>For mail entries</u>, please follow the Pre-Conference submission guidelines on Page 5 of this document.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response. Top three winners will be announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Preliminary Round:</u> D. If submitting via email, the portfolio must be saved as a multipage PDF document, and emailed as an attachment. Please see submission directions above.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#’s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i> <i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students’ individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>

EVALUATION:	Delete 3. No LEAP Response. No semifinalists. Evaluation is based on 100 points: <ul style="list-style-type: none">• Solution (100)
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Video Game Design

Pre-Conference Event

OVERVIEW:	<p>No semifinalists. No on-site interview. Game and all required documentation submitted Pre-Conference.</p> <p>URL for the video game should be emailed to tsachall@tcnj.edu. All required documentation must be submitted as a <u>PDF attachment</u> to the email.</p>
ELIGIBILITY:	<p>1. 1 team of 2-6 members per chapter. Delete 2. No semifinalists. No interview. Entries submitted Pre-Conference.</p>
TIME LIMITS:	<p><u>Pre-Conference:</u> 1. Change submission date from May 15 to April 8, 2020. Send URL to tsachall@tcnj.edu. Include ID# and "Video Game Design" in email subject line. 2. Change June 10th to April 15th. 6. Games must be playable from the deadline until the end of the NJ TSA State Conference.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No on-site interview.</p> <p>URL for the video game should be emailed to tsachall@tcnj.edu. All required documentation must be submitted as a <u>PDF attachment</u> to the email.</p>
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> 3-4. URL for the video game, and documentation, must be emailed to tsachall@tcnj.edu by 11:59pm EST on April 8, 2020. All required documentation must be submitted as a <u>PDF attachment</u> to the email. No LEAP Response. Include ID# and "Video Game Design" in email subject line.</p> <p><u>Preliminary Round:</u> No semifinalists. No interview. Winners announced at Award Ceremony.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. No LEAP Response. Top three winners announced at Awards Ceremony.</p>
REGULATIONS AND REQUIREMENTS:	<p><u>Pre-Conference:</u> A. Change May 15th to April 8th. Delete I. No LEAP Response. J. Change TSA to NJ TSA.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview.</p>

	<p>No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.)</i></p> <p><i>Team ID#s may be used for team events. A Team ID# is the first four numbers of students' individual ID#s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>
EVALUATION:	<p><u>Pre-Conference/Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalist interview. No LEAP Response.</p> <p>Evaluation is based on 100 points:</p> <ul style="list-style-type: none"> • Documentation (20) • Game Design (80)

Website Design

Pre-Conference Event

2020 Theme: Virtual Reality and Augmented Reality

Design Brief: <https://tsaweb.org/competitions-programs/tsa/themes-problems>

OVERVIEW:	No semifinalists. No interview. Entries submitted Pre-Conference.
ELIGIBILITY:	2 teams of 3-6 members per chapter. No semifinalists. No interview. Entries are submitted Pre-Conference.
TIME LIMITS:	<p><u>Pre-Conference:</u> 1-2. Change date from May 15 to April 8th. URL must be emailed to tsachall@tcnj.edu. Include ID# and "Website Design" in email subject line. 4. Change date from June 10th to April 15th.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. Entries are submitted Pre-Conference.</p>
LEAP:	No LEAP Response.
ATTIRE:	See Pages 5-6 of this guide for required dress code.
PROCEDURE:	<p><u>Pre-Conference:</u> 4. URL must be emailed to tsachall@tcnj.edu. Include ID# and "Website Design" in email subject line. No LEAP Response. 6. Judges review and score the entries prior to the NJ TSA State Conference. All entries will be available to view at the State Conference.</p> <p><u>Preliminary Round:</u> No semifinalists. No on-site component. Entries submitted Pre-Conference.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. No LEAP Response. Top three winners announced at Awards Ceremony.</p>
REGULATIONS:	<p><u>Pre-conference/Preliminary Round:</u> G. URL must be emailed to tsachall@tcnj.edu by 11:59pm EST on April 8, 2020.</p> <p><u>Delete Semifinal Round.</u> No semifinalists. No interview. No LEAP Response.</p> <p><i>No school or individual names labeled on projects; only State Conference ID#'s are to be used. Upon registering students for the <u>State Conference</u> online, they are automatically assigned a State Conference ID#. This number needs to be on all parts of student projects (i.e. portfolio, display, model, etc.) Team ID#'s may be used for team events. A Team ID# is the first four numbers of students' individual ID#'s (e.g. if a student ID# is 1234567, the Team ID# would be 1234. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 1234-1, 1234-2, etc.).</i></p>

EVALUATION:	<p><u>Preliminary Round:</u> No change.</p> <p><u>Delete Semifinal Round.</u> No semifinalist interview. No LEAP Response.</p> <p>Evaluation based on 90 points:</p> <ul style="list-style-type: none"> • Website development (90)
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