2025 NJ TSA HIGH SCHOOL SUPPLEMENT

NEW JERSEY

TSA

TECHNOLOGY STUDENT ASSOCIATION

Cover Art by:
Anushka Agarwal
Morris Hills High School
1st Place Promotional Design
2024 NJ TSA High School Conference

2024-2025 New Jersey TSA
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Business Administrator
Mrs. Rebecca Turner, Center for Excellence in STEM Education, Department of Integrative STEM Education, School of Engineering, The College of New Jersey

The 2025 NJ Supplement
to the
TSA High School Competitive Events Guide
(for the 2025 and 2026 National TSA Conferences)

<u>Foreword</u>

The diverse competitive events that are listed within this booklet are open to TSA chapters affiliated with National TSA, and registered through the NJ TSA State Conference registration system. The High School State Conference will be held on Saturday, May 3rd, 2025 at The College of New Jersey.

How this booklet works
The NJ Supplement works in conjunction with the National TSA Competitive Events Guide, which you 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 in each event, from each chapter.

Each New Jersey competitive event in this booklet lists ONLY the modifications NJ makes to the National guidelines, for the NJ State Conference. 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.

"<u>ON-SITE EVENTS</u>" 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 four total events).**

"<u>PRE-CONFERENCE EVENTS</u>" 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.

"<u>STATIC EVENTS</u>" 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 well-prepared for participation at the State Conference this spring. Any questions may be directed to Mrs. Alison Goeke, NJ TSA State Advisor at (609)771-3244 or goeke2@tcnj.edu or Mrs. Melissa Parr, NJ TSA Competitive Event Coordinator, at melissaparr22@gmail.com, or Rebecca Turner, at turner25@tcnj.edu.

General Rules Governing Competitive Events

I. HIGH SCHOOL EVENTS

The officially approved **Level II** New Jersey TSA Competitive Events for high school are:

** Event has both Pre-Conference and On-Site or Static Components

PRE-CONFERENCE	ON-SITE	STATIC
Audio Podcasting 1 team of up to 6 members per chapter. Teams of 1 individual are permitted.	Animatronics 1 team of 2-3 members per chapter.	**Architectural Design 1 team of up to 6 members per chapter. Teams of 1 individual are permitted. Doc submitted online Pre-Conference.
Children's Stories 1 team of up to 6 members per chapter. Teams of 1 individual are permitted.	Chapter Team 2 teams of 6 members per chapters.	**Biomimicry 3 teams of 3-6 members per chapter. Teams of 1 individual are permitted. Doc submitted online Pre-Conference.
Coding 1 team of 2 members per chapter.	Debating Technological Issues 1 team of 2 members per chapter.	**Biotechnology Design 1 team of up to 6 members per chapter. Doc submitted online Pre-Conference.
Computer-Aided Design (CAD), Architecture 1 individual per chapter.	**Drone Challenge (UAV) 2 teams of 2-6 members per chapter. Doc submitted online Pre-Conference.	**Board Game Design 1 team of up to 6 members per chapter. Doc submitted online Pre-Conference.
Computer-Aided Design (CAD), Engineering 1 individual per chapter.	Extemporaneous Speech 2 individuals per chapter.	**Engineering Design 1 team of 3-6 members per chapter. Doc submitted online Pre-Conference.
Data Science & Analytics 2 teams of 2 members per chapter. Teams of 1 individual are permitted.	**Fashion Design and Technology 2 teams of 2-4 members per chapter. Garments and doc submitted Pre-Conference.	System Control Technology 2 teams of 3 members per chapter.
Digital Video Production 1 team of 3 members per chapter. Teams of 1 individual are permitted.	Flight Endurance 2 individuals per chapter.	**Transportation Modeling 2 individuals per chapter. Doc submitted online Pre-Conference.
Dragster Design 2 individuals per chapter. *Top 16 cars raced on conference day.*	**Forensic Science 1 team of 2 members per chapter. Test taken online prior to conference.	
Geospatial Technology 2 teams of 2-3 members per chapter.	**Future Technology and Engineering Teacher 2 individuals per chapter. Instruct. video submitted online Pre-Conference.	
Music Production 1 team of up to 6 members per chapter. Teams of 1 individual are permitted.	Manufacturing Prototype 2 teams of up to 6 members per chapter.	
On Demand Video- *Due early* 1 team of up to 6 members per chapter.	**Optical Engineering 3 teams of 3-6 members per chapter. Teams of 1 individual are permitted. Doc submitted online Pre-Conference.	
Photographic Technology 1 individual per chapter.	Prepared Presentation 2 individuals per chapter.	
Promotional Design 2 individuals per chapter.	Robotics 1 team of 2-6 members per chapter.	
STEM Mass Media- *NEW* 1 team of 2-3 members per chapter.	**Senior Solar Sprint 1 team of 2-4 members per chapter. Car, shoebox, and doc submitted Pre-Conference.	
Video Game Design 1 team of up to 6 members per chapter.	Software Development 1 team of up to 6 members per chapter.	
Virtual Reality Simulation (VR) 2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.	Structural Design and Engineering 1 team of 2 members per chapter.	
Webmaster 2 teams of up to 6 members per chapter.	**Technology Bowl 1 team of 3 members per chapter. Test taken online prior to conference.	
Video Game Design 1 team of up to 6 members per chapter.	Technology Problem Solving 1 team of 2 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. ONLINE SUBMISSIONS: There are some Pre-Conference entries that require online submission to the NJ TSA online conference system by **11:59pm on April 2, 2025**. Check guidelines in this document to see how an item should be submitted. Online submission directions will be shared with advisors/students closer to the due date.

   2. IN-PERSON SUBMISSIONS: There are some Pre-Conference entries that require in-person submissions to the NJ TSA Office by **April 2, 2025**. These may be mailed or delivered in person to:

      NJ TSA/Alison Goeke
      The College of New Jersey
      2000 Pennington Rd.
      103 Armstrong Hall
      Ewing, NJ 08628

      Please email goeke2@tcnj.edu to indicate description/quantity of items being mailed/delivered and expected delivery date.

   3. All Pre-Conference submissions are due by **April 2, 2025**.

   4. A **Northern NJ drop off site** for northern chapters will be available on **April 1, 2025** from **3:30- 5:00pm** at the parking lot of Heritage Middle School, 20 Foxcroft Drive, Livingston, NJ 07039. Look for the TSA banner on a truck in the parking lot. Email goeke2@tcnj.edu to arrange your drop off time.

   5. **No submissions will be accepted after the dates and times noted in fairness to all competing. Please plan accordingly to get your submission(s) in on time**.
      • Items received after these dates will 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 **FOUR 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. **Official Rating Forms** included in the TSA Competitive Events Guide **are used to evaluate all entries,** unless otherwise noted in this document.

E. **No school or individual names on projects,** except for events that require school information. Otherwise, only ID#'s are to be used. Upon registering students online for the state conference, they are automatically assigned a state conference ID# (this ID# is different from their National TSA ID#). This state conference ID number needs to be labeled on every piece of a project/entry (i.e. portfolios, models, displays, copyright/release forms, etc.).
Projects that do not follow this labeling procedure will be disqualified and will NOT be judged.

F. **Projects/entries will be put on display after judging concludes. Students MUST pick up their entries prior to leaving the conference**. All entries not accounted for will be discarded the following day if no arrangements have been made with the NJ TSA office otherwise.

G. Audio visual equipment will be provided for competitive events that require it.

H. NJ TSA is not responsible for compatibility issues with electronic files. Judges will not be permitted to install programs to view files.

I. Proper procedures for citing material taken from other sources must be followed as outlined in specific competitive event guidelines. Copyright procedures, checklist and forms must be completed and submitted with entries when necessary.

J. No electronic communication devices of any kind are permitted during competitions and will result in disqualification.

K. No one will be permitted to leave a test event and return unless instructed by judges.

L. 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 EVENTS 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.

NOTE: All students participating at the 2025 National TSA Conference will be required to wear the Official TSA Shirt (royal blue). Students are strongly encouraged to wear the Official TSA Shirt to the 2025 State Conference.

A. Official TSA Attire:
    Blazer: navy blue with official TSA patch
    Tie: scarlet red imprinted with official TSA logo (for 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:
    collared shirt/blouse (polo shirt is acceptable)
    long pants (no shorts or jeans)
    dresses/skirts
    socks/hosiery
    appropriate footwear

Students NOT wearing official TSA or business-like attire will lose 20 points from 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.

Anyone not in possession of their official State Conference ID 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. Students' personal belongings are their sole responsibility and they should not be left behind in any location on campus.

VI. SCHOLARSHIPS AND AWARDS

NJ TSA Future Technology and Engineering Teacher Scholarship
The purpose of the NJ TSA Future Technology and Engineering Teacher Scholarship is to support the mission of TSA by encouraging NJ TSA members to pursue careers as technology and engineering educators. A qualifying student will receive a $500 scholarship to use toward continuing their education. The recipient will be announced at the State Conference.

Click here to view application requirements.
Please send completed applications by 11:59pm by **April 3, 2025** to Rebecca Turner at turner25@tcnj.edu.

NJ TSA Technology Honor Society
The NJ TSA Technology Honor Society recognizes TSA members who excel in academics, leadership, and service to their school and community. The NJ TSA Technology Honor Society is (1) an opportunity for student members to be recognized for their efforts and (2) designed to recognize NJ TSA members who exemplify the high ideals of academics. Click here to view and print forms. Recipients will be recognized at the State Conference.

Please send completed forms to Rebecca Turner at turner25@tcnj.edu by 11:59pm on **April 3, 2025**.

TSA Achievement Program
The TSA Achievement Program, Pathways to Excellence, encourages TSA student members to engage in the areas/categories of service leadership, STEM immersion, and personal/professional development. Students participate in activities in these areas and have the opportunity to earn sequentially a bronze, silver, and gold award at the local, state, and national level, respectively.

-Completion of one activity in each area/category – for a total of three completed activities per level is required for bronze, silver, and gold award eligibility.
-Members submit documentation of their activities for each level via the TSA Student Member Site.
-Chapter advisors are responsible for verifying the successful completion of a member's activities for each level.

For forms and more information, go to:
https://tsaweb.org/competitions-programs/programs/tsa-achievement-program

VII. IMPORTANT DATES AND DEADLINES

January 13, 2025
NJ TSA Design Problems for the following events posted on the NJ TSA website:
- Coding
- Computer-Aided Design (CAD), Architecture
- Computer-Aided Design (CAD), Engineering
- Optical Engineering
- System Control Technology

Note- all other design problems/themes for 2025 can be found within this document, and on the National TSA website

January, 2025
NJ State Conference Registration opens (date TBA)

March 20, 2025- March 25, 2025 – On Demand Video
- Design Problem for On Demand Video will be posted at 5pm on March 20, 2025 on the NJ TSA website.
- Completed entries must be uploaded to the NJ online conference system by 5pm on March 25, 2025.
- This competition allows a limited window of time for teams to create and submit their video.

March 27, 2025 - Online Testing Dates
The following competitive events require online tests prior to conference day. Testing procedures will be shared with advisors

- Forensic Science – Thurs, March 27, 2025, 6:00pm-7:00pm
- Technology Bowl – Thurs, March 27, 2025, 7:15pm-8:15pm

April 2, 2025 – 11:59pm- Online Submissions Due
The following competitive events have components that are due ONLINE ONLY and must be uploaded to the NJ online conference system by 11:59 pm on April 2, 2025: *In fairness to all, no online submissions will be accepted after 11:59 pm. Please plan accordingly to make sure projects are submitted by the deadline.*
- Architectural Design (doc online, arch model on conference day)
- Audio Podcasting (entire project online)
- Biomimicry (doc online, display on conference day)
- Biotechnology Design (doc online, display on conference day)
- Board Game Design (doc online, game on conference day)
- Coding (entire project online)
- Data Science & Analytics (entire project online)
- Digital Video Production (entire project online)
- Drone Challenge (doc online, drone on conference day)
- Engineering Design (doc online, display/prototype on conference day)
- Future Technology and Engineering Teacher (instructional video online, lesson on conference day)
- Geospatial Technology (entire project online)
- Music Production (entire project online)
- Optical Engineering (doc online, display/prototype on conference day)
- Photographic Technology (entire project online)
- STEM Mass Media (entire project online)
- Transportation Modeling (doc online, model/display on conference day)
- Video Game Design (entire project online)
- Virtual Reality Visualization (VR) (entire project online)
- Webmaster (entire project online)

April 2, 2025 – All Other Pre-Conference Entries are Due IN-PERSON at the NJ TSA Office (please also see the Northern Area drop-off option below)

The following competitive events are due IN-PERSON and must be mailed or delivered to the NJ TSA Office. Email goeke2@tcnj.edu or turner25@tcnj.edu to arrange a drop off time on, or prior to, April 2, 2025. Drop off is available between **10am-7pm**:
In fairness to all, no submissions will be accepted after the noted date/time. Please plan accordingly to make sure projects are submitted by the deadline.
- Computer-Aided Design (CAD), Architecture (entire project)
- Computer-Aided Design (CAD), Engineering (entire project)
- Children's Stories (entire project)
- Dragster Design (entire project, cars raced on conference day)
- Fashion Design and Technology (entire project, presentation on conference day)
- Promotional Design (entire project)
- Senior Solar Sprint (entire project, cars raced on conference day)

April 1, 2025 – 3:30-5:00pm Northern Area Drop-Off
For northern NJ chapters! NJ TSA staff will be at the parking lot of Heritage Middle School, 20 Foxcroft Drive, Livingston, NJ 07039 to collect projects that are due In-Person. Look for the TSA banner on a truck in the parking lot. Email goeke2@tcnj.edu to arrange a drop off time.

April 3, 2025
- NJ State Conference Registration CLOSES.
- All award and scholarship forms are due to the NJ TSA Office. Forms can be emailed to turner25@tcnj.edu

May 3, 2025
NJ TSA State Conference
The College of New Jersey

June 27- July 1, 2025
National TSA Conference
Gaylord Opryland
Nashville, Tennessee
Theme: Tune Into Technology

Level II – High School Events

Animatronics

On-Site Event

2025 Design Problem: Following the specified requirements, create an animatronic exhibit for a public library to excite young readers.

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2-3 members per chapter.
TIME LIMITS:	No change.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round D. No semifinalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No semifinalist presentation/interview. No finalists. Top three winners announced at Awards Ceremony. *Entries should remain in the event room when judging concludes, and put on display for viewing. Teams MUST pick up their entries prior to leaving the conference.
REGULATIONS AND REQUIREMENTS:	Delete Semifinal Round No semifinalists. No semifinalist presentation/interview. No finalists. Top three winners announced at Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	No change. Evaluation is based on 130 points: ● Model Appearance (30) ● Model Function (70) ● Presentation/Interview (30)

Architectural Design
Static Event

2025 Design Problem: Design a museum using the criteria in the link below.
Design Problem and Requirements:
https://tsaweb.org/docs/default-source/competitions/themes-and-problems-2024-2025/architectural-design-2025-design-problem---museum.pdf?sfvrsn=6f1b4d58_3

OVERVIEW:	No change
ELIGIBILITY:	1 team of up to 6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Preliminary Round A. The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm by April 2, 2025. Submission procedures will be shared with advisors. The model is submitted for evaluation on conference day. Delete Semifinal Round No semifinalists. No presentation/interview. No finalists. Top three winners announced at Awards Ceremony.
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Pre-Conference E.-F. The documentation portfolio must be submitted by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Preliminary Round A.-B. No semifinalists. All teams bring their model on conference day for evaluation. D. No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No presentation/interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference No change. Preliminary Round No change. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).
EVALUATION:	Preliminary Round No change.

	<u>Delete Semifinal Round</u> No semifinalists. No presentation/interview. Winners announced at Awards Ceremony. Evaluation is based on 210 points: ● Documentation Portfolio (110) ● Design Challenge (50) ● Model (50)

Audio Podcasting
Pre-Conference Event
2025 Theme: Preparing to compete in a TSA event and/or preparing for your first TSA conference

OVERVIEW:	No change.
ELIGIBILITY:	1 team of up to 6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Preliminary Round A. Entries must be finished, submitted, and accessible via the Internet by 11:59pm by April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No semifinalists. No interview. Entries submitted Pre-Conference.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference D.-E. URL of audio file, and PDF of documentation must be submitted by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Preliminary Round A.-B. Judges score the audio podcast and Documentation Portfolio for all teams. No semifinalists. No semifinal round. Delete Semifinal Round No semifinalists. No presentation/interview. Entries submitted Pre-Conference. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference No change. Preliminary Round No change. Delete Semifinal Round No semifinalists. No presentation/interview. Entries submitted Pre-Conference. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round No change. Delete Semifinal Round

	No semifinalists. No presentation/interview. Winners announced at Awards Ceremony. Evaluation is based on 120 points: Audio Podcast (70) Documentation Portfolio (50)

Biomimicry
Static Event
2025 Topic: Climate Change

Please note: this event is being offered at the state level only; it is NOT an official TSA competitive event. Follow the guidelines/procedures below to prepare for entry into the NJ State Conference.

OVERVIEW:	An increasing number of engineers and designers are looking to nature for inspiration in developing new products, systems and solutions to problems. Animals and plants have already come up with effective approaches to many of the same challenges humans face every day. Nature, after all, has gone through 3.8 billion years of research and development! Biomimicry is a new science that studies nature's best ideas, then imitates these designs to solve human problems. For this event, participants work as part of a team to research a given topic, identify a problem within that topic, and use biomimicry, or the example of an organism or system in nature, to solve the problem related to that topic. For example, if the topic were natural resource collection, students could apply the design of the shell of the namib desert beetle, which collects water directly out of the air, in the middle of the desert. The shell could be redesigned to collect water for desert communities with little access to water, or to anyone in need of fresh water. The team will create three (3) alternate solutions to solve the problem, choosing one (1) as their final solution. Each team will compile a documentation portfolio, and create a digital display. **The topic for 2025 is Climate Change.** **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Display is submitted on conference day.**
PURPOSE:	Participants apply the principles and practices of industrial design in developing and proposing a product inspired by nature.
ELIGIBILITY:	3 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
SUBMISSION INFORMATION:	Documentation portfolio must be submitted as a multipage PDF document by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. The display is submitted on conference day.
ATTIRE:	See Page 6 of this guide for required dress code.
PREPARATION:	Participants research and identify a problem within the designated topic. Using that problem, participants will find at least three (3) alternative solutions to that problem, inspired by nature. Participants select one of these solutions and explain why it is the best choice. Participants create a documentation portfolio compiling all information, and a display of the final solution.

14

REGULATIONS AND REQUIREMENTS:	Each team is required to secure the assistance of a biomimicry mentor; someone other than the TSA Advisor, who has experience related to the year's topic. The name, address, and occupation of this individual should be documented and included in the team's portfolio.

Each team is encouraged to identify the demographics of the society where the problem exists. This information can be documented on the same page as the above and included in the team's portfolio.

The entry will consist of a documentation portfolio and a display.

The display will include:
*Name of the final solution, conference city, state and year.
*Rationale for the final solution.
*Detailed explanation of the final solution.
*A three (3)-dimensional technical or CAD drawing and/or rendering of the final solution.

The documentation portfolio must include the following pages in a single, multi-page PDF document in this order:
1. Title page with the event title, the conference city and state, and the year; one (1) page.
2. Table of contents; pages as needed.
3. Mentor verification that includes the name, address, and occupation of the mentor; one (1) page.
4. A design brief (format that follows) that describes the design and its constraints; one (1) or more pages.

DESIGN BRIEF

Context: States the nature of the engineering design

Task: Clearly states what the team will be involved in

Restrictions: Identifies any restrictions

Investigations: Identifies the research involved

Development: States essential elements involved in planning

Production: Identifies the expected result

Evaluation: Identifies the expected assessment procedure and criteria

5. A description of the problem solving steps; pages as needed.
6. Work log that indicates preparation for the event, as noted by date, task, time involved, team member responsible and comments (see Work log in the National TSA Competitive Events Guide); one (1) page.
7. Evidence of research conducted by the design team; pages as needed.
8. Documentation of brainstorming; pages as needed.
9. Descriptions and illustrations of three (3) possible solutions with a brief but concise evaluation of the merits of each; three (3) or more pages.
10. A detailed description of the final solution; pages as needed.

	11. A three (3)-dimensional technical or CAD drawing and/or rendering of the final solution; the maximum sheet size is drawing sheet cut size B - 11"x17"; drawing must be appropriately scaled to fit the PDF format required for submission. 12. Math and science concepts and applications involved in the final design solution; one (1) page. 13. A list of references and resources; MLA style must be used in citing all references and resources; pages as needed. 14. An evaluation of how well the final solution addresses the identified problem and an explanation of the impact of the solution on society; pages as needed. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	*Please see the rating form on the following pages.* Evaluation is based on 90 points: ● Documentation Portfolio (50 points) ● Display (40 points)
STEM INTEGRATION:	This event aligns with the STEM educational standards noted below. Science, Technology, Engineering, Mathematics
PRIMARY LEADERSHIP SKILLS:	Leadership skills promoted in this event: ● COMMUNICATION — Students choose an existing design problem and develop and explain their solution. Suggested leadership lessons: *Personality Types* and *Promote It* ● CRITICAL THINKING — Students analyze and evaluate a problem in order to develop an acceptable solution. Suggested leadership lessons: *And The Answer Is* and *Critical Thinking Tips* ● PROBLEM SOLVING — Students devise a plan that will yield an acceptable solution. Suggested leadership lessons: *Debate It* and *Effective Brainstorming* *Additional leadership skills promoted in this event: creative thinking, decision making, ethics, evaluation, organization, teamwork*
TSA AND CAREERS:	This competition connects to one or more of the career areas featured in the TSA AND CAREERS section of the National TSA Competitive Events Guide. Use *The 16 Career Clusters* chart and the *TSA Competitions and The 16 Career Clusters* grid as resources for information about careers.
CAREERS RELATED TO THIS EVENT:	All fields of engineering and design (and related areas)

BIOMIMICRY

2025 OFFICIAL RATING FORM

HIGH SCHOOL

Documentation (50 points)

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points	Record Scores in the Column Spaces Below
Evaluators: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the column spaces to the far right. The X1 or X2 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an "adequate" score of 7 for an X1 criterion = 7 points; an "adequate" score of 7 for an X2 criterion = 14 points.)				
Portfolio components See Regulation C (X1)	The portfolio is unorganized and/or is missing three or more components.	The portfolio is missing two components, and/or it is loosely organized.	The portfolio has one or no components missing and is clearly well organized.	
Definition and explanation of problem and solution (X1)	The definition and explanation of the problem and/or the solutions to the problem are unclear; major grammatical errors are evident.	The definition and explanation of the problem, and/or the solutions to the problem are overgeneralized and/or not concise; some grammatical errors are present.	The definition and explanation of solutions to the problem are clear and concise, with few or no grammatical errors.	
Research base (X1)	The research is inadequate and/or very few credible sources are cited.	The research is conducted appropriately, with some credible sources cited.	There is a comprehensive research base with fully credible sources cited.	
Supporting graphics and materials (X1)	The graphics and supporting materials do not clarify the documentation, and/or they do not relate to the problem, and/or they may not be properly cited (MLA format).	The graphics and supporting materials are appropriate, properly cited (if needed), and supplement the documentation by providing clarity to the problem.	The graphics and supporting materials are of excellent quality; graphics clearly clarify abstract concepts and, if not original, are properly cited.	
Quality and effectiveness (X1)	The work is sloppy and disorganized, as if thrown together.	The work is mostly organized and of sufficient quality.	The work is well organized and of exceptional quality.	
			SUBTOTAL (50 points)	

Display (40 points)

CRITERIA	Minimal performance 1-4 points	Adequate performance 5-8 points	Exemplary performance 9-10 points	
Communication of problem (X1)	The problem is difficult to understand as communicated and is presented in an illogical manner.	The problem is communicated, and thoughts are somewhat organized and/or concise.	The problem is communicated in an organized, clear, and concise manner.	
Communication of solution (X1)	The solution is difficult to understand as communicated and is presented in an illogical manner.	The solution is communicated, and thoughts are somewhat organized and/or concise.	The solution is communicated in an organized, clear, and concise manner.	
Creativity (X1)	The work lacks creativity, with little or no integration of design principles.	Some creative elements are included, and essential design principles and elements are used somewhat effectively.	The work exudes creativity, and essential design principles and elements are integrated.	
Aesthetics and Artisanship (X1)	The work is unorganized and sloppy, and the display seems to be an afterthought.	The work is organized, with essential design principles given in a logical format.	The work reflects an exemplary use of layout and design principles to logically communicate important data.	
			SUBTOTAL (40 points)	

Rules violations (a deduction of 20% of the total possible points) must be initialed by the evaluator, coordinator and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____	
(To arrive at TOTAL score, add any subtotals and subtract rules violation points, as necessary. Check your math twice!) **TOTAL (90 points)**	

Comments:
I certify these results to be true and accurate to the best of my knowledge.
Evaluator
Printed name: Signature:

Biotechnology Design
Static Event

2025 Topic: Tissue Engineering. Tissue Engineering is a biomedical engineering discipline that uses a combination of cells, engineering, materials methods, and suitable biochemical and physicochemical factors to restore, maintain, improve, or replace different types of biological tissues.

OVERVIEW:	No semifinalists. No presentation/interview. **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. The display is submitted on conference day.**
ELIGIBILITY:	1 team of up to 6 members per chapter.
TIME LIMITS:	Delete A. No presentation/interview. Documentation is submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Display is submitted on conference day.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference D. No multimedia presentation. Preliminary Round B.-C. All teams are evaluated on their display and documentation portfolio. No semifinalists. Winners announced at Awards Ceremony. Documentation is submitted online by 11:59pm on April 2, 2025. Display is submitted on conference day. Delete Semifinal Round No semifinalists. No presentation/interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round C.1. Documentation portfolio is submitted online as a PDF document by 11:59 pm on April 2, 2025. No printed pages. No clear-front report cover. Delete Semifinal Round No semifinalists. No presentation/interview. Winners announced at Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round

	No change
	Delete Semifinal Round No presentation/interview. No semifinalists. Winners announced at Awards Ceremony. Evaluation is based on 130 points: ● Display (80) ● Documentation Portfolio (50)

Board Game Design
Static Event

OVERVIEW:	No semifinalists. No demonstration/interview. All teams create game and documentation portfolio. **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. The physical game and its packaging must be submitted on conference day for evaluation.**
ELIGIBILITY:	1 team of up to 6 members per chapter.
TIME LIMITS:	<u>Delete Semifinal Round</u> No semifinalists. No demonstration/interview. All teams submit documentation portfolio online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Teams bring the game and its packaging on conference day for evaluation.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> A.2. PDF of documentation portfolio submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. No USB flash drive submission. B.-C. No preliminary contestants, no semifinalists. All teams are evaluated on their documentation portfolio, and packaging and board game criteria. Winners are announced at the Awards Ceremony. <u>Delete Semifinal Round</u> No semifinalists. No demonstration/interview. All teams submit documentation portfolio online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Teams bring their game and its packaging on conference day for evaluation. Teams pick up their entry prior to leaving the conference.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> D.1., D.2. No USB flash drive submission. PDF of documentation portfolio is to be submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. <u>Delete Semifinal Round</u> No semifinalists. No demonstration/interview. All teams submit documentation portfolio online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Teams bring their game and its packaging on conference day for evaluation. Teams pick up their entry prior to leaving the conference. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	<u>Preliminary Round</u> No change. <u>Delete Semifinal Round</u> No demonstration/interview. Evaluation is based on 130 points: ● Packaging (30) ● Board Game (30) ● Documentation Portfolio (70)

22

Chapter Team
On-Site Event

OVERVIEW:	No semifinalists. All teams take test on-site and do the oral portion of the event.
ELIGIBILITY:	A. 2 teams of 6 members per chapter. C. No semifinalists. All teams take test and do oral portion of the event.
TIME LIMITS:	Preliminary Round No change. Semifinal Round No semifinalists. All teams do oral portion of the event. Time penalties apply.
ATTIRE:	See Page 6 of this guide for required dress code. There are no additional attire requirements for Chapter Team at the NJ State Conference.
PROCEDURE:	Pre-Conference No change. Preliminary Round B. See Page 6 of this guide for required dress code. There are no additional attire requirements for Chapter Team at the NJ State Conference. D. No semifinalists. All teams take test and do oral presentation. Winners announced at Awards Ceremony. Semifinal Round A.-B. No semifinalists. All teams do oral presentation. F. No finalists. 1st, 2nd, and 3rd place winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round B. See Page 6 of this guide for required dress code. There are no additional attire requirements for Chapter Team at the NJ State Conference. G. No semifinalists. All teams take test and do oral presentation. Semifinal Round A. See Page 6 of this guide for required dress code. There are no additional attire requirements for Chapter Team at the NJ State Conference. F. No semifinalists. All teams do oral presentation.
EVALUATION:	Preliminary Round No change. Semifinal Round No semifinalists. All teams take test and do oral presentation. Winners announced at Awards Ceremony. Evaluation is based on 200 points: ● Team Test (10) ● Business Meeting Demonstration (190)

23

Children's Stories
Pre-Conference Event
2025 Theme: Create a "touch and feel" or interactive storybook that introduces TSA and its benefits to young readers in an engaging manner.

OVERVIEW:	No change **The documentation portfolio and storybook must be received by the NJ TSA office by April 2, 2025. No on-site reading/interview.**
ELIGIBILITY:	1 team of up to 6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Delete Semifinal Round No semifinalists. No reading or interview. Entries submitted Pre-Conference.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A. The documentation portfolio, and physical storybook, are to be submitted to the NJ TSA office by April 2, 2025. Documentation portfolio is to be printed and secured in a clear front report cover. Follow requirements on page 102-103 of the National TSA Competitive Events Guide. B.1.-B.2. No preliminary contestants, no semifinalists. All teams are evaluated on their documentation portfolio and storybook criteria. C. No semifinalists. Winners are announced at the Awards Ceremony. Entries will be put on display on conference day. Teams should pick up their entries prior to leaving the conference. Delete Semifinal Round No semifinalists. No reading or interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference/Preliminary Round No change. Delete Semifinal Round No semifinalists. No reading or interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Preliminary Round
	No change.
	
	Delete Semifinal Round
	No semifinalists. No reading or interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
	
	Evaluation is based on 220 points:
	    ● Storybook (130)
	    ● Documentation Portfolio (90)

Coding
Pre-Conference Event
The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025.

OVERVIEW:	No onsite/live coding challenge. The 2024 Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	Delete Preliminary Round and Semifinal Round No test, no on-site coding challenge. Teams create solution for the NJ design problem and submit their entry online, Pre-Conference, by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.
ATTIRE	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Delete Preliminary Round and Semifinal Round No test, no on-site coding challenge. Teams create solution for the NJ design problem and submit their entry online, Pre-Conference, by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.
REGULATIONS AND REQUIREMENTS:	Delete Preliminary Round and Semifinal Round No test, no on-site coding challenge. Teams create solution for the NJ design problem and submit their entry online, Pre-Conference, by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. 1st, 2nd, and 3rd place winners will be announced at Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).
EVALUATION:	Evaluation criteria is listed in the design problem.

Computer-Aided Design (CAD), Architecture
Pre-Conference Event
The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025

OVERVIEW:	No change The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.**
ELIGIBILITY:	1 individual per chapter.
TIME LIMITS:	Delete A.-C. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.**
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Delete A.-L. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.** The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Delete A.-E. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.** The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. *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.)*
EVALUATION:	A.The design solution is in printed form and is submitted Pre-Conference for evaluation by judges. Delete B. No interview. No on-site component. Evaluation is based on 120 points: ● Solution to Problem (40) ● Layout (60) ● Architectural Application (20)

Computer-Aided Design (CAD), Engineering
Pre-Conference Event
The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025

OVERVIEW:	No change. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.**
ELIGIBILITY:	1 individual per chapter
TIME LIMITS:	Delete A.-C. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.**
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Delete A.-L. No on-site challenge. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.** The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Delete A.-E. The Design Problem will be posted on the NJ TSA website on January 13, 2025. **The solution to the design problem must be received by the NJ TSA office by April 2, 2025. Follow printing & format instructions included in the design problem.** The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. ***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.)
EVALUATION:	A.The design solution is in printed form and is submitted Pre-Conference for evaluation by judges. Delete B. No interview. No on-site component. Evaluation is based on 130 points: ● Solution to Problem (70) ● Layout (40) ● Engineering Application (20)

Data Science & Analytics
Pre-Conference Event
2025 Topic: Identify and use a "Real Estate," "Housing," and/or "Community" related open-source data set for your analyses and research. In the scientific poster, cite the source of the data, including the URL/domain and file format.

OVERVIEW:	No semifinalists. No semifinal challenge. No visual representation. All teams create documentation portfolio, including the digital scientific poster. **The documentation portfolio, including the scientific poster, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	2 teams of 2 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	A. The documentation portfolio, including the scientific poster, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. B. There is no on-site presentation of the digital scientific poster. The poster is included in the documentation portfolio and will be evaluated by judges Pre-conference. Delete C. No semifinalists. No on-site challenge.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference E.The documentation portfolio, including the scientific poster, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. F. Submission procedures will be shared with advisors. Preliminary Round A.-F. No on-site component. Teams submit documentation portfolio, including the scientific poster, online by 11:59pm on April 2, 2025. Judges review and score each team's documentation portfolio, including the scientific poster, Pre-Conference. No preliminary contestants, no semifinalists. No on-site challenge. Winners are announced at Awards Ceremony. Delete Semifinal Round No semifinalists. No on-site challenge. No visual representation. 1st, 2nd, and 3rd place winners are announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference No change. Delete Semifinal Round No semifinalists. No on-site challenge. No visual representation. 1st, 2nd, and 3rd place winners are announced at Awards Ceremony. ***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.) *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round B. There is no presentation of the digital scientific poster. The poster is included in the documentation portfolio and will be evaluated by judges, Pre-Conference. Delete Semifinal Round. No semifinalists. No visual representation or synopsis challenge. Evaluation is based on 160 points: ● Documentation Portfolio (70) ● Scientific Poster (no presentation) (90)

Debating Technological Issues
On-Site Event
2025 Theme: Biotechnology
- Subtopic 1: Biometric identification poses a security threat within the digital world.
- Subtopic 2: Gene-editing biotechnologies such as the CRISPR-Cas9 system, set a dangerous precedent for science applications in healthcare.
- Subtopic 3: Brain interface technologies, such as Elon Musk's Neuralink, provide a unique and beneficial solution to mental health issues.

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	No change.
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Check-In No change. Preliminary Round E.No semifinalists. No semifinal round. Winners announced at Awards Ceremony. Delete Semifinal Round No semifinalists. No semifinal round. Preliminary round only. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No semifinal round. Preliminary round only. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
EVALUATION:	No semifinal round. Preliminary round only. Evaluation is based on 110 points for the following criteria: - Debate (110)

Digital Video Production
Pre-Conference Event
2025 Theme: Create a short film that includes at least 30 seconds of animation

OVERVIEW:	No change **Note:** NJ TSA reserves the right to disqualify any entries that contain inappropriate content. These entries will not be judged. **The video, and documentation portfolio, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of 3 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Preliminary Round A. The video, and documentation portfolio, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No semifinalists. No interview. Top three winners announced at Awards Ceremony.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference E. Participants submit their entry online by 11:59pm on April 2, 2025. F. Submission procedures will be shared with advisors. Preliminary Round A.1.-A.2. No preliminary contestants, no semifinalists. Judges score the Digital Video criteria and the Documentation Portfolio criteria for all teams. B. No semifinalists. Top three winners are announced at Awards Ceremony. Delete Semifinal Round No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference/Preliminary Round A. No change. *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.)* *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round

	No change.
	
	 <u>Delete Semifinal Round</u>
	 No semifinalists. No interview.
	
	 Evaluation is based on 100 points
	     ● Digital Video (70)
	     ● Documentation Portfolio (30)

Dragster Design
Pre-Conference Event

2025 Design Challenge Requirements: Address weights and lengths only; there are no special design challenges.

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	A. The dragster, drawing, and materials list must be received by the NJ TSA office by April 2, 2025. B. Cars that do not meet specifications will NOT be raced. Delete C. No interview.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> A.1.-A.3. The dragster, drawing, and materials list must be received by the NJ TSA office by April 2, 2025. D.2. No interview, no finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. <u>Semifinal Round</u> Delete A. No interview. E. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> A. For 2025, Address weights and lengths only; there are no special design challenges. <u>Semifinal Round</u> 7. All CO2 cartridges are provided by NJ TSA. Delete B. No interview. ● The top 16 dragsters meeting specifications will be raced in the double elimination bracket at the conference. ● Cars not meeting specs WILL BE DISQUALIFIED from the competition. ● A caliper will be used for all measurements ● Place ID# on drawings and directly on dragster. It is recommended ID#'s are placed on bottom or back side of dragster with tape or label. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Preliminary Round No change. Semifinal Round B. No interview. Evaluation is based on 115 points: • Dragster Construction (60) • Race (55)

Drone Challenge (UAV)
On-Site Event
2025 Design Problem: Dinosaur Rescue
https://tsaweb.org/docs/default-source/competitions/themes-and-problems-2024-2025/uav-drone--dino-rescue--2025.pdf?sfvrsn=e91c2604_1

OVERVIEW:	No change. Go to the National TSA website for Drone Challenge details: https://tsaweb.org/docs/default-source/competitions/themes-and-problems-2024-2025/uav-drone--dino-rescue--2025.pdf?sfvrsn=e91c2604_1
ELIGIBILITY:	2 teams of 2-6 members per chapter.
TIME LIMITS:	Delete D. No semifinalists. No interview.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A.Documentation portfolio submitted online as a PDF, Pre-Conference, by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Drones are submitted on conference day for evaluation. E.All teams will have their portfolio evaluated Pre-Conference by judges. F.No semifinalists. Winners announced at Awards Ceremony. Delete Semifinal Round No interview. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round B.1.Documentation portfolio submitted online as a PDF, Pre-Conference, by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. No USB flash drive submission. ***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.)* *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round No change. Delete Semifinal Round No interview. No semifinalists.

	Evaluation is based on 140 points: ● Testing of Drone (60) ● Portfolio (80)

Engineering Design
Static Event
2025 Theme: Manage the nitrogen cycle

OVERVIEW:	No change. **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. The display and prototype/model are submitted for evaluation on conference day.**
ELIGIBILITY:	1 team of 3-6 members per chapter.
TIME LIMITS:	Delete A.-B. No presentation. No interview.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> A.1. The PDF of the documentation portfolio is submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. No USB flash drive submission. A.2.-A.3. The display and prototype/model are submitted on conference day for evaluation. B.1.-B.2. Judges score the documentation portfolio and display/prototype/model for all teams. No semifinalists. C. No semifinalists. Winners announced at Awards Ceremony. <u>Delete Semifinal Round</u> No semifinalists. No presentation/interview. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> B.1. The PDF of the documentation portfolio is submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. No USB flash drive submission. <u>Delete Semifinal Round</u> No semifinalists. No presentation/interview. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Preliminary Round
	No change.
	
	Delete Semifinal Round
	No semifinalists. No presentation/interview.
	
	Evaluation is based on 150 points:
	    ● Display and Prototype/Model (40)
	    ● Documentation Portfolio (110)

Extemporaneous Speech
On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	No change.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round I. No semifinalists. Top three winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No semifinal round. No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round A.1. Name tags provided by NJ TSA. Delete Semifinal Round No semifinalists. No semifinal round. No finalists. Top three winners announced at Awards Ceremony.
EVALUATION:	No change. Evaluation is based on 100 points: ● Speech (100)

Fashion Design and Technology
On-Site Event

2025 Theme: Create a prototype of a marching band uniform for a performance with the theme of "Earth, Wind, Fire, Water." The prototype must include a type of wearable technology. No pyrotechnics or ignitable elements are permitted.

Teams will submit one (1) or two (2) garments for judging (top and bottom or one [1]-piece.) All required components must fit inside a 32-quart plastic container. Any accessories (hats, gloves, boots, etc.) may be used during the runway presentation, however, they are not submitted in the preliminary round.

OVERVIEW:	No semifinalists. All teams participate in on site presentation/interview. **The documentation portfolio, prototype garment(s), and patterns must be received by the NJ TSA office by April 2, 2025. Presentation will take place on conference day.**
ELIGIBILITY:	2 teams of 2-4 members per chapter.
TIME LIMITS:	No change.
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> A. Participants submit their documentation portfolio, wearable prototype, and patterns to the NJ TSA office by April 2, 2025. Documentation portfolio is to be printed and secured in a clear front report cover. B.-C. Judges score the documentation portfolio, wearable prototype, and patterns for all teams. No semifinalists. All teams participate in runway presentation on conference day. No finalists. Top three winners announced at Awards Ceremony. <u>Semifinal Round</u> C. No semifinalists. All teams do runway presentation. G. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> No change. <u>Semifinal Round</u> A. No semifinalists. All teams participate in the runway presentation/interview. ***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 2345678, the Team ID# would be*

41

	2345. *If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).* Labels/tape are recommended for labeling garments, documentation, and on the outside of submission container and/or garment bag.
EVALUATION:	<u>Preliminary Round</u> No change. <u>Semifinal Round</u> A. No semifinalists. All teams participate in the runway presentation/interview. Evaluation is based on 210 points: ● Garments (50) ● Patterns (20) ● Documentation Portfolio (70) ● Presentation (70)

Flight Endurance
On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	Time allowed may be adjusted by judges based on number of participants.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Scoring- C. No finalists. The top three winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	No change. ***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.*
EVALUATION:	No change. Evaluation is based on 130 points: ● Flight Rankings (60) ● Documentation Portfolio (70)

Forensic Science
On-Site Event

OVERVIEW:	Test of forensic science theory will be taken online PRIOR to the State Conference, on March 27, 2025 from 6-7pm. Test procedures will be shared with advisors. No semifinalists. All teams analyze crime scene on conference day.
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	Preliminary Round No change. Test of forensic science theory will be taken online PRIOR to the State Conference, on March 27, 2025 from 6-7pm. Test procedures will be shared with advisors. No semifinalists. Semifinal Round A.-B. Judges will determine the amount of time allowed to review the crime scene, based on the number of teams present on conference day. C. No semifinalists. All teams analyze crime scene on conference day. Teams will have 20 minutes to write their analysis.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A. Test of forensic science theory will be taken online PRIOR to the State Conference, on March 27, 2025 from 6-7pm. Test procedures will be shared with advisors. D. No semifinalists. Winners announced at Awards Ceremony. Semifinal Round D. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round C.-D. Test of forensic science theory will be taken online PRIOR to the State Conference, on March 27, 2025 from 6-7pm. Test procedures will be shared with advisors. K. No semifinalists. All teams take test online prior to the conference, and analyze the crime scene on conference day. Semifinal Round No semifinalists. All teams analyze crime scene.
EVALUATION:	Preliminary Round No change. Semifinal Round No semifinalists. All teams analyze crime scene. Evaluation is based on 120 points: • Test Score (50) • Analysis of Crime Scene (70)

44

Future Technology and Engineering Teacher
On-Site Event

OVERVIEW:	No semifinalists. All participants submit documentation portfolio online pre-conference, and give presentation on conference day. **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	2 individuals per chapter
TIME LIMITS:	Pre-Conference/Preliminary Round B. The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Semifinal Round A.-C. No semifinalists. All participants give presentation to judges on conference day.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference/Preliminary Round C.-D. Participants submit their documentation portfolio online by 11:59pm on April 2, 2025. E. No semifinalists. All participants give presentation to judges on conference day. Winners announced at Awards Ceremony. Semifinal Round F. No semifinalists. All participants give presentation to judges. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference/Preliminary Round No change. Semifinal Round No semifinalists. All participants give presentation to judges on conference day. Winners are announced at the Awards Ceremony. *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.)*
EVALUATION:	Preliminary Round No change. Semifinal Round No semifinalists. All participants give presentation on conference day. Evaluation is based on 180 points: ● Documentation Portfolio (80) ● Presentation (100)

Geospatial Technology
Pre-Conference Event
2025 Theme: Identity a disaster threat, natural or otherwise, that may impact your community. Develop an infographic that communicates hazard zones, evacuation routes, and resource distribution.

OVERVIEW:	All teams submit digital portfolio and infographic map online, Pre-conference. No on-site challenge. No semifinal presentation/interview. **The digital documentation portfolio (PDF) and infographic map (PDF) must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	2 teams of 2-3 members per chapter.
TIME LIMITS:	<u>Preliminary Round</u> A. Portfolio (PDF) and infographic map (PDF) must be submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. <u>Delete Semifinal Round</u> No defense presentation. No semifinalists.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> E. Participants submit digital portfolio (PDF) online by 11:59pm on April 2, 2025. F. Submission procedures will be provided by NJ TSA. <u>Preliminary Round</u> A.-E. No preliminary contestants. No semifinalists. Judges review and score the Documentation Portfolio criteria and Infographic Map criteria for each team. The top three winners are announced at the Awards Ceremony. <u>Delete Semifinal Round.</u> No semifinalists. No defense presentation/interview. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference</u> B.2. Portfolio must be submitted online by 11:59pm on April 2, 2025. NJ TSA will provide submission procedures. <u>Preliminary Round</u> A.3. Visual infographic map is submitted online as a PDF. It is not submitted as a physical display. Submission procedures will be provided. ***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 2345678, the Team ID# would be*

	2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).
EVALUATION:	<u>Preliminary Round</u> No change. <u>Delete Semifinal Round.</u> No semifinalists. No defense presentation/interview. Evaluation is based on 140 points: ● Documentation Portfolio (90) ● Visual Infographic Map (50)

Manufacturing Prototype
On-Site Event
2025 Theme: An item that can be used as picture frames for a home or office while also serving another purpose

OVERVIEW:	No semifinalists. All teams demonstrate product and give "sales pitch" to judges.
ELIGIBILITY:	2 teams of up to 6 members per chapter.
TIME LIMITS:	No semifinals. All teams give 2 minute sales pitch.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> B.1-B.2. No preliminary contestants. No semifinalists. Judges evaluate all teams using the Component Analysis criteria, and Documentation Portfolio criteria listed in the Official Rating Form. C. No semifinalists. All teams give sales pitch. <u>Semifinal Round</u> A.-B. No semifinalists. All teams give sales pitch presentation to judges. All team members may participate in presentation. F. No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> No change. <u>Semifinal Round</u> No semifinalists. All teams give sales pitch presentation to judges. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.)*
EVALUATION:	<u>Preliminary Round</u> No change. <u>Semifinal Round</u> No semifinalists. All teams give sales pitch presentation to judges. Evaluation is based on 220 points: ● Component Analysis (80) ● Documentation Portfolio (110) ● Sales Pitch/Demonstration (50)

Music Production
Pre-Conference Event

Create a musical piece that will be used as the background music for a role-playing game (RPG) video game. It will be played during the parts of the game when the player's character is visiting the blacksmith.

OVERVIEW:	No change **The documentation portfolio, and musical piece, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of up to 6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Preliminary Round A. The documentation portfolio, and musical piece, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No semifinalists. No interview.
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Pre-Conference D. Entries must be submitted online by 11:59pm on April 2, 2025. E. Submission information will be provided by NJ TSA. Preliminary Round A.-B. No preliminary contestants. No semifinalists. Judges score the Musical Piece criteria, and the Documentation Portfolio criteria, for each team. Top three winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No presentation/interview. Top three winners announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference No change. Preliminary Round No change. *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.)* *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

49

	ID#'s should be labeled on CD, CD case (if included) and portfolio.
EVALUATION:	Preliminary Round No change. Delete Semifinal Round No presentation/interview. No semifinalists. Winners announced at Awards Ceremony. Evaluation is based on 100 points: ● Musical Piece (70) ● Documentation Portfolio (30)

On Demand Video
Pre-Conference Event

The 2025 theme will be posted on the NJ TSA website at 5pm on March 20, 2025. Participants submit their completed video and documentation online by 5pm on March 25, 2025. Submission procedures will be shared with advisors.

Please note—this event has an **earlier due date** than other events. Participants have a limited amount of time to complete the challenge.

OVERVIEW:	Participants will write, shoot and edit a sixty (60) second video. The video is created remotely and submitted online.
	The theme and any required criteria will be announced on the NJ TSA website at **5pm on March 20, 2025.**
	The video and documentation must be **submitted online by 5pm on March 25, 2025.** Submission procedures will be shared with advisors.
	Note: NJ TSA reserves the right to disqualify any entries that contain inappropriate content. These entries will not be judged.
ELIGIBILITY:	1 team of up to 6 members per chapter.
TIME LIMITS:	B. The theme will be posted on the NJ TSA website at 5pm on March 20, 2025. Entries must be submitted online by 5pm on March 25, 2025.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. No On-Site Challenge A.-B. The theme will be posted on the NJ TSA website at 5pm on March 20, 2025. Entries must be submitted online by 5pm on March 25, 2025. There is no on-site challenge. Teams create video remotely. E. Entries are reviewed by judges. No finalists. Top three winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	A.1.a.-d. Participants film their footage remotely and must adhere to all guidelines set forth by their school/chapter/community. B. Entries are submitted online by 5pm on March 25, 2025. Delete B.8. Teams create entry remotely. *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.)* *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	No change. Evaluation is based on 100 points: ● Production (100)

Optical Engineering
On-Site Event
The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025.

Please note: this event is being offered at the state level only; it is NOT an official TSA competitive event. Follow the guidelines/procedures below to prepare for entry into the state competition.

OVERVIEW:	Participants work as part of a team to design and fabricate an optical device that meets a specific need. The focus will be on the design process; participants should incorporate innovation into their entry/solution. The solution should incorporate the application of optical and mathematical principles and should assess its impact on the community. Entries will consist of a documentation portfolio and a display (including a prototype/device). Participants will present and defend their solution in a timed presentation. **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Display and prototype are submitted for evaluation on conference day, and teams give a presentation.**
ELIGIBILITY:	3 teams of 3-6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	1. Entries must be started and completed during the current school year. 2. Documentation portfolio must be submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. 3. Display and prototype are submitted for evaluation on conference day. 3. Teams deliver a presentation for judges on conference day of no more than five (5) minutes in length, to present their solution, and demonstrate the prototype/device.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	1. Participants submit their documentation portfolio online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. 2. The remaining components must be submitted on conference day: 　　b. display 　　c. prototype/device 　　d. presentation, up to 5 minutes in length 3. Entries are reviewed by representatives from Edmund Optics. 4. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND	A. Teams must demonstrate a firm understanding of the challenge and problem they are addressing. A team's entry must reflect thorough and serious research, as well as a

53

The 2025 NJ Supplement to the *TSA High School Competitive Events Guide (for the 2025 and 2026 National Conferences)*

REQUIREMENTS:	creative and plausible solution.
	B. A team's solution must include likely impacts to the environment, economy, and society, as well as any important ethical considerations, and/or political ramifications.

C. A Documentation portfolio is required and should be saved as a multi-page PDF document with the pages in this order:

   1. Title page with the challenge listed, event title, the conference city and state, and the year; one (1) page

   2. Table of contents; pages as needed

   3. Definition of the challenge/problem; one (1) page

   4. Explanation of importance: Explain why the problem is important to society and describe the necessary scientific and technical concepts, as well as current issues related to the challenge; two (2) pages

   5. Pages titled "Problem Solution": Present the solution for the identified problem, with support from scientific concepts and principles drawn from evidence. Mathematical and graphic models should be included as necessary, as well as photographs of any physical models developed; seven (7) pages, maximum

   6. Patent Application: to include specification, drawing, and oath or declaration (refer to www.uspto.gov)

   7. Plan of Work log that covers the life of the project including date, task, time involved, team member responsible, and comments (see Forms Appendix or TSA website); pages as needed

   8. Page(s) titled "References and Resources" that cite books, interviews, professional journals, websites, etc., using Modern Language Association (MLA) style; pages as needed

D. The size of the display may not exceed 15" deep x 3' wide x 4' high.
should include, at a minimum, the following: (a) (b) summary of the findings/outcomes of the design process; (c) citations of all ideas, text, and images from other sources.

E. A physical device (or prototype/s) is/are required and must remain within the display limits at all times (including during judging).

F. If the physical model/s or prototype/s require power, they must be powered by dry cell(s) or photo-voltaic cells.
   1. The power supply must fit inside the display area.
   2. All power must be off once the team has completed set-up.
   3. Complete instructions must be provided for the judges to press one (1) button or flip one (1) switch to turn on the power supply for judging.

H. No harmful or illegal substances are permitted. No viruses, live plants, or animals are permitted. No dangerous processes, experiments, or physical models may be |

	displayed or demonstrated. I. During the presentation, teams will be expected to use their display to enhance and explain their proposed solution to the challenge. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Evaluation is based on 220 points:
	   ● Documentation (120)
	   ● Display (including prototype/device) (50)
	   ● Presentation (50)
	
	Please see the rating form on the following pages.

STEM INTEGRATION:	This event aligns with the STEM educational standards noted below. Science, Technology, Engineering, Mathematics

PRIMARY LEADERSHIP SKILLS:	Leadership skills promoted in this event:
	   ● COMMUNICATION — Students choose an existing design problem and develop and explain their solution. Suggested leadership lessons: *Personality Types* and *Promote It*
	   ● CRITICAL THINKING — Students analyze and evaluate a problem in order to develop an acceptable solution. Suggested leadership lessons: *And The Answer Is* and *Critical Thinking Tips*
	   ● PROBLEM SOLVING — Students devise a plan that will yield an acceptable solution. Suggested leadership lessons: *Debate It* and *Effective Brainstorming*
	Additional leadership skills promoted in this event: creative thinking, decision making, ethics, evaluation, organization, teamwork

TSA AND CAREERS:	This competition connects to one or more of the career areas featured in the TSA AND CAREERS section of the National TSA Competitive Events Guide. Use *The 16 Career Clusters* chart and the *TSA Competitions and The 16 Career Clusters* grid as resources for information about careers.
CAREERS RELATED TO THIS EVENT:	Optical engineer Mechanical engineer Manufacturing consultant Mathematician CAD Technician

Participant ID/Team ID# _____

OPTICAL ENGINEERING

CRITERIA	Minimal performance 1-4 points	Adequate Performance 5-8 points	Exemplary Performance 9-10	Record the scores in the column spaces below.
Evaluators: Using minimal (1-4 points), adequate (5-8 points) or exemplary (9-10 points) performance levels as a guideline, record the scores earned for the event criteria in the column spaces to the far right. The X1, X2 or X3 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an "adequate" score of 7 for an X1 criterion = 7 points; an "adequate" score of 7 for an X2 criterion = 14 points; an "adequate" score of 7 for an X3 criterion = 21 points.)				

Documentation Portfolio (120 Points)

Portfolio components (X1)	Portfolio is unorganized and/or is missing three or more components.	Portfolio has most components and is generally organized.	Portfolio has all required components and is well organized.	
Problem definition (X1)	The problem is not clearly written or defined; the problem does not fall within the grand challenge selected.	The problem is somewhat clearly written and defined.	The problem is clearly written, concise, and well defined; the problem falls within the grand challenge selected.	
Explanation of importance (X2)	There is little evidence of research; there is a lack of understanding of the issues cited.	There is some evidence of research; an adequate understanding of the issues is present.	Thorough research is clearly evident with a firm understanding of the issues established.	
Problem solution (X4)	A very brief explanation of the final solution is presented; there is a lack of creativity; descriptions are weak.	An adequate description of the solution is presented and supported by some amount of research and evidence; the solution is somewhat creative.	The solution is supported by the research gathered and scientific and engineering evidence; the solution is plausible and creative.	
Patent application (X2)	The patent application is incomplete, poorly worded, or missing.	The patent application is complete, but adequately worded, with somewhat effective drawings.	The patent application is complete and effective in presenting the inventor's product design.	
Work log (X1)	The log is poorly organized and/or incomplete.	The log is adequately detailed, organized, and contains most of the required components.	The log is very well done and contains all the required components.	
References and resources (X1)	There are few references listed, and/or references listed show little relevance to the project's goal.	There are a sufficient number and quality of references listed.	Many quality references are listed, reflecting research in the areas covered.	
			DOCUMENTATION SUBTOTAL (120 points)	

Display and Model (50 Points)

Aesthetics (X1)	The display design is unattractive in appearance and shows a lack of understanding of graphic design principles.	The display design is somewhat attractive and shows an adequate understanding of the use of graphic design principles.	The display is of professional quality with an exemplary use of graphic design principles.	
Model/Prototype (X1)	Model is confusing and does not represent and/or support the proposed problem solution.	Model provides adequate representation and support of the proposed problem solution.	Model provides excellent representation and support of the proposed problem solution.	
Overall impact (X3)	The display and model does not detail or enhance the essential components of the team's problem identification and solution.	The display and model somewhat detail and enhance the essential components of the team's problem identification and solution.	The display and model greatly detail and enhance the essential components of the team's problem identification and solution.	
			DISPLAY AND MODEL SUBTOTAL (50 points)	

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____	

Presentation (50 Points)				
Organization (X1)	Team seems unprepared and unorganized for the presentation, with an illogical explanation of the project.	Team is prepared for the interview and is somewhat organized in its presentation to judges; team's presentation thesis is, for the most part, logical and/or clear.	Team's presentation with judges is well organized; the interview is concise and logical, with a clear explanation of the development of the project.	
Knowledge (X1)	Team members seem to have little understanding of the concepts in their project; vague interview answers are provided.	Team members have a generalized understanding of the concepts discussed and answer questions adequately.	Evidence is clear that team members have a thorough understanding of the concepts discussed; they answer questions thoroughly.	
Articulation (X1)	The presentation and provide an unclear, unorganized, and or illogical description of the project.	The presentation and offer a somewhat logical and easy-to-understand project description.	The presentation provides a clear, concise, and easy-to-follow description of the project.	
Delivery (X1)	The team is verbose and/or uncertain in its presentation; participants' posture, gestures, and lack of eye contact diminish the delivery.	The team is somewhat well-spoken and clear in its presentation; participants' posture, gestures, and eye contact result in an acceptable delivery.	The team is well-spoken and distinct in its presentation; participants' posture, gestures, and eye contact result in a polished, natural, and effective delivery.	
Team participation (X1)	Only one person in the group communicates with judges; there is little or no participation from other team members.	Team members all participate to some extent and seem to understand the concepts.	Team members seem to fully understand the concepts and share an equal role in the interview.	
			PRESENTATION/INTERVIEW SUBTOTAL (50 points)	
Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right. Indicate the rule violated: _____				
To arrive at TOTAL score, add any subtotals and subtract rules violation points, as necessary.			**TOTAL (220 points)**	

Comments:

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

Printed Name: Signature:

Photographic Technology
Pre-Conference Event
2025 Theme: Using five photographs, tell a story about your journey in TSA. The type of photo (color, black and white, macro, still life, and student choice) should add to the impact of the story you are sharing.

OVERVIEW:	No semifinalists. No on-site interview or problem. No USB drive submission. **The photographic portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 individual per chapter.
TIME LIMITS:	Preliminary Round A. The photographic portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No on-site challenge. No semifinalists. Winners announced at Awards Ceremony.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference E. Photographic portfolio must be submitted online by 11:59pm on April 2, 2025. F. Submission information will be provided by NJ TSA. Preliminary Round No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No on-site challenge. No semifinalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round D. Prints should be appropriate for viewing at the NJ TSA State Conference. Delete Semifinal Round No semifinalists. No on-site challenge. Please read Regulations carefully, paying close attention to image requirements, order of pages, etc. ***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.)
EVALUATION:	Pre-Conference/Preliminary Round No change.

<u>Delete Semifinal Round</u>
No semifinalists. No on-site challenge. No interview.

Evaluation is based on 80 points:
- Photographic Portfolio (80)

Please take note of the Criteria used for evaluation of the Portfolio on the Official Rating Form:
- Portfolio (10)
- Principles and Elements of Design and Composition and Creativity (20)
- Technical Quality (10)
- Impact and Theme (20)
- Written statements (10)
- Resources/References (10)

Prepared Presentation
On-Site Event
2025 Theme: Develop a presentation that highlights the field of digital music production, including the timeline of its origin, development, fruition, and release of the technology on a global scale.

OVERVIEW:	No change.
ELIGIBILITY:	2 individuals per chapter
TIME LIMITS:	No change.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round E. No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No semifinalist presentation. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round E.Participants need to bring a laptop with their digital slide deck ready to be shown to judges. The laptop will be placed on the judges' table. No projection equipment allowed. Delete Semifinal Round No semifinalists. No semifinalist presentation. Top three winners announced at Awards Ceremony.
EVALUATION:	No change. Evaluation is based on 100 points: ● Presentation (30) ● Stage Presence (30) ● Organization of the Presentation (40)

Promotional Design
Pre-Conference Event
2025 Theme: Branding materials for a fictitious restaurant; the four (4) Promotional Folder items are student choice.

OVERVIEW:	No semifinalists. No on-site technical challenge. **The promotional folder, and its printed contents (including the documentation portfolio) must be received by the NJ TSA office by April 2, 2025**
ELIGIBILITY:	2 individuals per chapter.
TIME LIMITS:	Delete A.-B. No semifinalists. No on-site problem. The physical entry must be submitted pre-conference to the NJ TSA office by April 2, 2025.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A. Entries are submitted pre-conference to the NJ TSA office by April 2, 2025. C. No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No on-site component. No finalists. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round C.6. The contents must be appropriate for viewing at the NJ TSA State Conference. E. Entries become the property of NJ TSA. Delete Semifinal Round No semifinalists. No on-site component. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. ***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.)*
EVALUATION:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No on-site component. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. Evaluation is based on 120 points: ● Promotional Folder Cover (30) ● Promotional Folder Contents (50) ● Documentation Portfolio (40)

Robotics
On-Site Event
2025 Challenge:
https://tsaweb.org/docs/default-source/competitions/themes-and-problems-2024-2025/robotics-2025_design-problem.pdf?sfvrsn=23a81353_3

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2-6 members per chapter.
TIME LIMITS:	Delete D. No semifinalists. No interview.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> E.-F. No semifinalists. No interview. Top three winners announced at Awards Ceremony. <u>Delete Semifinal Round</u> No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Preliminary Round</u> No change. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	<u>Preliminary Round</u> No change. <u>Delete Semifinal Round</u> No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. Evaluation is based on 60 points: ● Testing of Robot (60)

Senior Solar Sprint
On-Site Event

OVERVIEW:	No change. Note--entries are submitted Pre-Conference.
	Model car, decorated shoebox, and documentation portfolio must be submitted to the NJ TSA office by April 2, 2025. Documentation portfolio is to be printed and secured in a clear front report cover. Cars are raced on conference day.
ELIGIBILITY:	1 team of 2-4 members per chapter.
	A.-B. Teams that compete at the 2025 NJ TSA State Conference must be part of a registered NJ TSA chapter.
TIME LIMITS:	Delete B. No interview.
ATTIRE:	See Page 6 of this guide for required dress code. There are no special attire requirements for Senior Solar Sprint at the NJ TSA State Conference.
PROCEDURE:	Pre-Conference
	No change.
	Preliminary Round
	A. Model car, decorated shoebox, and documentation portfolio must be submitted to the NJ TSA office by April 2, 2025. Documentation portfolio is to be printed and secured in a clear front report cover. Cars are raced on conference day.
	Semifinal Round
	Delete A.-B. No interview.
	E. No finalists. Top three winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference
	No change.
	Preliminary Round
	No change.
	Semifinal Round
	No interview. Top three winners are announced at Awards Ceremony.
	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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).
EVALUATION:	Preliminary Round
	Delete D. No interview.
	Semifinal Round

	Delete A.-B. No interview.
	
	Evaluation is based on 190 points:
	    ● Documentation Portfolio (50)
	    ● Display and Model (80)
	    ● Race (60)

Software Development
On-Site Event

OVERVIEW:	No change. Teams give a presentation on conference day. The solution's code for the chapter's entry (URL or PDF) **must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of up to 6 members per chapter. All team members may participate in presentation.
TIME LIMITS:	A. The solution's code for the chapter's entry (URL or PDF) **must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>Preliminary Round</u> G. All teams give a live demonstration/presentation of their project and interview. No semifinalists. Top three winners announced at Awards Ceremony. <u>Delete Semifinal Round</u> No semifinalist presentation. No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	<u>Pre-Conference</u> A. Teams submit their executable raw code online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. <u>Preliminary Round</u> D. NJ TSA will provide wifi but teams should have an alternate presentation plan in case access is unavailable. E. No semifinalists. No semifinal round. Top three winners announced at Awards Ceremony. <u>Delete Semifinal Round</u> No semifinalist presentation. No finalists. Top three winners announced at Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	<u>Preliminary Round</u>
	No change.
	
	Evaluation is based on 130 points:
	    ● Project Solution (70)
	    ● Presentation/Interview (60)

Stem Mass Media
Pre-Conference

Brain-computer interfaces (BCIs) are advanced technologies that enable direct communication between the brain and computers. Using electrodes placed on the scalp, BCIs detect brain signals that are then translated into commands for computers. These signals can control various applications, from typing messages to playing video games, solely through thought. BCIs have practical applications beyond entertainment; they assist individuals with disabilities by allowing them to operate prosthetic limbs or communicate when speech is impaired. BCIs represent a remarkable intersection of neuroscience and computer science, offering promising solutions for both medical and technological advancements.

Based on the following headline (link below), develop a news broadcast that includes an introduction of the headline, a summary of the information in the news story, and an explanation of potential future implications of the highlighted work.
https://www.eurekalert.org/news-releases/1039721

OVERVIEW:	No change. **The video (URL), and documentation portfolio (PDF), must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of 2-3 members per chapter.
TIME LIMITS:	Pre-Conference A. The video (URL), and documentation portfolio (PDF), must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No semifinalists. No on-site challenge. Entries are submitted pre-conference.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round B.-C. The video (URL), and documentation portfolio (PDF), must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. No semifinalists. No on-site challenge. Top three winners announced at Awards Ceremony. Delete Semifinal Round No semifinalists. No on-site challenge. No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round No change.

	Delete Semifinal Round No semifinalists. No on-site challenge. No finalists. Top three winners announced at Awards Ceremony.
EVALUATION:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No on-site challenge. No finalists. Top three winners announced at Awards Ceremony. Evaluation is based on 110 points: News Broadcast (110)

Structural Design and Engineering
On-Site Event

OVERVIEW:	No semifinalists. No on-site construction problem. Teams bring their documentation portfolio, and pre-built structure for destructive testing on conference day.
ELIGIBILITY:	1 team of 2 members per chapter.
SAFETY EYEWEAR:	No change.
TIME LIMITS:	Delete A.-B. Teams bring their documentation portfolio, and pre-built structure for destructive testing on conference day. There is no on-site construction. No semifinalists.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round Delete. E. No semifinalists. Winners announced at Awards Ceremony. Delete Semifinal Round No semifinalists. No on-site construction. No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference No change. Preliminary Round No change. Delete Semifinal Round No semifinalists. No on-site construction. Top three winners announced at Awards Ceremony. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	All structures meeting requirements will be tested. Rank will be determined by the efficiency rating. Evaluation is based on the Pre-Built Structure and Documentation Portfolio

System Control Technology
Static Event
The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025.

OVERVIEW:	No change. The 2025 Design Problem will be posted on the NJ TSA website on January 13, 2025. **Teams solve the design problem posted on the NJ TSA website. Model is constructed off-site. No on-site portion. Teams bring completed model for evaluation on conference day, and leave instructions for evaluators to operate the device.**
ELIGIBILITY:	2 teams of 3 members per chapter
TIME LIMITS:	Delete A.-B. Teams solve the design problem posted on the NJ TSA website. Model is constructed off-site. No on-site portion. No interview. There will be a 15 minute set up time (students set up completed model and leave instructions for evaluators to operate the device)
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Delete B.-J. All components of the team's project (Inventor's Log and Solution to Problem) are constructed off-site. There is no on-site portion. All teams solve the design problem posted on the NJ TSA website and bring their completed device on conference day for evaluation. Teams will set up their device, and leave instructions for evaluators to operate it. No interview. No finalists. Top three winners are announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	A.-H. All components of the team's project (Inventor's Log and Solution to Problem) are constructed off-site. There is no on-site portion. All teams solve the design problem posted on the NJ TSA website and bring their completed device on conference day for evaluation. Teams will set up their device, and leave instructions for evaluators to operate it. No interview. No finalists. Top three winners are announced at Awards Ceremony. *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.)* *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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Delete D. No interview. Evaluation is based on 100 points: ● Inventor's Log (20) ● Solution to Problem (60) ● Programming Structure (20)

Technology Bowl
On-Site Event

OVERVIEW:	All participants will complete an online, objective test PRIOR to the State Conference, on March 27, 2025 from 7:15pm-8:15pm. Testing procedures will be shared with advisors. All teams will compete in a head-to-head competition on conference day.
ELIGIBILITY:	1 team of 3 members per chapter. Teams that take the test must be comprised of the same three members who participate in the head-to-head competition on conference day.
TIME LIMITS:	Preliminary Round A.The (1) hour test is taken by all team members, individually, online, PRIOR to the State Conference, on March 27, 2025 from 7:15pm-8:15pm. Testing procedures will be shared with advisors. Semifinal Round No semifinalists. All teams participate in the oral competition on conference day.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Delete ALL. Follow the procedures listed below: 1. All participants will take the test online, prior to conference day. Testing procedures will be shared with advisors. 2. On conference day, 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, **no advisors or visitors** may enter the holding room. 3. **No audience members are permitted into the oral event area.** 4. When instructed to do so, two (2) teams will enter the event area 5. and be seated according to instructions. 6. When a team has been defeated in any round of the oral event, the team is out of the competition. 7. Questions will be drawn, as needed, from a card file resource bank. 8. 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 is 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. 9. 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. 10. Bonus Question 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

71

	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.
	11. A panel of evaluators will be available to respond to questions concerning acceptable answers.
	
	    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:
	
	    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 AND REQUIREMENTS:	Delete ALL. Follow regulations listed below: 1. No transmitting or recording devices, including cell phones, will be permitted in the event area. No prompting will be permitted. 2. The team member who "buzzes in" will have five (5) seconds to answer the question, without discussion. 3. The team that answers the bonus question will be allowed ten (10) seconds to discuss the extra question and give an answer. 4. 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. 5. 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:	Delete ALL. Follow evaluation listed below: 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.

Technology Problem Solving
On-Site Event

OVERVIEW:	No change.
ELIGIBILITY:	1 team of 2 members per chapter.
TIME LIMITS:	No change.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	<u>Pre-Conference</u> No change. <u>On-Site Challenge</u> G.No finalists. Top three winners announced at Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	B. NJ TSA will provide all materials. Delete C.-F. Teams do not need to bring a tool box. NJ TSA will provide all materials and tools.
EVALUATION:	A.-C. Scoring will be outlined on the design brief, which teams will receive on conference day.

Transportation Modeling
Static Event
2025 Design Problem: Food trucks

OVERVIEW:	No change **The documentation portfolio must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. The model/display is submitted for evaluation on conference day.**
ELIGIBILITY:	2 individuals per chapter
TIME LIMITS:	No semifinalists. No interview.
ATTIRE:	See Page 6-7 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A.1.-A.3. PDF of the documentation portfolio is submitted online by 11:59pm on April 2, 2025. Submission procedures will be provided by NJ TSA. The model and display are submitted on conference day for evaluation. B.1.-B.2. Judges score the Model and Display criteria, and the Documentation Portfolio criteria, for each team. No semifinalists. Winners are announced at Awards Ceremony. C. No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round A. Documentation Portfolio is submitted online as a PDF document. The model and display are submitted on conference day. ***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.)*
EVALUATION:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No interview. Evaluation is based on 120 points: ● Model and Display (50) ● Documentation Portfolio (70)

Video Game Design

Pre-Conference Event

2025 Theme: Kid's game, 2 to 4 players, playable on one (1) screen and one (1) keyboard at a time

OVERVIEW:	No semifinalists. No onsite presentation/interview. Entries are submitted online. **The documentation portfolio, and video game, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	1 team of up to 6 members per chapter.
TIME LIMITS:	Pre-Conference B. The documentation portfolio, and video game, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. E. Change National TSA Conference to NJ TSA State Conference. Delete Semifinal Round No semifinalists. No interview. Top three winners announced at Awards Ceremony.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference C. The documentation portfolio, and video game, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. D. Submission information will be provided by NJ TSA. Preliminary Round No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference/Preliminary Round A. Hyperlink to the online game, and PDF of documentation portfolio, must be submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. E.11. Change National TSA Conference to NJ TSA Conference. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*
EVALUATION:	Preliminary Round

	No change.

	<u>Delete Semifinal Round</u>
	No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
	
	Evaluation is based on 130 points:
	    ● Game design (70)
	    ● Video Demonstration and Documentation Portfolio (50)
	    ● Possible bonus points for exceptional game features (10)

Virtual Reality Simulation (VR)
Pre-Conference Event
2025 Theme: Create a virtual reality (VR) simulation of a family vacation destination that includes experiences and activities that appeal to both young children and teenagers.

OVERVIEW:	No change. **The documentation portfolio and visualization must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	2 teams of up to 6 members per chapter. Teams of 1 individual are permitted.
TIME LIMITS:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No presentation/interview.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference No change. Preliminary Round A. The documentation portfolio and visualization must be submitted online by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. B.1.-B.2. Judges review and score the Visualization criteria, and Documentation Portfolio criteria, for all teams. No preliminary contestants, no semifinalists. C. No semifinalists. Top three winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No presentation/interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Preliminary Round B. Entries become the property of NJ TSA. C.1. Documentation portfolio is to be submitted online as a PDF document. Delete C.1.a. No USB flash drive submission. D.1. No USB flash drive submission. Hyperlink to the visualization must be submitted online. Submission procedures will be provided by NJ TSA. D.5. All work must be submitted online. No USB flash drive submission. ***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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Preliminary Round
	No change.
	
	Delete Semifinal Round
	No semifinalists. No presentation/interview.
	
	Evaluation is based on 140 points:
	    ● Simulation (90)
	    ● Documentation Portfolio (50)

Webmaster
Pre-Conference Event

2025 Topic: Topic: A restaurant (dine-in and carry-out) that specializes in vegetarian food

Challenge: Design a website for a vegan/vegetarian restaurant. Showcase the restaurant's approach (such as farm-to-table, preparation processes, and sustainability) to the food served in the restaurant.

OVERVIEW:	No semifinalists. No interview. **The website, and any required forms, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors.**
ELIGIBILITY:	2 teams of up to 6 members per chapter.
TIME LIMITS	Preliminary Round A. The website (URL), and any required forms (PDF), must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Submission procedures will be shared with advisors. Delete Semifinal Round No semifinalists. No interview. Pre-conference event.
ATTIRE:	See Page 6 of this guide for required dress code.
PROCEDURE:	Pre-Conference D. NJ TSA will provide submission procedures. The URL of the website, and any required forms, must be finished, submitted, and accessible via the Internet by 11:59pm on April 2, 2025. Preliminary Round A. No semifinalists. Winners are announced at the Awards Ceremony. Delete Semifinal Round No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony.
REGULATIONS AND REQUIREMENTS:	Pre-Conference/Preliminary Round No change. *__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 2345678, the Team ID# would be 2345. If there are multiple teams from one chapter for the same competition, include which team they are on (e.g. 2345-1, 2345-2, etc.).*

EVALUATION:	Preliminary Round No change. Delete Semifinal Round No semifinalists. No interview. The 1st, 2nd and 3rd place winners are announced at the Awards Ceremony. Evaluation based on 130 points: ● Website (130)